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June 28, 2024

The Honorable Debbie-Anne Reese, Acting Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E., Room 1A  
Washington, D.C. 20426-0001

*Re: PJM Interconnection, L.L.C., Docket No. ER24-2398-000  
Governing Document Enhancements and Clarifications of the Tariff, Operating  
Agreement and Reliability Assurance Agreement regarding the Generation  
Interconnection Process*

Dear Secretary Reese:

Pursuant to Section 205 of the Federal Power Act (“FPA”),<sup>1</sup> and Part 35 of the Federal Energy Regulatory Commission’s (“Commission”) Regulations,<sup>2</sup> PJM Interconnection, L.L.C. (“PJM”) hereby submits for filing clerical and ministerial revisions to correct, clarify, and/or make consistent certain provisions of the PJM Open Access Transmission Tariff (“Tariff”), the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”), and the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) pertaining to PJM’s reformed generation interconnection process.<sup>3</sup> PJM respectfully requests that the Commission accept the enclosed revisions with an effective date of August 28, 2024.

## **I. BACKGROUND**

In the last several years, PJM has used its Governing Documents Enhancement and Clarifications Subcommittee (“GDECS”) stakeholder process as the primary vehicle to effectuate

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<sup>1</sup> 16 U.S.C. § 824d (2020).

<sup>2</sup> 18 C.F.R. Part 35 (2020).

<sup>3</sup> *PJM Interconnection, L.L.C.* Letter Order, Order Accepting Tariff Revisions Subject to Condition, Docket Nos. ER22-2110-000, ER22-2110-001 (Nov. 29, 2022).

review of its Governing Documents to ensure that provisions are clear, consistent, and accurately reflect PJM's practices and procedures. To date, PJM has submitted several filings to correct and clarify definitions and provisions identified via GDECS that were ambiguous, incorrect, or required additional detail, which the Commission has accepted.<sup>4</sup>

In establishing GDECS, PJM and its stakeholders intended to utilize the GDECS process as a means to continually review and make non-controversial substantive and non-substantive revisions to the Governing Documents.<sup>5</sup> Through these ongoing efforts, PJM has identified a number of additional revisions that will help clarify, correct, and/or reflect previously filed and accepted revisions to PJM's Governing Documents, thereby decreasing the likelihood of compliance violations through misinterpretation or ambiguity in the language of a given provision. Other proposed revisions will correct or remove language that does not accurately describe the current processes that PJM utilizes or is no longer applicable, in an effort to eliminate inconsistencies between provisions within the Governing Documents or otherwise bring the Governing Documents up to date.

## II. PROPOSED REVISIONS

The revisions proposed herein remove obsolete provisions and terms, eliminate ambiguity, modify incorrect or update cross references, correct formatting and grammatical errors and reincorporate revisions that the Commission has previously accepted but which are not reflected

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<sup>4</sup> See, e.g., *PJM Interconnection L.L.C.*, Delegated Letter Order, Docket No. ER19-744-000 (Feb. 4, 2019); *PJM Interconnection L.L.C.*, Delegated Letter Order, Docket No. ER18-1528-000 (June 25, 2018); *PJM Interconnection, L.L.C.*, Delegated Letter Order, Docket No. ER17-1372-000 (May 17, 2017); *PJM Interconnection, L.L.C.*, Delegated Letter Order, Docket No. ER16-1737-000 (June 20, 2016); *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,303 (2016) (accepting all proposed revisions except one); *PJM Interconnection L.L.C.*, Delegated Letter Order, Docket No. ER20-2799-000 (October 9, 2020), and *PJM Interconnection L.L.C.*, Delegated Letter Order, Docket No. ER22-486-000 (June 22, 2022).

<sup>5</sup> See PJM, GDECS Charter, <https://www.pjm.com/-/media/committees-groups/subcommittees/gdecs/20151023/20151023-charter.ashx?la=en> (indicating that meetings will be held as needed and that expected duration of the work of the subcommittee to be "indefinite.").

in the posted versions of the Governing Documents, and otherwise clarify provisions or remove obsolete provisions.<sup>6</sup> For ease of review of the proposed revisions, PJM has provided a table appended hereto as Attachment C,<sup>7</sup> which describes the proposed revisions, the Governing Document in which the revision is being made, the current language, and the rationale for making the referenced changes.<sup>8</sup> Given that each of the proposed revisions is discrete, severable, and not interdependent, PJM requests the Commission evaluate the justness and reasonableness of these revisions separately.

### **III. STAKEHOLDER PROCESS**

PJM worked with its stakeholders through the GDECS between December 2023 and May 2024 to review changes that were needed to PJM's Governing Documents.<sup>9</sup> PJM discussed the proposed revisions and associated rationale for each of the items listed on the enclosed table with stakeholders in the GDECS during this timeframe, and modified some of the proposed revisions based on stakeholder feedback. The proposed revisions were presented to, and discussed with, the PJM Markets and Reliability Committee ("MRC") between February 2024 and March 2024. The MRC endorsed the revisions by acclamation with no objection and 20 abstention at its March 20,

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<sup>6</sup> As part of this filing, PJM is proposing revisions to Tariff, Parts VII, VIII, and IX; Tariff, Definitions; Tariff, Attachment Q; Operating Agreement, Definitions; Operating Agreement Schedule 1; Operating Agreement, Schedule 6; and RAA, Article 1 Definitions.

<sup>7</sup> In a few instances, certain numeric and alphabetical references contained in the table set forth in Attachment C were current as of the date of its creation, but have necessarily evolved since that time as a result of subsequent filings occurring as a matter of due course. As a result, where applicable, such references have been updated to reflect the intervening filings.

<sup>8</sup> See PJM, Governing Document Enhancement & Clarification Subcommittee (GDECS) Presentation, May 22, 2024, <https://pjm.com/-/media/committees-groups/committees/mc/2024/20240522/20240522-consent-agenda-b---1-gdecs-governing-document-revisions---presentation.ashx>

<sup>9</sup> See PJM, 2024 GDECS Timeline, <https://pjm.com/-/media/committees-groups/subcommittees/gdecs/2024/20240125/20240125-item-02---gdecs-timeline.ashx>

2024 meeting.<sup>10</sup> The Members Committee (“MC”) endorsed the revisions by acclamation with no objections and no abstentions at its May 22, 2024 meeting.<sup>11</sup>

#### **IV. PROPOSED EFFECTIVE DATE**

PJM respectfully requests that the Commission accept the enclosed revisions to the PJM Tariff, Operating Agreement, and RAA, effective August 28, 2024.

#### **V. DOCUMENTS ENCLOSED**

PJM encloses the following as part of this filing:

1. This transmittal letter;
2. Attachment A: revisions to the Tariff, Operating Agreement, and RAA in marked (showing the changes) form;
3. Attachment B: revisions to the Tariff, Operating Agreement, and RAA in clean (showing the changes) form; and
4. Attachment C: A chart describing the proposed Tariff, Operating Agreement, and RAA revisions in detail.

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<sup>10</sup> See PJM, Minutes from MRC Meeting on March 20, 2024, <https://pjm.com/-/media/committees-groups/committees/mrc/2024/20240425/20240425-consent-agenda-a---draft-mrc-minutes---03202024.ashx>

<sup>11</sup> See PJM, Minutes from MC Meeting on May 22, 2024, <https://pjm.com/-/media/committees-groups/committees/mc/2024/20240627/20240627-consent-agenda-a---draft-mc-minutes---0522.ashx>

## **VI. CORRESPONDENCE AND COMMUNICATIONS**

All notices, communications, or correspondence addressed to PJM regarding this matter should be directed to, and PJM requests that the Secretary include on the Commission's official service list,<sup>12</sup> the following:

Craig Glazer  
Vice President–Federal Government Policy  
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## **VII. SERVICE**

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,<sup>13</sup> PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <https://www.pjm.com/library/filing-order> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region<sup>14</sup> alerting them that this filing has been made by PJM and is available by following such link. If the document is

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<sup>12</sup> PJM requests waiver of Commission Rule 203(b)(3) (18 C.F.R. § 385.203(b)(3)), so that each named person may be included on the official service list.

<sup>13</sup> See 18 C.F.R. §§ 35.2(e) and 385.2010(f)(3).

<sup>14</sup> PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.

not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

## VIII. CONCLUSION

For the reasons discussed herein, PJM respectfully requests that the Commission accept the enclosed revisions to the PJM Tariff, Operating Agreement and RAA effective August 28, 2024.

Respectfully submitted,

/s/ Vasiliki Karandrikas

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# **Attachment A**

GDECS

Revisions to the  
Open Access Transmission Tariff,  
Operating Agreement  
and  
Reliability Assurance Agreement

(Marked / Redline Format)

**Tariff, Part VII, Subpart A, section 300**  
**Definitions A**

**Abnormal Condition:**

“Abnormal Condition” shall mean any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

**Affected System:**

“Affected System” shall mean an electric system other than the Transmission Provider’s Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

**Affected System Customer**

“Affected System Customer” shall mean the developer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System,

**Affected System Facility**

“Affected System Facility” shall mean a new, expanded or upgraded generation or transmission facility outside of Transmission Provider’s Transmission System, the effect of which requires Network Upgrades to Transmission Provider’s Transmission System.

**Affected System Operator**

“Affected System Operator” shall mean an entity that operates an Affected System or, if the Affected System is under the operational control of an independent system operator or a regional transmission organization, such independent entity.

**Affected System Customer Facilities Study Application and Agreement**

“Affected System Customer Facilities Study Application and Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart L, Affected System Customer Facilities Study Application and AgreementN.

**Affiliate:**



“Affiliate” shall mean any two or more entities, one of which Controls the other or that are under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in Control or affiliation for purposes of the Tariff or Operating Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on the entity’s board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, Control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, 10 percent or more of the voting securities of such entity.

**Ancillary Services:**

“Ancillary Services” shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider’s Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations:**

“Applicable Laws and Regulations” shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall mean the Regional Entity for the region in which a Network Customer, Transmission Customer, Project Developer, Eligible Customer, or Transmission Owner operates.

**Applicable Standards:**

“Applicable Standards” shall mean the requirements and guidelines of NERC, the Applicable Regional Entity, the Control Area in which the Generating Facility or Merchant Transmission Facility is electrically located and the Transmission Owner FERC Form No. 715 – Annual Transmission Planning and Evaluation Report for each Applicable Regional Entity; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

“Applicable Technical Requirements and Standards” shall mean those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Transmission Owner or, as the case may be and to the extent

applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual. All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**Application and Studies Agreement:**

“Application and Studies Agreement” shall mean the application that must be submitted by a Project Developer or Eligible Customer that seeks to initiate a New Service Request, a form of which is set forth in Tariff, Part VII, Subpart A. An Application and Studies Agreement must be submitted electronically through PJM's web site in accordance with PJM's Manuals.

**Application Deadline:**

“Application Deadline” shall mean the Cycle deadline for submitting a Completed New Service Request, as set forth in Tariff, Part VII, Subpart C, section 306(A). If Project Developer's or Eligible Customer's Completed New Service Request is received by Transmission Provider after a particular Cycle deadline, such Completed New Service Request shall automatically be considered as part of the immediate subsequent Cycle.

**Application Phase:**

“Application Phase” shall mean the Cycle period encompassing both the submission and review of New Service Requests as set forth in Tariff, Part VII, Subpart C, subsections 306(A) and 306(B).

**Tariff, Part VII, Subpart A, section 300**  
**Definitions C**

**Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in [as set forth in Appendix 2, section 16.1.4 of this \\_GIA](#), that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.

**Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

**Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with a Generation Interconnection Agreement.

**Common Use Upgrade:**

“Common Use Upgrade” or “CUU” shall mean a Network Upgrade that is needed for the interconnection of Generating Facilities or Merchant Transmission Facilities of more than one Project Developer or Eligible Customer and which is the shared responsibility of each Project Developer or Eligible Customer.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Completed New Service Request:**

“Completed New Service Request” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit(s). A Completed New Service Request, if accepted upon review, shall become a valid New Service Request.

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Generation Interconnection Agreement or a Construction Service Agreement.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner, Project Developer, Eligible Customer or Affected System Customer, depending on which entity has the construction responsibility pursuant to the Tariff, Part VII and the applicable GIA or Construction Service Agreement; this term shall also be used to refer to a Project Developer or Eligible Customer with respect to the construction of the Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or a party to a GIA that requires activities pursuant to a GIA.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to the Tariff, Part VII.

**Cost Responsibility Agreement:**

“Cost Responsibility Agreement” shall mean a form of agreement between Transmission Provider and a Project Developer with an existing generating facility, intended to provide the terms and conditions for the Transmission Provider to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with PJM and the

Transmission Owner. A form of the Cost Responsibility Agreement is set forth in Tariff, Part IX, Subpart F.

**Costs:**

As used in the Tariff, Part VII and related agreements and attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Distribution Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on a Project Developer or Eligible Customer pursuant to Tariff, Part VII, Subpart D, section 307(A)(5), or (ii) is voluntarily undertaken by an Upgrade Customer in fulfillment of an Upgrade Request. No Network Upgrade, Distribution Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Cycle:**

“Cycle” shall mean that period of time between the start of an Application phase and conclusion of the corresponding Final Agreement Negotiation Phase. The Cycle consists of the Application Phase, Phase I, Decision Point I, Phase II, Decision Point II, Phase III, Decision Point III, and the Final Agreement Negotiation Phase.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions E**

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VII, Eligible Customer shall mean only those Eligible Customers that have submitted an Application and Study Agreement.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Project Developer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Generating Facility or to the Project Developer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Project Developer is not obligated by a Generation Interconnection Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open- Loop Hybrid Resources are not Energy Storage Resources.

**Engineering and Procurement Agreement:**

“Engineering and Procurement Agreement” shall mean an agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. A form of the Engineering and Procurement Agreement is set forth in Tariff, Part IX, Subpart D. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.



**Tariff, Part VII, Subpart A, section 300**  
**Definitions I**

**Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, ~~—Interconnected~~ Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the ~~Generating Customer~~ Facility and for the Interconnection Facilities.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Capacity Transfer Rights:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Project Developer or Transmission Project Developer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” (“IDR”) shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Project Developer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Generating Facility and Project Developer Interconnection Facilities after satisfaction of the conditions of Tariff, Part IX, Subpart B, Appendix 2, section 1.4.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Project Developer or the Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Project Developer, Transmission Owner and the Transmission Provider pursuant to this Tariff, Part VII in the form set forth in Tariff, Part IX, Subpart J or Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades, Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities and coordination of the construction and interconnection of an associated Generating Facility.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner’s Interconnection Facilities and the Project Developer’s Interconnection Facilities. Collectively Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modifications, additions, or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades, or Network Upgrades.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Project Developer, or the Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Generating Facility with the Transmission System pursuant to the terms of this Tariff, Part VII and the Generation Interconnection Agreement entered into pursuant thereto by Project Developer, the Transmission Owner and Transmission Provider.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions N**

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Necessary Study Agreement:**

“Necessary Study Agreement” shall mean the form of agreement for preparation of one or more Necessary Studies, as set forth in Tariff, Part IX, Subpart G.

**Necessary Study:**

“Necessary Study(ies)” shall mean the assessment(s) undertaken by the Transmission Provider to determine whether a planned modification under Appendix 2, section 3.4.1 of the GIA will have a permanent material impact on the Transmission System and to identify the additions, modifications, or replacements to the Transmission System, if any, that are necessary, in accordance with Good Utility Practice, and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, to accommodate the planned modifications. A form of the Necessary Study Agreement is set forth in Tariff, Part IX, Subpart G.

**Network Upgrade Cost Responsibility Agreement:**

“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer ~~Parties~~ and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include Stand Alone Network Upgrades which are Network Upgrades that are not part of an Affected System; only serve the Generating Facility or Merchant Transmission Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in the GIA, Schedule L or in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer a written technical

explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request or a Completed Application.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Project Developer’s Generating Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Project Developer’s Generating Facility, as determined in accordance with pertinent Applicable Standards and specified in the Generation Interconnection Agreement.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions P**

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VII:**

“Part VII” shall mean Tariff, Part VII, sections 300 through 337 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VIII:**

“Part VIII” shall mean Tariff, Part VIII, sections 400 through 435 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the

applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IX:**

“Part IX” shall mean Tariff, Part IX, section 500 and Subparts A through L pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Permissible Technological Advancement:**

"Permissible Technological Advancement" shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the end of Decision Point II. Provided such change may not: (i) increase the capability of the Generating Facility or Merchant Transmission Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**Phase I**

“Phase I” shall start on the first Business Day immediately after the close of the Application Phase of a Cycle, but no earlier than 30 calendar days following the distribution of the Phase I System Impact Study Base Case Data. During Phase I, Transmission Provider shall conduct the Phase I System Impact Study.

**Phase I System Impact Study:**

“Phase I System Impact Study” shall mean System Impact Study conducted during the Phase I System Impact Study Phase.

**Phase II**

“Phase II” shall start on the first Business Day immediately after the close of Decision Point I Phase unless the Decision Point III of the immediately preceding Cycle is still open. In no event,

shall Phase II of a Cycle commence before the conclusion of Decision Point III of the immediately preceding Cycle. During Phase II, Transmission Provider shall conduct the Phase II System Impact Study.

**Phase II System Impact Study:**

“Phase II System Impact Study” shall mean System Impact Study conducted during the Phase II System Impact Study Phase.

**Phase III**

“Phase III” shall start on the first Business Day immediately after the close of Decision Point II, unless the Final Agreement Negotiation Phase of the immediately preceding Cycle is still open. In no event shall Phase III of a Cycle commence before the conclusion of the Final Agreement Negotiation Phase of the immediately preceding Cycle. During Phase III, Transmission Provider shall conduct the Phase III System Impact Study.

**Phase III System Impact Study:**

“Phase III System Impact Study” shall mean System Impact Study conducted during Phase III.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Region:**

“PJM Region” shall have the meaning specified in the Operating Agreement.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Point of Change in Ownership:**

“Point of Change in Ownership” shall mean the point, as set forth Schedule B of the Generation Interconnection Agreement, where the Project Developer’s Interconnection Facilities connect to the Transmission Owner’s Interconnection Facilities.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Interconnection Facilities connect with the Transmission System.

**Project Developer:**

“Project Developer” shall mean a Generation Project Developer and/or a Transmission Project Developer.

**Project Developer Interconnection Facilities:**

“Project Developer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Project Developer on Project Developer’s side of the Point of Change of Ownership identified in the Schedule B of the Generation Interconnection Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Generating Facility with the Transmission System.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Generating Facility to which Project Developer has granted a mortgage or other lien as security for some or all of Project Developer’s obligations under the corresponding power purchase agreement.

**Project Identifier:**

“Project Identifier” shall mean, when an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], the assigned Project Identifier to such request as confirmed by Transmission Provider. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification purposes, and does not indicate priority within a Cycle.

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Project Developer’s Generating Facility to Transmission Provider’s Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of



Interconnection pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VII, Subpart A, section 301(A)(3)(b).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Request Number:**

“Request Number” shall mean, when an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], the assigned Request Number to such request as confirmed by Transmission Owner. The Request Number will indicate the serial position and priority.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions S**

**Schedule of Work:**

“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of [Schedule L of a GIA](#), or Schedule of [a CSA~~an~~–ICSA](#), as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work set forth in Specification section 3.0 of the GIA to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Security:**

“Security” shall mean the financial guaranty provided by the Project Developer, Eligible Customer or Upgrade Customer pursuant to Tariff, Part VII, Subpart D, sections 309(A)(2)(i), 309(A)(3)(a), 311(a)(2)(d)(i)(a), 311(A)(2)(h), and 313(A)(1)(a), to secure the Project Developer’s, Eligible Customer’s or Upgrade Customer responsibility for Costs under an interconnection-related agreement set forth in Tariff, Part IX.

**Service Agreement:**

“Service Agreement” shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Site:**

“Site” shall mean all of the real property including, but not limited to, any owned or leased real property, bodies of water and/or submerged land, and easements, or other forms of property rights acceptable to PJM, on which the Generating Facility or Merchant Transmission Facility is situated and/or on which the Project Developer Interconnection Facilities are to be located.

**Site Control:**

“Site Control” shall mean the evidentiary documentation provided by Project Developer in relation to a New Service Request demonstrating the requirements as set forth in the following Tariff, Part VII, Subpart A, section 302, and Tariff, Part VII, Subpart C, section 306, and Subpart D, sections 309 and 313.

**Stand Alone Network Upgrades:**

“Stand Alone Network Upgrades” shall mean Network Upgrades, which are not part of an Affected System, which a Project Developer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Specifications section 3.0 of Appendix L of the GIA. If the Transmission Provider or Transmission Owner and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider or Transmission Owner that disagrees with the Project Developer must provide the Project Developer a written technical explanation outlining why the Transmission Provider or Transmission Owner does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State of Charge:**

“State of Charge” shall mean the ~~\_operating parameter that represents the\_~~ quantity of physical energy stored ~~(measured in units of megawatt hours)~~ in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Study Deposit:**

“Study Deposit” shall mean the payment in the form of cash required to initiate and fund any study provided for in Tariff, Part VII, Subpart A, section 301(A)(3)(a).

**Surplus Project Developer:**

“Surplus Project Developer” shall mean either a Project Developer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.

**Surplus Service Request Number:**

“Surplus Service Request Number” shall mean, when an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, the assigned Surplus Service Request Number to such request as confirmed by Transmission Provider. The Request Number will indicate the serial position and priority.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in a Generation Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study Agreement:**

“Surplus Interconnection Study Agreement” shall mean the form of the Surplus Interconnection Study Agreement set forth in Tariff, Part IX, Subpart I.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Transmission Owners and Project Developer as they may be amended from time to time.

**System Impact Study:**

“System Impact Study” shall mean an assessment(s) by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a New Service Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate a New Service Request, and (iii) an estimated date that the New Service Requests can be interconnected with the Transmission System and an estimate of the cost responsibility for the interconnection of the New Service Request; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Generating Facility, and (ii) the Generating Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Generating Facility.

**Tariff, Part VII, Subpart A, section 302**  
**Site Control**

A. Site Control Evidentiary Requirements

Site Control is evidence provided by the Project Developer to Transmission Provider in relation to Project Developer's New Service Request demonstrating Project Developer's interest in, control over, and right to utilize the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades at the Point of Interconnection. Specific Site Control phase requirements are set forth in the following Tariff, Part VII, Subpart C, section 306, and Subpart D, sections 309 and 312.

1. Site Control consistent with the requirements herein is required for a project to have a valid position within a Cycle.
2. Proof of Site Control can be in the form of one of the following: (1) deed; (2) lease; (3) option to lease or purchase; or (4) as deemed acceptable by the Transmission Provider, any other contractual or legal right to possess, occupy and control the Site.
  - a. Memorandums are not acceptable.
  - b. Documentation solely evidencing an intent to purchase or control the Site is not acceptable.
  - c. Rights of Way are only acceptable for Project Developer Interconnection Facilities up to the Point of Interconnection.
  - d. Notwithstanding the foregoing, for a New Service Request, all or a portion of which requires the use of Sites owned or physically controlled by a state and/or federal governmental entity, and authorization for such use is subject to environmental and other state and/or federal governmental permitting requirements, including 42 U.S.C. § 4331 et seq. and any succeeding statutes, acceptable evidence of Site Control can be in any form the governmental entity issues. For Decision Point I and Decision Point III, Project Developers shall provide evidence that the Project Developer is taking identifiable steps acceptable to the Transmission Provider in furtherance of the issuance of such authorization by the state and/or federal governmental entity, including documentation sufficiently describing and explaining the source of and effects of such regulatory requirements, including a description of any conditions that must be met in order to satisfy the regulatory requirements and the anticipated time by which the Project Developer expects to satisfy the regulatory requirements. For Decision Point I and Decision Point III, Project Developers shall also identify any additional property rights for the

portion of the Site that is not owned or physically controlled by a state and/or federal governmental entity but which cannot be secured until the regulatory requirements have been met and authorization has been provided by the requisite state and/or federal governmental entity.

3. Demonstration of Site Control must include verification, to PJM's satisfaction, that the total feet or acreage ("acreage") of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, as set forth in the PJM Manuals.
  - a. The Project Developer must submit a Geographic Information System (GIS) Site Plan map and data files acceptable to PJM demonstrating the arrangement of the resource-specific proposed facilities for the amount of MW requested.
  - b. Any GIS Site Plan map and data files submitted in accordance with this section must be consistent with all other modeling data submitted in connection with Project Developer's New Service Request.
  - c. In the event of a disagreement between the Transmission Provider and the Project Developer over whether the total acreage of the Site is fully sufficient for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, Transmission Provider will accept a Professional Engineer (PE) stamped site plan drawing (licensed in the state of the facility location) that depicts the proposed generation arrangement and specifies the Maximum Facility Output for that arrangement.
    - i. Failure to verify to Transmission Provider's satisfaction that the total acreage of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility shall result in the New Service Request being deemed terminated and withdrawn.
4. Site Control must be in the name of the Project Developer identified on the corresponding New Service Request. Otherwise, the Project Developer must demonstrate to PJM's satisfaction the relationship between the entity owning or controlling the Site ("landowner" or "owner") with Site Control and the Project Developer identified on the New Service Request.
5. Project Developers are prohibited from submitting evidence of Site Control that utilizes the same Site for multiple New Service Requests unless the total acreage amount of such Site is adequate to support all such New Service Requests.
  - a. To the extent that multiple New Service Requests are submitted by a Project Developer using the same Site Control evidence and the total acreage amount of such Site is not adequate to support all such New



Service Requests, all such New Service Requests shall be deemed terminated and withdrawn.

- b. To the extent that a Project Developer submits a New Service Request with Site Control evidence utilizing the Site that is also the subject of Site Control in New Service Requests submitted by other Project Developer's, such Project Developer shall include with its New Service Request evidence, to Transmission Provider's satisfaction, demonstrating that the project referenced in the Project Developer's New Service Request is concurrently feasible with the development of any other projects that will share the Site identified in the Site Control. Such proof of concurrent feasibility shall include:
  - i. Identification of any other New Service Requests that will share all or a portion of the Site identified in the Site Control; and
  - ii. Identification of the proposed location and space utilization of all projects that will share the Site, including acreage and boundaries for all projects sharing the Site identified in the Site Control; and
  - iii. Any related technical information required by the Transmission Provider to enable the Transmission Provider to determine that development of the project referenced in the submitted New Service Request is not inconsistent with development of any of the other New Service Requests that will share all or a portion of the same Site.
6. Multiple projects may share Project Developer Interconnection Facilities. A shared facilities agreement is required if jointly owned common Interconnection Facilities are proposed.
7. Project Developers are prohibited from submitting evidence of Site Control for the Site which is also the subject of an interconnect request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system. To the extent that Project Developers submit evidence of Site Control for the Site which is also the subject of an interconnection request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system, the relevant New Service Request submitted to Transmission Provider shall be deemed terminated and withdrawn.
8. Site Control must demonstrate three key elements: conveyance, term, and exclusivity:
  - a. Term  

Term is the minimum duration required to evidence Site Control. The Term requirements vary, and are established in the following Tariff, Part

VII rules, at various points within a Cycle. The Term cannot be satisfied by an agreement with an initial term shorter than the requisite required term that has extensions, including unilateral extensions, unless those extensions have been exercised and any requisite conditions fulfilled, including any payment obligations, by the Project Developer at the time evidence of Site Control is provided to the Transmission Provider.

b. Exclusivity

With the exception of Tariff, Part VII, Subpart A, section 302(A)(5)(b), exclusivity is evidenced by written acknowledgement from the ~~land owner~~ landowner provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.

c. Conveyance

The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VII, Subpart C, section 302(A)(2), above.

9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual 14H14G, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.

**Tariff, Part VII, Subpart C, section 305**  
**Introduction, Overview and Eligibility**

A. Introduction and Overview of AG2-AH1 Transition Cycle #2

1. AG2-AH1 Transition Cycle #2

Tariff, Part VII, Subpart C, section 305 applies to AG2 through AH1 projects in Transition Cycle #2, and sets forth the procedures and other terms governing the Transmission Provider's administration of the AG2 through AH1 Transition Cycle #2 approach; procedures and other terms regarding studies and other processing of New Service Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to New Service Customers.

2. To move forward in Transition Cycle #2, each Project Developer or Eligible Customer with valid projects in AG2 through AH1 must submit the Application and ~~System~~ Studies Agreement in the form set forth in Tariff, Attachment IX and submit the required Study Deposit amounts and a Readiness Payment, as set forth below in Tariff, Part VII, Subpart C, section 306, Application Rules. The following restrictions apply to the Application and ~~System~~ Studies Agreement to be submitted by the Project Developer or Eligible Customer:

- a. the fuel type may not change from that which was previously submitted for the valid projects in AG2 through AH1; and
- b. Maximum Facility Output and/or Capacity Interconnection Rights values shall not increase but may be reduced up to 100 percent from that which was previously submitted for the valid projects in AG2 through AH1; and
- c. the Project Developer must choose between the primary or secondary Point of Interconnection as previously identified in its New Service Request from that which was previously submitted for the valid projects in AG2 through AH1; and
- d. Eligible Customer transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission System shall not increase but may be reduced up to 100 percent from that which was previously submitted for the valid projects in AG2 through AH1.
  - i. Each valid New Service Request from AG2-AH1 shall be assigned to AG2-AH1 Transition Cycle #2. Phase I of AG2-AH1 Transition Cycle #2 will only start after: (i) all Application Review period activities have been completed for that Cycle; and (ii) the Phase I Base Case data has been made available for a 30 day review during the Application Phase of that Cycle; and (iii) Decision Point II of Transition Cycle #1 has concluded. Phase II of

AG2-AH1 Transition Cycle #2 will only start after all Decision Point III determinations have concluded in Transition Cycle #1. Phase III of AG2-AH1 Transition Cycle #2 will only start after the Final Agreement Negotiation Phase of Transition Cycle #1 has concluded (with all New Service Requests within Transition Cycle #1 either being withdrawn or resulting in a fully executed Tariff, Part IX service agreement).

3. To move forward in Transition Cycle #2, each Upgrade Customer with valid projects in AG2-AH1 must submit revised technical data and/or configuration information, and updates other requirements for its Upgrade Request, and submit the required Study Deposit amounts, as set forth ~~below~~ in Tariff, Part VII, Subpart H, section 337, Upgrade Requests~~Subpart C, section 306, Application Rules~~.
- a. Each valid Upgrade Request from AG2-AH1 shall maintain its existing priority upon successful resubmission under Tariff, Part VII, Subpart C, section 306, Application Rules within 60 days of the Transition Date. Such existing priority shall be subsequent to valid AG1 and prior Upgrade Requests.
- b. A valid Upgrade Request will be processed in accordance with Tariff, Part VII, Subpart H, section 337, Upgrade Requests~~Subpart C, section 306~~.

**Tariff, Part VII, Subpart D, section 307**  
**Introduction**

A. Phase I, Phase II and Phase III System Impact Studies

1. Introduction

Tariff, Part VII, Subpart D sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VII includes three study Phases and the three Decision Points:

- a. ~~Phase I:~~ Phase I System Impact Study ~~and~~
- b.          Decision Point I
- ~~bc.~~ ~~Phase II:~~ Phase II System Impact Study
- d.          ~~and~~ Decision Point II; ~~and~~
- ~~ee.~~ ~~Phase III:~~ Phase III System Impact Study
- f.          ~~and~~ Decision Point III.

Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VII, Subpart D, sections 308 through 313.

2. Overview of System Impact Studies

- a. The Phase I, Phase II and Phase III System Impact Studies are a regional analysis of the effect of adding to the Transmission System the new facilities and services proposed by valid New Service Requests and an evaluation of their impact on deliverability to the aggregate of PJM Network Load.
  - i. These studies identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests included therein and any resulting Interconnection Facilities, Network Upgrades, and/or Contingent Facilities required to accommodate such New Service Requests.
  - ii. These studies provide estimates of cost responsibility and construction lead times for new facilities required to interconnect the project and system upgrades.
  - iii. Transmission Provider, in its sole discretion, can aggregate multiple New Service Requests at the same Point of Interconnection for purposes of Phase I, Phase II and Phase III System Impact Studies.

- iv. The scope of the studies may include (a) an assessment of sub-area import deliverability, (b) an assessment of sub-area export deliverability, (c) an assessment of project related system stability issues (only occurs in Phase II and Phase III); (d) an assessment of project-related short circuit duty issues (only occurs in Phase II and Phase III), (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria and the transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity, (f) an assessment of regional transmission upgrades that most effectively meet identified needs, and (g) an analysis to determine cost allocation responsibility for required facilities and upgrades.
- v. For purposes of determining necessary Interconnection Facilities and Network Upgrades, these studies shall consider the level of service requested in the New Service Request unless otherwise required to study the full electrical capability of the New Service Request due to safety or reliability concerns.
- vi. The studies' results shall include the list and facility loading of all reliability criteria violations specific to the New Service Requests.
- vii. If applicable, the studies for a Transmission Project Developer New Service Request shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the Transmission Project Developer's proposed Merchant Transmission Facilities.

### 3. Contingent Facilities

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Interconnection Facilities and/or Network Upgrades, upon which the New Service Request's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the New Service Request or reassessment of the Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies) and Generator Interconnection Agreement, including why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall also provide, upon request of the Project Developer or Eligible Customer, the estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least 5 percent distribution factor (DFAX) or contributing at least 5 percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

4. Additional System Impact Study Procedures for Eligible Customers

The following provisions apply to System Impact Studies conducted for Eligible Customers:

- a. The Transmission Provider will notify Eligible Customers of the need to conduct a System Impact Study whenever the Transmission Provider determines that available transmission capability may not be sufficient to provide the requested firm service(s). The purpose of the System Impact Study will be to determine the effect the requested service(s) will have on system operations, identify any system constraints, redispatch options and whether system expansion will be required to provide the requested service(s).
- b. The Commission's comparability standard will be applied in evaluating the impact of all requests. Specifically, the Transmission Provider will use the same due diligence in completing System Impact Studies for Eligible Customers that it uses when completing studies for any Transmission Owner that requests service from the Transmission Provider.
- c. Requests for long-term firm transmission service will be evaluated, to the extent possible, as a part of the on-going planning process for Bulk Transmission Supply in the PJM Region. Appropriate planning studies will be conducted annually to assess the capability of the PJM Region Transmission System to deliver the planned Network Resources to the Forecasted Network Loads of the existing load serving entities and any prior committed Firm Point-to-Point Service transmission customers. The loads and resources of Eligible Customers requesting new or additional service during the normal planning cycle will be incorporated into this aggregate planning process along with the loads and resources of all other Firm Point-to-Point and load serving entities for which prior commitments to provide service have been made. Requests for long-term firm service

made at times that will not permit the evaluation of impacts as part of the normal planning process, and requests for short-term firm service, will require that special impact studies be completed.

- d. The Transmission Provider plans and evaluates the PJM Region Transmission System in strict compliance with the following:
  - i. North American Electric Reliability Council ("NERC") Reliability Principles and Guides
  - ii. Applicable Standards
  - iii. Transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity.
- e. In evaluating the impact of any request for new or additional service(s), the Transmission Provider will first determine the capability of the system to reliably provide prior committed Network and Point-to-Point service for the term of the requested new or additional service(s), or the normal planning horizon (generally 10 years), whichever is shorter. Requests for new or additional service(s) will then be incorporated into the system representation data and the appropriate system analyses will be completed to evaluate the impacts of the requested services.

#### 5. Cost Allocation for Network Upgrades

- a. General: Each Project Developer and Eligible Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its New Service Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such New Service Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the New Service Request; or the construction of Supplemental Projects.
- b. Cost Responsibility for Accelerating Network Upgrades included in the Regional Transmission Expansion Plan: Where the New Service Request calls for accelerating the construction of Network Upgrades that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Project Developer or Eligible Customer shall pay all costs that would not have been incurred under the Regional



Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

- c. The Transmission Provider shall determine the minimum amount of Network Upgrades required to resolve each reliability criteria violation in each Cycle, by studying the impact of the projects the Cycle in their entirety, and not incrementally. Interconnection Facilities and Network Upgrades shall be studied in their entirety and according to the following process:

The Transmission Provider shall identify the New Service Requests in the Cycle contributing to the need for the required Network Upgrades within the Cycle. All New Service Requests that contribute to the need for a Network Upgrade will receive cost allocation for that upgrade pursuant to each New Service Request's contribution to the reliability violation identified on the transmission system in accordance with PJM Manuals.

There will be no inter-Cycle cost allocation for Interconnection Facilities or Network Upgrades identified in the System Impact Study costs identified in a Cycle; all such costs shall be allocated to New Service Requests in that Cycle.

6. Interconnection Facilities

A Project Developer shall be obligated to pay 100 percent of the costs of the Interconnection Facilities necessary to accommodate its Interconnection Request.

7. Facilities Study Procedures:

The Facilities Studies will include good faith estimates of the cost, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), (a) to be charged to each affected New Service Customer for the Interconnection Facilities and Network Upgrades that are necessary to accommodate each New Service Request evaluated in the study; (b) the time required to complete detailed design and construction of the facilities and upgrades; (c) a description of any site-specific environmental issues or requirements that could reasonably be anticipated to affect the cost or time required to complete construction of such facilities and upgrades.

The Facilities Study will document the engineering design work necessary to begin construction of any required transmission facilities, including estimating the

costs of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice and, when applicable, identifying the electrical switching configuration of the connection equipment, including without limitation: the transformer, switchgear, meters, and other station equipment; and the nature and estimated costs of Interconnection Facilities and Network Upgrades necessary to accommodate the New Service Request.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Facilities Study shall consider the level of Interconnection Service requested by the Project Developer unless otherwise required to study the full electrical capability of the Generating Facility or Merchant Transmission Facility due to safety or reliability concerns. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the full electrical capability of the Generating Facility or Merchant Transmission Facility.

**Tariff, Part VII, Subpart D, section 309**  
**Decision Point I**

A. Requirements

The Decision Point I shall commence on the first Business Day immediately following the end of Phase I. New Service Requests that are studied in Phase I will enter Decision Point I. Before the close of the Decision Point I, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such New Service Request must meet the requirements set forth below in Tariff, Part VII, Subpart D, section 309(A)(2) (acceleration provisions).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point I:
    - i. The applicable Readiness Deposit No. 2
      - (a) The Decision Point I Readiness Deposit No. 2 is to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase. The Decision Point I Readiness Deposit No. 2 will be calculated by the Transmission Provider during Phase I, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - (b) At Decision Point I, the Readiness Deposit No. 2 required shall be an amount equal to:
        - (i) the greater of (i) 10 percent of the cost allocation for the Network Upgrades as calculated in Phase I or (ii) the Readiness Deposit No. 1 paid by the Project Developer with its New Service Request during the Application Phase; minus
        - (ii) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase
      - (c) The Readiness Deposit No. 2 amount due can be zero, but cannot be a negative number (i.e., there will not be any

refunded amounts associated with Readiness Deposit No. 2).

- b. Project Developers must provide evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
  - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase I.
    - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
    - (b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
      - (i) Such Site Control evidence shall cover 50 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
    - (c) If applicable, Interconnection Switchyard Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
      - (i) Such Site Control evidence shall cover 50 percent of the acreage required for the identified required Interconnection Switchyard facilities associated with a New Service Request.
- c. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control

Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- d. Evidence of air and water permits (if applicable)
  - e. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
  - f. Submission of New Service Request data for Phase II System Impact Study.
  - g. If Project Developer or Eligible Customer fails to submit all of the criteria in (a) through (f) above, before the close of the Decision Point I Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
  - h. If Project Developer or Eligible Customer submits all elements in (a) through (f) above, then, at the close of the Decision Point I, Transmission Provider will begin the deficiency review of the elements set forth in (b) through (e) above, as follows:
    - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
    - ii. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
    - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase II.
    - iv. Transmission Provider's review of the above required elements may run co-extensively with Phase II.
2. Acceleration at Decision Point I. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase I System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
- a. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the

Project Developer all of the following required elements before the close of Decision Point I:

- i. Security
  - (a) Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase I System Impact Study Results.
- ii. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
- iii. Project Developer must provide evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
  - (a) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional ~~three~~one-year term beginning from last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  - (b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a ~~three~~one-year term beginning from the last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
  - (c) Interconnection Switchyard, if applicable, Site Control evidence for a ~~three~~one-year term beginning from the last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall cover 100 percent of the acreage required identified required Interconnection Switchyard associated with a New Service Request.
- iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in

Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above.

(a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

(1) Such condition precedent shall not be extended under any circumstances for any reason.

- b. Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- c. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- d. For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
  - e. If Project Developer or Eligible Customer fails to submit all of the criteria in (a) through (d) above (noting the exception provided for Site Control), before the close of the Decision Point I Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
  - f. If Project Developer or Eligible Customer subject to Acceleration at Decision Point I submits all elements in (a) through (d) above, then, at the close of the Decision Point I, Transmission Provider will begin the deficiency review of the elements set forth in (a) through (d) above, as follows:
    - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
    - ii. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
    - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.
3. For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point I to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
- a. Security. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase I System Impact Study Results.
  - b. Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - c. Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
    - i. Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the



relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus ~~onethree~~ years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.

- (a) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
- ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus ~~onethree~~ years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- iii. Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus ~~onethree~~ years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- iv. PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase I through a date that extends ~~onethree~~ years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- v. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the

Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above.

- (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle
- e. Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- f. Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- g. If Project Developer fails to submit all of the criteria in (a) through (f) above (noting the exception provided for Site Control), before the close of

the Decision Point III Phase, Project Developer's New Service Request shall be deemed terminated and withdrawn.

- h. When Project Developer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in (a) through (f) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in (a) through (f) above, as follows:
  - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer of deficiencies within 10 Business Days after the close of Decision Point I.
  - ii. Project Developer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.

4. New Service Request Withdraw or Termination at Decision Point I

- a. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point I. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point I, the Transmission Provider must receive before the close of the Decision Point I Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
- b. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point I requirements, as set forth in this Tariff, Part VII, Subpart D, section 309.
- c. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - i. For Readiness Deposits:
    - (a) At the conclusion of Transmission Provider's deficiency review for Decision Point I or upon voluntary withdrawal of a New Service Request, refund to the Project Developer or Eligible Customer 50 percent of Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase, and 100 percent of Readiness Deposit No. 2 paid by the Project

Developer or Eligible Customer during this Decision Point I. Notwithstanding the preceding, Project Developers or Eligible Customers in Transition Cycle # 1 will be refunded 100 percent of Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request provided pursuant to Tariff, Part VII, Subpart C, section 306(A)(5)(b), and 100 percent of the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during this Decision Point I; and

(b) At the conclusion of the Cycle, Project Developers or Eligible Customers will be refunded up to 50 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).

ii. At the conclusion of Transmission Provider's deficiency review for Decision Point I, Project Developers or Eligible Customers will be refunded up to 90 percent of their Study Deposit submitted with their New Service Request during the Application Phase, less any actual costs.

**B. New Service Request Modification Requests at Decision Point I**

1. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
2. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 100 percent of the requested amount
3. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
4. Point of Interconnection.
  - a. The Point of Interconnection must be finalized before the close of the Decision Point I Phase.
    - i. Project Developer may only move the location of the Point of Interconnection 1) along the same segment of transmission line, as defined by the two electrical nodes located on the transmission line as modeled in the Phase I Base Case Data, or 2) move the location of the Point of Interconnection to a different breaker position within the same substation, subject to Transmission Owner review

and approval. Project Developer may not modify its Point of Interconnection to/from a transmission line from/to a direct connection into a substation.

- (a) Project Developer must notify Transmission Provider in writing of any changes to its Point of Interconnection prior to the close of Decision Point I. No modifications to the Point of Interconnection will be accepted for any reason after the close of Decision Point I.

5. Generating Facility or Merchant Transmission Facility Site Changes

Project Developer may specify a change to the project Site only if:

- a. the Project Developer satisfied the requirements for Site Control for both the initial Site proposed in the New Service Request Application and the newly proposed Site; and
- b. the initial Site and the proposed Site are adjacent parcels.
- c. Such Site Control is subject to the verification procedures set forth in Tariff, Subpart D, section 309(A)(2)(c) (Decision Point I Site Control verification).

6. Equipment Changes

- a. During Decision Point I, Project Developer may modify its Interconnection Request for updated equipment data. Project Developer shall submit machine modeling data as specified in the PJM Manuals before the close of Decision Point I.

**Tariff, Part VII, Subpart D, section 311**  
**Decision Point II**

A. Requirements

Decision Point II shall commence on the first Business Day immediately following the end of Phase II. New Service Requests that are studied in Phase II will enter Decision Point II. Before the close of Decision Point II, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such new Service Request must meet the requirements set forth below in Tariff, Part VII, Subpart D, section 311(A)(2)(d).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - b. The applicable Readiness Deposit No. 3
      - i. The Decision Point II Readiness Deposit No. 3 to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase, and the Readiness Deposit No. 2 that was submitted at Decision Point I. The Decision Point II Readiness Deposit No. 3 will be calculated by the Transmission Provider during Phase II, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - ii. The Decision Point II Readiness Deposit No. 3 required amount shall be an amount equal to the greater of:
        - (a) (i) 20 percent of the cost allocation for the Network Upgrades as calculated in Phase II or (ii) the Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase plus the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I; minus
        - (b) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase, plus the Readiness Deposit No. 2 amount paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I.

- iii. The Readiness Deposit No. 3 amount due can be zero, but cannot be a negative number (i.e., there will not be any refunded amounts associated with Readiness Deposit No. 3).
  - c. Notification in writing that Project Developer or Eligible Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its New Service Request
  - d. Evidence of Site Control. There are no Site Control evidentiary requirements at Decision Point II.
  - e. Evidence of air and water permits (if applicable)
  - f. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
  - g. Submission of New Service Request Data for Phase II System Impact Study data.
  - h. Evidence that Project Developer or Eligible Customer entered into a fully executed Affected System Study Agreement, if applicable to its New Service Request by the later of Decision Point II or 60 days after notification from Transmission Provider that an Affected System Study Agreement is required.
  - i. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
  - j. If Project Developer or Eligible Customer fails to submit all of the criteria in (b) through (i) above, before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
2. If Project Developer or Eligible Customer submits all elements in (b) through (i) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in (b) through (i) above, as follows:

- a. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point II.
- b. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- c. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase III.
  - i. Transmission Provider's review of the above required elements may run co-extensively with Phase III.
- d. Acceleration at Decision Point II. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase II System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
  - i. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - (a) Security
      - (i) Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
    - (b) Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - (c) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
      - (i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional ~~three~~one-year term beginning from last day of the relevant Cycle, Phase II.



- (1) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  - (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a ~~three~~one-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the linear distance for identified required Interconnection Facilities associated with a New Service Request.
  - (iii) If applicable, Interconnection Switchyard Site Control evidence for a ~~three~~one-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- e. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(d)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(d)(i), (ii) and (iii) above.
  - i. If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D,

section 311(A)(2)(d)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

- (a) Such condition precedent shall not be extended under any circumstances for any reason.
- (b) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (c) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.
- (d) For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
- (e) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above (noting the exception provided for Site Control), before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

- (f) If Project Developer or Eligible Customer submits all elements in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.
- (g) For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point II to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
  - (h) Security. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
  - (i) Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - (j) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A,

section 302, and is also in accordance with the following additional specifications:

- (i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus ~~three~~one years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
- (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus one ~~three~~ years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100 percent of linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- (iii) Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one ~~three~~ years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.

- (1) Such Site Control evidence shall cover 100 percent of acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- (iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends ~~one~~three years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- (v) If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above.
  - (1) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (1.a) Such condition precedent shall not be extended under any circumstances for any reason.

- (k) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle
- (l) Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- (m) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (n) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (o) When Project Developer or Eligible Customer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible

Customer of deficiencies within 10 Business Days after the close of Decision Point I.

- (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.

**B. New Service Request Withdraw or Termination at Decision Point II**

1. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point II. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point II, the Transmission Provider must receive before the close of the Decision Point II Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
2. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point II requirements, as set forth in this Tariff, Part VII, Subpart D, section 311.
3. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to Project Developer or Eligible Customer 100 percent of Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during Decision Point I;
    - ii. At the conclusion of the Cycle, refund to Project Developer or Eligible Customer up to 100 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).
  - b. For Study Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible

Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.

- c. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VII, Subpart D, section 311(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase if the Project Developer's Network Upgrade cost from Phase I to Phase II:
  - i. increases overall by 25 percent or more; and
  - ii. increases by more than \$10,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

#### 4. New Service Request Modification Requests at Decision Point II

- a. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
- b. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 10 percent of the values studied in Phase II.
- c. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
- d. Point of Interconnection. The Point of Interconnection may not be changed or modified in any way for any reason at this point in the Cycle process.
- e. Generating Facility or Merchant Transmission Facility Site Changes. Project Developer may specify a change to the project Site only if the Project Developer satisfied the requirements for Site Control for both (i) the initial Site proposed in the New Service Request Application and the newly proposed Site; and (ii) the initial Site and the proposed Site are adjacent parcels. Such Site Control is subject to the verification procedures set forth in Tariff, Part VII, Subpart D, section 313.



f. Equipment Changes

During Decision Point II, Project Developer is limited to modifying its New Service Request to Permissible Technological Advancement changes only. Project Developer shall submit machine modeling data as specified in the PJM Manuals associated with the Permissible Technological Advancement before the close of Decision Point II.

**Tariff, Part VII, Subpart D, section 313**  
**Decision Point III**

- A. Decision Point III shall commence on the first Business Day immediately following the end of Phase II, and shall run concurrently with the Final Agreement Negotiation Phase. New Service Requests that are studied in Phase II will enter Decision Point III. Before the close of Decision Point III, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.
1. Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point III for a New Service Request to remain in the Cycle and proceed through the Final Agreement Negotiation Phase as set forth below:
    - a. Security
      - i. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase III System Impact Study Results.
    - b. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - c. Project Developers must present evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
      - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
      - ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence for an additional one-year term beginning from the last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.

- iii. Interconnection Switchyard, if applicable, Site Control evidence for an additional one-year term beginning from the last day of the relevant Cycle, Phase III.
  - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, then Project Developer ~~or Eligible Customer~~ must provide evidence acceptable to Transmission Provider demonstrating that Project Developer ~~or Eligible Customer~~ is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above.
  - (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant

PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- e. Project Developer or Eligible Customer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment. If Project Developer or Eligible Customer does not satisfy these requirements, these requirements can be addressed through a milestone in the applicable interconnection-related service agreement entered into pursuant to Tariff, Part IX.
- f. For state-level, non-jurisdictional interconnection projects, evidence of a fully executed Interconnection Agreement with the applicable entity.
- g. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

B. If Project Developer or Eligible Customer submits all elements in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above, then, at the close of the Decision Point III, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above, as follows:

- 1. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point III.
- 2. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- 3. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to the Final Agreement Negotiation Phase.

Transmission Provider's review of the above required elements may run co-extensively with the Final Agreement Negotiation Phase.

- 4. If the New Service Request is deemed terminated and withdrawn by the Transmission Provider, then Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).

- c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
- 5. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point III. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point III, the Transmission Provider must receive before the close of Decision Point III written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request. Following receipt of such written notification from the Project Developer or Eligible Customer, the Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  - d. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VII, Subpart D, sections 313(B)(4)(b) and (c) and 313(B)(5)(b), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer if the Project Developer's or Eligible Customer's Network Upgrade cost from Phase II to Phase III:
    - i. increases overall by 35 percent or more; and
    - ii. increased by more than \$25,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

C. New Service Request Modification Requests at Decision Point III

New Service Requests may not be changed or modified in any way for any reason during Decision Point III. A New Service Request must be withdrawn and resubmitted in a subsequent Cycle to the extent a Project Developer or Eligible Customer wants to make any changes to such New Service Request at this point in the Cycle process.

**Tariff, Part VII, Subpart E, section 329**  
**Incremental Rights**

A. Incremental Auction Revenue Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Auction Revenue Rights

A Transmission Project Developer or Upgrade Customer that (a) pursuant to this Tariff, Part VII reimburses Transmission Provider for the costs of constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, shall be entitled to receive the Incremental Auction Revenue Rights as determined in accordance with this Tariff, Part VII, Subpart E, section 329(A). However, a Transmission Project Developer that interconnects Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System shall be entitled to Incremental Auction Revenue Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Transmission Project Developer has elected, pursuant to Tariff, Part VII, Subpart E, section 330 to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Auction Revenue Rights

No less than 45 days prior to the in-service date, as determined by the Office of the Interconnection, of the applicable transmission facility or upgrade related to a New Service Request or Upgrade Request, the Office of the Interconnection shall notify the Transmission Project Developer or Upgrade Customer that has responsibility to reimburse the costs of, or responsibility for, constructing or completing the transmission facility or upgrade, that initial requests for Incremental Auction Revenue Rights associated with the transmission facility or upgrade must be submitted to the Office of the Interconnection within a time period specified by the Office of the Interconnection in the notification. The Office of the Interconnection then shall commence a three-round allocation process. In round one, one-third of the Incremental Auction Revenue Rights available for each point-to-point combination requested in that round will be assigned to the requesters of the specific combinations in accordance with Tariff, Part VII, Subpart E, section 329(A)(3).

In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In round three, all

available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.

3. Determination of Incremental Auction Revenue Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Auction Revenue Rights to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VII, Subpart E, section 329(A)(2) using the tools described in Tariff, Attachment K, including an assessment of the simultaneous feasibility of any Incremental Auction Revenue Rights and all other outstanding Auction Revenue Rights. For each requested point-to-point combination, the Office of the Interconnection shall determine, simultaneously with all other requested point-to-point combinations, the base system Auction Revenue Rights capability, excluding the impact of any new transmission facilities or upgrades necessary to accommodate New Service Requests or Upgrade Requests. The Office of the Interconnection then shall similarly determine, for each requested point-to-point combination, the Auction Revenue Rights capability, including the impact of any new transmission facilities or upgrades. For each point-to-point combination, the Incremental Auction Revenue Rights capability shall be the difference between the Auction Revenue Rights capability in the base system analysis and the Auction Revenue Rights capability in the analysis including the impact of the new transmission facilities and upgrades. When multiple Transmission Project

Developers or Upgrade Customers have cost responsibility for the same new transmission facility or upgrade, Incremental Auction Revenue Rights shall be assigned to each Transmission Project Developer or Upgrade Customer in proportion to the Transmission Project Developer's or Upgrade Customer's relative cost responsibilities for the facility and in inverse proportion to the relative flow impact on constrained facilities or interfaces of the point-to-point combinations selected by the Transmission Project Developer or Upgrade Customer.

4. Duration of Incremental Auction Revenue Rights

Incremental Auction Revenue Rights received by a Transmission Project Developer or Upgrade Customer pursuant to this Tariff, Part VII, Subpart E, section 329(A) shall be available as of the first day of the first month that the Network Upgrades required to accommodate its New Service Request or Upgrade Request that are associated with the Incremental Auction Revenue Rights are included in the transmission system model for the monthly FTR auction and shall continue to be available for 30 years or for the life of the associated facility or upgrade, whichever is less, subject to any subsequent pro-rata reductions of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with Tariff, Attachment K - Appendix. At any time during this 30-year period (or the life of the facility or upgrade, whichever is less), in lieu of continuing this 30-year Auction Revenue Right, the Transmission Project Developer or Upgrade Customer shall have a one-time choice to switch to an optional mechanism, whereby, on an annual basis, the Transmission Project Developer or Upgrade Customer has the choice to request an Auction Revenue Right during the annual Auction Revenue Rights allocation process (pursuant to Tariff, Attachment K – Appendix, section 7.4.2) between the same source and sink, provided the Auction Revenue Right is simultaneously feasible, pursuant to Tariff, Attachment K – Appendix, section 7.5. A Transmission Project Developer or Upgrade Customer may return Incremental Auction Revenue Rights that it no longer desires at any time, provided that the Office of the Interconnection determines that it can simultaneously accommodate all remaining outstanding Auction Revenue Rights following the return of such Auction Revenue Rights. In the event a Transmission Project Developer or Upgrade Customer returns Incremental Auction Revenue Rights, the Transmission Project Developer or Upgrade Customer shall have no further rights regarding such Incremental Auction Revenue Rights.

5. Value of Incremental Auction Revenue Rights

The value of Incremental Auction Revenue Right(s) to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VII, Subpart E, section 329(A)(2) that become effective at the beginning of a Planning Period shall be determined in the same manner as annually allocated Auction Revenue Right(s)



based on the nodal prices resulting from the annual Financial Transmission Rights auction. The value of such Incremental Auction Revenue Rights that become effective after the commencement of a Planning Period shall be determined on a monthly basis for each month in the Planning Period beginning with the month the Incremental Auction Revenue Right(s) becomes effective. The value of such Incremental Auction Revenue Right shall be equal to the megawatt amount of the Incremental Auction Revenue Rights multiplied by the LMP differential between the source and sink nodes of the corresponding FTR obligations in each prompt-month FTR auction that occurs from the effective date of the Incremental Auction Revenue Rights through the end of the relevant Planning Period. For each Planning Period thereafter, the value of such Incremental Auction Revenue Rights shall be determined in the same manner as Incremental Auction Revenue Rights that became effective at the beginning of a Planning Period.

6. Rate-based Facilities

No Incremental Auction Revenue Rights shall be received by a Transmission Project Developer, Eligible Customer, or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

B. Incremental Capacity Transfer Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Capacity Transfer Rights

A Transmission Project Developer that interconnects Merchant Transmission Facilities with the Transmission System shall be entitled to receive any Incremental Capacity Transfer Rights that are associated with the interconnection of such Merchant Transmission Facilities as determined in accordance with this Tariff, Part VII, Subpart E, section 329(B). In addition, an Upgrade Customer that (a) reimburses Transmission Provider for the costs of constructing or completing Customer-Funded Upgrades, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Customer-Funded Upgrades shall be entitled to receive any Incremental Capacity Transfer Rights associated with such required facilities and upgrades as determined in accordance with this Tariff, Part VII, Subpart E, section 329(B).

a. Certain Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities

A Transmission Project Developer (a) that interconnects Merchant D.C. transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System, one terminus of which is located outside the PJM Region and the other terminus of which is located within the PJM Region, and (b) that will be a Merchant Transmission Provider,

shall not receive any Incremental Capacity Transfer Rights with respect to its Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities. Transmission Provider shall not include available transfer capability at the interface(s) associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities in its calculations of Available Transfer Capability under Tariff, Attachment C.

2. Procedures for Assigning Incremental Capacity Transfer Rights

After execution of a Study Agreement but prior to the issuance of an Interconnection Agreement or Upgrade Construction Service Agreement, a Transmission Project Developer or Upgrade Customer may request the Office of the Interconnection to determine the Incremental Capacity Transfer Rights as measured by the increase in Capacity Emergency Transfer Limit resulting from the interconnection or addition of Merchant Transmission Facilities or a Customer-Funded Upgrade identified in the System Impact Study for the related New Service Request. At the time of such request, the Transmission Project Developer or Upgrade Customer must also specify no more than three Locational Deliverability Areas in which to determine the Incremental Capacity Transfer Rights. Subject to the limitation of Tariff, Part VII, Subpart E, section 329(B)(1)(a), the Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with Merchant Transmission Facilities to the Transmission Project Developer that is interconnecting such facilities. The Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with a Customer-Funded Upgrade to the Upgrade Customer(s) bearing cost responsibility for such facility or upgrade in proportion to each Upgrade Customer's cost responsibility for the facility or upgrade.

3. Determination of Incremental Capacity Transfer Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Capacity Transfer Rights to be provided to Transmission Project Developers or Upgrade Customers in accordance with the applicable terms of the Reliability Pricing Model, in Tariff, Attachment DD, and pursuant to the procedures specified in the PJM Manuals.

4. Duration of Incremental Capacity Transfer Rights

Incremental Capacity Transfer Rights received by a Transmission Project Developer or Upgrade Customer shall be effective for 30 years from, as applicable, commencement of Interconnection Service, Transmission Service, or Network Service for the affected Transmission Project Developer or Upgrade Customer or the life of the pertinent facility or upgrade, whichever is shorter, subject to any subsequent pro-rata reallocations of all Capacity Transfer Rights

(including Incremental Capacity Transfer Rights) in accordance with the PJM Manuals.

5. Rate-based Facilities

No Incremental Capacity Transfer Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

C. Incremental Deliverability Rights

1. Right of Transmission Interconnection Customer to Incremental Deliverability Rights

A Transmission Project Developer shall be entitled to receive the Incremental Deliverability Rights associated with its Merchant Transmission Facilities as determined in accordance with this section, provided, however, that a Transmission Project Developer that proposes to interconnect Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area shall be entitled to Incremental Deliverability Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Interconnection Customer has elected, pursuant to Tariff, Part VII, Subpart E, section 330, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Deliverability Rights

Transmission Provider shall include in the System Impact Study a determination of the Incremental Deliverability Rights associated with the Transmission Project Developer's Merchant Transmission Facilities. Transmission Provider shall post on its OASIS the Incremental Deliverability Rights that it assigns to the Transmission Project Developer under this section 329(C)(2).

3. Determination of Incremental Deliverability Rights to be Provided to Transmission Project Developer

Transmission Provider shall determine the Incremental Deliverability Rights to be provided to a Transmission Project Developer associated with proposed Merchant Transmission Facilities under Tariff, Part VII, Subpart E, section 329(C)(2) pursuant to procedures specified in the PJM Manuals.

4. Duration of Incremental Deliverability Rights

Incremental Deliverability Rights assigned to a Transmission Project Developer shall be effective until the earlier of the date that is one year after the commencement of Interconnection Service for such customer or the date that such Transmission Project Developer's New Service Request is withdrawn and terminated, or deemed to be so, in accordance with the Tariff. Notwithstanding the preceding sentence, Incremental Deliverability Rights that are transferred pursuant to an IDR Transfer Agreement under the Tariff shall be deemed to be Capacity Interconnection Rights of the generation owner that acquires them under such agreement upon commencement of Interconnection Service related to the generation owner's Generating Facility and shall remain effective for the life of such Generating Facility, or for the life of the Merchant Transmission Facilities associated with the transferred IDRs, whichever is shorter. The deemed conversion of IDRs to Capacity Interconnection Rights under this Tariff, Part VII, Subpart E, section 329(C)(4) shall not affect application to such IDRs of the other provisions of this Tariff, Part VII, Subpart E, section 329(C). A Transmission Project Developer may return Incremental Deliverability Rights that it no longer desires at any time. In the event that a Transmission Project developer returns Incremental Deliverability Rights, it shall have no further rights regarding such Incremental Deliverability Rights.

5. Transfer of Incremental Deliverability Rights

Incremental Deliverability Rights may be sold or otherwise transferred at any time after they are assigned pursuant to Tariff, Part VII, Subpart E, section 329(C)(2), subject to execution and submission of an IDR Transfer Agreement in accordance with the Tariff. The transfer of Incremental Deliverability Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 329(C)(7) regarding loss of Incremental Deliverability Rights.

6. Effectiveness of Incremental Deliverability Rights

Incremental Deliverability Rights shall not entitle the holder thereof to use the capability associated with such rights unless and until Transmission Provider commences Interconnection Service related to the Merchant Transmission Facilities associated with such rights.

7. Loss of Incremental Deliverability Rights

Incremental Deliverability Rights shall be extinguished (a) in the event that the New Service Request of the Transmission Project Developer to which the rights were assigned is withdrawn and terminated, or deemed to be so, as provided in the Tariff, without regard for whether the rights have been transferred pursuant to an IDR Transfer Agreement, or (b) such rights are not transferred pursuant to an IDR Transfer Agreement on or before the date that is one year after the commencement of Interconnection Service related to the Merchant Transmission Facilities with which the rights are associated.

8. Rate-based Facilities

No Incremental Deliverability Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

**Tariff, Part VII, Subpart F, section 335**  
**Wholesale Market Participation Agreement/Non-Jurisdictional Agreements**

- A. In some instances, Generation Project Developer may physically connect its Generating Facility to non-jurisdictional distribution or sub-transmission facilities in order to access the electrical Point of Interconnection on the Transmission System (the “POI”), for the purpose of engaging in FERC-jurisdictional Wholesale Transactions. In those instances, Generation Project Developer must enter into both a (1) non-jurisdictional interconnection agreement with the owner or operator of the non-jurisdictional distribution or sub-transmission facilities, which governs the physical connection of the Generating Facility to those non-jurisdictional facilities; and (2) a three-party Wholesale Market Participation Agreement (“WMPA”) with PJM and the affected Transmission Owner in order to effectuate Wholesale Transactions in PJM’s markets.
- B. Generation Project Developer shall follow the Application Rules of Tariff, Part VII, Subpart C, section 306 that apply to a Generating Facility, and shall complete the ~~Form of Application and System Impact~~ Studies Agreement set forth in Tariff, Part IX, Subpart A (the “Application”). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of injecting energy at the ~~POI~~ Point of Interconnection and engaging in FERC-jurisdictional Wholesale Transactions.
- C. Generation Project Developer shall provide with the Application a copy of the executed interconnection agreement that governs the physical connection of the Generating Facility to the non-jurisdictional distribution or sub-transmission facilities, if the interconnection agreement is available. If the interconnection agreement is not yet available, Generation Project Developer shall provide with the Application all available documentation demonstrating that Generation Project Developer has requested or applied for interconnection through the relevant non-jurisdictional process, and Generation Project Developer shall provide a status report.
- D. In order to proceed to the execution of a WMPA, Generation Project Developer must demonstrate that it has executed the non-jurisdictional interconnection agreement by no later than Decision Point III in the applicable Cycle.

**Tariff, Part VII, Subpart G, section 336**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VII, Subpart D, section 310, as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an ~~Affected System Customer Facility Study Agreement~~ Affected System Customer Facilities Study Application and Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.



- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
    - b. Transmission Provider shall not start the review of the Affected System Customer Facilities Study Application and Agreement~~Affected System Customer Facility Study Agreement~~ until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
    - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
      - i. Affected System Customer is responsible for, and must pay, all actual study costs.
      - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facilities Study Application and Agreement~~Affected System Customer Facility Study Agreement~~. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facilities Study Application and Agreement~~Affected System Customer Facility Study Agreement~~ to be terminated and withdrawn.
  2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
  3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
    - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
  - i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with the FERC.
- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement,

Project Developer or Affected System Customer shall elect one of the following:

- i. to execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement in unexecuted form.
    - (a) The unexecuted Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider.
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart H, section 337**  
**Upgrade Requests**

A. Applicability

Tariff, Part VII Subpart H applies to valid Upgrade Requests submitted on or after October 1, 2020 and up to and including September 10, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30

days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- i. Readiness Deposit refunds will be handled as follows:
  - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
  - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
- c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.
6. Tariff, Part VII, Subpart C (Base Case Data) requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and

acquires all rights and obligations as identified in the Upgrade Request for such project.

8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

#### C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.
2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.
  - a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
5. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven years; and
6. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:



1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.
- c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

- (i) **Load Flow Violations**  
Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.
- (ii) **Short Circuit Violations**  
Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.
- (iii) **Stability and Dynamic Criteria Violations**  
Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. **System Impact Study Results**

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
- d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
- e. Upgrade Customer may not elect Option to Build after such date.

4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report,

Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the upgrade study process~~Cycle~~, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall

conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse

If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the ~~Upgrade Construction Service Agreement~~ final interconnection-related agreement, Upgrade Customer shall elect one of the following:

(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

(c) to request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement ~~Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement~~ unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

- ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - (a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - (b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. In order to exercise the Option to Build, as set forth in Upgrade Construction Service Agreement, Tariff, Part IX, Subpart E, Appendix III, section 6.2.1, Upgrade Customer must provide Transmission Provider and the Transmission Owner with written notice of its election to exercise the option no later than 30 days from the date the Upgrade Customer receives the results of the Facilities Study (or the System Impact performed, if a Facilities Study was not required).

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities

pursuant to Tariff, Part VII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VII, Subpart H, section 337(H)(1) to the affected Transmission Owner(s).

2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330, except to the extent the applicable terms of Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Operating Agreement, Schedule 6.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.

- c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions A**

**Abnormal Condition:**

“Abnormal Condition” shall mean any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

**Affected System:**

“Affected System” shall mean an electric system other than the Transmission Provider’s Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

**Affected System Customer**

“Affected System Customer” shall mean the developer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System,

**Affected System Facility**

“Affected System Facility” shall mean a new, expanded or upgraded generation or transmission facility outside of Transmission Provider’s Transmission System, the effect of which requires Network Upgrades to Transmission Provider’s Transmission System.

**Affected System Operator**

“Affected System Operator” shall mean an entity that operates an Affected System or, if the Affected System is under the operational control of an independent system operator or a regional transmission organization, such independent entity.

**Affected System Customer Facilities Study Application and Agreement**

“Affected System Customer Facilities Study Application and Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart L, Affected System Customer Facilities Study Application and AgreementN.

**Affiliate:**



“Affiliate” shall mean any two or more entities, one of which Controls the other or that are under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in Control or affiliation for purposes of the Tariff or Operating Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on the entity’s board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, Control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, 10 percent or more of the voting securities of such entity.

**Ancillary Services:**

“Ancillary Services” shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider’s Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations:**

“Applicable Laws and Regulations” shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall mean the Regional Entity for the region in which a Network Customer, Transmission Customer, Project Developer, Eligible Customer, or Transmission Owner operates.

**Applicable Standards:**

“Applicable Standards” shall mean the requirements and guidelines of NERC, the Applicable Regional Entity, the Control Area in which the Generating Facility or Merchant Transmission Facility is electrically located and the Transmission Owner FERC Form No. 715 – Annual Transmission Planning and Evaluation Report for each Applicable Regional Entity; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

“Applicable Technical Requirements and Standards” shall mean those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Transmission Owner or, as the case may be and to the extent applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual.

All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**Application and Studies Agreement:**

"Application and Studies Agreement" shall mean the application that must be submitted by a Project Developer or Eligible Customer that seeks to initiate a New Service Request, a form of which is set forth in Tariff, Part VIII, Subpart A. An Application and Studies Agreement must be submitted electronically through PJM's web site in accordance with PJM's Manuals.

**Application Deadline:**

"Application Deadline" shall mean the Cycle deadline for submitting a Completed New Service Request, as set forth in Tariff, Part VIII, Subpart B, section 403(A). If Project Developer's or Eligible Customer's Completed New Service Request is received by Transmission Provider after a particular Cycle deadline, such Completed New Service Request shall automatically be considered as part of the immediate subsequent Cycle.

**Application Phase:**

"Application Phase" shall mean the Cycle period encompassing both the submission and review of New Service Requests as set forth in Tariff, Part VIII, Subpart B, subsections 403(A) and (B).

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions C**

**Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VIII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in [as set forth in Appendix 2, section 16.1.4 of this –GIA](#), that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.

**Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

**Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with a Generation Interconnection Agreement.

**Common Use Upgrade:**

“Common Use Upgrade” or “CUU” shall mean a Network Upgrade that is needed for the interconnection of Generating Facilities or Merchant Transmission Facilities of more than one Project Developer or Eligible Customer and which is the shared responsibility of each Project Developer or Eligible Customer.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Completed New Service Request:**

“Completed New Service Request” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit(s). A Completed New Service Request, if accepted upon review, shall become a valid New Service Request.

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Generation Interconnection Agreement or a Construction Service Agreement.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner, Project Developer, Eligible Customer, or Affected System Customer, depending on which entity has the construction responsibility pursuant to the Tariff, Part VIII and the applicable GIA or Construction Service Agreement; this term shall also be used to refer to a Project Developer or Eligible Customer with respect to the construction of the Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or a party to a GIA that requires activities pursuant to a GIA.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to the Tariff, Part VIII.

**Cost Responsibility Agreement:**

“Cost Responsibility Agreement” shall mean a form of agreement between Transmission Provider and a Project Developer with an existing generating facility, intended to provide the terms and conditions for the Transmission Provider to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with PJM and the

Transmission Owner. A form of the Cost Responsibility Agreement is set forth in Tariff, Part IX, Subpart F.

**Costs:**

As used in the Tariff, Part VIII and related agreements and attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Distribution Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on a Project Developer or Eligible Customer pursuant to Tariff, Part VIII, Subpart C, section 404(A)(5), or (ii) is voluntarily undertaken by an Upgrade Customer in fulfillment of an Upgrade Request. No Network Upgrade, Distribution Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Cycle:**

“Cycle” shall mean that period of time between the start of an Application phase and conclusion of the corresponding Final Agreement Negotiation Phase. The Cycle consists of the Application Phase, Phase I, Decision Point I, Phase II, Decision Point II, Phase III, Decision Point III, and the Final Agreement Negotiation Phase.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions E**

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VIII, Eligible Customer shall mean only those Eligible Customers that have submitted an Application and Study Agreement.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Project Developer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Generating Facility or to the Project Developer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Project Developer is not obligated by a Generation Interconnection Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open- Loop Hybrid Resources are not Energy Storage Resources.

**Engineering and Procurement Agreement:**

“Engineering and Procurement Agreement” shall mean an agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. A form of the Engineering and Procurement Agreement is set forth in Tariff, Part IX, Subpart D. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.



**Tariff, Part VIII, Subpart A, section 400**  
**Definitions I**

**Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, ~~Interconnected~~ Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the ~~Generating Customer~~-Facility and for the Interconnection Facilities.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Capacity Transfer Rights:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Project Developer or Transmission Project Developer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” (“IDR”) shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Project Developer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Generating Facility and Project Developer Interconnection Facilities after satisfaction of the conditions of Tariff, Part IX, Subpart B, Appendix 2, section 1.4.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Project Developer or the Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Project Developer, Transmission Owner and the Transmission Provider pursuant to this Tariff, Part VIII in the form set forth in Tariff, Part IX, Subpart J or Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades, Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities and coordination of the construction and interconnection of an associated Generating Facility.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner’s Interconnection Facilities and the Project Developer’s Interconnection Facilities. Collectively Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modifications, additions, or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades, or Network Upgrades.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Project Developer, or the Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Generating Facility with the Transmission System pursuant to the terms of this Tariff, Part VIII and the Generation Interconnection Agreement entered into pursuant thereto by Project Developer, the Transmission Owner and Transmission Provider.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions N**

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Necessary Study Agreement:**

“Necessary Study Agreement” shall mean the form of agreement for preparation of one or more Necessary Studies, as set forth in Tariff, Part IX, Subpart G.

**Necessary Study:**

“Necessary Study(ies)” shall mean the assessment(s) undertaken by the Transmission Provider to determine whether a planned modification under Appendix 2, section 3.4.1 of the GIA will have a permanent material impact on the Transmission System and to identify the additions, modifications, or replacements to the Transmission System, if any, that are necessary, in accordance with Good Utility Practice, and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, to accommodate the planned modifications. A form of the Necessary Study Agreement is set forth in Tariff, Part IX, Subpart G.

**Network Upgrade Cost Responsibility Agreement:**

“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer ~~Parties~~ and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include Stand Alone Network Upgrades which are Network Upgrades that are not part of an Affected System; only serve the Generating Facility or Merchant Transmission Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in the GIA, Schedule L or in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer a written technical

explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request or a Completed Application.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Project Developer’s Generating Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Project Developer’s Generating Facility, as determined in accordance with pertinent Applicable Standards and specified in the Generation Interconnection Agreement.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions P**

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VII:**

“Part VII” shall mean Tariff, Part VII, sections 300 through 337 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VIII:**

“Part VIII” shall mean Tariff, Part VIII, sections 400 through 435 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the

applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IX:**

“Part IX” shall mean Tariff, Part IX, section 500 and Subparts A through L pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Permissible Technological Advancement:**

"Permissible Technological Advancement" shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the end of Decision Point II. Provided such change may not: (i) increase the capability of the Generating Facility or Merchant Transmission Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**Phase I**

“Phase I” shall start on the first Business Day immediately after the close of the Application Phase of a Cycle, but no earlier than 30 calendar days following the distribution of the Phase I System Impact Study Base Case Data. During Phase I, Transmission Provider shall conduct the Phase I System Impact Study.

**Phase I System Impact Study:**

“Phase I System Impact Study” shall mean System Impact Study conducted during the Phase I System Impact Study Phase.

**Phase II**

“Phase II” shall start on the first Business Day immediately after the close of Decision Point I Phase unless the Decision Point III of the immediately preceding Cycle is still open. In no event,

shall Phase II of a Cycle commence before the conclusion of Decision Point III of the immediately preceding Cycle. During Phase II, Transmission Provider shall conduct the Phase II System Impact Study.

**Phase II System Impact Study:**

“Phase II System Impact Study” shall mean System Impact Study conducted during the Phase II System Impact Study Phase.

**Phase III**

“Phase III” shall start on the first Business Day immediately after the close of Decision Point II, unless the Final Agreement Negotiation Phase of the immediately preceding Cycle is still open. In no event shall Phase III of a Cycle commence before the conclusion of the Final Agreement Negotiation Phase of the immediately preceding Cycle. During Phase III, Transmission Provider shall conduct the Phase III System Impact Study.

**Phase III System Impact Study:**

“Phase III System Impact Study” shall mean System Impact Study conducted during Phase III.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Region:**

“PJM Region” shall have the meaning specified in the Operating Agreement.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Point of Change in Ownership:**

“Point of Change in Ownership” shall mean the point, as set forth Schedule B of the Generation Interconnection Agreement, where the Project Developer’s Interconnection Facilities connect to the Transmission Owner’s Interconnection Facilities.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Interconnection Facilities connect with the Transmission System.

**Project Developer:**

“Project Developer” shall mean a Generation Project Developer and/or a Transmission Project Developer.

**Project Developer Interconnection Facilities:**

“Project Developer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Project Developer on Project Developer’s side of the Point of Change of Ownership identified in the Schedule B of the Generation Interconnection Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Generating Facility with the Transmission System.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Generating Facility to which Project Developer has granted a mortgage or other lien as security for some or all of Project Developer’s obligations under the corresponding power purchase agreement.

**Project Identifier:**

“Project Identifier” shall mean, when an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], the assigned Project Identifier to such request as confirmed by Transmission Provider. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification purposes, and does not indicate priority within a Cycle.

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Project Developer’s Generating



Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VIII, Subpart A, section 401(D).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VIII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Request Number:**

“Request Number” shall mean, when an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], the assigned Request Number to such request as confirmed by Transmission Owner. The Request Number will indicate the serial position and priority.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions S**

**Schedule of Work:**

“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of a GIA Schedule L of, or Schedule of a CSAan-ICSA, as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work set forth in Specification section 3.0 of the GIA to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Security:**

“Security” shall mean the financial guaranty provided by the Project Developer, Eligible Customer or Upgrade Customer pursuant to Tariff, Part VIII, Subpart C, sections 406(A)(2) and (3), 408(A)(2)(d), and 410(A)(1) to secure the Project Developer’s, Eligible Customer’s or Upgrade Customer responsibility for Costs under an interconnection-related agreement set forth in Tariff, Part IX.

**Service Agreement:**

“Service Agreement” shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Site:**

“Site” shall mean all of the real property including, but not limited to, any owned or leased real property, bodies of water and/or submerged land, and easements, or other forms of property rights acceptable to PJM, on which the Generating Facility or Merchant Transmission Facility is situated and/or on which the Project Developer Interconnection Facilities are to be located.

**Site Control:**

“Site Control” shall mean the evidentiary documentation provided by Project Developer in relation to a New Service Request demonstrating the requirements as set forth in the following Tariff, Part VIII, Subpart A, section 402, and Tariff, Part VIII, Subpart B, section 403, and Subpart C, sections 406 and 410.

**Stand Alone Network Upgrades:**

“Stand Alone Network Upgrades” shall mean Network Upgrades, which are not part of an Affected System, which a Project Developer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Specifications section 3.0 of Appendix L of the GIA. If the Transmission Provider or Transmission Owner and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider or Transmission Owner that disagrees with the Project Developer must provide the Project Developer a written technical explanation outlining why the Transmission Provider or Transmission Owner does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State of Charge:**

“State of Charge” shall mean the ~~operating parameter that represents the~~ quantity of physical energy stored ~~(measured in units of megawatt hours)~~ in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Study Deposit:**

“Study Deposit” shall mean the payment in the form of cash required to initiate and fund any study provided for in Tariff, Part VIII, Subpart A, section 401.

**Surplus Project Developer:**

“Surplus Project Developer” shall mean either a Project Developer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.

**Surplus Service Request Number:**

“Surplus Service Request Number” shall mean, when an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, the assigned Surplus Service Request Number to such request as confirmed by Transmission Provider. The Request Number will indicate the serial position and priority.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Project Developer, pursuant to Tariff, Part VIII, Subpart E, section 414, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in a Generation Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study Agreement:**

“Surplus Interconnection Study Agreement” shall mean the form of the Surplus Interconnection Study Agreement set forth in Tariff, Part IX, Subpart I.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Transmission Owners and Project Developer as they may be amended from time to time.

**System Impact Study:**

“System Impact Study” shall mean an assessment(s) by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a New Service Request, (ii) whether any

additional costs may be incurred in order to provide such transmission service or to accommodate a New Service Request, and (iii) an estimated date that the New Service Requests can be interconnected with the Transmission System and an estimate of the cost responsibility for the interconnection of the New Service Request; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Generating Facility, and (ii) the Generating Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Generating Facility.

**Tariff, Part VIII, Subpart A, section 401**  
**Applications for Cycle Process**  
**Introduction**

A. New Cycle Process

Part VIII of the Tariff applies to valid New Service Requests submitted on or after October 1, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of the Cycle process; procedures and other terms regarding studies and other processing of New Service Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Project Developers and Eligible Customers. To initiate a New Services Request, Eligible Customers must first submit a Completed Application following the procedures outlined in Tariff, Parts II and III as applicable. For projects submitted by Eligible Customers, the project's priority is defined by the Cycle in which an Eligible Customer submits a Completed Application. For projects submitted by Project Developers, the project's priority is defined by the Cycle in which a Project Developer submits a completed New Service Request. A Cycle's priority is established by the Application deadline. A given Cycle has priority over Cycles that commence at a later date.

B. Part VIII of the Tariff applies to (a) Generation Interconnection Requests; (b) Transmission Interconnection Requests; and (c) Completed Applications.

C. A Project Developer that proposes to (i) interconnect a Generating Facility to the Transmission System in the PJM Region, (ii) increase the capability of a Generating Facility in the PJM Region, (iii) interconnect Merchant Transmission Facilities with the Transmission System; (iv) increase the capability of existing Merchant Transmission Facilities interconnected to the Transmission System, or (v) interconnect a Generating Facility to distribution facilities located in the PJM Region that are used for transmission of power in interstate commerce, and to make wholesale sales using the output of the Generating Facility, shall request interconnection with the Transmission System pursuant to, and shall comply with, the terms, conditions, and procedures set forth in Tariff, Part VIII and related portions of the PJM Manuals.

D. Required Study Deposits and Readiness Deposits.

1. Study Deposits. Pursuant to Tariff, Part VIII, Subpart B, section 403, each New Service Request must submit with its Application a Study Deposit, the amount of which will be determined based upon the MWs requested in such Application. Ten percent of the Study Deposit is non-refundable. Project Developer and Eligible Customers are responsible for actual study costs, which may exceed the Study Deposit amount.

a. If any Study Deposit monies remain after all System Impact Studies are completed and any outstanding monies owed by Project Developer or Eligible Customer in connection with outstanding invoices related to the

present or prior New Service Requests have been paid, such remaining deposit monies shall be returned to the Project Developer or Eligible Customer at the conclusion of the required studies for the New Service Request.

2. Readiness Deposits. Readiness Deposits are funds committed by the Project Developer or Eligible Customer based upon the MW size of the project and, where applicable, the study results.
  - a. Readiness Deposits are due at the following Phases of a Cycle:
    - i. Readiness Deposit No. 1: Application Submission
    - ii. Readiness Deposit No. 2: Decision Point I; and
    - iii. Readiness Deposit No. 3: Decision Point II
  - b. Readiness Deposits No. 2 and/or No. 3 may equal an amount equal to or greater than zero, but may never be a negative dollar amount.
  - c. Readiness Deposit refunds will be handled as follows:
    - i. If the project is withdrawn or terminated, the Readiness Deposit refunds for the project will be determined by the study phase at which the project was withdrawn or terminated, and adverse study results tests, as set forth below in Tariff, Part VIII, Subpart C, section 408(B)(3)(~~cb~~).
    - ii. When all Cycle New Service Requests have either entered into final agreements and met the Decision Point III Site Control requirements, or have withdrawn, remaining Readiness Deposit funds will be dispositioned as follows:
      - (a) Transmission Provider will incorporate all project withdraws and retool analysis results to provide a final determination on the Network Upgrades that are required for the Cycle.
      - (b) Underfunded Network Upgrades will be identified as those where one or more withdrawn New Service Requests that were identified as having a cost allocation in the Phase III analysis results. In the event that there are no underfunded Network Upgrades, all Readiness Deposits will be refunded.
      - (c) Readiness Deposits will be applied to underfunded Network Upgrades on a pro-rata share of funds missing from the Phase III cost allocation. In the event that all underfunded Network Upgrades are made whole relative to the withdrawn New Service Requests, remaining Readiness Deposits will be refunded on a pro-rata share.



3. Study Deposits and Readiness Deposits are separate financial obligation, and non-transferrable and cannot be commingled. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific New Service Request be applied in whole or in part to a different New Service Request.
- E. If Project Developer is proposing a Generating Facility that will physically connect to non-jurisdictional distribution or sub-transmission facilities for the purpose of engaging in wholesale sales in the PJM markets, such Project Developer must provide additional required information and documentation associated with the non-jurisdictional arrangements, as set forth in Tariff, Part VIII, Subpart C, sections 406 and 410 and Tariff, Part IX, Subpart F.
  - F. A Project Developer or Eligible Customer cannot combine, swap or exchange all or part of a New Service Request with any other New Service Request within the same or a different Cycle.
  - G. Prior to entering into a final agreement from Tariff, Part IX, a Project Developer or Eligible Customer may assign its New Service Request to another entity only if the acquiring entity:
    1. as applicable, accepts and acquires the rights to the same Point of Interconnection and Point of Change of Ownership as identified in the New Service Request for such project; and/or
    2. as applicable, accepts, the same receipt and delivery points or the same source and sink points as stated in the New Service Request for such project.
    3. Additional Interconnection-Related Agreements. In connection with interconnection with the Transmission System pursuant to Tariff, Part VIII, Project Developer may be required, or may elect, to enter into one or more of the following interconnection-related agreements:
      - a. Cost Responsibility Agreement. A Project Developer with an existing generating facility that is not a party to an interconnection agreement with Transmission Provider and the relevant Transmission Owner, that desires to enter into a GIA with Transmission Provider and Transmission Owner, shall be required to enter into a Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart F. The Cost Responsibility Agreement provides the terms, conditions, Study Deposit, and cost responsibility for Project Developer to pay Transmission Provider's actual costs to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with Transmission Provider and Transmission Owner.
      - b. Engineering and Procurement Agreement. A Project Developer that wishes to advance the implementation of its Interconnection Request during Phase III of a Cycle may enter into an Engineering and Procurement Agreement with Transmission Provider and Transmission

Owner, in the form set forth in Tariff, Part IX, Subpart D, to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.

- c. Necessary Study Agreement. A Project Developer that has entered into a GIA that plans to undertake modifications pursuant to that GIA to its Generating Facility or Merchant Transmission Facility shall be required to enter into a Necessary Study Agreement with Transmission Provider in the form set forth in Tariff, Part IX, Subpart G. The Necessary Study Agreement provides the terms, conditions, Study Deposit, and cost responsibility for Project Developer to pay Transmission Provider's actual costs to perform the Necessary Study(ies) to determine: (a) the type and scope of the permanent material impact, if any, the change will have on the Transmission System; (b) the additions, modifications, or replacements to the Transmission System required to accommodate the change; and (c) a good faith estimate of the cost of the additions, modifications, or replacements to the Transmission System required to accommodate the change.

**Tariff, Part VIII, Subpart A, section 402**  
**Applications for Cycle Process**  
**Site Control**

A. Site Control Evidentiary Requirements

Site Control is evidence provided by the Project Developer to Transmission Provider in relation to Project Developer's New Service Request demonstrating Project Developer's interest in, control over, and right to utilize the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades at the Point of Interconnection. Specific Site Control phase requirements are set forth in the following Tariff, Part VIII, Subpart B, section 403, and Subpart C, sections 406 and 410

1. Site Control consistent with the requirements herein is required for a project to have a valid position within a Cycle.
2. Proof of Site Control can be in the form of one of the following: (1) deed; (2) lease; (3) option to lease or purchase; or (4) as deemed acceptable by the Transmission Provider, any other contractual or legal right to possess, occupy and control the Site.
  - a. Memorandums are not acceptable.
  - b. Documentation solely evidencing an intent to purchase or control the Site is not acceptable.
  - c. Rights of Way are only acceptable for Project Developer Interconnection Facilities up to the Point of Interconnection.
  - d. Notwithstanding the foregoing, for a New Service Request, all or a portion of which requires the use of Sites owned or physically controlled by a state and/or federal governmental entity, and authorization for such use is subject to environmental and other state and/or federal governmental permitting requirements, including 42 U.S.C.A. § 4331 et seq. and any succeeding statutes, acceptable evidence of Site Control can be in any form the governmental entity issues. For Decision Point I and Decision Point III, Project Developers shall provide evidence that the Project Developer is taking identifiable steps acceptable to the Transmission Provider in furtherance of the issuance of such authorization by the state and/or federal governmental entity, including documentation sufficiently describing and explaining the source of and effects of such regulatory requirements, including a description of any conditions that must be met in order to satisfy the regulatory requirements and the anticipated time by which the Project Developer expects to satisfy the regulatory requirements. For Decision Point I and Decision Point III, Project Developers shall also identify any additional property rights for the portion of the Site that is not owned or physically controlled by a state

and/or federal governmental entity but which cannot be secured until the regulatory requirements have been met and authorization has been provided by the requisite state and/or federal governmental entity.

3. Demonstration of Site Control must include verification, to PJM's satisfaction, that the total feet or acreage ("acreage") of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, as set forth in the PJM Manuals.
  - a. The Project Developer must submit a Geographic Information System (GIS) Site Plan map and data files acceptable to PJM demonstrating the arrangement of the resource-specific proposed facilities for the amount of MW requested.
  - b. Any GIS Site Plan map and data files submitted in accordance with this section must be consistent with all other modeling data submitted in connection with Project Developer's New Service Request.
  - c. In the event of a disagreement between the Transmission Provider and the Project Developer over whether the total acreage of the Site is fully sufficient for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, Transmission Provider will accept a Professional Engineer (PE) stamped Site plan drawing (licensed in the state of the facility location) that depicts the proposed generation arrangement and specifies the Maximum Facility Output for that arrangement.
    - i. Failure to verify to Transmission Provider's satisfaction that the total acreage of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility shall result in the New Service Request being deemed terminated and withdrawn.
4. Site Control must be in the name of the Project Developer identified on the corresponding New Service Request. Otherwise, the Project Developer must demonstrate to PJM's satisfaction the relationship between the entity owning or controlling the Site ("landowner" or "owner") with Site Control and the Project Developer identified on the New Service Request.
5. Project Developers are prohibited from submitting evidence of Site Control that utilizes the same Site for multiple New Service Requests unless the total acreage amount of such Site is adequate to support all such New Service Requests.
  - a. To the extent that multiple New Service Requests are submitted by a Project Developer using the same Site Control evidence and the total acreage amount of such Site is not adequate to support all such New Service Requests, all such New Service Requests shall be deemed terminated and withdrawn.

- b. To the extent that a Project Developer submits a New Service Request with Site Control evidence utilizing the Site that is also the subject of Site Control in New Service Requests submitted by other Project Developer's, such Project Developer shall include with its New Service Request evidence, to Transmission Provider's satisfaction, demonstrating that the project referenced in the Project Developer's New Service Request is concurrently feasible with the development of any other projects that will share the Site identified in the Site Control. Such proof of concurrent feasibility shall include:
  - i. Identification of any other New Service Requests that will share all or a portion of the Site identified in the Site Control; and
  - ii. Identification of the proposed location and space utilization of all projects that will share the Site, including acreage and boundaries for all projects sharing the Site identified in the Site Control; and
  - iii. Any related technical information required by the Transmission Provider to enable the Transmission Provider to determine that development of the project referenced in the submitted New Service Request is not inconsistent with development of any of the other New Service Requests that will share all or a portion of the same Site.
- 6. Multiple projects may share Project Developer Interconnection Facilities. A shared facilities agreement is required if jointly owned common Interconnection Facilities are proposed.
- 7. Project Developers are prohibited from submitting evidence of Site Control for the Site which is also the subject of an interconnect request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system. To the extent that Project Developers submit evidence of Site Control for the Site which is also the subject of an interconnection request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system, the relevant New Service Request submitted to Transmission Provider shall be deemed terminated and withdrawn.
- 8. Site Control must demonstrate three key elements: conveyance, term, and exclusivity:
  - a. Term

Term is the minimum duration required to evidence Site Control. The Term requirements vary, and are established in the following Tariff, Part VIII rules, at various points within a Cycle. The Term cannot be satisfied by an agreement with an initial term shorter than the requisite required term that has extensions, including unilateral extensions, unless those extensions have been exercised and any requisite conditions fulfilled, including any payment obligations, by the Project Developer at the time evidence of Site Control is provided to the Transmission Provider.

b. Exclusivity

With the exception of Tariff, Part VIII, Subpart A, section 402(A)(5)(b), exclusivity is evidenced by written acknowledgement from the ~~land owner~~ landowner provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, that the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.

c. Conveyance

The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VIII, Subpart A, section ~~34~~02(A)(2), above.

9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual ~~14H14G~~, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met.

a. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.

**Tariff, Part VIII, Subpart C, section 404**  
**Introduction**

A. Phase I, Phase II and Phase III System Impact Studies

1. Introduction

Tariff, Part VIII, Subpart C sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VIII includes three study Phases and the three Decision Points:

- a. ~~Phase I-~~Phase I System Impact Study
- b. ~~\_\_\_\_\_and~~Decision Point I
- ~~b.c.~~ ~~Phase II-~~Phase II System Impact Study
- d. ~~\_\_\_\_\_and~~Decision Point II; ~~and~~
- ee. ~~Phase III-~~Phase III System Impact Study
- f. ~~\_\_\_\_\_and~~Decision Point III.

Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VIII, Subpart C, sections 405, 407, and 409.

2. Overview of System Impact Studies

- a. The Phase I, Phase II and Phase III System Impact Studies are a regional analysis of the effect of adding to the Transmission System the new facilities and services proposed by valid New Service Requests and an evaluation of their impact on deliverability to the aggregate of PJM Network Load.
  - i. These studies identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests included therein and any resulting Interconnection Facilities, Network Upgrades, and/or Contingent Facilities required to accommodate such New Service Requests.
  - ii. These studies provide estimates of cost responsibility and construction lead times for new facilities required to interconnect the project and system upgrades.

- iii. Transmission Provider, in its sole discretion, can aggregate multiple New Service Requests at the same Point of Interconnection for purposes of Phase I, Phase II and Phase III System Impact Studies.
- iv. The scope of the studies may include (a) an assessment of sub-area import deliverability, (b) an assessment of sub-area export deliverability, (c) an assessment of project related system stability issues (only occurs in Phase II and Phase III); (d) an assessment of project-related short circuit duty issues (only occurs in Phase II and Phase III), (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria and the transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity, (f) an assessment of regional transmission upgrades that most effectively meet identified needs, and (g) an analysis to determine cost allocation responsibility for required facilities and upgrades.
- v. For purposes of determining necessary Interconnection Facilities and Network Upgrades, these studies shall consider the level of service requested in the New Service Request unless otherwise required to study the full electrical capability of the New Service Request due to safety or reliability concerns.
- vi. The studies' results shall include the list and facility loading of all reliability criteria violations specific to the New Service Requests.
- vii. If applicable, the studies for a Transmission Project Developer New Service Request shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the Transmission Project Developer's proposed Merchant Transmission Facilities.

### 3. Contingent Facilities

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Interconnection Facilities and/or Network Upgrades, upon which the New Service Request's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the New Service Request or reassessment of the Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies) and Generator Interconnection Agreement, including why a specific Contingent Facility was



identified and how it relates to the New Service Request. Transmission Provider shall also provide, upon request of the Project Developer or Eligible Customer, the estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

4. Additional System Impact Study Procedures for Eligible Customers

The following provisions apply to System Impact Studies conducted for Eligible Customers:

a. The Transmission Provider will notify Eligible Customers of the need to conduct a System Impact Study whenever the Transmission Provider determines that available transmission capability may not be sufficient to provide the requested firm service(s). The purpose of the System Impact Study will be to determine the effect the requested service(s) will have on system operations, identify any system constraints, redispatch options and whether system expansion will be required to provide the requested service(s).

b. The Commission's comparability standard will be applied in evaluating the impact of all requests. Specifically, the Transmission Provider will use the same due diligence in completing System Impact Studies for Eligible Customers that it uses when completing studies for any Transmission Owner that requests service from the Transmission Provider.

- c. Requests for long-term firm transmission service will be evaluated, to the extent possible, as a part of the on-going planning process for Bulk Transmission Supply in the PJM Region. Appropriate planning studies will be conducted annually to assess the capability of the PJM Region Transmission System to deliver the planned Network Resources to the Forecasted Network Loads of the existing load serving entities and any prior committed Firm Point-to-Point Service transmission customers. The loads and resources of Eligible Customers requesting new or additional service during the normal planning cycle will be incorporated into this aggregate planning process along with the loads and resources of all other Firm Point-to-Point and load serving entities for which prior commitments to provide service have been made. Requests for long-term firm service made at times that will not permit the evaluation of impacts as part of the normal planning process, and requests for short-term firm service, will require that special impact studies be completed.
- d. The Transmission Provider plans and evaluates the PJM Region Transmission System in strict compliance with the following:
  - i. North American Electric Reliability Council ("NERC") Reliability Principles and Guides
  - ii. Applicable Standards
  - iii. Transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity.
- e. In evaluating the impact of any request for new or additional service(s), the Transmission Provider will first determine the capability of the system to reliably provide prior committed Network and Point-to-Point service for the term of the requested new or additional service(s), or the normal planning horizon (generally 10 years), whichever is shorter. Requests for new or additional service(s) will then be incorporated into the system representation data and the appropriate system analyses will be completed to evaluate the impacts of the requested services.

5. Cost Allocation for Network Upgrades

- a. General: Each Project Developer and Eligible Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its New Service Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such New Service Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated

with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the New Service Request; or the construction of Supplemental Projects.

b. Cost Responsibility for Accelerating Network Upgrades included in the Regional Transmission Expansion Plan: Where the New Service Request calls for accelerating the construction of Network Upgrades that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Project Developer or Eligible Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

c. The Transmission Provider shall determine the minimum amount of Network Upgrades required to resolve each reliability criteria violation in each Cycle, by studying the impact of the projects the Cycle in their entirety, and not incrementally. Interconnection Facilities and Network Upgrades shall be studied in their entirety and according to the following process:

The Transmission Provider shall identify the New Service Requests in the Cycle contributing to the need for the required Network Upgrades within the Cycle. All New Service Requests that contribute to the need for a Network Upgrade will receive cost allocation for that upgrade pursuant to each New Service Request's contribution to the reliability violation identified on the transmission system in accordance with PJM Manuals.

There will be no inter-Cycle cost allocation for Interconnection Facilities or Network Upgrades identified in the System Impact Study; all such costs shall be allocated to New Service Requests in that Cycle.

## 6. Interconnection Facilities

A Project Developer shall be obligated to pay 100 percent of the costs of the Interconnection Facilities necessary to accommodate its Interconnection Request.

## 7. Facilities Study Procedures

The Facilities Studies will include good faith estimates of the cost, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5), (a) to be charged to each affected New Service Customer for the Interconnection Facilities and Network Upgrades that are necessary to accommodate each New Service Request evaluated in the study; (b) the time required to complete detailed design and construction of the facilities and upgrades; (c) a description of any site-specific environmental issues or requirements that could reasonably be anticipated to affect the cost or time required to complete construction of such facilities and upgrades.

The Facilities Study will document the engineering design work necessary to begin construction of any required transmission facilities, including estimating the costs of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice and, when applicable, identifying the electrical switching configuration of the connection equipment, including without limitation: the transformer, switchgear, meters, and other station equipment; and the nature and estimated costs of Interconnection Facilities and Network Upgrades necessary to accommodate the New Service Request.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Facilities Study shall consider the level of Interconnection Service requested by the Project Developer unless otherwise required to study the full electrical capability of the Generating Facility or Merchant Transmission Facility due to safety or reliability concerns. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the full electrical capability of the Generating Facility or Merchant Transmission Facility.

**Tariff, Part VIII, Subpart C, section 408**  
**Decision Point II**

A. Requirements

Decision Point II shall commence on the first Business Day immediately following the end of Phase II. New Service Requests that are studied in Phase II will enter Decision Point II. Before the close of Decision Point II, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such new Service Request must meet the requirements set forth below in Tariff, Part VIII, Subpart C, section 408(A)(2)(d).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - b. The applicable Readiness Deposit No. 3
      - i. The Decision Point II Readiness Deposit No. 3 to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase, and the Readiness Deposit No. 2 that was submitted at Decision Point I. The Decision Point II Readiness Deposit No. 3 will be calculated by the Transmission Provider during Phase II, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - ii. The Decision Point II Readiness Deposit No. 3 required amount shall be an amount equal to the greater of:
        - (a) (i) 20 percent of the cost allocation for the Network Upgrades as calculated in Phase II or (ii) the Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase plus the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I; minus

- (b) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase, plus the Readiness Deposit No. 2 amount paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I.
- iii. The Readiness Deposit No. 3 amount due can be zero, but cannot be a negative number (i.e., there will not be any refunded amounts associated with Readiness Deposit No. 3).
- c. Notification in writing that Project Developer or Eligible Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its New Service Request.
- d. Evidence of Site Control. There are no Site Control evidentiary requirements at Decision Point II.
- e. Evidence of air and water permits (if applicable).
- f. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
- g. Submission of New Service Request Data for Phase III System Impact Study data.
- h. Evidence that Project Developer or Eligible Customer entered into a fully executed Affected System Study Agreement, if applicable to its New Service Request by the later of Decision Point II or 60 days after notification from Transmission Provider that an Affected System Study Agreement is required.
- i. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- j. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
2. If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, as follows:
- a. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point II.
  - b. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - c. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase III.
    - i. Transmission Provider's review of the above required elements may run co-extensively with Phase III.
  - d. Acceleration at Decision Point II. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase II System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
    - i. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
      - (a) Security
        - (i) Security shall be calculated for New Service Requests based upon based upon Network Upgrades

costs allocated pursuant to the Phase II System Impact Study Results.

- (b) Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
  
- (c) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
  - (i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  
  - (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the linear distance for identified required Interconnection Facilities associated with a New Service Request.
  
  - (iii) If applicable, Interconnection Switchyard Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.



- e. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above.
  - i. If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (a) Such condition precedent shall not be extended under any circumstances for any reason.
    - (b) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
    - (c) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission

Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- (d) For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
- (e) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above (noting the exception provided for Site Control), before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (f) If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement

shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VIII, Subpart D, section 411.

- (g) For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point II to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
  - (h) Security. Security shall be calculated for New Service Requests based upon based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
  - (i) Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - (j) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
    - (i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
      - (1) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the

Generating Facility's main power transformer(s).

- (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100% percent of linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- (iii) If applicable, Interconnection Switchyard Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100 percent of acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- (iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends three years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- (v) If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above, then Project Developer must provide

evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above.

(1) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

(1.a) Such condition precedent shall not be extended under any circumstances for any reason.

(k) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process

for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle

- (l) Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- (m) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (n) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (o) When Project Developer or Eligible Customer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final

interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VIII, Subpart D, section 411.

B. New Service Request Withdraw or Termination at Decision Point II

1. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point II. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point II, the Transmission Provider must receive before the close of the Decision Point II Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
2. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point II requirements, as set forth in this Tariff, Part VIII, Subpart C, section 408.
3. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to Project Developer or Eligible Customer 100 percent of Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during Decision Point I;
    - ii. At the conclusion of the Cycle, refund to Project Developer or Eligible Customer up to 100 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - b. For Study Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
    - ii. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 408(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible

Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase if the Project Developer's Network Upgrade cost from Phase I to Phase II:

~~(a)~~i. increases overall by 25 percent or more; and

~~(b)~~ii. increases by more than \$10,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

4. New Service Request Modification Requests at Decision Point II

- a. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
- b. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 10 percent of the values studied in Phase II.
- c. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
- d. Point of Interconnection. The Point of Interconnection may not be changed or modified in any way for any reason at this point in the Cycle process.
- e. Generating Facility or Merchant Transmission Facility Site Changes. Project Developer may specify a change to the project Site only if the Project Developer satisfied the requirements for Site Control for both (i) the initial Site proposed in the New Service Request Application and the newly proposed Site; and (ii) the initial Site and the proposed Site are adjacent parcels. Such Site Control is subject to the verification procedures set forth in Tariff, Part VIII, Subpart C, section 410(A)(1)(c).
- f. Equipment Changes

During Decision Point II, Project Developer is limited to modifying its New Service Request to Permissible Technological Advancement changes



only. Project Developer shall submit machine modeling data as specified in the PJM Manuals associated with the Permissible Technological Advancement before the close of Decision Point II.

**Tariff, Part VIII, Subpart C, section 410**  
**Decision Point III**

- A. Decision Point III shall commence on the first Business Day immediately following the end of Phase II, and shall run concurrently with the Final Agreement Negotiation Phase. New Service Requests that are studied in Phase II will enter Decision Point III. Before the close of Decision Point III, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.
1. Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point III for a New Service Request to remain in the Cycle and proceed through the Final Agreement Negotiation Phase as set forth below:
    - a. Security
      - i. Security shall be calculated for New Service Requests based upon based upon Network Upgrades costs allocated pursuant to the Phase III System Impact Study Results.
    - b. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - c. Project Developers must present evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
      - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
      - ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence for an additional three-year term beginning from the last day of the relevant Cycle, Phase III.

- (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
  - iii. Interconnection Switchyard, if applicable, Site Control evidence for an additional three-year term beginning from the last day of the relevant Cycle, Phase III.
    - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
  - iv. If Project Developer ~~\_or Eligible Customer~~ fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, then Project Developer ~~or Eligible Customer~~ must provide evidence acceptable to Transmission Provider demonstrating that Project Developer ~~or Eligible Customer~~ is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above.
    - (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
      - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its

queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- e. Project Developer or Eligible Customer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment. If Project Developer or Eligible Customer does not satisfy these requirements, these requirements can be addressed through a milestone in the applicable interconnection-related service agreement entered into pursuant to Tariff, Part IX.
- f. For state-level, non-jurisdictional interconnection projects, evidence of a fully executed Interconnection Agreement with the applicable entity.
- g. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (f) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

B. If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (f) above, then, at the close of the Decision Point III, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (e) above, as follows:

- 1. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point III.
- 2. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- 3. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to the Final Agreement Negotiation Phase.

Transmission Provider's review of the above required elements may run co-extensively with the Final Agreement Negotiation Phase.

4. If the New Service Request is deemed terminated and withdrawn by the Transmission Provider, then Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  
5. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point III. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point III, the Transmission Provider must receive before the close of Decision Point III written notification from the Project Developer or Eligible Customer of its decision to withdraw its New Service Request. Following receipt of such written notification from the Project Developer or Eligible Customer, the Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  - d. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 410(B)(4)(b) and (c), and 410(B)(5)(b), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer if the Project Developer's or Eligible Customer's Network Upgrade cost from Phase II to Phase III:
    - i. increases overall by 35 percent or more; and
    - ii. increased by more than \$25,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

C. New Service Request Modification Requests at Decision Point III

New Service Requests may not be changed or modified in any way for any reason during Decision Point III. A New Service Request must be withdrawn and resubmitted in a subsequent Cycle to the extent a Project Developer or Eligible Customer wants to make any changes to such New Service Request at this point in the Cycle process.

**Tariff, Part VIII, Subpart E, section 427**  
**Incremental Rights**

A. Incremental Auction Revenue Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Auction Revenue Rights

A Transmission Project Developer or Upgrade Customer that (a) pursuant to this Tariff, Part VIII reimburses Transmission Provider for the costs of constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, shall be entitled to receive the Incremental Auction Revenue Rights as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(A). However, a Transmission Project Developer that interconnects Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System shall be entitled to Incremental Auction Revenue Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Transmission Project Developer has elected, pursuant to Tariff, Part VIII, Subpart E, section 428, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Auction Revenue Rights

No less than 45 days prior to the in-service date, as determined by the Office of the Interconnection, of the applicable transmission facility or upgrade related to a New Service Request or Upgrade Request, the Office of the Interconnection shall notify the Transmission Project Developer or Upgrade Customer that has responsibility to reimburse the costs of, or responsibility for, constructing or completing the transmission facility or upgrade, that initial requests for Incremental Auction Revenue Rights associated with the transmission facility or upgrade must be submitted to the Office of the Interconnection within a time period specified by the Office of the Interconnection in the notification. The Office of the Interconnection then shall commence a three-round allocation process. In round one, one-third of the Incremental Auction Revenue Rights available for each point-to-point combination requested in that round will be assigned to the requesters of the specific combinations in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3).

In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In round three,

all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.

3. Determination of Incremental Auction Revenue Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Auction Revenue Rights to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VIII, Subpart E, section 427(A)(2) using the tools described in Tariff, Attachment K, including an assessment of the simultaneous feasibility of any Incremental Auction Revenue Rights and all other outstanding Auction Revenue Rights. For each requested point-to-point combination, the Office of the Interconnection shall determine, simultaneously with all other requested point-to-point combinations, the base system Auction Revenue Rights capability, excluding the impact of any new transmission facilities or upgrades necessary to accommodate New Service Requests or Upgrade Requests. The Office of the Interconnection then shall similarly determine, for each requested point-to-point combination, the Auction Revenue Rights capability, including the impact of any new transmission facilities or upgrades. For each point-to-point combination, the Incremental Auction Revenue Rights capability shall be the difference between the Auction Revenue Rights capability in the base system analysis and the Auction Revenue Rights capability in the analysis including the impact of the new transmission facilities and upgrades. When multiple Transmission Project



Developers or Upgrade Customers have cost responsibility for the same new transmission facility or upgrade, Incremental Auction Revenue Rights shall be assigned to each Transmission Project Developer or Upgrade Customer in proportion to the Transmission Project Developer's or Upgrade Customer's relative cost responsibilities for the facility and in inverse proportion to the relative flow impact on constrained facilities or interfaces of the point-to-point combinations selected by the Transmission Project Developer or Upgrade Customer.

4. Duration of Incremental Auction Revenue Rights

Incremental Auction Revenue Rights received by a Transmission Project Developer or Upgrade Customer pursuant to this Tariff, Part VIII, Subpart E, section 427(A) shall be available as of the first day of the first month that the Network Upgrades required to accommodate its New Service Request or Upgrade Request that are associated with the Incremental Auction Revenue Rights are included in the transmission system model for the monthly FTR auction and shall continue to be available for 30 years or for the life of the associated facility or upgrade, whichever is less, subject to any subsequent pro-rata reductions of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with Tariff, Attachment K - Appendix. At any time during this 30-year period (or the life of the facility or upgrade, whichever is less), in lieu of continuing this 30-year Auction Revenue Right, the Transmission Project Developer, or Upgrade Customer shall have a one-time choice to switch to an optional mechanism, whereby, on an annual basis, the Transmission Project Developer or Upgrade Customer has the choice to request an Auction Revenue Right during the annual Auction Revenue Rights allocation process (pursuant to Tariff, Attachment K – Appendix, section 7.4.2) between the same source and sink, provided the Auction Revenue Right is simultaneously feasible, pursuant to Tariff, Attachment K – Appendix, section 7.5. A Transmission Project Developer or Upgrade Customer may return Incremental Auction Revenue Rights that it no longer desires at any time, provided that the Office of the Interconnection determines that it can simultaneously accommodate all remaining outstanding Auction Revenue Rights following the return of such Auction Revenue Rights. In the event a Transmission Project Developer or Upgrade Customer returns Incremental Auction Revenue Rights, the Transmission Project Developer or Upgrade Customer shall have no further rights regarding such Incremental Auction Revenue Rights.

5. Value of Incremental Auction Revenue Rights

The value of Incremental Auction Revenue Right(s) to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VIII, Subpart E, section 427(A)(2) that become effective at the beginning of a Planning Period shall be determined in the same manner as annually allocated Auction Revenue Right(s)

based on the nodal prices resulting from the annual Financial Transmission Rights auction. The value of such Incremental Auction Revenue Rights that become effective after the commencement of a Planning Period shall be determined on a monthly basis for each month in the Planning Period beginning with the month the Incremental Auction Revenue Right(s) becomes effective. The value of such Incremental Auction Revenue Right shall be equal to the megawatt amount of the Incremental Auction Revenue Rights multiplied by the LMP differential between the source and sink nodes of the corresponding FTR obligations in each prompt-month FTR auction that occurs from the effective date of the Incremental Auction Revenue Rights through the end of the relevant Planning Period. For each Planning Period thereafter, the value of such Incremental Auction Revenue Rights shall be determined in the same manner as Incremental Auction Revenue Rights that became effective at the beginning of a Planning Period.

6. Rate-based Facilities

No Incremental Auction Revenue Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

B. Incremental Capacity Transfer Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Capacity Transfer Rights

A Transmission Project Developer that interconnects Merchant Transmission Facilities with the Transmission System shall be entitled to receive any Incremental Capacity Transfer Rights that are associated with the interconnection of such Merchant Transmission Facilities as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(B). In addition, an Upgrade Customer that (a) reimburses Transmission Provider for the costs of constructing or completing Customer-Funded Upgrades, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Customer-Funded Upgrades shall be entitled to receive any Incremental Capacity Transfer Rights associated with such required facilities and upgrades as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(B).

a. Certain Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities

A Transmission Project Developer (a) that interconnects Merchant D.C. transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System, one terminus of which is located outside the PJM Region and the other terminus of which is located within the PJM Region, and (b) that will be a Merchant Transmission Provider,

shall not receive any Incremental Capacity Transfer Rights with respect to its Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities. Transmission Provider shall not include available transfer capability at the interface(s) associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities in its calculations of Available Transfer Capability under Tariff, Attachment C.

2. Procedures for Assigning Incremental Capacity Transfer Rights

After execution of a Study Agreement but prior to the issuance of an Interconnection Agreement or Upgrade Construction Service Agreement, a Transmission Project Developer or Upgrade Customer may request the Office of the Interconnection to determine the Incremental Capacity Transfer Rights as measured by the increase in Capacity Emergency Transfer Limit resulting from the interconnection or addition of Merchant Transmission Facilities or a Customer-Funded Upgrade identified in the System Impact Study for the related New Service Request. At the time of such request, the Transmission Project Developer or Upgrade Customer must also specify no more than three Locational Deliverability Areas in which to determine the Incremental Capacity Transfer Rights. Subject to the limitation of Tariff, Part VIII, Subpart E, section 427(B)(1)(a), the Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with Merchant Transmission Facilities to the Transmission Project Developer that is interconnecting such facilities. The Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with a Customer-Funded Upgrade to the Upgrade Customer(s) bearing cost responsibility for such facility or upgrade in proportion to each Upgrade Customer's cost responsibility for the facility or upgrade.

3. Determination of Incremental Capacity Transfer Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Capacity Transfer Rights to be provided to Transmission Project Developers or Upgrade Customers in accordance with the applicable terms of the Reliability Pricing Model, in Tariff, Attachment DD, and pursuant to the procedures specified in the PJM Manuals.

4. Duration of Incremental Capacity Transfer Rights

Incremental Capacity Transfer Rights received by a Transmission Project Developer or Upgrade Customer shall be effective for 30 years from, as applicable, commencement of Interconnection Service, Transmission Service, or Network Service for the affected Transmission Project Developer or Upgrade Customer or the life of the pertinent facility or upgrade, whichever is shorter, subject to any subsequent pro-rata reallocations of all Capacity Transfer Rights

(including Incremental Capacity Transfer Rights) in accordance with the PJM Manuals.

5. Rate-based Facilities

No Incremental Capacity Transfer Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

C. Incremental Deliverability Rights

1. Right of Transmission Interconnection Customer to Incremental Deliverability Rights

A Transmission Project Developer shall be entitled to receive the Incremental Deliverability Rights associated with its Merchant Transmission Facilities as determined in accordance with this section, provided, however, that a Transmission Project Developer that proposes to interconnect Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area shall be entitled to Incremental Deliverability Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Interconnection Customer has elected, pursuant to Tariff, Part VIII, Subpart E, section 428, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Deliverability Rights

Transmission Provider shall include in the System Impact Study a determination of the Incremental Deliverability Rights associated with the Transmission Project Developer's Merchant Transmission Facilities. Transmission Provider shall post on its OASIS the Incremental Deliverability Rights that it assigns to the Transmission Project Developer under this section 427(C)(2).

3. Determination of Incremental Deliverability Rights to be Provided to Transmission Project Developer

Transmission Provider shall determine the Incremental Deliverability Rights to be provided to a Transmission Project Developer associated with proposed Merchant Transmission Facilities under Tariff, Part VIII, Subpart E, section 427(C)(2) pursuant to procedures specified in the PJM Manuals.

4. Duration of Incremental Deliverability Rights

Incremental Deliverability Rights assigned to a Transmission Project Developer shall be effective until the earlier of the date that is one year after the commencement of Interconnection Service for such customer or the date that such Transmission Project Developer's New Service Request is withdrawn and terminated, or deemed to be so, in accordance with the Tariff. Notwithstanding the preceding sentence, Incremental Deliverability Rights that are transferred pursuant to an IDR Transfer Agreement under the Tariff shall be deemed to be Capacity Interconnection Rights of the generation owner that acquires them under such agreement upon commencement of Interconnection Service related to the generation owner's Generating Facility and shall remain effective for the life of such Generating Facility, or for the life of the Merchant Transmission Facilities associated with the transferred IDRs, whichever is shorter. The deemed conversion of IDRs to Capacity Interconnection Rights under this Tariff, Part VIII, Subpart E, section 427(C)(4) shall not affect application to such IDRs of the other provisions of this Tariff, Part VIII, Subpart E, section 427(C). A Transmission Project Developer may return Incremental Deliverability Rights that it no longer desires at any time. In the event that a Transmission Project developer returns Incremental Deliverability Rights, it shall have no further rights regarding such Incremental Deliverability Rights.

5. Transfer of Incremental Deliverability Rights

Incremental Deliverability Rights may be sold or otherwise transferred at any time after they are assigned pursuant to Tariff, Part VIII, Subpart E, section 427(C)(2), subject to execution and submission of an IDR Transfer Agreement in accordance with the Tariff. The transfer of Incremental Deliverability Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 427(C)(7) regarding loss of Incremental Deliverability Rights.

6. Effectiveness of Incremental Deliverability Rights

Incremental Deliverability Rights shall not entitle the holder thereof to use the capability associated with such rights unless and until Transmission Provider commences Interconnection Service related to the Merchant Transmission Facilities associated with such rights.

7. Loss of Incremental Deliverability Rights

Incremental Deliverability Rights shall be extinguished (a) in the event that the New Service Request of the Transmission Project Developer to which the rights were assigned is withdrawn and terminated, or deemed to be so, as provided in the Tariff, without regard for whether the rights have been transferred pursuant to an IDR Transfer Agreement, or (b) such rights are not transferred pursuant to an IDR Transfer Agreement on or before the date that is one year after the commencement of Interconnection Service related to the Merchant Transmission Facilities with which the rights are associated.

8. Rate-based Facilities

No Incremental Deliverability Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

**Tariff, Part VIII, Subpart F, section 433**  
**Wholesale Market Participation Agreement/Non-Jurisdictional Agreements**

- A. In some instances, Generation Project Developer may physically connect its Generating Facility to non-jurisdictional distribution or sub-transmission facilities in order to access the electrical Point of Interconnection on the Transmission System (the “POI”), for the purpose of engaging in FERC-jurisdictional Wholesale Transactions. In those instances, Generation Project Developer must enter into both a (1) non-jurisdictional interconnection agreement with the owner or operator of the non-jurisdictional distribution or sub-transmission facilities, which governs the physical connection of the Generating Facility to those non-jurisdictional facilities; and (2) a three-party Wholesale Market Participation Agreement (“WMPA”) with PJM and the affected Transmission Owner in order to effectuate Wholesale Transactions in PJM’s markets.
- B. Generation Project Developer shall follow the Application Rules of Tariff, Part VIII, Subpart C, section 403 that apply to a Generating Facility, and shall complete the ~~Form of Application and System Impact~~ Studies Agreement set forth in Tariff, Part IX, Subpart A (the “Application”). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of injecting energy at the Point of Interconnection POI—and engaging in FERC-jurisdictional Wholesale Transactions.
- C. Generation Project Developer shall provide with the Application a copy of the executed interconnection agreement that governs the physical connection of the Generating Facility to the non-jurisdictional distribution or sub-transmission facilities, if the interconnection agreement is available. If the interconnection agreement is not yet available, Generation Project Developer shall provide with the Application all available documentation demonstrating that Generation Project Developer has requested or applied for interconnection through the relevant non-jurisdictional process, and Generation Project Developer shall provide a status report.
- D. In order to proceed to the execution of a WMPA, Generation Project Developer must demonstrate that it has executed the non-jurisdictional interconnection agreement by no later than Decision Point III in the applicable Cycle.

**Tariff, Part VIII, Subpart G, section 434**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VIII, Subpart C, section 407(A)(1)(c), as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for



such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~ (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
    - b. Transmission Provider shall not start the review of the Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~ until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
    - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
      - i. Affected System Customer is responsible for, and must pay, all actual study costs.
      - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facilities Study Application and Agreement ~~Affected System Customer Facility Study Agreement~~ to be terminated and withdrawn.
  2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
  3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
    - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the

developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VIII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
  - i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement with the FERC.

- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall either:
  - i. execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement or Network Upgrade Cost Responsibility Agreement unexecuted, with the unexecuted Construction Service Agreement or Network Upgrade Cost Responsibility Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement unexecuted, with the unexecuted Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such

agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart H, section 435**  
**Upgrade Requests**

A. Applicability

Tariff, Part VIII, Subpart H, section 435 applies to valid Upgrade Requests submitted on or after October 1, 2020, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction

Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to

- complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30<sup>th</sup> day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.
    - i. Readiness Deposit refunds will be handled as follows:
      - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
      - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
    - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
  3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.



6. Tariff, Part VIII, Subpart E, section 416, Base Case Data, requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.
8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.

2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.

a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
- v. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and

construction of the Merchant Network Upgrade will take more than seven years; and

- vi. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

#### D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

#### E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

##### 1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.

c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

#### F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

#### G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade

Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the upgrade study process~~Cycle~~, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation  
Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60<sup>th</sup> day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse  
If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an

impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the ~~final interconnection related agreement~~ Upgrade Construction Service Agreement, Upgrade Customer shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

(c) request in writing that Transmission Provider file with FERC the ~~final interconnection related service agreement~~ Upgrade Construction Service Agreement unexecuted, with the ~~final interconnection related service agreement~~ Upgrade Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

## H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system.

### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5) of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VIII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VIII, Subpart H, section 435 to the affected Transmission Owner(s).

### 2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430, except to the extent the applicable



terms of Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Operating Agreement, Schedule 6.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VIII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);

2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

### Tariff, Part IX, Section 500, Execution Deadlines

Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer, ~~or Upgrade Customer~~, or Affected System Customer and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider's tender for execution of such agreement, Project Developer, Eligible Customer, ~~or Upgrade Customer~~, or Affected System Customer, shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer, ~~or Upgrade Customer~~ or Affected System Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer, ~~or Upgrade Customer~~ or Affected System Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.

With the filing of any unexecuted agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between the parties.

**Tariff, Part IX, Subpart A**

**Form of  
Application and Studies Agreement**

1. This Application and Studies Agreement (“Application” or “Agreement”), dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (Project Developer or Eligible Customer, hereafter “Applicant”) and PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) (individually a “Party” and together the “Parties”) pursuant to PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), [Part VII, Subpart C](#) or Part VIII, Subpart B. Capitalized terms used in this Application, unless otherwise indicated, shall have the meanings ascribed to them in Tariff, [Part VII, Subpart A, section 300](#) or Part VIII, Subpart A, section 400.
2. Prior to the Application Deadline, Applicant must electronically provide to Transmission Provider through the PJM website or OASIS, as applicable, all applicable information identified below, which is then subject to validation during the Application Phase as set forth in [Tariff, Part VII, Subpart C](#) or Tariff, Part VIII, Subparts B and C and [in](#) the PJM Manuals. Only valid New Service Requests will proceed past the Application Phase.
3. Before Transmission Provider will review or process the Application, in addition to submitting a completed and signed Application prior to the Application Deadline, Applicant must electronically submit to Transmission Provider prior to the Application Deadline the (i) required cash Study Deposit by wire transfer and (ii) required Readiness Deposit by wire transfer or letter of credit. Applicant’s wire transfer(s) or letter(s) of credit must specify the Application reference number to which the Study Deposit and Readiness Deposit correspond, or Transmission Provider will not review or process the Application.

**SECTION 1: APPLICANT INFORMATION**

4. Name, address, telephone number, and e-mail address of Applicant. If Applicant has designated an agent, include the agent’s contact information.

Applicant

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Applicant’s Agent (if applicable)

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Agent's contact person: \_\_\_\_\_

5. An Internal Revenue Service Form W-9 or comparable state-issued document for Applicant.
6. Documentation proving the existence of a legally binding relationship between Applicant and any entity with a vested interest in this Application and associated project (*e.g.*, a parent company, a subsidiary, or financing company acting as agent for Applicant). Such documentation may include, but is not limited to, Applicant's Articles of Organization and Operating Agreement describing the nature of the legally binding relationship.
7. Applicant's banking information, or the banking information of any entity with a legally binding relationship to Applicant that wishes to make payments and receive refunds on behalf of Applicant, in association with this Application and corresponding project:

Bank Name: \_\_\_\_\_

Account Holder Name: \_\_\_\_\_

ABA number: \_\_\_\_\_

Account Number: \_\_\_\_\_

Company: \_\_\_\_\_

Tax Reporting Name: \_\_\_\_\_

Tax ID: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

8. If the Application is a request for long-term firm transmission service, see section 3.
9. Location of the proposed Point of Interconnection (POI) to the Transmission System, including the substation name or the name of the line to be tapped (including the voltage),

the estimated distance from the substation endpoints of a line tap, address, and GPS coordinates.

POI substation name: \_\_\_\_\_ or  
POI line name: \_\_\_\_\_ (endpoint 1) to \_\_\_\_\_ (endpoint 2)  
POI Distance from endpoint 1: \_\_\_\_\_ miles  
POI Distance from endpoint 2: \_\_\_\_\_ miles  
Interconnection voltage: \_\_\_\_\_ kV  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
GPS Coordinates: \_\_\_\_\_ N \_\_\_\_\_ W

10. If the project is a Merchant Transmission Facility, see section 4.

## SECTION 2: GENERATING FACILITY SPECIFICATIONS

11. Specify the nature of the Generating Facility project.

\_\_\_\_ New Generating Facility

\_\_\_\_ Increase in generation capability of an existing Generating Facility

\_\_\_\_ Replacement of existing Generating Facility with no increase in generation capability

12. Specify the type of Interconnection Service requested for the Generating Facility.

\_\_\_\_ Energy Resource only

\_\_\_\_ Capacity Resource (includes Energy Resource) with Capacity Interconnection Rights

13. Provide the following information about the Generating Facility:

- a. Generating Facility location and site plan:

Provide a physical address or equivalent written description of the location of the Generating Facility, as well as global positioning system (GPS) coordinates. When known, provide GPS coordinates for the location of the Generating Facility's main power transformer(s).

Provide a current site plan in PDF depicting the (1) property boundaries; (2) Generating Facility layout, including the Generating Facility's collector substation (if applicable) or interconnection switchyard (if required); and (3) Interconnection Facilities extending from the Generating Facility's main power transformer(s) to the proposed POI.

b. Generating Facility Site Control:

In accordance with Tariff, [Part VII, Subpart A, section 302 or](#) Part VIII, Subpart [AB](#), section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for the Generating Facility, including the location of the high-voltage side of the Generating Facility's main power transformer(s). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.

c. Will the Generating Facility physically connect to distribution or sub-transmission facilities currently not subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC), for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions, as described in [Tariff, Part VII, Subpart F or](#) Tariff, Part VIII, Subpart F? (Y/N)

If yes, if available, provide with this Application a copy of the executed interconnection agreement between Applicant and the owner of the distribution or sub-transmission facilities to which the Generating Facility will physically connect. If the two-party interconnection agreement is not yet available, provide any available documentation demonstrating that Applicant has requested or applied for interconnection through the relevant non-jurisdictional process, and provide a status report.

d. For the Generating Facility, has Applicant obtained, or does Applicant intend to obtain, Qualifying Facility status under the Public Utility Regulatory Policies Act? (Y/N)

If yes, provide evidence of Qualifying Facility status or eligibility. Further, verify that Applicant intends that the Qualifying Facility will engage in Wholesale Transactions in PJM's FERC-jurisdictional wholesale markets (Y/N).

e. Will the Generating Facility share Project Developer's Interconnection Facilities with another Generating Facility, either existing or planned? (Y/N)

If yes, demonstrate that the relevant parties have entered into, or will enter into, a shared facilities agreement with respect to the shared Interconnection Facilities.

f. Maximum Facility Output and Capacity Interconnection Rights:

i. For a new Generating Facility, provide the following information:

Total Requested Maximum Facility Output (maximum injection at the POI), in Megawatts	
Total Requested Capacity Interconnection Rights, in Megawatts	

ii. For a requested increase in generation capability of an existing Generating Facility, identify the Generating Facility and provide the following information:

	Existing	Requested Increase	Total
Maximum Facility Output (maximum injection at the POI), in Megawatts			
Capacity Interconnection Rights, in Megawatts			

iii. For a new Behind the Meter Generating Facility, provide the following information:

Gross Output in Megawatts	
Behind the Meter Load in Megawatts (the sum of auxiliary load and any other load to be served behind the meter)	
Total Requested Maximum Facility Output (maximum injection at the POI), in Megawatts	



Total Requested Capacity Interconnection Rights, in Megawatts	
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- iv. For a requested increase in generation capability of an existing Behind the Meter Generating Facility, identify the Generating Facility and provide the following information:

	Existing	Increase	Total
Gross Output in Megawatts			
Behind the Meter Load in Megawatts (the sum of auxiliary load and any other load to be served behind the meter)			
Maximum Facility Output (maximum injection at the POI), in Megawatts			
Capacity Interconnection Rights, in Megawatts			

- g. Provide a description of the equipment configuration and electrical design specifications for the Generating Facility, as further defined in the PJM Manuals and reflected in the single-line diagram.
- h. Specify the fuel type of the Generating Facility.
- i. If the Generating Facility will be a multi-fuel Generating Facility, or if a proposed increase in generation capability of an existing Generating Facility will create a multi-fuel Generating Facility, describe the physical and electrical configuration in as much detail as possible.
- j. If the Generating Facility will include storage device(s), will the storage device(s) be charged using energy from the Transmission System at any time? (Y/N)

If yes, specify the maximum that will be withdrawn from the Transmission System at any time: \_\_\_ MWh (or kWh)

If yes, provide other technical and operating information on the storage device(s) as set forth in the PJM Manuals, including MWh stockpile and hour class, as applicable.

- k. If the Generating Facility will include storage, provide the primary frequency response operating range for the electric storage component, as described in the PJM Manuals.

Minimum State of Charge: \_\_\_\_\_ Maximum State of Charge: \_\_\_\_\_

- l. For a Behind the Meter Generating Facility, provide the following information (note that all of the provisions in Tariff, Part VII, Subpart E, section 317 or Tariff, Part VIII, Subpart E, section 415 apply):

- i. Identify the type and size of the load co-located (or to be co-located) with the Generating Facility, and attach a detailed single-line diagram in PDF depicting the electrical location of the load in relation to the Generating Facility.
- ii. Describe the electrical connections between the Generating Facility and the co-located load, as shown in the single-line diagram.

- m. Provide the date that the new Generating Facility, or the increase in generation capability of an existing Generating Facility, will be in service.

- n. Provide other relevant information for the Generating Facility including, but not limited to, identifying whether Applicant has submitted a previous Application; and, if this Application proposes an increase in generation capability of a Generating Facility, identify whether the Generating Facility is subject to an existing PJM Service Agreement; and, if so, provide those details.

**SECTION 3: LONG-TERM FIRM TRANSMISSION SERVICE**

- 14. Request:

OASIS Request	Start	Stop	Amount	Path	Date & Time Request

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15. **PURPOSE:** A Phase I System Impact Study, incorporated within a Cycle’s System Impact Studies, is used to determine whether the Transmission System is adequate to accommodate all or part of an Applicant’s request for long-term firm transmission service under Tariff, Part II (POINT-TO-POINT TRANSMISSION SERVICE) and Tariff, Part III (NETWORK INTEGRATION TRANSMISSION SERVICE). The FERC comparability standard is applied in evaluating the impact of all requests.

16. **SCOPE OF WORK AND STUDY DEPOSIT:** PJM will perform a Phase I System Impact Study to determine if the PJM network has sufficient capability to grant Applicant’s request for long-term firm transmission service, based on expected system conditions and topology. The required cash Study Deposit for the Phase I System Impact Study, as described in [Tariff, Part VII, Subpart B, section 306\(A\)](#) or Tariff, Part VIII, Subpart B, section 403(A), is due prior to the Application Deadline.

17. **NETWORK ANALYSIS AND DELIVERABILITY TEST:** PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating Interconnection Requests. The energy from a Generating Facility or the energy delivered using long-term firm transmission service that is ultimately committed to meet resource requirements must be deliverable to where it is needed in the event of a system emergency. Therefore, there must be sufficient transmission network transfer capability within the control area. PJM determines the sufficiency of network transfer capability through a series of “deliverability tests.” All Interconnection Requests and long-term firm transmission service requests in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.

18. Skip to section 5.

**SECTION 4: MERCHANT TRANSMISSION FACILITY SPECIFICATIONS**

19. Applicant requests interconnection to the Transmission System of Merchant Transmission Facilities with the following specifications:

a. Location of proposed facilities:

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b. Substation(s) where Applicant proposes to interconnect or add its facilities:

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c. Proposed voltage and nominal capability of new facilities or increase in capability of existing facilities:

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d. Description of proposed facilities and equipment:

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e. Planned date the proposed facilities or increase in capability will be in service:

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f. Will the proposed facilities be Merchant A.C. or Merchant D.C. Transmission Facilities or Controllable A.C. Merchant Transmission Facilities?

A.C. \_\_\_\_\_ or D.C. \_\_\_\_\_ or Controllable A.C. \_\_\_\_\_

i. If the proposed facilities will be Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, does Applicant elect to receive either:

\_\_\_\_\_ (1) Firm or Non-Firm Transmission Injection Rights (TIR) and/or Firm or Non-Firm Transmission Withdrawal Rights (TWR)

OR

\_\_\_\_\_ (2) Incremental Deliverability Rights, Incremental Auction Revenue Rights, and Incremental Available Transfer Capability Revenue Rights.

If Applicant elects (1) above, provide the following:

\_\_\_\_\_ Total project MWs to be evaluated as Firm (capacity) injection for TIR.

\_\_\_\_\_ Total project MWs to be evaluated as Non-firm (energy) injection for TIR.

\_\_\_\_\_ Total project MWs to be evaluated as Firm (capacity) withdrawal for TWR.

\_\_\_\_\_ Total project MWs to be evaluated a Non-firm (energy) withdrawal for TWR.

If Applicant elects (2) above, state the location on the Transmission System where Applicant proposes to receive Incremental Deliverability Rights associated with its proposed facilities:

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ii. If the proposed facilities will be Controllable A.C. Merchant Transmission Facilities, and provided that Applicant contractually binds itself in the Service Agreement related to its project always to operate its Controllable A.C. Merchant Transmission Facilities in a manner effectively the same as operation of D.C. transmission facilities, the Service Agreement will provide Applicant with the same types of transmission rights that are available under the Tariff for Merchant D.C. Transmission Facilities. For purposes of this Agreement, Applicant represents that, should it execute a Service Agreement for its project described herein, it will agree in the Service Agreement to operate its facilities continuously in a controllable mode.

iii. If the proposed facilities will be Merchant A.C. Transmission Facilities without continuous controllability as described in the preceding paragraph, specify the location on the Transmission System where Applicant proposes to receive any Incremental Deliverability Rights associated with its proposed facilities:

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20. Site Control: In accordance with Tariff, [Part VII, Subpart A, section 302](#) or Part VIII, Subpart A, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for Applicant's major equipment (e.g., converter station). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.

#### **SECTION 5: SCOPE AND TIMING OF SYSTEM IMPACT STUDIES**

21. Transmission Provider, in consultation with the affected Transmission Owner(s), will conduct System Impact Studies, in three phases, to provide Applicant with information on the required Interconnection Facilities and Network Upgrades needed to support Applicant's New Service Request.
22. Consistent with [Tariff, Part VII, Subpart C](#) or Tariff, Part VIII, Subparts C and D, the Phase I System Impact Study begins at the end of the 90-day Application Review Phase, and runs for 120 days followed by a 30-day Decision Point I period for withdrawal or modification. If no withdrawal, the Phase II System Impact Study begins at the end of the Decision Point 1 period and runs for 180 days followed by a 30-day Decision Point II period for withdrawal or modification. If no withdrawal, the Phase III System Impact Study begins at the end of the Decision Point II period and runs for 180 days followed by release of the Phase III System Impact Study report and the start of final agreement

negotiations. If a phase or period does not end on a Business Day, the phase or period shall be extended to end on the next Business Day.

23. The System Impact Studies include good faith estimates that attempt to determine the cost of necessary facilities, and upgrades to existing facilities, to accommodate Applicant's New Service Request, and to identify Applicant's cost responsibility, but those estimates shall not be deemed final or binding. The scope of the System Impact Studies may include, but are not limited to, short circuit analyses, stability analyses, an interconnection facilities study, and a system upgrades facilities study.
24. The System Impact Studies necessarily will employ various assumptions regarding Applicant's New Service Request, other New Service Requests, and PJM's Regional Transmission Expansion Plan at the time of study. IN NO EVENT SHALL THIS AGREEMENT OR THE SYSTEM IMPACT STUDIES IN ANY WAY BE DEEMED TO OBLIGATE TRANSMISSION PROVIDER OR TRANSMISSION OWNERS TO CONSTRUCT ANY FACILITIES OR UPGRADES OR TO PROVIDE ANY TRANSMISSION OR INTERCONNECTION SERVICE TO OR ON BEHALF OF APPLICANT EITHER AT THIS POINT IN TIME OR IN THE FUTURE.
25. Consistent with [Tariff, Part VII, Subpart G or](#) Tariff, Part VIII, Subpart G, Transmission Provider will coordinate with Affected System Operators the conduct of studies required to determine the impact of a New Service Request on any Affected System, and will include those results in the Phase II System Impact Study if available from the Affected System. Applicant will cooperate with Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate Applicant's New Service Request.

#### **SECTION 6: CONFIDENTIALITY**

26. Applicant agrees to provide all information requested by Transmission Provider necessary to complete and review this Application. Subject to this section 6, and to the extent required by [Tariff Part VII, Subpart E, section 327 or](#) Tariff, Part VIII, Subpart E, section 425, information provided pursuant to this Application shall be and remain confidential.
27. Upon completion of each System Impact Study for a New Service Request, the corresponding reports will be listed on Transmission Provider's website and, to the extent required by [Tariff, Part VII, Subpart E, section 327 or](#) Tariff, Part VIII, Subpart E, section 425 or Commission regulations, will be made publicly available. Applicant acknowledges and consents to such disclosures as may be required under Tariff, Part VIII, Subpart E, section 425 or Commission regulations.
28. Applicant acknowledges that, consistent with the confidentiality provisions of [Tariff, Part VII, Subpart E, section 327 or](#) Tariff, Part VIII, Subpart E, section 425, Transmission Provider may contract with consultants, including Transmission Owners, to provide services or expertise in the study process, and Transmission Provider may disseminate

information as necessary to those consultants, and rely upon them to conduct part or all of the System Impact Studies.

#### **SECTION 7: COST RESPONSIBILITY**

29. Transmission Provider shall apply Applicant's Study Deposit in payment of the invoices for the costs of the System Impact Studies.
30. Actual study costs may exceed the Study Deposit. Notwithstanding the amount of the Study Deposit, Applicant shall reimburse Transmission Provider for all, or for Applicant's allocated portion of, the actual cost of the System Impact Studies in accordance with Applicant's cost responsibility. Applicant is responsible for, and must pay, all actual study costs. If Transmission Provider sends Applicant notification of additional study costs, then Applicant must either: (i) pay all additional study costs within 20 days (or, if the 20<sup>th</sup> day is not a Business Day, then the next Business Day) of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its New Service Request. If Applicant fails to complete either (i) or (ii), then Transmission Provider shall deem the New Service Request to be terminated and withdrawn.

#### **SECTION 8: DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

31. In completing the System Impact Studies, Transmission Provider, Transmission Owner(s), and any other subcontractors employed by Transmission Provider must rely on information provided by Applicant and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDIES. Applicant acknowledges that it has not relied on any representations or warranties not specifically set forth herein, and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the System Impact Studies prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by Transmission Provider or Transmission Owner(s) to provide Interconnection Service or transmission service to or on behalf of Applicant either at this time or in the future.
32. In no event will Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether under this agreement or otherwise, even if Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider have been advised of the possibility

of such a loss. Nor shall Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of Transmission Provider's obligations under this Agreement.

### SECTION 9: MISCELLANEOUS

33. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Applicant:

\_\_\_\_\_  
\_\_\_\_\_

34. No waiver by either Party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
35. This Agreement, or any part thereof, may not be amended, modified, or waived other than by a writing signed by all Parties.
36. This Agreement shall be binding upon the Parties, their heirs, executors, administrators, successors, and assigns.
37. This Agreement shall become effective on the date it is executed by both Parties and shall remain in effect until the earlier of (a) the date on which Applicant enters into a final Service Agreement with PJM (and Transmission Owner as applicable) in accordance with Tariff, Part VII, Subpart D or Tariff, Part VIII, Subpart D or (b) termination or withdrawal of this Application.
38. **Governing Law, Regulatory Authority, and Rules:**  
This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and



construed in accordance with, the applicable Federal laws and/or laws of the State of Delaware without regard to conflicts of law provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

39. No Third-Party Beneficiaries:

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest, and where permitted their assigns.

40. Multiple Counterparts:

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which constitute one and the same instrument.

41. No Partnership:

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

42. Severability:

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

43. Reservation of Rights:

Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission (“FERC”) to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC’s rules and regulations thereunder; and Applicant shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC’s rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC’s rules and regulations,

except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

Applicant: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

(Project Identifier #\_\_\_\_)

**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM INTERCONNECTION, L.L.C.**

**And**

---

**And**

---

**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_)

- 1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), \_\_\_\_\_ (“Project Developer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA ~~\_reflects\_~~ amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]
- 2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a ~~GIA Generation Interconnection Agreement~~ under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.
- 3.0 Generating Facility or Merchant Transmission Facility Specifications. Attached are Specifications for the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect with the Transmission System. Project Developer represents and warrants that, upon completion of construction of such facilities, it will own or control the Generating Facility or Merchant Transmission Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that

Project Developer will not own the Generating Facility or Merchant Transmission Facility, Project Developer represents and warrants that it is authorized by the owner(s) thereof to enter into this GIA and to represent such control.

- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this GIA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is filed with FERC unexecuted, upon the date specified by FERC. This GIA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this GIA. The term of the GIA shall be as provided in section 1.3 of Appendix 2 to this GIA. Interconnection Service shall commence as provided in section 1.2 of Appendix 2 to this GIA.
- 5.0 Security. In accord with the GIP, Project Developer shall provide the Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmissions Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$\_\_\_\_\_. Such Security can also be applied to unpaid Cancellation Costs and for completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades. This amount represents the sum of the estimated Costs, determined in accordance with the GIP for which the Project Developer will be responsible, less any Costs already paid by Project Developer. Project Developer acknowledges that its ultimate cost responsibility will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.
- 6.0 Project Specific Milestones. In addition to the milestones stated in the GIP as applicable, during the term of this GIA, Project Developer shall ensure that it meets each of the following development milestones:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand (sections should be renumbered as appropriate):]

6.1 Substantial Site work completed. On or before \_\_\_\_\_, Project Developer must demonstrate completion of at least 20 percent of project site construction. At this time, Project Developer must submit to Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities.

6.2 Delivery of major electrical equipment. On or before \_\_\_\_\_, Project Developer must demonstrate that \_\_\_\_ generating units have been delivered to Project Developer’s project site.

[Instructions: the following provisions can be used be as mutually agreed upon, and as an alternative to the milestones set forth in the GIP (renumber sections as appropriate):]

6.2.1\_\_\_\_ Fuel delivery agreement and water agreement. Project Developer must demonstrate it has entered into a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnection by \_\_\_\_\_.

6.2.2\_\_\_\_ Local, county, and state site permits. Project Developer must obtain all necessary local, county, and state site permits by \_\_\_\_\_.

[Instruction to be used if the Project Developer has not provided evidence of the 100 percent Site Control for the Project Developer's Interconnection Facilities, and any Transmission Owner's Interconnection Facilities or Transmission Owner Upgrades at the Point of Interconnection that the Project Developer will develop prior to entering to a GIA (renumber remaining sections as appropriate):]

6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including ~~submitting~~submitted the necessary filings with FERC.

6.3 Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of all generating units in order to achieve the full Maximum Facility Output set forth in section 1.0(c) of the Specifications to this GIA. Failure to achieve this Maximum Facility Output may result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes achieving Initial Operation in accordance with section 1.4 of Appendix 2 to this GIA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Instructions: If this GIA is for an incremental increase in output for a facility that already is in commercial operation (i.e., an uprate), then, instead of the above, use the following language for the Commercial Operation milestone.]

[For an uprate where MFO and CIRs will increase, use this alternate language:]

Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase over Project Developer's previous interconnection, as set forth in Specifications, section 1.0(c) of this GIA for increases in Maximum Facility Output and in Specifications, section 2.1 of this GIA for increases in Capacity Interconnection Rights. This incremental increase is a result of the Interconnection Request associated with this GIA. Failure to achieve this Maximum Facility Output shall result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[For CIR-only uprates, use the alternate language that follows. The September 1, \_\_\_\_\_ date for CIR-only uprates is meant to align with Summer Capability Testing for the unit(s). Without this Commercial Operation milestone that is specific to CIR-only uprates, it can be difficult to implement or enforce a Commercial Operation milestone for CIR-only uprates, because the unit is already in Commercial Operation at its specified MFO:]

Commercial Operation. On or before September 1, \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase in Capacity Interconnection Rights over Project Developer's previous interconnection, as set forth in Specifications, section 2.1 of this GIA. Failure to achieve this level of Capacity Interconnection Rights shall result in a permanent reduction of the Capacity Interconnection Rights to the level achieved. This incremental increase in Capacity Interconnection Rights is a result of the Interconnection Request associated with this GIA. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Additional instructions (separate from the Commercial Operation Date provisions): if a specific situation requires a separate Construction Service Agreement by a certain date then use the following:]

Construction Service Agreement. On or before \_\_\_\_\_, Project Developer must have either (a) executed a Construction Service Agreement for Interconnection Facilities or Transmission Owner Upgrades for which Project Developer has cost responsibility; (b) requested dispute resolution under section 12 of the PJM Tariff, or if concerning the Regional Transmission Expansion Plan, consistent with Schedule 5 of the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement"); or (c) requested that the Transmission Provider file the Construction Service Agreement unexecuted with FERC.



- 6.4 Within one month following commercial operation of generating unit(s), Project Developer must provide certified documentation demonstrating that “as-built” Generating Facility or the Merchant Transmission Facilities, and Project Developer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Project Developer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

**[Add Additional Project Specific Milestones as appropriate]**

Project Developer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Project Developer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. Project Developer shall also have a one-time option to extend its milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. This option may only be applied one time for an Interconnection Request, and may only be applied to one single milestone specified in this GIA. Other milestone dates stated in this GIA shall be deemed to be extended coextensively with Project Developer’s use of this provision. Once this extension is used, it is no longer available with regard to any other milestones or other deadlines in this GIA. If the Project Developer fails to meet any of the milestones set forth above, including any extended milestones, its Interconnection Request shall be terminated and withdrawn, in accordance with the provisions of Appendix 2, sections 15 and 16. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

- 7.0 Provision of Interconnection Service. Transmission Provider and Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Project Developer’s Generating Facility or Merchant Transmission Facility identified in the Specifications in accordance with the GIP, the Operating Agreement, and this GIA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 System Impact Study(ies) and/or Facilities Study(ies). In analyzing and preparing the [System Impact Study(ies) and/or Facilities Study(ies)], and in designing and constructing the Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities described in the Specifications attached to this GIA, Transmission Provider, the Transmission Owner(s),

and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY(IES) AND/OR FACILITIES STUDY(IES) OF THE DISTRIBUTION UPGRADES, NETWORK UPGRADES, STAND ALONE NETWORK UPGRADES AND/OR TRANSMISSION OWNER INTERCONNECTION FACILITIES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.0 Construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

10.1. Cost Responsibility. Project Developer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Generating Facility or Merchant Transmission Facility as specified in the GIP. These Costs may include, but are not limited to, a Distribution Upgrades charge, Network Upgrades charge, Stand Alone Network Upgrades charge, Transmission Owner Interconnection Facilities charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in sections 3.0 and 4.0 of the Specifications to this GIA.

10.2. Billing and Payments. Transmission Provider shall bill the Project Developer for the Costs associated with the facilities contemplated by this GIA, estimates of which are set forth in the Specifications to this GIA, and the Project Developer shall pay such Costs, in accordance with section 11 of Appendix 2 to this GIA and the applicable provisions of Schedule L. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the applicable Transmission Owner. Project Developer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

\_\_\_\_\_ No

10.3. Contract Option. In the event that the Project Developer and Transmission Owner agree to utilize the Negotiated Contract Option as set forth in Schedule L, Appendix 1 to establish, subject to FERC acceptance, non-standard terms

regarding cost responsibility, payment, billing and/or financing, the terms of sections 10.1 and/or 10.2 of this section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in Schedule L to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement if all Project Developers and the relevant Transmission Owner agree.

\_\_\_\_\_ Yes

\_\_\_\_\_ No

#### 10.4 Interconnection Construction Terms and Conditions

10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any ~~there are~~ Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.

10.4.2 In the event that the Project Developer elects to construct some or all of the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades under the Option to Build, billing and payment for the Costs associated with the facilities contemplated by this GIA shall relate only to such portion of the Interconnection Facilities and Transmission Owner Upgrades as the Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this GIA.

11.2 List and Ownership of Interconnection Facilities and Transmission Owner Upgrades. The Interconnection Facilities and Transmission Owner Upgrades to be constructed and ownership of the components thereof are identified in section 3.0 of the Specifications attached to this GIA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this GIA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades are identified in Schedule D to this GIA.

## 12.0 Power Factor Requirement.

Consistent with section 4.6 of Appendix 2 to this GIA, the power factor requirement is as follows:

[For Generation Project Developers]

{The following language should be included for new large and small synchronous generation facilities that will have the Tariff specified power factor. This section does not apply if the Interconnection Request is for an incremental increase in generating capability.}

The Project Developer shall design its Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{Include the following language if the Interconnection Request is for an incremental increase in capacity or energy output to a synchronized generation facility}

The existing \_\_\_ MW portion of the Generating Facility shall retain its existing ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

The increase of \_\_\_ MW to the Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 1.0 (unity) to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{For new wind or non-synchronous generation facilities which have submitted a New Service Request. after November 1, 2016, the following applies: }

The Generation Project Developer shall design its [wind-powered] [non-synchronous] Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

{For all wind or non-synchronous Generating Facilities ~~generation facilities~~ requesting an incremental increase in capacity or energy output which have submitted an Interconnection Request ~~entered the New Services Queue~~ -after November 1, 2016, and

were not commercially operable prior to November 1, 2016 include the following requirements:}

The existing [wind-powered] [non-synchronous] \_\_ MW portion of the ~~Generating Customer~~ Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

The increase of \_\_ MW to the [wind-powered] [non-synchronous] ~~Generating Customer~~ Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

[For Transmission Project Developers]

{The following language should be included only for new Merchant Transmission Facilities }

Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.

- 13.0 Charges. In accordance with sections 10 and 11 of Appendix 2 to this GIA, the Project Developer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this GIA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this GIA, except, however, that, subject to modification of the payment terms stated in section 10 of this GIA pursuant to the Negotiated Contract Option, payment obligations imposed on Project Developer under this GIA are agreed and acknowledged to be for the benefit of the Transmission Owner(s). Project Developer expressly agrees that the Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Project Developer for the payment of any Costs or charges authorized under this GIA or the GIP with respect to Interconnection Service for which Project Developer fails, in whole or in part, to pay as provided in this GIA, the GIP and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this GIA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 16.0 Amendment. Except as set forth in Appendix 2, section 12.0 of this GIA, this GIA or any part thereof, may not be amended, modified, or waived other than by a written document

signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.

- 17.0 Construction With Other Parts of The Tariff. This GIA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this GIA shall be made, in accordance with the terms of Appendix 2 to this GIA, to the representatives of the other party and as applicable, to the Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmission Owner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 19.0 Incorporation of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this GIA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this GIA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this GIA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section 24.1 of Appendix 2 to this GIA, Schedule G to this GIA shall set forth the Project

Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this GIA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this GIA.
- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 24.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this GIA to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

Transmission Provider: **PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_



**SPECIFICATIONS FOR  
GENERATION INTERCONNECTION AGREEMENT  
By and Among  
PJM INTERCONNECTION, L.L.C.  
And  
[Name of Project Developer]  
And  
[Name of Transmission Owner]  
(Project Identifier # \_\_\_\_)**

1.0 Description of [Generating Facility] [Merchant Transmission Facilities] to be interconnected with the Transmission System in the PJM Region:

a. Name of Generating Facility or Merchant Transmission Facility:

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b. Location of Generating Facility or Merchant Transmission Facility:

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c. Size in megawatts of Generating Facility or Merchant Transmission Facility:

{The following language should be included only for generating units

For Generation Project Developer:

{Use the following language for all resources}

Maximum Facility Output of \_\_\_\_\_ MW

{Include the following language for Energy Storage Resources}

Maximum load capacity of \_\_\_\_\_ MW)

Minimum State of Charge: \_\_\_\_\_; and

Maximum State of Charge: \_\_\_\_\_.

{The following language applies when a Generation Interconnection Request involves an increase of the capacity of an existing Generating Facility:

The stated size of the generating unit includes an increase in the Maximum Facility Output of the generating unit of \_\_\_ MW over Project Developer’s previous interconnection. This increase is a result of the Interconnection Request associated with this Generation Interconnection Agreement. }

{The following language should be included only for Merchant Transmission Facilities

For Transmission Project Developer:

Nominal Rated Capability: \_\_\_\_\_ MW }

d. Description of the equipment configuration:

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## 2.0 Rights

[for Generation Project Developers]

2.1 Capacity Interconnection Rights: {Instructions: this section will not apply if the Generating Facility is exclusively an Energy Resource and thus is granted no CIRs; see alternate section 2.1 below }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Generation Interconnection Agreement in the amount of \_\_\_ MW. {Instructions: this number is the total of the Capacity Interconnection Rights that are granted as a result of the Interconnection Request, plus any prior Capacity Interconnection Rights }

{OR: Instructions: include the following options when the projected Initial Operation is in advance of the study year used for the System Impact Study and Capacity Interconnection Rights are only interim until the study year: }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Generation Interconnection Agreement in the amount of \_\_\_ MW commencing \_\_\_\_\_ {e.g., June 1, 2023}. During the time period from

the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), the Project Developer may be awarded interim Capacity Interconnection Rights in the amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and the results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_\_ {e.g., May 31, 2023}.

{OR: Instructions: include the following options when there are a combination of previously awarded CIRs and interim CIRs that have a termination date or event: }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this GIA in the amount of \_\_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2023}. From the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), in addition to the \_\_\_\_ MW of Capacity Interconnection Rights the Project Developer had at the same Point of Interconnection prior to its Interconnection Request associated with this GIA, the Project Developer also may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_\_ {e.g., May 31, 2023}.

{OR: Instructions: include the following language in the case of combined Cycle Positions with a combination of (1) already studied, and confirmed deliverable, CIRs for the first Interconnection Request; and (2) potential interim CIRs for the second Interconnection Request, subject to an interim deliverability study: }

Pursuant to and subject to the applicable terms of the Tariff, the Project Developer shall have Capacity Interconnection Rights at the Point of Interconnection specified in this GIA in the amount of \_\_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2023}. From the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), in addition to the \_\_\_\_\_ MW of Capacity Interconnection Rights the Project Developer will have commencing \_\_\_\_\_ {e.g., June 1, 2022} at the Point of Interconnection pursuant to the \_\_\_\_ Interconnection Request, the Project Developer also may be awarded interim Capacity Interconnection Rights at the Point of Interconnection in an amount not to exceed \_\_\_\_ MW pursuant to the \_\_\_\_ Interconnection Request. Accordingly, during the interim time period, the Project Developer shall have \_\_\_\_ MW of previously studied and awarded

Capacity Interconnection Rights, and may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_ {e.g., May 31, 2023}.

{Add to address partial deactivations:}

Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point of Interconnection specified in this Interconnection Service Agreement in the amount of \_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2022}. From the effective date of this GIA until \_\_\_\_ {e.g., May 31, 2023} (the "interim time period"), in addition to the \_\_\_\_ MW of Capacity Interconnection Rights the Interconnection Customer will have commencing \_\_\_\_ {e.g., June 1, 2023} at the Point of Interconnection pursuant to the \_\_\_ Interconnection Request, the Interconnection Customer also may be awarded interim Capacity Interconnection Rights at the Point of Interconnection in an amount not to exceed \_\_\_ MW pursuant to the \_\_\_ Interconnection Request. Accordingly, during the interim time period, the Interconnection Customer shall have \_\_\_ MW of previously studied and awarded Capacity Interconnection Rights, and may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_ {e.g., May 31, 2023}.

{OR: Instruction: include the following language to the extent applicable for interconnection of additional generation at an existing Generating Facility:}

The amount of Capacity Interconnection Rights specified above (\_\_\_\_ MW) includes \_\_\_ MW of Capacity Interconnection Rights that the Project Developer had at the same Point(s) of Interconnection prior to its Interconnection Request associated with this GIA, and \_\_\_MW of Capacity Interconnection Rights granted as a result of such Interconnection Request.

{OR: Instructions: include the following language when the CIRs are only interim and have a termination date or event:}

Project Developer shall have \_\_\_ MW of Capacity Interconnection Rights for the time period from \_\_\_ to \_\_\_\_\_. These Capacity Interconnection Rights are interim and will terminate upon {Instructions: explain circumstances – e.g. interim agreement; completion of another facility, etc.}

2.21a To the extent that any portion of the Generating Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Generating Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.

{Instructions: this alternate version of section 2.1 that appears below will be used in lieu of section 2.1 above when a Generating Facility will be an Energy Resource and therefore will not be granted any CIRs:}

[2.31 The generating unit(s) described in section 1.0 shall be an Energy Resource. Pursuant to this GIA, the generating unit will be permitted to inject \_\_\_ MW (nominal) into the system. PJM reserves the right to limit injections to this quantity in the event reliability would be affected by output greater than such quantity. ]

[for Transmission Project Developers]

2.41 Transmission Injection Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]

Pursuant to the GIP, Project Developer shall have Transmission Injection Rights at each indicated Point of Interconnection in the following quantity(ies):

2.52 Transmission Withdrawal Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]

Pursuant to the GIP, Project Developer shall have Transmission Withdrawal Rights at each indicated Point of Interconnection in the following quantity(ies):

[Include section 2.32A only if customer is interconnecting Controllable A.C. Merchant Transmission Facilities]

2.62A Project Developer is interconnecting Controllable A.C. Merchant Transmission Facilities as defined in the Part I of the Tariff, and has elected, pursuant to the GIP, to receive Transmission Injection Rights and Transmission Withdrawal Rights in lieu of the other applicable rights for which it may be eligible the GIP. Accordingly, Project Developer hereby agrees that the Transmission Injection Rights and Transmission Withdrawal Rights awarded to it pursuant to the GIP and

this GIA are, and throughout the duration of this GIA shall be, conditioned on Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

{Instructions – use for Merchant Transmission Developers as applicable}

2.73 Incremental Deliverability Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(C), Project Developer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies):

2.84 Incremental Auction Revenue Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(A), Project Developer shall have Incremental Auction Revenue Rights in the following quantities:

2.95 Incremental Capacity Transfer Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(B), Project Developer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities:

3.0 Construction Responsibility and Ownership of Interconnection Facilities and Transmission Owner Upgrades/Scope of Work.

a. Project Developer.

(1) Project Developer shall construct and, unless otherwise indicated, shall own, the following Interconnection Facilities:

**[Specify Facilities to Be Constructed or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.

(2) In the event that Project Developer has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in Attachment L, the following portions of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades which

constitute or are part of the Generating Facility or Merchant Transmission Facility:

**[Specify Facilities to Be Constructed or state “None”]**

Ownership of the facilities built by Project Developer pursuant to the Option to Build shall be as provided in Schedule L.

- b. Transmission Owner {or Name of Transmission Owners if more than one Transmission Owner}

**[Specify Facilities to Be Constructed and Owned or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
  - ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.
- c. [if applicable, include the following][Name of any additional Transmission Owner constructing facilities with which Project Developer and Transmission Provider will also execute an Interconnection Construction Service Agreement]

**[Specify Facilities to Be Constructed and Owned]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
  - ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.
- d. [if applicable] Additional Contingent Facilities which must be completed prior to Commercial Operation of the Generating Facility or Merchant Transmission Facility

**[Specify Facilities to Be Constructed and Owned]**

- 4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build, Project Developer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, section 11 of this GIA and Schedule L, section 9.0 {instruction - to be included if there is an additional Transmission

Owner that has a separate CSA [and in Appendix 2, section 3.2.3.2 of the Construction Service Agreement with [insert Transmission Owner name].] {Instruction - to be included if there is a Network Upgrade Cost Responsibility Agreement [and in [insert reference to NUCRA provisions]]}

4.1 Transmission Owner Interconnection Facilities Charge: \$\_\_\_\_\_

**[Optional: Provide Charge and Identify Transmission Owner]**

4.2 Network Upgrades Charge: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities and costs subject to the Network Upgrade Cost Responsibility Agreement]**

4.3 Option to Build Charges \$

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.4 Distribution Upgrades Charge: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.54 Other Charges: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.65 Cost breakdown:

\$ Direct Labor  
\$ Direct Material  
\$ Indirect Labor  
\$ Indirect Material

**[Additional items for breakdown as necessary]**

\$ Total

4.76 Security Amount Breakdown:

\$ Estimated Cost of Network Upgrades, Distribution Upgrades, Transmission Owner Interconnection Facilities, and Other Charges



plus \$ Option to Build Security for Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (including Cancellation Costs)

\$ Sum of Security required for costs listed in Specifications sections 4.1 through 4.54 of this GIA

less \$ Portion of Costs already paid by Project Developer

\$ Net Security {Instructions: **if the resultant is negative, use:** reduction with this GIA; **if the resultant is zero or positive use:** amount required} {Instructions: this value should be in section 5.0 of this GIA}

**APPENDICES:**

- **APPENDIX 1 - DEFINITIONS**
- **APPENDIX 2 - STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

**SCHEDULES:**

- **SCHEDULE A - GENERATING FACILITY LOCATION/SITE PLAN~~CUSTOMER FACILITY LOCATION/SITE PLAN~~**
- **SCHEDULE B - SINGLE-LINE DIAGRAM**
- **SCHEDULE C - LIST OF METERING EQUIPMENT**
- **SCHEDULE D - APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**
- **SCHEDULE E - SCHEDULE OF CHARGES**
- **SCHEDULE F - SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**
- **SCHEDULE G - PROJECT DEVELOPER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**
- **SCHEDULE H - INTERCONNECTION REQUIREMENTS FOR ALL WIND, SOLAR AND NON-SYNCHRONOUS GENERATION FACILITIES**
- **SCHEDULE I – INTERCONNECTION SPECIFICATIONS FOR AN ENERGY STORAGE RESOURCE**
- **SCHEDULE J – SCHEDULE OF TERMS AND CONDITIONS FOR SURPLUS INTERCONNECTION SERVICE**
- **SCHEDULE K – REQUIREMENTS FOR INTERCONNECTION SERVICE BELOW FULL ELECTRICAL GENERATING CAPABILITY**
- **SCHEDULE L – INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**
- **SCHEDULE L, APPENDIX 1 – NEGOTIATED CONTRACT OPTION TERMS**

**SCHEDULE A**

**GENERATING FACILITY LOCATION/SITE PLAN ~~CUSTOMER FACILITY~~  
~~LOCATION/SITE PLAN~~**

**SCHEDULE D**

**APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**

{Include the following language if not required:}

Not Required.

{Otherwise, include the following language:}

The following Applicable Technical Requirements and Standards ~~technical requirements and standards~~ shall apply. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this GIA, the Tariff and/or this GIA shall control.

*{Instructions: If the relevant TO Applicable Technical Requirements and Standards **are** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.

*{Instructions. If the relevant TO Applicable Technical Requirements and Standards **are not** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply.

## **SCHEDULE L**

### **INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**

**{Instructions: to be used if construction of facilities is required in connection with this GIA. If Interconnection Construction Terms and Conditions are not required, state “Not Applicable” and delete reminder of Schedule L}**

**INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**  
**For the Generation Interconnection Agreement**

**By and Between**  
**PJM Interconnection, L.L.C.**  
**And**  
**[Name of Project Developer]**  
**And**  
**[Name of Transmission Owner]**

(Project Identifier #\_\_\_)

- 1.0 These Interconnection Construction Terms and Conditions (“IC Terms & Conditions”), including the Schedules and Appendices attached hereto or incorporated by reference herein, shall apply to the Generation Interconnection Agreement (“GIA”) by and between Transmission Provider, Project Developer, and Transmission Owner. All capitalized terms herein shall have the meanings set forth in Appendix 1 to this Generation GIA.
- 2.0 The standard terms and conditions for construction included in Appendix 2 of the GIA associated with this Interconnection Request are hereby specifically incorporated herein.
- 3.0 Generating Facility or Merchant Transmission Facility. These IC Terms & Conditions specifically relate to the following Generating Facility or Merchant Transmission Facility at the following location:
  - a. Name of Generating Facility or Merchant Transmission Facility:  
\_\_\_\_\_
  - b. Location of Generating Facility or Merchant Transmission Facility:  
\_\_\_\_\_
- 4.0 Commencement of Construction.
  - 4.1 The Transmission Owner shall have no obligation to begin construction of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades prior to the Effective Date of this GIA. Construction shall commence as provided in the Schedule of Work set forth in section 8.0 of these IC Terms & Conditions.
- 5.0 Construction Responsibility for
  - a. Project Developer Interconnection Facilities. Project Developer is responsible for designing and constructing the Project Developer Interconnection Facilities described in Specifications section 3.0(a)(1) of this GIA.

b. Construction of Transmission Owner Interconnection Facilities.

1. The Transmission Owner Interconnection Facilities and Transmission Owner Upgrades for which Transmission Owner shall be responsible for constructing are described in Specifications section 3.0(b) of this GIA.

2. Election of Construction Option. Specify below whether the Project Developer and Transmission Owner have mutually agreed to construction of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that will be built by the Transmission Owner pursuant to the Standard Option or the Negotiated Contract Option.

\_\_\_\_\_ Standard Option.

\_\_\_\_\_ Negotiated Contract Option.

If the parties have mutually agreed to use the Negotiated Contract Option, the permitted, negotiated terms on which they have agreed and which are not already set forth as part of the Scope of Work and/or Schedule of Work set forth in sections 7.0 and 8.0 of these IC Terms & Conditions shall be as set forth in Appendix 1 to this Schedule L.

3. Exercise of Option to Build. Has Project Developer timely exercised the Option to Build?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If Yes is indicated, Project Developer shall build, in accordance with and subject to the conditions and limitations set forth in section ~~11.2.3~~ ~~15.3~~ of this Schedule L, those portions of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades described in Specifications section 3.0(a)(2) of this GIA.

6.0 Facilitation by Transmission Provider: Transmission Provider shall keep itself apprised of the status of the Transmission Owner's and Project Developer's construction-related activities and, upon request of either of them, Transmission Provider shall meet with the Transmission Owner and Project Developer separately or together to assist them in resolving issues between them regarding their respective activities, rights and obligations under this Schedule L and Appendix 2 of the this GIA. Each of Transmission Owner and Project Developer shall cooperate in good faith with the other in Transmission Provider's efforts to facilitate resolution of disputes.

7.0 Scope of Work. The Scope of Work for all construction shall be as set forth in Specifications section 3.0 of this GIA, provided, however, that the scope of work is subject to change in accordance with Transmission Provider's scope change process for interconnection projects as set forth in the PJM Manuals. The scope change process is intended to be used for changes to the Scope of Work as defined herein, and is not intended to be used to change any of the milestone set forth in the GIA. Any change to the Scope of Work must be agreed to by all Parties in writing by executing a scope change document.

8.0 Schedule of Work. The Schedule of Work for all construction is set forth below, provided, however, that such schedule is subject to change in accordance with section ~~11.5~~ 3 of this Schedule L.

**Transmission Owner:**

**[Provide start and completion date for construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades—and listed in Specifications, section 3.0~~Schedule C~~, including any supervisory or other responsibilities associated with use of the Option to Build or state “Not Applicable”]**

**Project Developer:**

**[Provide start and completion date for construction of Project Developer Interconnection Facilities listed in Specifications, section 3.0~~Schedule C~~, including any facilities being constructed to pursuant to the Option to Build, or state “Not Applicable”]**

9.0 If Project Developer exercises the Option to Build, Project Developer shall pay Transmission Owner for Transmission Owner to execute the responsibilities enumerated to Transmission Owner under section ~~11.2.3~~ 15.

10.0 Construction Obligations

10.1 Project Developer Obligations: Project Developer shall, at its sole cost and expense, design, procure, construct, own, and install the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the Scope of Work, and the System Impact Study(ies) (to the extent that design of the Project Developer Interconnection Facilities is included therein), provided, however, that, in the event and to the extent that the Generating Facility or Merchant Transmission Facility is comprised of or includes Merchant Network Upgrades, subject to the terms of section ~~11.2.3~~ 15.2.3 of this Schedule L, the Transmission Owner shall design, procure, construct and install such Merchant Network Upgrades.



## 10.2 Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

- 10.2.1 Generally: All Transmission Owner Interconnection Facilities and Transmission Owner Upgrades necessary for the interconnection of the Generating Facility or Merchant Transmission Facility shall be designed, procured, installed and constructed in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the System Impact Study(ies), and the Scope of Work.
- 10.2.2 Cost Responsibility: Responsibility for the Costs of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades shall be assigned in accordance with the GIP, as applicable, and shall be stated in this GIA.
- 10.2.3 Construction Responsibility: Except as otherwise permitted under, or as otherwise agreed upon by the Project Developer and the Transmission Owner pursuant to this GIA, the Transmission Owner shall be responsible for the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. In the event that there are multiple Transmission Owners, the Transmission Provider shall determine how to allocate the construction responsibility among them unless they have reached agreement among themselves on how to proceed.
- 10.2.4 Ownership of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades: The Transmission Owner shall own all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that it builds. In addition, the Project Developer will convey to the Transmission Owner, as provided in section 23.3.5 of Appendix 2 of this GIA, title to all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer pursuant to the terms of this Schedule L. Nothing in this section shall affect the interconnection rights otherwise available to a Transmission Project Developer under the GIP.
- 10.2A Scope of Applicable Technical Requirements and Standards: Applicable Technical Requirements and Standards shall apply to the design, procurement, construction and installation of the Interconnection Facilities, Transmission Owner Upgrades and Merchant A.C. Transmission Facilities only to the extent that the provisions thereof relate to the design, procurement, construction and/or installation of such facilities. Such provisions relating to the design, procurement, construction and/or installation of facilities shall be appended as Schedule D to this GIA. The Interconnection Parties shall mutually agree upon, or in the absence of such agreement, Transmission Provider shall determine, which provisions of the Applicable Technical Requirements and Standards should be

identified in this GIA. In the event of any conflict between the provisions of the Applicable Technical Requirements and Standards that are appended as Schedule D to this GIA and any later-modified provisions that are stated in the pertinent PJM Manual, the provisions appended as Schedule D to this GIA shall control.

### 10.3 Construction by Project Developer

10.3.1 Construction Prior to Execution of GIA: If the Project Developer procures materials for, and/or commences construction of, the Project Developer Interconnection Facilities, any Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades that it has elected to construct by exercising the Option to Build, or for any subsequent modification thereto, prior to the execution of this GIA or, if this GIA has been executed, before the Transmission Owner and Transmission Provider have accepted the Project Developer's initial design, or any subsequent modification to the design, of such Interconnection Facilities or Stand Alone Network Upgrades, such procurement and/or construction shall be at the Project Developer's sole risk, cost and expense.

10.3.2 Monitoring and Inspection: The Transmission Owner may monitor construction and installation of Interconnection Facilities and Transmission Owner Upgrades that the Project Developer is constructing. Upon reasonable notice, authorized personnel of the Transmission Owner may inspect any or all of such Interconnection Facilities and Transmission Owner Upgrades to assess their conformity with Applicable Standards.

10.3.3 Notice of Completion: The Project Developer shall notify the Transmission Provider and the Transmission Owner in writing when it has completed construction of (i) the Generating Facility or Merchant Transmission Facility; (ii) the Project Developer Interconnection Facilities; and (iii) any Transmission Owner Interconnection Facilities and Stand Alone for which it has exercised the Option to Build.

10.4 Construction-Related Access Rights: The Transmission Owner and the Project Developer herein grant each other at no charge such rights of access to areas that it owns or otherwise controls as may be necessary for performance of their respective obligations, and exercise of their respective rights, pursuant to this Schedule L, provided that either of them performing the construction will abide by the safety, security and work rules applicable to the area where construction activity is occurring.

10.5 Coordination Among Parties: The Transmission Provider, the Project Developer, and all Transmission Owners shall communicate and coordinate their activities as necessary to satisfy their obligations under this Schedule L.

## 11.0 Construction Requirements

## 11.1 Construction by Project Developer:

The Project Developer shall use Reasonable Efforts to design, procure, construct and install the Project Developer Interconnection Facilities and any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it elects to build by exercise of the Option to Build (defined in section 11.2.3.1 below) in accordance with the Schedule of Work.

## 11.2 Construction by Transmission Owner

### 11.2.1 Standard Option:

The Transmission Owner shall use Reasonable Efforts to design, procure, construct and install the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that it is responsible for constructing in accordance with the Schedule of Work.

#### 11.2.1.1 Construction Sequencing:

In general, the sequence of the proposed dates of Initial Operation of Project Developers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades.

### 11.2.2 Negotiated Contract Option:

As an alternative to the Standard Option set forth in section 11.2.1 above, the Transmission Owner and the Project Developer may mutually agree to a Negotiated Contract Option for the Transmission Owner's design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. Under the Negotiated Contract Option, the Project Developer and the Transmission Owner may agree to terms different from those included in the Standard Option of section 11.2.1 above and the corresponding standard terms set forth in the applicable provisions of the GIP. Under the Negotiated Contract Option, negotiated terms may include the work schedule applicable to the Transmission Owner's construction activities and changes to same; payment provisions, including the schedule of payments; incentives, penalties and/or liquidated damages related to timely completion of construction; use of third party contractors; and responsibility for Costs, but only as between the Project Developer and the Transmission Owner that are parties to this GIA; no other Project Developer's responsibility for Costs may be affected. No other terms of the Tariff or this Schedule L shall be subject to modification under the Negotiated Contract Option. The terms and conditions of the Tariff that may be negotiated pursuant to the Negotiated Contract Option shall not be affected by use of the Negotiated Contract Option except as and to the extent that they are modified by the parties' agreement pursuant to such option. All terms

agreed upon pursuant to the Negotiated Contract Option are set forth in Schedule L, Appendix 1 to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement all Project Developers and the relevant Transmission Owner agree.

### 11.2.3 Option to Build

#### 11.2.3.1 Option:

Project Developer has the option (“Option to Build”) to assume responsibility for the design, procurement, and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in the Schedule of Work in section 8.0 of this Schedule L. Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Specifications section 3.0(a)(2) of this GIA. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer with a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination. Except for Stand Alone Network Upgrades, Project Developer shall have no right to construct Network Upgrades under this option. In order to exercise this Option to Build, Project Developer must provide Transmission Provider and the Transmission Owner with written notice of Project Developer’s election to exercise the option consistent with the deadline applicable to its New Service Request or Upgrade Request. Project Developer may not elect Option to Build after such date.

#### 11.2.3.2 General Conditions Applicable to Option:

In addition to the other terms and conditions applicable to the construction of facilities under this Schedule L, the Option to Build is subject to the following conditions:

(a) If the Project Developer assumes responsibility for the design, procurement and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades:

(i) Project Developer shall engineer, procure equipment, and construct Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and Specifications provided in advance by Transmission Owner;

(ii) Project Developer's engineering, procurement and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Owner shall be subject in the engineering, procurement or construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(iii) Transmission Owner shall review and approve engineering design, equipment acceptance tests, and the construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(iv) Prior to commencement of construction, Project Developer shall provide to Transmission Owner a schedule for construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and shall promptly respond to requests for information from Transmission Owner;

(v) At any time during construction, Transmission Owner shall have the right to gain unrestricted access to Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(vi) At any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and Specifications provided by Interconnection Transmission Owner, Project Developer shall be obligated to remedy deficiencies in that portion of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(vii) Project Developer shall indemnify Transmission Owner and Transmission Provider for claims arising from Project Developer's construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to section 16 of Appendix 2 of this GIA;

(viii) Project Developer shall transfer control of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;

(ix) Unless Parties otherwise agree, Project Developer shall transfer ownership of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;

(x) Transmission Owner shall approve and accept for operation and maintenance Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with section 11.2.3.2 of this Schedule L; and

(xi) Project Developer shall deliver to Transmission Owner “as-built” drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades are built to the standards and Specifications required by Transmission Provider.

(b) In addition to the General Conditions applicable to Option to Build set forth in section 11.2.3.2(a) above, the following conditions also apply:

(i) The Project Developer must obtain or arrange to obtain all necessary permits and authorizations for the construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it is building, provided, however, that when the Transmission Owner’s assistance is required, the Transmission Owner shall assist the Project Developer in obtaining such necessary permits or authorizations with efforts similar in nature and extent to those that the Transmission Owner typically undertakes in acquiring permits and authorizations for construction of facilities on its own behalf;

(ii) The Project Developer must obtain all necessary land rights for the construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it is building, provided, however, that upon Project Developer’s reasonable request, the Transmission Owner shall assist the Project Developer in acquiring such land rights with efforts similar in nature and extent to those that the Transmission Owner typically undertakes in acquiring land rights for construction of facilities on its own behalf;

(iii) Notwithstanding anything stated herein, each Transmission Owner shall have the exclusive right and obligation to perform the line attachments (tie-in work), and to calibrate remote terminal units and relay settings, required for the interconnection to such Transmission Owner’s existing facilities of any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer builds; and

(iv) The Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer shall

be successfully inspected, tested and energized pursuant to sections 11.7 and 11.8 of this Schedule L.

#### 11.2.3.3 Additional Conditions Regarding Network Facilities:

To the extent that the Project Developer utilizes the Option to Build for design, procurement, construction and/or installation of (a) any Transmission Owner Interconnection Facilities that are Stand Alone Network Upgrades to Transmission System facilities that are in existence or under construction by or on behalf of the Transmission Owner on the date that the Project Developer solicits bids under section 11.2.3.7 below, or (b) Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that are to be located on land or in right-of-way owned or controlled by the Transmission Owner, and in addition to the other terms and conditions applicable to the design, procurement, construction and/or installation of facilities under this GIA, all work shall comply with the following further conditions:

(i) All work performed by or on behalf of the Project Developer shall be conducted by contractors, and using equipment manufacturers or vendors, that are listed on the Transmission Owner's List of Approved Contractors;

(ii) The Transmission Owner shall have full site control of, and reasonable access to, its property at all times for purposes of tagging or operation, maintenance, repair or construction of modifications to, its existing facilities and/or for performing all tie-ins of Interconnection Facilities and Stand Alone Network Upgrades built by or for the Project Developer; and for acceptance testing of any equipment that will be owned and/or operated by the Transmission Owner;

(iii) The Transmission Owner shall have the right to have a reasonable number of appropriate representatives present for all work done on its property/facilities or regarding the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and the right to stop, or to order corrective measures with respect to, any such work that reasonably could be expected to have an adverse effect on reliability, safety or security of persons or of property of the Transmission Owner or any portion of the Transmission System, provided that, unless circumstances do not reasonably permit such consultations, the Transmission Owner shall consult with the Project Developer and with Transmission Provider before directing that work be stopped or ordering any corrective measures;

(iv) The Project Developer and its contractors, employees and agents shall comply with the Transmission Owner's safety, security and

work rules, environmental guidelines and training requirements applicable to the area(s) where construction activity is occurring and shall provide all reasonably required documentation to the Transmission Owner, provided that the Transmission Owner previously has provided its safety, security and work rules and training requirements applicable to work on its facilities to Transmission Provider and the Project Developer within 20 Business Days after a request therefor made by Project Developer;

(v) The Project Developer shall be responsible for controlling the performance of its contractors, employees and agents; and

(vi) All activities performed by or on behalf of the Project Developer pursuant to its exercise of the Option to Build shall be subject to compliance with Applicable Laws and Regulations, including those governing union staffing and bargaining unit obligations, and Applicable Standards.

#### 11.2.3.4 Administration of Conditions:

To the extent that the Transmission Owner exercises any discretion in the application of any of the conditions stated in sections 11.2.3.2 and 11.2.3.3 of this Schedule L, it shall apply each such condition in a manner that is reasonable and not unduly discriminatory and it shall not unreasonably withhold, condition, or delay any approval or authorization that the Project Developer may require for the purpose of complying with any of those conditions.

#### 11.2.3.5 Approved Contractors:

(a) Each Transmission Owner shall develop and shall provide to Transmission Provider a List of Approved Contractors. Each Transmission Owner shall include on its List of Approved Contractors no fewer than three contractors and no fewer than three manufacturers or vendors of major transmission-related equipment, unless a Transmission Owner demonstrates to Transmission Provider's reasonable satisfaction that it is feasible only to include a lesser number of construction contractors, or manufacturers or vendors, on its List of Approved Contractors. Transmission Provider shall publish each Transmission Owner's List of Approved Contractors in a PJM Manual and shall make such manual available on its internet website.

(b) Upon request of a Project Developer, a Transmission Owner shall add to its List of Approved Contractors (1) any design or construction contractor regarding which the Project Developer provides such information as the Transmission Owner may reasonably require which demonstrates to the Transmission Owner's reasonable satisfaction



that the candidate contractor is qualified to design, or to install and/or construct new facilities or upgrades or modifications to existing facilities on the Transmission Owner's system, or (2) any manufacturer or vendor of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) regarding which the Project Developer provides such information as the Transmission Owner may reasonably require which demonstrates to the Transmission Owner's reasonable satisfaction that the candidate entity's major transmission-related equipment is acceptable for installation and use on the Transmission Owner's system. No Transmission Owner shall unreasonably withhold, condition, or delay its acceptance of a contractor, manufacturer, or vendor proposed for addition to its List of Approved Contractors.

#### 11.2.3.6 Construction by Multiple Project Developers:

In the event that there are multiple Project Developers that wish to exercise an Option to Build with respect to Interconnection Facilities and Stand Alone Network Upgrades of the types described in section 11.2.3.3 of this Schedule L, the Transmission Provider shall determine how to allocate the construction responsibility among them unless they reach agreement among themselves on how to proceed.

#### 11.2.3.7 Option Procedures:

(a) Within 10 days after executing this GIA or directing that this GIA be filed with FERC unexecuted, Project Developer shall solicit bids from one or more Approved Contractors named on the Transmission Owner's List of Approved Contractors to procure equipment for, and/or to design, construct and/or install, the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer seeks to build under the Option to Build on terms (i) that will meet the Project Developer's proposed schedule; (ii) that, if the Project Developer seeks to have an Approved Contractor construct or install Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades, will satisfy all of the conditions on construction specified in sections 11.2.3.2 and 11.2.3.3 of this Schedule L; and (iii) that will satisfy the obligations of a Constructing Entity (other than those relating to responsibility for the costs of facilities).

(b) Any additional costs arising from the bidding process or from the final bid of the successful Approved Contractor shall be the sole responsibility of the Project Developer.

(c) Upon receipt of a qualifying bid acceptable to it, the Project Developer shall contract with the Approved Contractor that submitted the

qualifying bid. Such contract shall meet the standards stated in paragraph (a) of this section.

(d) In the absence of a qualifying bid acceptable to the Project Developer in response to its solicitation, the Transmission Owner(s) shall be responsible for the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades in accordance with the Standard Option described in section 11.2.1 of this Schedule L.

#### 11.2.3.8 Project Developer Drawings:

Project Developer shall submit to the Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer arranges to build under this Option to Build. The Transmission Owner shall review and approve the initial drawings and engineering design of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to be constructed under the Option to Build. The Transmission Owner shall review the drawings to assess the consistency of Project Developer's design of the pertinent Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades with Applicable Standards and the System Impact Study(ies). Transmission Owner, with facilitation and oversight by Transmission Provider, shall provide comments on such drawings to Project Developer within 60 days after its receipt thereof, after which time any drawings not subject to comment shall be deemed to be approved. All drawings provided hereunder shall be deemed to be Confidential Information.

#### 11.2.3.9 Effect of Review:

Transmission Owner's review of Project Developer's initial drawings of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer is building shall not be construed as confirming, endorsing or providing a warranty as to the fitness, safety, durability or reliability of such facilities or the design thereof. At its sole cost and expense, Project Developer shall make such changes to the design of the pertinent Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades as may reasonably be required by Transmission Provider, in consultation with the Transmission Owner, to ensure that the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer is building meet Applicable Standards and conform with the System Impact Study(ies).

### 11.3 Revisions to Schedule of Work:

The Schedule of Work shall be revised as required in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals, or otherwise by mutual agreement of the Interconnection Parties, which agreement shall not be unreasonably withheld, conditioned or delayed. The scope change process is intended to be used for changes to the Scope of Work as defined herein, and is not intended to be used to change any of the milestone set forth in the GIA.

#### 11.4 Right to Complete Transmission Owner Interconnection Facilities and Transmission Owner Upgrades:

In the event that, at any time prior to successful Stage Two energization of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades pursuant to section 11.8 of this Schedule L, the Project Developer terminates its obligations under this GIA pursuant to Appendix 2, section 16.2. of this GIA due to a Default by the Transmission Owner, the Project Developer may elect to complete the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. The Project Developer shall notify the Transmission Owner and Transmission Provider in writing of its election to complete the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades within 10 days after the date of Project Developer's notice of termination pursuant to Appendix 2, section 16.2. of this GIA. In the event that the Project Developer elects to complete the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades, it shall do so in accordance with the terms and conditions of the Option to Build under section 11.2.3 of this Schedule L and shall be responsible for paying all costs of completing the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades incurred after the date of its notice of election to complete the facilities. Project Developer may take possession of, and may use in completing the Transmission Owner Interconnection Facilities, any materials and supplies and equipment (other than equipment and facilities that already have been installed or constructed) acquired by the Transmission Owner for construction, and included in the Costs, of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades, provided that Project Developer shall pay Transmission Provider, for the benefit of the Transmission Owner and upon presentation by Transmission Owner of reasonable and appropriate documentation thereof, any amounts expended by the Transmission Owner for such materials, supplies and equipment that Project Developer has not already paid. Title to all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades constructed by Project Developer under this section 11 shall be transferred to the Transmission Owner in accordance with Appendix 2, section 23.3.5 of this GIA.

#### 11.5 Suspension of Work upon Default:

Upon the occurrence of a Default by Project Developer as defined in Appendix 2, section 16 of this GIA, the Transmission Provider or the Transmission Owner may by written notice to Project Developer suspend further work associated with the construction and installation of the Transmission Owner Interconnection Facilities and Transmission

Owner Upgrades that the Transmission Owner is responsible for constructing. Such suspension shall not constitute a waiver of any termination rights under this GIA. In the event of a suspension by Transmission Provider or Transmission Owner, the Project Developer shall be responsible for the Costs incurred in connection with any suspension hereunder in accordance with Appendix 2, section 16 of this GIA.

#### 11.6 Construction Reports:

Each of Project Developer and Transmission Owner shall issue reports to each other on a monthly basis, and at such other times as reasonably requested, regarding the status of the construction and installation of the Interconnection Facilities and Transmission Owner Upgrades. Each of Project Developer and Transmission Owner shall promptly identify, and shall notify each other of, any event that the party reasonably expects may delay completion, or may significantly increase the cost, of the Interconnection Facilities and Transmission Owner Upgrades. Should either Project Developer or Transmission Owner report such an event, Transmission Provider shall, within 15 days of such notification, convene a technical meeting with Project Developer and Transmission Owner to evaluate schedule alternatives.

#### 11.7 Inspection and Testing of Completed Facilities

##### 11.7.1 Coordination:

Project Developer and the Transmission Owner shall coordinate the timing and schedule of all inspection and testing of the Interconnection Facilities and Transmission Owner Upgrades.

##### 11.7.2 Inspection and Testing:

Each of Project Developer and Transmission Owner shall cause inspection and testing of the Interconnection Facilities and Transmission Owner Upgrades that it constructs in accordance with the provisions of this section. Project Developer and Transmission Owner acknowledge and agree that inspection and testing of facilities may be undertaken as facilities are completed and need not await completion of all of the facilities that a party is building.

##### 11.7.2.1 Of Project Developer-Built Facilities:

Upon the completion of the construction and installation, but prior to energization, of any Interconnection Facilities and Transmission Owner Upgrades constructed by the Project Developer and related portions of the Generating Facility or Merchant Transmission Facility, the Project Developer shall have the same inspected and/or tested by an authorized electric inspection agency or qualified third party reasonably acceptable to the Transmission Owner to assess whether the facilities substantially comply with Applicable Standards. Said inspection and testing shall be

held on a mutually agreed-upon date, and the Transmission Owner and Transmission Provider shall have the right to attend and observe, and to obtain the written results of, such testing.

#### 11.7.2.2 Of Transmission Owner-Built Facilities:

Upon the completion of the construction and installation, but prior to energization, of any Interconnection Facilities and Transmission Owner Upgrades constructed by the Transmission Owner, the Transmission Owner shall have the same inspected and/or tested by qualified personnel or a qualified contractor to assess whether the facilities substantially comply with Applicable Standards. Subject to Applicable Laws and Regulations, said inspection and testing shall be held on a mutually agreed-upon date, and the Project Developer and Transmission Provider shall have the right to attend and observe, and to obtain the written results of, such testing.

#### 11.7.3 Review of Inspection and Testing by Transmission Owner:

In the event that the written report, or the observation of either of Project Developer and Transmission Owner or Transmission Provider, of the inspection and/or testing pursuant to section 11.7.2 of this Schedule L reasonably leads the Transmission Provider or Transmission Owner to believe that the inspection and/or testing of some or all of the Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer was inadequate or otherwise deficient, the Transmission Owner may, within 20 days after its receipt of the results of inspection or testing and upon reasonable notice to the Project Developer, perform its own inspection and/or testing of such Interconnection Facilities and Stand Alone Network Upgrades to determine whether the facilities are acceptable for energization, which determination shall not be unreasonably delayed, withheld or conditioned.

#### 11.7.4 Notification and Correction of Defects

11.7.4.1 If the Transmission Owner, based on inspection or testing pursuant to section 11.7.2 or 11.7.3 of this Schedule L, identifies any defects or failures to comply with Applicable Standards in the Interconnection Facilities and Stand Alone Network Upgrades constructed by the Project Developer, the Transmission Owner shall notify the Project Developer and Transmission Provider of any identified defects or failures within 20 days after the Transmission Owner's receipt of the results of such inspection or testing. The Project Developer shall take appropriate actions to correct any such defects or failure at its sole cost and expense, and shall obtain the Transmission Owner's acceptance of the corrections, which acceptance shall not be unreasonably delayed, withheld or conditioned. Such acceptance does not modify and shall not limit the

Project Developer's indemnification obligations set forth in section 11.2.3.2(e) of this Schedule L.

11.7.4.2 In the event that inspection and/or testing of any Transmission Owner Interconnection Facilities and Transmission Owner Upgrades built by the Transmission Owner identifies any defects or failures to comply with Applicable Standards in such facilities, Transmission Owner shall take appropriate action to correct any such defects or failures within 20 days after it learns thereof. In the event that such a defect or failure cannot reasonably be corrected within such 20-day period, Transmission Owner shall commence the necessary correction within that time and shall thereafter diligently pursue it to completion.

#### 11.7.5 Notification of Results:

Within 10 days after satisfactory inspection and/or testing of Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer (including, if applicable, inspection and/or testing after correction of defects or failures), the Transmission Owner shall confirm in writing to the Project Developer and Transmission Provider that the successfully inspected and tested facilities are acceptable for energization.

#### 11.8 Energization of Completed Facilities

(A) Unless otherwise provided in the Schedule of Work, energization of the Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Generation Project Developer and, when applicable as determined by Transmission Provider, of the Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Transmission Project Developer, shall occur in two stages. Stage One energization shall consist of energization of the Project Developer Interconnection Facilities and of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades and will occur prior to initial energization of the Generating Facility. Stage Two energization shall consist of (1) initial synchronization to the Transmission System of any completed generator(s) at the Generating Facility of a Generation Project Developer, or of applicable facilities, as determined by the Transmission Provider, associated with Merchant Transmission Facilities of a Transmission Project Developer, and (2) energization of the remainder of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. Stage Two energization shall be completed prior to Initial Operation of the Generating Facility or Merchant Transmission Facility.

(B) In the case of Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Transmission Project Developer for which the Transmission Provider determines that two-stage energization is inapplicable, energization shall occur in a single stage, consisting of energization of the Interconnection Facilities and Transmission Owner Upgrades and the Generating Facility

or Merchant Transmission Facility. Such a single-stage energization shall be regarded as Stage Two energization for the purposes of the remaining provisions of this section 11.8.

11.8.1 Stage One energization of the Interconnection Facilities and Transmission Owner Upgrades may not occur prior to the satisfaction of the following additional conditions:

(a) The Project Developer shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Transmission Owner Interconnection Facilities that Project Developer has constructed; and

(b) The Project Developer shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Transmission Owner Interconnection Facilities and Stand Alone that Project Developer has constructed.

11.8.2 As soon as practicable after the satisfaction of the conditions for Stage One energization specified in sections 11.7 and 11.8.1 of this Schedule L, the Transmission Owner and the Project Developer shall coordinate and undertake the Stage One energization of facilities.

11.8.3 Stage Two energization of the Interconnection Facilities and Transmission Owner Upgrades may not occur prior to the satisfaction of the following additional conditions:

(a) The Project Developer shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer has constructed and operational control of which it has not previously transferred pursuant to section 11.8.1 of this Schedule L;

(b) The Project Developer shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer has constructed and which were not included in the Stage One energization, but are included in the Stage Two energization; and

(c) Telemetry systems shall be operational and shall be providing Transmission Provider and the Transmission Owner with telemetered data as specified pursuant to section 8.5.2 of Appendix 2 to this GIA.

11.8.4 As soon as practicable after the satisfaction of the conditions for Stage Two energization specified in sections 11.7 and 11.9.3 of this Schedule L, the

Transmission Owner and the Project Developer shall coordinate and undertake the Stage Two energization of facilities.

11.8.5 To the extent defects in any Interconnection Facilities and Transmission Owner Upgrades are identified during the energization process, the energization will not be deemed successful. In that event, the Constructing Entity shall take action to correct such defects in any Interconnection Facilities and Transmission Owner Upgrades that it built as promptly as practical after the defects are identified. The affected Constructing Entity shall so notify the other Construction Parties when it has corrected any such defects, and the Constructing Entities shall recommence efforts, within 10 days thereafter, to energize the appropriate Interconnection Facilities and Transmission Owner Upgrades in accordance with section 11.9; provided that the Transmission Owner may, in the reasonable exercise of its discretion and with the approval of Transmission Provider, require that further inspection and testing be performed in accordance with section 11.7 of this Schedule L.

11.9 Transmission Owner's Acceptance of Facilities Constructed by Project Developer:

Within five days after determining that Interconnection Facilities and Transmission Owner Upgrades have been successfully energized, the Transmission Owner shall issue a written notice to the Project Developer accepting the Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer that were successfully energized. Such acceptance shall not be construed as confirming, endorsing or providing a warranty by the Transmission Owner as to the design, installation, construction, fitness, safety, durability or reliability of any Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer, or their compliance with Applicable Standards.

11.10 Addendum of Non-Standard Terms and Conditions for Construction Service. In the event of any conflict between a provision of Schedule F of this GIA that FERC has accepted and any provision of the standard terms and conditions set forth in this Schedule L and Appendix 2 of this GIA that relates to the same subject matter, the pertinent provision of Schedule F of this GIA shall control.



**SCHEDULE L, APPENDIX 1**  
**NEGOTIATED CONTRACT OPTION TERMS**

**Tariff, Part IX, Subpart D**

**FORM OF  
ENGINEERING AND PROCUREMENT AGREEMENT**

Service Agreement No. [ ]

(Project Identifier #\_\_\_)

**ENGINEERING AND PROCUREMENT  
AGREEMENT**

**By and Among  
PJM INTERCONNECTION, L.L.C.**

**And**

---

**And**

---

**ENGINEERING AND PROCUREMENT  
AGREEMENT**

**By and Among  
PJM Interconnection, L.L.C.  
And**

\_\_\_\_\_  
**And**

\_\_\_\_\_  
**(Project Identifier #\_\_)**

- 1.0 This Engineering and Procurement Agreement (“E&P Agreement”), including the Specifications attached hereto and incorporated herein, is entered into by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), [\_\_\_\_\_] (“Project Developer” [OPTIONAL: or [“short name”]]), and [\_\_\_\_\_] (“Transmission Owner” [OPTIONAL: or [“short name”]]). Transmission Provider, Project Developer and Transmission Owner are individually, a “Party” and together, the “Parties” and collectively are “Parties”. [Use as/when applicable: This E&P Agreement supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, such as whether it is an E&P Agreement or ~~Generation Generator~~ Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.
- 2.0 The location and a description of the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect to the Transmission Provider’s Transmission System is attached hereto. In the event that Project Developer will not own the facilities, Project Developer represents and warrants that it is authorized by the owners of such facilities to enter into this E&P Agreement and to represent such control.
- 3.0 In order to advance the completion of its interconnection under the PJM Open Access Transmission Tariff (“Tariff”), Project Developer has requested an E&P Agreement and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this E&P Agreement. This E&P Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades.
- 4.0 (a) In accord with the GIP, Project Developer, ~~on or before the effective date of this E&P Agreement,~~ shall provide Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to Transmission Provider in the amount of \$ \_\_\_\_\_, which amount equals the estimated costs, determined in accordance with the GIP, of the engineering and procurement activities described in section 2.0 of the Attached

Specifications. Should Project Developer fail to provide such security in the amount or form required, this E&P Agreement shall be terminated. Project Developer acknowledges (1) that it will be responsible for the actual costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section, and (2) that the payment security under this section does not include any additional amounts that it will owe in the event that it executes a final Generator Interconnection Agreement, as described in section 7.0(a) below.

(b) Project Developer acknowledges (1) that the purpose of this E&P Agreement is to expedite, at Project Developer's request, the engineering and procurement of certain long-lead items, as described in the Specifications, necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request; and (2) that Transmission Provider's Interconnection Studies related to such facilities have not been completed, but that the [identify completed System Impact or other study(ies)], dated [\_\_\_\_\_], that included Project Developer's project sufficiently demonstrated, in Project Developer's sole opinion, the necessity of facilities additions to the Transmission System to accommodate Project Developer's project to warrant, in Project Developer's sole judgment, its request that the Transmission Owner provide engineering and procurement for the equipment indicated in the Specifications for use in interconnecting Project Developer's project with the Transmission System.

5.0 This E&P Agreement shall be effective on the date it is executed by all Interconnection Parties and shall terminate upon the execution and delivery by Project Developer and Transmission Provider of the final Generator Interconnection Agreement described in section 7.0(a) below, or on such other date as mutually agreed upon by the parties, unless earlier terminated in accordance with the Tariff.

6.0 In addition to the milestones stated in the GIP, during the term of this E&P Agreement, Project Developer shall ensure that its generation project meets each of the following development milestones:

[SPECIFY MILESTONES]

OR

[NOT APPLICABLE FOR THIS E&P AGREEMENT]

OR

[MILESTONE REQUIREMENTS WILL BE SPECIFIED IN THE FURTHER GENERATOR INTERCONNECTION AGREEMENT DESCRIBED IN SECTION 7.0(a)]

7.0 (a) Transmission Provider and the Transmission Owner agree to provide for the engineering and procurement of the facilities identified, and to the extent described, in section 2.0 of the Specifications in accordance with the GIP, as amended from time to time, and this E&P Agreement. The parties agree that (1) this E&P Agreement shall not

provide for or authorize Interconnection Service or rights associated therewith for the Project Developer, and (2) Interconnection Service will commence only after Project Developer has entered into a final Generator Interconnection Agreement with Transmission Provider and the Transmission Owner (or, alternatively, the Project Developer, Transmission Owner or Transmission Provider has exercised its right to initiate dispute resolution or to have the final Generator Interconnection Agreement filed with the FERC unexecuted) after completion of the System Impact Studies related to Project Developer's Interconnection Request and otherwise in accordance with the Tariff. The final Generator Interconnection Agreement may further provide for construction of, and payment for, transmission facilities additional to those identified in the attached Specifications. Should Project Developer fail to enter into such final Generator Interconnection Agreement (or, alternatively, to initiate dispute resolution or request in writing that the agreement be filed with the FERC unexecuted) within the time prescribed by the Tariff, Transmission Provider shall have the right, upon providing written notice to Project Developer, to terminate this E&P Agreement.

(b) In the event that Project Developer decides not to interconnect its proposed facilities, as described in section 1.0 of the Specifications to the Transmission System, it shall immediately give Transmission Provider written notice of its determination. Project Developer shall be responsible for the Costs incurred pursuant to this E&P Agreement by Transmission Provider and/or by the Transmission Owner (1) on or before the date of such notice, and (2) after the date of such notice, if the costs could not reasonably be avoided despite, or were incurred by reason of, Project Developer's determination not to interconnect. Project Developer's liability under the preceding sentence shall include all Cancellation Costs in connection with the engineering and procurement of the facilities described in section 2.0 of the Specifications. In the event the Transmission Owner incurs Cancellation Costs, it shall provide the Transmission Provider, with a copy to the Project Developer, with a written demand for payment and with reasonable documentation of such Cancellation Costs. Within 60 days after the date of Project Developer's notice, Transmission Provider shall provide an accounting of, and the appropriate party shall make any payment to the other that is necessary to resolve, any difference between (i) Project Developer's cost responsibility under this E&P Agreement and the Tariff for Costs, including Cancellation Costs, of the facilities described in section 2.0 of the Specifications and (ii) Project Developer's previous payments under this E&P Agreement. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment that the preceding sentence requires it to make unless and until the Transmission Owner has returned to it the portion of Project Developer's previous payments that Transmission Provider must pay under that sentence. This E&P Agreement shall be deemed to be terminated upon completion of all payments required under this paragraph (b).

(c) Disposition of the facilities related to this E&P Agreement after receipt of Project Developer's notice of its determination not to interconnect shall be decided in accordance with the GIP.

8.0 Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures

concerning the dispatch of generation set forth in the Operating Agreement and the PJM Manuals.

- 9.0 In analyzing and preparing the System Impact Study, and in designing and constructing the Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades described in the Specifications attached to this E&P Agreement, Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE FACILITIES STUDY OR THE SYSTEM IMPACT STUDY IF NO FACILITIES STUDY IS REQUIRED OR OF THE TRANSMISSION OWNER INTERCONNECTION FACILITIES, DISTRIBUTION UPGRADES AND/OR NETWORK UPGRADES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.
- 10.0 Within 120 days after the Transmission Owner completes the engineering and procurement of the facilities described in section 2.0 of the Specifications, Transmission Provider shall provide Project Developer with an accounting of, and the appropriate party shall make any payment to the other that is necessary to resolve, any difference between (a) Project Developer's responsibility under this E&P Agreement and the Tariff for the actual cost of such equipment, and (b) Project Developer's previous aggregate payments to Transmission Provider and the Transmission Owner hereunder. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment that the preceding sentence requires it to make unless and until the Transmission Owner has returned to it the portion of Project Developer's previous payments that Transmission Provider must pay under that sentence.
- 11.0 No third party beneficiary rights are created under this E&P Agreement, provided, however, that payment obligations imposed on Project Developer hereunder are agreed and acknowledged to be for the benefit of the Transmission Owner actually performing the services associated with the interconnection of the Generating Facilities and any associated upgrades of other facilities.
- 12.0 No waiver by either party of one or more defaults by the other in performance of any of the provisions of this E&P Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.

- 13.0 This E&P Agreement or any part thereof, may not be amended, modified, assigned, or waived other than by a writing signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 14.0 This E&P Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
- 15.0 This E&P Agreement shall not be construed as an application for service under Part II or Part III of the Tariff.
- 16.0 Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Project Developer**

[CONTACT NAME/ADDRESS]

**Transmission Owner**

[CONTACT NAME/ADDRESS]

- 17.0 All portions of the Tariff and the Operating Agreement pertinent to the subject of this E&P Agreement are incorporated herein and made a part hereof.
- 18.0 This E&P Agreement is entered into pursuant to the GIP.
- 19.0 Neither party shall be liable for consequential, incidental, special, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise with respect to any claim, controversy or dispute arising under this E&P Agreement.
- 20.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section



20.1, Schedule A to this E&P Agreement shall set forth the Project Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

## 20.1 Tax Liability

### 20.1.1 Safe Harbor Provisions:

This section 20.1.1 is applicable only to Generation Project Developers. Provided that Project Developer agrees to conform to all requirements of the Internal Revenue Service ("IRS") (e.g., the "safe harbor" provisions of IRS Notices 2001-82 and 88-129) that would confer nontaxable status on some or all of the transfer of property, including money, by Project Developer to the Transmission Owner for payment of the Costs of construction of the Transmission Owner Interconnection Facilities, the Transmission Owner, based on such agreement and on current law, shall treat such transfer of property to it as nontaxable income and, except as provided in section 20.1.2 below, shall not include income taxes in the Costs of Transmission Owner Interconnection Facilities that are payable by Project Developer under the E&P Agreement, the Generator Interconnection Agreement or the Interconnection Construction Service Agreement. Project Developer shall document its agreement to conform to IRS requirements for such non-taxable status in the E&P Agreement, Generator Interconnection Agreement, and/or the Interconnection Construction Service Agreement.

### 20.1.2 Tax Indemnity:

Project Developer shall indemnify the Transmission Owner for any costs that Transmission Owner incurs in the event that the IRS and/or a state department of revenue (State) determines that the property, including money, transferred by Project Developer to the Transmission Owner with respect to the construction of the Transmission Owner Interconnection Facilities is taxable income to the Transmission Owner. Project Developer shall pay to the Transmission Owner, on demand, the amount of any income taxes that the IRS or a State assesses to the Transmission Owner in connection with such transfer of property and/or money, plus any applicable interest and/or penalty charged to the Transmission Owner. In the event that the Transmission Owner chooses to contest such assessment, either at the request of Project Developer or on its own behalf, and prevails in reducing or eliminating the tax, interest and/or penalty assessed against it, the Transmission Owner shall refund to Project Developer the excess of its demand payment made to the Transmission Owner over the amount of the tax, interest and penalty for which the Transmission Owner is finally determined to be liable. Project Developer's tax indemnification obligation under this section shall survive any termination of the E&P Agreement, the GIA or the Interconnection Construction Service Agreement.

### 20.1.3 Taxes Other Than Income Taxes:

Upon the timely request by Project Developer, and at Project Developer's sole expense, the Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the Transmission Owner for which Project Developer may be required to reimburse Transmission Provider under the terms of this

E&P Agreement or the GIP. Project Developer shall pay to the Transmission Owner on a periodic basis, as invoiced by the Transmission Owner, the Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Project Developer and the Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Project Developer to the Transmission Owner for such contested taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Project Developer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Transmission Owner.

#### 20.1.4 Income Tax Gross-Up

##### 20.1.4.1 Additional Security:

In the event that Project Developer does not provide the safe harbor documentation required under section 20.1.1 prior to execution of this E&P, within 15 days after such execution, Transmission Provider shall notify Project Developer in writing of the amount of additional Security that Project Developer must provide. The amount of Security that a Transmission Project Developer must provide initially pursuant to this E&P Agreement shall include any amounts described as additional Security under this section 20.1.4 regarding income tax gross-up.

##### 20.1.4.2 Amount:

The required additional Security shall be in an amount equal to the amount necessary to gross up fully for currently applicable federal and state income taxes the estimated Costs of Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades for which Project Developer previously provided Security. Accordingly, the additional Security shall equal the amount necessary to increase the total Security provided to the amount that would be sufficient to permit the Transmission Owner to receive and retain, after the payment of all applicable income taxes ("Current Taxes") and taking into account the present value of future tax deductions for depreciation that would be available as a result of the anticipated payments or property transfers (the "Present Value Depreciation Amount"), an amount equal to the estimated Costs of Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades for which Project Developer is responsible under the Generator Interconnection Agreement. For this purpose, Current Taxes shall be computed based on the composite federal and state income tax rates applicable to the Transmission Owner at the time the additional Security is received, determined using the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Transmission Owner's anticipated tax depreciation deductions associated with such payments or property transfers by its current weighted average cost of capital.

##### 20.1.4.3 Time for Payment:

Project Developer must provide the additional Security, in a form and with terms as required by the GIP, within 15 days after its receipt of Transmission Provider's notice under this

section. The requirement for additional Security under this section shall be treated as a milestone included in the Generator Interconnection Agreement pursuant to the GIP.

#### 20.1.5 Tax Status:

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this E&P Agreement or the Tariff is intended to adversely affect any Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

### 21 Breach, Cure and Default

#### 21.1 Breach:

A Breach of this E&P Agreement shall include:

- (a) The failure to pay any amount when due;
- (b) The failure to comply with any material term or condition of this E&P Agreement, including but not limited to any material breach of a representation, warranty or covenant;
- (c) Assignment of the E&P Agreement in a manner inconsistent with its terms; or
- (d) Failure of a Party to provide information or data required to be determined under to another Party for such other Party to satisfy its obligations under this E&P Agreement.

#### 21.2 Notice of Breach:

A Party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Project Developer, Transmission Provider or the Transmission Owner agree to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies).

#### 21.3 Cure and Default:

A Party that commits a Breach and does not take steps to cure the Breach pursuant to this section 21.3 is automatically in Default of this E&P Agreement, and its project and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

#### 21.4.1 Cure of Breach:

21.4.1.1 Except for the event of Breach set forth in section 21.1(a) above, the Breaching Party (a) may cure the Breach within 30 days of the time the Non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within 30 days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such 30 day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the Parties. Such agreement shall not be unreasonably withheld.

21.4.1.2 In an event of Breach set forth in section 21.1(a), the Breaching Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Party is the Project Developer, and the Project Developer fails to pay an amount due within five days from the receipt of notice of the Breach, Transmission Provider may use Security to cure such Breach. If Transmission Provider uses Security to cure such Breach, Project Developer shall be in automatic Default and its project and this Agreement shall be deemed terminated and withdrawn.

#### 21.5 Right to Compel Performance:

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting Party shall be entitled to exercise such other rights and remedies as it may have in equity or at law. No remedy conferred by any provision of this E&P Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies

22.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

23.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this E&P Agreement to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SPECIFICATIONS FOR  
ENGINEERING AND PROCUREMENT  
AGREEMENT  
BY AND AMONG  
PJM INTERCONNECTION, L.L.C.  
AND**

\_\_\_\_\_  
**AND**

\_\_\_\_\_  
**(Project Identifier #\_\_\_)**

1.0 Description of Generating Facility or Merchant Transmission Facility to be interconnected with the Transmission System in the PJM Region:

a. Name of Generating Facility or Merchant Transmission Facility:

\_\_\_\_\_  
\_\_\_\_\_

b. Location of Generating Facility or Merchant Transmission Facility:

\_\_\_\_\_  
\_\_\_\_\_

2.0.A Facilities to be designed or procured by the Transmission Owner under this E&P Agreement: **[List or state None]**

2.0.B Facilities to be designed or procured by the Project Developer under this E&P Agreement: **[List or state None]**

3.0 Project Developer shall be subject to the charges detailed below:

3.1 Transmission Owner Interconnection Facilities Charge:

3.2 Distribution Upgrades Charge:

3.3 Network Upgrades Charge:

3.4 Cost Breakdown:

\$ Direct Labor  
\$ Direct Material  
\$ Indirect Labor

\$ Indirect Material

\$ Total

SCHEDULES: {Note: Schedules A through B are required, others are optional; add if applicable and desirable for clarity.}

SCHEDULE A – ~~INTERCONNECTION CUSTOMER’S PROJECT DEVELOPER’S~~  
AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-  
TAXABLE STATUS

SCHEDULE B – ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS

SCHEDULE \_\_ – ~~GENERATING FACILITY LOCATION/SITE PLAN CUSTOMER~~  
~~FACILITY LOCATION/SITE PLAN~~

SCHEDULE \_\_ – SINGLE-LINE DIAGRAM



## SCHEDULE A

### **INTERCONNECTION CUSTOMER'S-PROJECT DEVELOPER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

{ Include the appropriate language from the alternatives below: }

{ Include the following language if not required: }  
Not Required.

[OR]

{ Include the following language if applicable to Project Developer: }

As provided in section 20.1 of this E&P Agreement and subject to the requirements thereof, Project Developer represents that it meets all qualifications and requirements as set forth in section 118(a) and 118(b) of the Internal Revenue Code of 1986, as amended and interpreted by Notice 2016-36, 2016-25 I.R.B. (6/20/2016) (the "IRS Notice"). Project Developer agrees to conform with all requirements of the safe harbor provisions specified in the IRS Notice, as they may be amended, as required to confer non-taxable status on some or all of the transfer of property, including money, by Project Developer to Transmission Owner with respect to the payment of the Costs of engineering and procurement the Transmission Owner Interconnection Facilities specified in this E&P Agreement.

Nothing in Project Developer's agreement pursuant to this Schedule A shall change Project Developer's indemnification obligations under section 20.1 of this E&P Agreement.

## **SCHEDULE B**

### **ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS**

The following provisions shall apply with respect to charges for the Costs of the Transmission Owner for which the Project Developer is responsible.

Transmission Provider shall invoice Project Developer on behalf of the Transmission Owner, for the Transmission Owner's expected Costs during the next three months. Upon receipt of each of Project Developer's payments of such invoices, Transmission Provider shall reimburse the Transmission Owner. Project Developer shall pay each invoice received from Transmission Provider within 20 days after receipt thereof. Interest on any unpaid, delinquent amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. section 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment. If Project Developer fails to pay any invoice when and as due, Transmission Provider or Transmission Owner can provide notice of such failure to Project Developer and the other party, and Project Developer shall pay the amounts due within five days from the receipt of such notice. Subject to obtaining any necessary authorizations from FERC, if Project Developer fails to make payment within five days from the receipt of such notice, Transmission Provider and Transmission Owner shall each have the right to suspend performance hereunder. If Project Developer fails to make payment within 15 days from the receipt of such notice, Transmission Provider and Transmission Owner shall each have the right to terminate this Agreement, or exercise such other rights and remedies, as each may have in equity or at law.

(~~Project Identifier Request~~ # \_\_\_\_)

**UPGRADE CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Upgrade Customer]**

**And**

**[Name of Transmission Owner]**

**UPGRADE CONSTRUCTION SERVICE AGREEMENT**

**By and Among**  
**PJM Interconnection, L.L.C.**  
**And**  
**[Upgrade Customer]**  
**And**  
**[Name of Transmission Owner]**

(~~Request~~~~Project Identifier~~ #\_\_\_\_)

This Upgrade Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, "Upgrade CSA") is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. ("Transmission Provider" or "PJM"), \_\_\_\_\_ ("Upgrade Customer" [OPTIONAL: or "[short name]"]) and \_\_\_\_\_ ("Transmission Owner" [OPTIONAL: or "[short name]"]). Transmission Provider, Upgrade Customer and Transmission Owner are referred to herein individually as "Party" and collectively as "the Parties."

**WITNESSETH**

WHEREAS, Upgrade Customer has requested (1) Incremental Auction Revenue Rights pursuant to section 7.8 of Schedule 1 of the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement") and Generation Interconnection Procedures ("GIP") set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff ("Tariff"), Part ~~f~~[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]; or (2) installation of one or more Merchant Network Upgrades pursuant to the GIP;

WHEREAS, pursuant to Upgrade Customer's Upgrade Request proposing Merchant Network Upgrades only and in accordance with the PJM Tariff, Transmission Provider has conducted the required studies to determine whether such requests can be accommodated, and if so, under what terms and conditions, including the identification of any Customer-Funded Upgrades that must be constructed in order to provide the service or rights requested by Upgrade Customer;

WHEREAS, Transmission Provider's studies have identified the Customer-Funded Upgrades described in Appendix I of this Upgrade CSA as necessary to provide Upgrade Customer the service or rights it has requested; and

WHEREAS, Upgrade Customer: (i) desires that Transmission Owner construct the required Customer-Funded Upgrades; and (ii) agrees to assume cost responsibility for the design, engineering, procurement and construction of such Customer-Funded Upgrades in accordance with the PJM Tariff.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions and Other Documents**

### **1.0 Defined Terms.**

All capitalized terms used in this Upgrade CSA shall have the meanings ascribed to them in the GIP or in definitions either in the body of this Upgrade CSA or its attached appendices. In the event of any conflict between defined terms set forth in the PJM Tariff or defined terms in this Upgrade CSA, such conflict will be resolved in favor of the terms as defined in this Upgrade CSA. Any provision of the PJM Tariff relating to this Upgrade CSA that uses any such defined term shall be construed using the definition given to such defined term in this Upgrade CSA.

### **1.1 Incorporation of Other Documents.**

Subject to the provisions of section 1.0 above, all portions of the PJM Tariff and the Operating Agreement as of the date of this Upgrade CSA, and as pertinent to the subject of this Upgrade CSA, are hereby incorporated herein and made a part hereof.

## **Article 2 – Responsibility for Customer-Funded Upgrades**

### **2.0 Upgrade Customer Financial Responsibilities.**

Upgrade Customer shall pay all Costs for the design, engineering, procurement and construction of the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA. An estimate of such Costs is provided in Appendix I to this Upgrade CSA.

### **2.1 Obligation to Provide Security.**

Upgrade Customer shall provide Security to collateralize Upgrade Customer's obligation to pay the Costs incurred by Transmission Owner to construct the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, less any Costs already paid by Upgrade Customer, in accordance with the GIP. Upgrade Customer shall deliver such Security to Transmission Provider prior to the Effective Date of this Upgrade CSA, as described in Appendix III. Unless otherwise specified by the Transmission Provider, such Security shall take the form of a letter of credit, in the amount of \$\_\_\_\_\_ naming the Transmission Provider and Transmission Owner as beneficiaries.

### **2.2 Failure to Provide Security.**

If the Upgrade Customer fails to provide Security in the amount, in the time or in the form required by section 2.1, then this Upgrade CSA shall terminate immediately and the Upgrade Customer's Upgrade Request shall be deemed terminated and withdrawn.

### **2.3 Costs.**

In accordance with the GIP, the Upgrade Customer shall pay for the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA based upon the Costs of the Customer-Funded Upgrades described in Appendix I.

### **2.4 Charges.**

In accordance with sections 9, 24, and 25 of Appendix III to this Upgrade CSA, the Upgrade Customer shall pay to the Transmission Provider the charges applicable after Initial Operation of the Merchant Network Upgrades, as set forth in SCHEDULE B to this Upgrade CSA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.

### **2.5 Transmission Owner Responsibilities.**

If the Upgrade Customer satisfies all requirements of this Article 2 and applicable requirements set forth in the PJM Tariff, Transmission Owner shall use Reasonable Efforts to construct or cause to be constructed the Customer-Funded Upgrades, identified in Appendix I to this Upgrade CSA, on its transmission system. Transmission Owner shall own the Customer-Funded Upgrades it has, or has arranged to have, constructed and shall have ongoing responsibility to maintain such Customer-Funded Upgrades consistent with the Operating Agreement and the Transmission Owner's Agreement.

## **Article 3 – Rights to Transmission Service**

### **3.0 No Transmission Service.**

This Upgrade CSA does not entitle the Upgrade Customer to take Transmission Service under the PJM Tariff.

## **Article 4 – Early Termination**

### **4.0 Termination by Upgrade Customer.**

Subject to the terms of section 14 of Appendix III, Upgrade Customer may terminate this Upgrade CSA at any time by providing written notice of termination to Transmission Provider and Transmission Owner. Upgrade Customer's notice of termination shall become effective sixty calendar days after either the Transmission Provider or Transmission Owner receives such notice.

## **Article 5 – Rights**

### **5.0 Rights.**

Transmission Provider shall make available to Upgrade Customer the rights attributable to the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA. The rights, allocation and assignment procedures, duration and all other terms and procedures set forth in the GIP and applicable PJM Manuals referenced therein regarding an Upgrade Customer assuming responsibility for Customer-Funded Upgrades to accommodate an Upgrade Request shall apply under this Agreement for the benefit of Upgrade Customer.

### **5.1 Amount of Rights Granted.**

Upgrade Customer shall receive the following rights, subject to section 5.2 below and the applicable terms of the PJM Tariff:

Incremental Auction Revenue Rights. Pursuant to the GIP, Upgrade Customer shall have Incremental Auction Revenue Rights in the following quantities between the indicated source(s) and sink(s):

Incremental Capacity Transfer Rights. Pursuant to the GIP, Upgrade Customer shall have Incremental Capacity Transfer Rights in the following quantities into the indicated Locational Deliverability Area:

### **5.2 Availability of Rights Granted.**

Upgrade Customer's rights as described in section 5.1 shall become effective upon the completion of (i) the Customer-Funded Upgrades identified in this Upgrade CSA, and, if applicable, (ii) the transmission upgrade projects noted as contingencies in Appendix I of this Upgrade CSA.

## **Article 6 – Miscellaneous**

### **6.0 Notices.**

Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

#### **Transmission Provider:**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403

interconnectionagreementnotices@pjm.com

**Upgrade Customer:**

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**Transmission Owner:**

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**6.1 Waiver.**

No waiver by any Party of one or more Defaults by another in performance of any of the provisions of this Upgrade CSA shall operate or be construed as a waiver of any other or further Default or Defaults, whether of a like or different character.

**6.2 Amendment.**

This Upgrade CSA or any part thereof, may not be amended, modified or waived other than by a writing signed by all Parties

Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution or obligations contained therein.

**6.3 No Partnership.**

Notwithstanding any provision of this Upgrade CSA, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

**6.4 Counterparts.**

This Upgrade CSA may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

[Signature Page Follows]



IN WITNESS WHEREOF, the Parties have caused this Upgrade CSA to be executed by their respective authorized officials.

(~~Project Identifier Request~~ # \_\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Upgrade Customer: [Name of Upgrade Customer]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**NEGOTIATED CONTRACT OPTIONS**

[List or state "None."]

**SCHEDULE B**

**OPERATION AND MAINTENANCE CHARGES FOR  
MERCHANT NETWORK UPGRADES**

[List or state "None."]

**SCHEDULE C**

**NETWORK UPGRADES TO BE BUILT BY TRANSMISSION OWNER**

[Specify Facilities to Be Constructed or state “None”]

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Developer Party has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Service Agreement is required.

(Network Upgrade #\_\_\_\_)

**NETWORK UPGRADE COST RESPONSIBILITY AGREEMENT**

**By and Among**

**PJM INTERCONNECTION, L.L.C.**

**And**

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**And**

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**And**

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**NETWORK UPGRADE COST RESPONSIBILITY AGREEMENT**

**By and Among**  
**PJM Interconnection, L.L.C.**  
**And**  
**[Name of Project Developer]**  
**And**  
**[Name of Project Developer]**

(Network Upgrade #\_\_\_)

1.0 Parties. This Network Upgrade Cost Responsibility Agreement (“NUCRA”) including the Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) and the following Project Developers:

Project Developer (includes Eligible Customer and Affected System Customer):

[full name], Project Identifier #\_\_\_ [OPTIONAL: (also referred to as “[short name”))]\_\_\_\_\_

Name and location of Generating Facility or Merchant Transmission Facility

Project Developer:

[full name] and Project Identifier #\_\_\_ [OPTIONAL: (also referred to as “[short name”))]\_\_\_\_\_

Name and location of Generating Facility or Merchant Transmission Facility

{instructions – for the above, also provide Service Agreement No. or other identifying information if known}

All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in the GIP. [Use as/when applicable: This NUCRA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.

- 2.0 Authority. This NUCRA is entered into pursuant to [{"use Part VII if this is a transition period CSA subject to Tariff, Part VII} {use Part VIII if this is a new rules NUCRA subject to Part VIII}] of the Tariff. The standard terms and conditions set forth in Appendix 2 to this NUCRA are hereby specifically incorporated as provisions of this NUCRA.
- 3.0 Effective Date and Term.
- 3.1 Effective Date. This NUCRA shall become effective on the later of (i) the date the agreement has been executed by all parties to this NUCRA, or (ii) the date that all Project Developers have delivered Security to the Transmission Provider, provided, however, that if the NUCRA is filed with the FERC unexecuted, the Effective Date shall be the date specified by the FERC.
- 3.2 Term. This NUCRA shall continue in full force and effect from the Effective Date until the termination thereof pursuant to section 7 of Appendix 2 to this NUCRA.
- 4.0 Common Use Upgrades Construction and Scope. Common Use Upgrades subject to this NUCRA shall be described in the attached Schedule A. Construction of the Common Use Upgrades and changes to the scope of work shall be as set forth in the applicable agreements or projects as identified in section 1.0 above.
- 5.0 Schedule of Work. The Schedule of Work for construction of the Common Use Upgrades shall be as set forth in the applicable agreements or projects as identified in section 1.0 above.
- 6.0 Common Use Upgrade Cost Responsibility. The cost responsibility of each Project Developer for each Common Use Upgrade described in the attached Schedule A shall be described in the attached Schedule B. Cost responsibility shall be described as a percentage of the total estimated cost of each Common Use Upgrade.
- 7.0 Security. Security associated with this NUCRA shall be the Security provided by each Project Developer as set forth in the Project Developer's GIA, section 5, or the Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party.
- 8.0 Notices. Any notice or request made to or by any party regarding this NUCRA shall be made in accordance with the standard terms and conditions for construction set forth in Appendix 2 to this NUCRA to the representatives of the other parties, as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

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Project Developer:

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- 9.0 Waiver. No waiver by any party of one or more defaults by another in performance of any of the provisions of this NUCRA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 10.0 Amendment. Except as set forth in Appendix 2, sections 4 and 13.3 of this NUCRA, this NUCRA or any part thereof, may not be amended, modified, assigned, or waived other than by a writing signed by all parties. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and initialed by the parties, without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 11.0 Incorporation of Other Documents. All portions of the agreements identified in section 1.0 above, and the Tariff and the Operating Agreement pertinent to the subject of this NUCRA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof. To the extent there is a conflict between the NUCRA and other documents, the terms of this NUCRA shall control.
- 12.0 Addendum of Non-Standard Terms and Conditions. Subject to FERC acceptance, the parties agree that the terms and conditions set forth in the attached Schedule C are hereby incorporated by reference into, and made a part of, this NUCRA. In the event of any conflict between a provision of the attached Schedule C that FERC has accepted and any provision of the standard terms and conditions set forth in Appendix 2 to this NUCRA that relates to the same subject matter, the pertinent provision of the attached Schedule C shall control.
- 13.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal laws and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.



IN WITNESS WHEREOF, the parties have caused this Network Upgrade Cost Responsibility Agreement to be executed by their respective authorized officials.

(Network Identifier #\_\_\_\_)

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

The signature below of the authorized officer of the Transmission Owner is for the limited purpose of acknowledging that an authorized officer of said Transmission Owner has read this Agreement as of this \_\_ day of 20\_\_.

Transmission Owner: [Name of Transmission Owner]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Tariff, Part IX, Subpart I**

**FORM OF  
SURPLUS INTERCONNECTION ~~SERVICE~~ STUDY AGREEMENT**

**Form of  
Surplus Interconnection Study Agreement**  
(Project Identifier #       )

**RECITALS**

1. This Surplus Interconnection Study Agreement (the “Agreement”), dated as of \_\_\_\_\_, is entered into, by and between \_\_\_\_\_ (“Surplus Project Developer”) and PJM Interconnection, L.L.C. (“Transmission Provider”) (individually referred to as a “Party,” or collectively referred to as the “Parties”) pursuant to the Generation Interconnection Procedures (“GIP”) set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part ~~†~~[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]. Capitalized terms used in this agreement, unless otherwise indicated, shall have the meanings ascribed to them in the Tariff.
2. By submitting this Agreement and complying with the GIP, the Surplus Project Developer has submitted a Surplus Interconnection Request. In accordance with Tariff, Part VIII, Subpart E, section 414, the Surplus Project Developer has also submitted with this Agreement the applicable required deposit to the Transmission Provider.
3. By submitting this Agreement to the Transmission Provider, the Surplus Project Developer requests to utilize Surplus Interconnection Service on the Transmission System of an existing Generating Facility with the following specifications:
  - a. Identification of the specific, existing Generating Facility already interconnected to the PJM Transmission System providing Surplus Interconnection Service, including whether the Surplus Project Developer requesting Surplus Interconnection Service is the owner or affiliate of the existing Generating Facility, and details regarding the existing Generating Facility’s current Generator Interconnection Agreement or Interconnection Service Agreement (“Service Agreement”).

\_\_\_\_\_  
\_\_\_\_\_

If the Surplus Project Developer is an unaffiliated third party, the Surplus Project Developer must submit with this Agreement the following information and documentation acceptable to the Transmission Provider:

- i. Name and address of the current owner of the existing Generating Facility, including details specific to the existing Generating Facility’s most current Service Agreement, including the Service Agreement Number:

\_\_\_\_\_

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ii. Written evidence from the owner of the existing Generating Facility granting Surplus Project Developer permission to utilize the existing Generating Facility's unused portion of Interconnection Service established in the existing Generating Facility's Service Agreement; and

iii. Written documentation stating that the owner of the surplus generating unit and the owner of the existing Generating Facility will have entered into, prior to the owner of the existing Generating Facility executing a revised Generator Interconnection Agreement, a shared facilities agreement between the owner of the existing Generating Facility and the owner of the surplus generating unit detailing their respective roles and responsibilities relative to the Surplus Interconnection Service.

b. Evidence of ownership interest in, or right to acquire or control, the surplus generating unit -for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider. Include both a written description of the evidence to be relied upon and attach a Word or PDF version copy thereof.

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c. Location of proposed surplus generating unit site or existing surplus generating unit (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the surplus generating unit site):

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d. The megawatt size of the proposed surplus generating unit or the amount of increase in megawatt capability of an existing surplus generating unit.

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e. Identify the fuel type of the surplus generating unit or upgrade thereto:

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- f. A PDF format attachment of the site plan/single line diagram together with a description of the equipment configuration, including a set of preliminary electrical design specifications, and if the surplus generating unit is a wind generation facility, then also submit a set of preliminary electrical design specifications depicting the wind generation facility as a single equivalent generator:

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- g. Planned date the new surplus generating unit (or increase in megawatt capability of an existing surplus generating unit) will be in service:

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- h. Other related information, including for example, but not limited to, identifying: all of Surplus Project Developer's prior Interconnection Requests or Surplus Interconnection Requests; and stating whether the Surplus Project Developer has submitted a previous Surplus Interconnection Request for this particular project:

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- i. Describe the circumstances under which Surplus Interconnection Service will be available at the existing Point of Interconnection:

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- j. If any Energy Storage Resource, the primary frequency response operating range for a surplus generating unit:

Minimum State of Charge: \_\_\_\_\_; and

Maximum State of Charge: \_\_\_\_\_.

**PURPOSE OF THE SURPLUS INTERCONNECTION STUDY**

4. Consistent with the GIP, the Transmission Provider shall conduct a Surplus Interconnection Study to provide the Surplus Project Developer with a determination of whether the surplus generating unit is eligible for Surplus Interconnection Service. In the event that the Transmission Provider is unable to complete the Surplus Interconnection

Study within the timeframe prescribed in the GIP, the Transmission Provider shall notify the Surplus Project Developer and explain the reasons for the delay.

5. The Surplus Interconnection Study conducted hereunder will provide only a sensitivity analysis based on the data specified by the Surplus Project Developer in its Surplus Interconnection Request. The Surplus Interconnection Study necessarily will employ various assumptions regarding the Surplus Interconnection Request, other pending New Service Requests and PJM's Regional Transmission Expansion Plan at the time of the study. The Surplus Interconnection Study will not obligate the Transmission Provider or the Transmission Owner(s) to interconnect with the Surplus Project Developer or construct any facilities or upgrades.

### **CONFIDENTIALITY**

6. The Surplus Project Developer agrees to provide all information requested by the Transmission Provider necessary to complete the Surplus Interconnection Study. Subject to Paragraph 7 of this Agreement and to the extent required by the GIP, information provided pursuant to this Paragraph 6 shall be and remain confidential.
7. Until completion of the Surplus Interconnection Study, the Transmission Provider shall keep confidential all information provided to it by the Surplus Project Developer. Upon completion of the Surplus Interconnection Study and, to the extent required by Commission regulations, will be made publicly available upon request, except that the identity of the Surplus Project Developer shall remain confidential.
8. Surplus Project Developer acknowledges that, consistent with the Tariff, the Transmission Provider may contract with consultants, including the Transmission Owners, to provide services or expertise in the Surplus Interconnection Study process and that the Transmission Provider may disseminate information to the Transmission Owners.

### **COST RESPONSIBILITY**

9. The Surplus Project Developer shall reimburse the Transmission Provider for the actual cost of the Surplus Interconnection Study. The deposit paid by the Surplus Project Developer described in Paragraph 2 of this Agreement shall be applied toward the Surplus Project Developer's Surplus Interconnection Study cost responsibility. The Surplus Project Developer shall be responsible for and must pay all actual study costs. If at any time the Transmission Provider notifies the Surplus Project Developer of estimated additional study costs, the Surplus Project Developer must pay such estimated additional study costs within 20 Business Days of Transmission Provider sending the Surplus Project Developer notification of such estimated additional study costs. If the Surplus Project Developer fails to pay such estimated additional study costs within 20 Business Days of Transmission Provider sending the Surplus Project Developer notification of such estimated additional study costs, then the Surplus Interconnection Request shall be deemed to be terminated and withdrawn.

## **DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

10. In analyzing and preparing the Surplus Interconnection Study, the Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by the Transmission Provider shall have to rely on information provided by the Surplus Project Developer and possibly by third parties, including the owner of the existing Generating Facility, and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY THE TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SURPLUS INTERCONNECTION STUDY. The Surplus Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the Surplus Interconnection Study prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by the Transmission Provider or the Transmission Owner(s) to provide any transmission or interconnection service to or on behalf of the Surplus Project Developer either at this point in time or in the future.
11. In no event will the Transmission Provider, Transmission Owner(s) or other subcontractors employed by the Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether under this Agreement or otherwise, even if the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider have been advised of the possibility of such a loss. Nor shall the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of the Transmission Provider's obligations under this Surplus Interconnection Study Agreement.

Without limitation of the foregoing, the Surplus Project Developer further agrees that Transmission Owner(s) and other subcontractors employed by the Transmission Provider to prepare or assist in the preparation of any Surplus Interconnection Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty, Limitation of Liability."

**MISCELLANEOUS**

- 12. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Surplus Project Developer**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 13. No waiver by either Party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 14. This Agreement or any part thereof, may not be amended, modified, or waived other than by a writing signed by all Parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution or obligations contained therein.
- 15. This Agreement shall be binding upon the Parties hereto, their heirs, executors, administrators, successors, and assigns.
- 16. Neither this Agreement nor the Surplus Interconnection Study performed hereunder shall be construed as an application for service under Tariff, Part II or Tariff, Part III.
- 17. The provisions of the GIP that relate to Surplus Interconnection Service are incorporated herein and made a part hereof.
- 18. **Governing Law, Regulatory Authority, and Rules**

This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware



without regard to conflicts of laws provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

19. **No Third-Party Beneficiaries**

Except as stated in Paragraph 11 of this Agreement, this Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

20. **Multiple Counterparts**

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which constitute one and the same instrument.

21. **No Partnership**

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

22. **Severability**

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

23. **Reservation of Rights**

The Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission ("FERC") to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Surplus Project Developer Surplus Project Developer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such

filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered.

### **CERTIFICATION**

**By initialing the line next to each of the following required elements, Surplus Project Developer hereby certifies that it has submitted with this executed Agreement each of the required elements (if this Surplus Interconnection Request is being submitted electronically, each of the required elements must be submitted electronically as individual PDF files, together with an electronic PDF copy of this signed Agreement):**

\_\_\_\_\_ **Specification of the location of the proposed surplus generating unit site or existing surplus generating unit (including both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the surplus generating unit site)**

\_\_\_\_\_ **If the Surplus Project Developer is an unaffiliated third party, the information and evidence set forth in Paragraph 3(a)(i) – (iii) of this Agreement**

**Evidence of an ownership interest in, or right to acquire or control the surplus generating unit site**

\_\_\_\_\_ **The megawatt size of the proposed surplus generating unit or the amount of increase in megawatt capability of an existing surplus generating unit**

\_\_\_\_\_ **Identification of the fuel type of the proposed surplus generating unit**

\_\_\_\_\_ **Description of the equipment configuration and a set of preliminary electrical design specifications, and, if the surplus generating unit is a wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator**

\_\_\_\_\_ **The planned date that the proposed surplus generating unit (or increase in megawatt capability of an existing surplus generating unit) will be in service**

\_\_\_\_\_ **All additional information prescribed by the Transmission Provider in the PJM Manuals**

\_\_\_\_\_ **The full amount of the required deposit**

IN WITNESS WHEREOF, the Transmission Provider and the Surplus Project Developer have caused this Agreement to be executed by their respective authorized officials.

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
\_\_\_\_\_  
Printed Name

**Surplus Project Developer: [Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
\_\_\_\_\_  
Printed Name

Service Agreement No. [ ]

(Project Identifier #\_\_\_\_)

**CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer, Eligible Customer, or Affected System Customer]**

**And**

**[Name of Transmission Owner]**

**CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer, Eligible Customer, or Affected System Customer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_\_\_)

This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, “CSA”) is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Developer Party” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). Transmission Provider, Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select ~~Project Developer, Eligible Customer or Affected System Customer~~} as defined in in this GIP. ~~For purposes of this Upgrade CSA,~~ For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.

**WITNESSETH**

WHEREAS, Developer Party (1) has requested Long-Term Firm Point-To-Point Transmission Service or Network Integration Transmission Service (“Transmission Service”) from Transmission Provider pursuant to Transmission Provider’s Open Access Transmission Tariff (the “PJM Tariff”); (2) is an Affected System Customer that requires Network Upgrades; or (3) is a Project Developer that requires Network Upgrades to the system of a Transmission Owner with which its Generation Facility or Merchant Transmission Facility does not directly interconnect;

WHEREAS, pursuant to Developer Party’s Completed Application, Affected System Customers Facility Study or Interconnection Request, Transmission Provider has conducted the required studies to determine whether such requests can be accommodated, and if so, under what terms and conditions, including the identification of any Network Upgrades that must be constructed in order to provide the service or rights requested by Developer Party;

WHEREAS, Transmission Provider’s studies have identified the Network Upgrades described in Appendix I of this CSA as necessary to provide Developer Party the service or rights it has requested; and

WHEREAS, Developer Party: (i) desires that Transmission Owner construct the required Network Upgrades; and (ii) agrees to assume cost responsibility for the design, engineering, procurement and construction of such Network Upgrades in accordance with the PJM Tariff.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions and Other Documents**

### **1.0 Defined Terms.**

All capitalized terms used in this CSA shall have the meanings ascribed to them in the GIP or in definitions either in the body of this CSA or its attached appendices. In the event of any conflict between defined terms set forth in the PJM Tariff or defined terms in this CSA, such conflict will be resolved in favor of the terms as defined in this CSA. Any provision of the PJM Tariff relating to this CSA that uses any such defined term shall be construed using the definition given to such defined term in this CSA.

### **1.1 Incorporation of Other Documents.**

Subject to the provisions of section 1.0 above, all portions of the PJM Tariff and the Operating Agreement as of the date of this CSA, and as pertinent to the subject of this CSA, are hereby incorporated herein and made a part hereof.

## **Article 2 – Responsibility for Network Upgrades**

### **2.0 Developer Party Financial Responsibilities.**

Developer Party shall pay all Costs for the design, engineering, procurement and construction of the Network Upgrades identified in Appendix I to this CSA. An estimate of such Costs is provided in Appendix I to this CSA.

### **2.1 Obligation to Provide Security.**

Unless Security is provided pursuant to a Generation Interconnection Agreement Developer Party shall provide Security to collateralize Developer Party's obligation to pay the Costs incurred by Transmission Owner to construct the Network Upgrades identified in Appendix I to this CSA, less any Costs already paid by Developer Party, in accordance with the GIP. Developer Party shall deliver such Security to Transmission Provider prior to the Effective Date of this CSA, as described in Appendix III. Unless otherwise specified by the Transmission Provider, such Security shall take the form of a letter of credit, in the amount of \$\_\_\_\_\_ naming the Transmission Provider and Transmission Owner as beneficiaries.

### **2.2 Failure to Provide Security.**

If the Developer Party fails to provide Security in the amount, in the time or in the form required by section 2.1, then this CSA shall terminate immediately and the Developer Party's Completed Application or Interconnection Request shall be deemed terminated and withdrawn.

### **2.3 Costs.**

In accordance with the GIP, the Developer Party shall pay for the Network Upgrades identified in Appendix I to this CSA based upon the Costs of the Network Upgrades described in Appendix I. The Developer Party's obligation to pay the Costs for the Network Upgrades identified in Appendix I to this CSA, whether greater or lesser than the amount of the Security specified in section 2.1, will continue regardless of whether the Developer Party takes Transmission Service pursuant to the terms of the Transmission Service Agreement as defined in section 3.0 of this CSA, if applicable.

### **2.4 Transmission Owner Responsibilities.**

If the Developer Party satisfies all requirements of this Article 2 and applicable requirements set forth in the PJM Tariff, Transmission Owner shall use Reasonable Efforts to construct or cause to be constructed the Network Upgrades, identified in Appendix I to this CSA, on its transmission system. Transmission Owner shall own the Network Upgrades it has, or has arranged to have, constructed and shall have ongoing responsibility to maintain such Network Upgrades consistent with the Operating Agreement and the Transmission Owner's Agreement.

## **Article 3 – Rights to Transmission Service**

### **3.0 No Transmission Service.**

This CSA does not entitle the Developer Party to take Transmission Service under the PJM Tariff. Transmission Provider shall provide Transmission Service to Developer Party pursuant to a separate service agreement by and between Developer Party and Transmission Provider dated as of the same effective date as this CSA (the "Transmission Service Agreement"), if applicable.

## **Article 4 – Early Termination**

### **4.0 Termination by Developer Party.**

Subject to the terms of section 14 of Appendix III, Developer Party may terminate this CSA at any time by providing written notice of termination to Transmission Provider and Transmission Owner. Developer Party's notice of termination shall become effective sixty calendar days after either the Transmission Provider or Transmission Owner receives such notice.

**Article 5 – Miscellaneous**

**5.0 Notices.**

Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider:**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Developer Party:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Transmission Owner:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**5.1 Waiver.**

No waiver by any Party of one or more Defaults by another in performance of any of the provisions of this CSA shall operate or be construed as a waiver of any other or further Default or Defaults, whether of a like or different character.

**5.2 Amendment.**

This CSA or any part thereof, may not be amended, modified or waived other than by a writing signed by all Parties.

**5.3 No Partnership.**

Notwithstanding any provision of this CSA, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.



#### **5.4 Counterparts.**

This CSA may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

#### **5.5 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status.**

To the extent required, in accordance with section 4.0 to Appendix III to this CSA, Schedule E to this CSA shall set forth the Interconnection Customer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

#### **5.6 Addendum of Non-Standard Terms and Conditions for Construction Service.**

Subject to FERC approval, the parties agree that the terms and conditions set forth in the attached Schedule F are hereby incorporated by reference, and made a part of, this CSA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of the standard terms and conditions set forth in Appendix III to this CSA that relates to the same subject matter, the pertinent provision of Schedule F shall control.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this CSA to be executed by their respective authorized officials.

(Project Identifier # \_\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Developer Party: [Name of Developer Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**NEGOTIATED CONTRACT OPTIONS**

None.

**SCHEDULE B**

**OPERATION AND MAINTENANCE CHARGES FOR  
NETWORK UPGRADES**

None.

**SCHEDULE C**  
**SCOPE OF WORK**

**A. Transmission Owner Upgrades to be Built by Transmission Owner**

**[Specify Facilities To Be Constructed or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Developer Party has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Service Agreement is required.

**B. Project Developer.**

In the event Developer Party has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in this CSA, the following Stand Alone Network Upgrades:

**[Specify Facilities to Be Constructed or state “None”]**

## SCHEDULE D

### APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS

{Include the following language if not required:}

Not Required.

{Otherwise, include the following language:}

The following technical requirements and standards shall apply. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this CSA, the Tariff and/or this CSA shall control.

*{Instructions: If the relevant TO Applicable Technical Requirements and Standards **are** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.

*{Instructions. If the relevant TO Applicable Technical Requirements and Standards **are not** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply.

**SCHEDULE E**

**DEVELOPER PARTY’S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

{Include the appropriate language from the alternatives below:}

{Include the following language if not required:}

Not Required.

[OR]

{Include the following language if applicable to Project Developer:}

As provided in section 4.0 of Appendix III to this CSA and subject to the requirements thereof, Developer Party represents that it meets all qualifications and requirements as set forth in section 118(a) and 118(b) of the Internal Revenue Code of 1986, as amended and interpreted by Notice 2016-36, 2016-25 I.R.B. (6/20/2016) (the “IRS Notice”). Developer Party agrees to conform with all requirements of the safe harbor provisions specified in the IRS Notice, as they may be amended, as required to confer non-taxable status on some or all of the transfer of property, including money, by Developer Party to Transmission Owner with respect to the payment of the Costs of construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades specified in this GIA.

Nothing in Developer Party’s agreement pursuant to this Schedule E shall change Developer Party’s indemnification obligations under section 4.2 of Appendix III to this CSA.

**SCHEDULE F**

**SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**



**Tariff, Part IX, Subpart L**

**FORM OF  
AFFECTED SYSTEM CUSTOMER FACILITIES STUDY  
APPLICATION AND AGREEMENT**

**Affected System Customer Facilities Study  
Application and Agreement**  
(Project Identifier #\_\_\_\_)

**RECITALS**

1. This Affected System Customer Facilities Study Application and Agreement ("Agreement"), dated as of \_\_\_\_\_, is entered into by and between \_\_\_\_\_ ("Affected System Customer") and PJM Interconnection, L.L.C. ("Transmission Provider"), pursuant to the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("~~PJM~~-Tariff").
2. Pursuant to Tariff, Part VII, Subpart G (Affected System rules) or Tariff, Part VIII, Subpart G (Affected System rules), as applicable, Affected System Customer is responsible for an Affected System Facility that requires, or Affected System Facilities that require, Network Upgrades to Transmission Provider's Transmission System, and Transmission Provider has notified Affected System Customer of the need to enter this Agreement.
3. Transmission Provider has informed Affected System Customer that it will use Reasonable Efforts to complete this Affected System Customer Facilities Study by {date}.
4. Affected System Customer desires that Transmission Provider commence an Affected System Customer Facilities Study in connection with the following interconnection request: {instruction – list adjacent region transmission provide and interconnection request number} ("Affected System interconnection request").

**PREVIOUS SUBMISSIONS**

5. Previous submissions: {instructions – complete the following section if there was an earlier Affected System Customer Facilities Study Agreement or other agreement between PJM and the Affected System Customer, otherwise replace the following language with "Not Applicable"}; Except as otherwise specifically set forth in an attachment to this Agreement, Affected System Customer represents and warrants that the information provided in {list applicable agreement} dated \_\_\_\_\_, is accurate and complete as of the date of execution of this Agreement.

**MILESTONES**

6. Affected System Customer must meet the following milestone dates relating to the development of its generation or merchant transmission project(s) or interconnection request:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand]

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**PURPOSE AND SCOPE OF THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY**

7. Transmission Provider, in consultation with the affected Transmission Owner(s), shall commence an Affected System Customer Facilities Study pursuant to this Agreement to evaluate the Network Upgrades to the Transmission Provider's Transmission System necessary to accommodate Affected System Customer's Affected System interconnection request.
  - A. **Scope of Affected System Customer Facilities Study:** The purpose of the Affected System Customer Facilities Study is to provide, commensurate with any mutually agreed parameters regarding the scope and degree of specificity described in Schedule A attached to this agreement, an assessment of project related system reliability issues and conceptual engineering and, as appropriate, detailed design, plus cost estimates and project schedules, to implement the conclusions of the Facilities Study regarding the Network Upgrades necessary to accommodate the Affected System interconnection request. The nature and scope of the materials that Transmission Provider shall deliver to the Affected System Customer upon completion of the Affected System Customer Facilities Study shall be described in the PJM Manuals.
  - B. **Affected System Customer Facilities Study Time Estimate:** Transmission Provider's estimates of the date for completion of the Affected System Customer Facilities Study is stated in section 3 of this Agreement. In the event that Transmission Provider determines that it will be unable to complete the Affected System Customer Facilities Study by the estimated completion date stated in section 3 of this Agreement, it shall notify Affected System Customer and will explain the reasons for the delay.
  - C. **Issuance of Affected System Customer Facility Study Report and Obligation to Construction Service Agreement:** Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement and, if applicable Network Upgrade Cost Responsibility Agreement (forms of which are

set forth in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement and, if applicable a Network Upgrade Cost Responsibility Agreement.

8. The Affected System Customer Facilities Study necessarily will employ various assumptions including assumptions regarding Affected System Customer's Affected System interconnection request, other pending Interconnection Request(s), and PJM's Regional Transmission Expansion Plan at the time of the study. IN NO EVENT SHALL THIS AGREEMENT OR THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY IN ANY WAY BE DEEMED TO OBLIGATE TRANSMISSION PROVIDER OR THE TRANSMISSION OWNERS TO CONSTRUCT ANY FACILITIES OR UPGRADES OR TO PROVIDE ANY TRANSMISSION OR INTERCONNECTION SERVICE TO OR ON BEHALF OF NEW SERVICE CUSTOMER EITHER AT THIS POINT IN TIME OR IN THE FUTURE.

### **CONFIDENTIALITY**

9. Affected System Customer agrees to provide all information requested by Transmission Provider necessary to complete the Affected System Customer Facilities Study. Subject to section 10 of this Agreement and to the extent required by Tariff, Part VII, Subpart E, section 327, or Tariff, Part VIII, Subpart E, section 425, information provided pursuant to this section 9 shall be and remain confidential.
10. Until completion of the Affected System Customer Facilities Study, Transmission Provider shall keep confidential all information provided to it by the Affected System Customer. Upon completion of the Affected System Customer Facilities Study, the Affected System Customer Facilities Study results will be publicly available on Transmission Provider's website; Affected System Customers must obtain the results from Transmission Provider's website. Transmission Provider shall provide a copy of the study to Affected System Customer, along with (to the extent consistent with Transmission Provider's confidentiality obligations in section 18.17 of the Operating Agreement) all related work papers. Affected System Customer acknowledges and consents to such other, additional disclosures of information as may be required under the PJM Tariff or the FERC's rules and regulations.
11. Affected System Customer acknowledges the affected Transmission Owner(s) may participate in the Affected System Customer Facilities Study process and that Transmission Provider may disseminate information to the affected Transmission Owner(s) and may consult with them regarding part or all of the Affected System Customer Facilities Study.

### **COST RESPONSIBILITY**

12. Concurrent with execution of this Agreement, Affected System Customer shall provide a study deposit of \$100,000 ("Study Deposit"), through electronic wire transfer, which

must in cash. Transmission Provider shall apply Affected System Customer's Study Deposit in payment of the invoices for the costs of the Affected System Customer Facilities Study. Actual study costs may exceed the Study Deposit. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement. Notwithstanding the amount of the Study Deposit, Affected System Customer shall reimburse Transmission Provider for all of the actual cost of the Affected System Customer Facilities Study. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs. If Affected System Customer fails to pay such amounts, then Transmission Provider shall deem this Agreement to be terminated and withdrawn.

#### **DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

13. In analyzing and preparing the Affected System Customer Facilities Study, Transmission Provider, the Transmission Owners, and any other subcontractors employed by Transmission Provider shall have to rely on information provided by Affected System Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNERS, NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY. Affected System Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the Facilities Studies prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by Transmission Provider or Transmission Owner(s) to provide Interconnection Service or transmission service to or on behalf of Applicant either at this time or in the future.
14. In no event will Transmission Provider, the Transmission Owners or other subcontractors employed by Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, arising under or in connection with this Agreement or the Affected System Customer Facilities Study, even if Transmission Provider, the Transmission Owners, or other subcontractors employed by Transmission Provider have been advised of the possibility of such a loss. Nor shall Transmission Provider, the Transmission Owners, or other subcontractors employed by Transmission Provider be liable for any delay in delivery, or for the non-performance or delay in performance, of Transmission Provider's obligations under this Agreement.

Without limitation of the foregoing, Affected System Customer further agrees that the Transmission Owners and other subcontractors employed by Transmission Provider to prepare or assist in the preparation of any Affected System Customer Facilities Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty/Limitation of Liability."

**MISCELLANEOUS**

- 15. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Affected System Customer**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 16. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 17. This Agreement or any part thereof, may not be amended, modified, assigned or waived other than by a writing signed by all parties hereto.
- 18. This Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
- 19. Neither this Agreement nor the Affected System Customer Facilities Study performed hereunder shall be construed as an application for service under Part II or Part III of the PJM Tariff.
- 20. The provisions of Tariff, Part VII or Tariff, Part VIII, as applicable are incorporated herein and made a part hereof.
- 21. Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to them in the PJM Tariff.

22. This Agreement shall become effective on the date it is executed by all parties and shall remain in effect until the earlier of (a) the date on which the Transmission Provider tenders the completed Affected System Customer Facilities Study and, as applicable, a proposed Upgrade Construction Service Agreement to Affected System Customer, or (b) termination and withdrawal of the Affected System interconnection request(s).

23. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the parties, and the obligations herein assumed are solely for the use and benefit of the parties, their successors in interest and where permitted, their assigns.

24. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

25. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

26. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

27. Governing Law, Regulatory Authority, and Rules

This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

28. Reservation of Rights

Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission (“FERC”) to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC’s rules and regulations thereunder; and Applicant shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC’s rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC’s rules and regulations, except to the extent that the Parties otherwise agree as provided herein.



IN WITNESS WHEREOF, Transmission Provider and the Affected System Customer have caused this Agreement to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

**Affected System Customer: [Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

**Schedule A**  
**Details of Design and Cost Estimates/Quality**  
**For the Affected System Customer Facilities Study**

[insert details regarding degree of accuracy of cost estimates and associated scope of design as mutually agreed by Transmission Provider and Affected System Customer]

## **ATTACHMENT Q**

### **CREDIT RISK MANAGEMENT POLICY**

#### **I. INTRODUCTION**

It is the policy of PJM that prior to an entity participating in any PJM Markets or in order to take Transmission Service, the entity must demonstrate its ability to meet the requirements in this Attachment Q. This Attachment Q also sets forth PJM's authority to deny, reject, or terminate a Participant's right to participate in any PJM Markets in order to protect the PJM Markets and PJM Members from unreasonable credit risk from any Participant's activities. Given the interconnectedness and overlapping of their responsibilities, PJM Interconnection, L.L.C. and PJM Settlement, Inc. are referred to both individually and collectively herein as "PJM."

#### **PURPOSE**

PJMSettlement is the counterparty to transactions in the PJM Markets. As a consequence, if a Participant defaults on its obligations under this Attachment Q, or PJM determines a Participant represents unreasonable credit risk to the PJM Markets, and the Participant does not post Collateral, additional Collateral or Restricted Collateral in response to a Collateral Call, the result is that the Participant represents unsecured credit risk to the PJM Markets. For this reason, PJM must have the authority to monitor and manage credit risk on an ongoing basis, and to act promptly to mitigate or reduce any unsecured credit risk, in order to protect the PJM Markets and PJM Members from losses.

This Attachment Q describes requirements for: (1) eligibility to be a Market Participant, (2) establishment and maintenance of credit by Market Participants, and (3) collateral requirements and forms of credit support that will be deemed as acceptable to mitigate risk to any PJM Markets.

This Attachment Q also sets forth (1) PJM's authority to monitor and manage credit risk that a Participant may represent to the PJM Markets and/or PJM membership in general, (2) the basis for establishing limits that will be imposed on a Market Participant in order to minimize risk, and (3) various obligations and requirements the violation of which will result in an Event of Default pursuant to this Attachment Q and the Agreements.

Attachment Q describes the types of data and information PJM will review in order to determine whether an Applicant or Market Participant presents an unreasonable risk to any PJM Markets and/or PJM membership in general, and the steps PJM may take in order to address that risk.

#### **APPLICABILITY**

This Attachment Q applies to all Applicants and Market Participants who take Transmission Service under this Tariff, or participate in any PJM Markets or market activities under the Agreements. Notwithstanding anything to the contrary in this Attachment Q, simply taking

transmission service or procuring Ancillary Services via market-based rates does not imply market participation for purposes of applicability of this Attachment Q.

## **II. RISK EVALUATION PROCESS**

PJM will conduct a risk evaluation to determine eligibility to become and/or remain a Market Participant or Guarantor that: (1) assesses the entity's financial strength, risk profile, creditworthiness, and other relevant factors; (2) determines an Unsecured Credit Allowance, if appropriate; (3) determines appropriate levels of Collateral; and (4) evaluates any Credit Support, including Guaranties or Letters of Credit.

### **A. Initial Risk Evaluation**

PJM will perform an initial risk evaluation of each Applicant and/or its Guarantor. As part of the initial risk evaluation, PJM will consider certain Minimum Participation Requirements, assign an Internal Risk Score, establish an Unsecured Credit Allowance if appropriate, and make a determination regarding required levels of Collateral, creditworthiness, credit support, Restricted Collateral and other assurances for participation in certain PJM Markets.

Each Applicant and/or its Guarantor must provide the information set forth below at the time of its initial application pursuant to this Attachment Q and on an ongoing basis in order to remain eligible to participate in any PJM Markets. The same quantitative and qualitative factors will be used to evaluate Participants whether or not they have rated debt.

#### **1. Rating Agency Reports**

PJM will review Rating Agency reports from Standard & Poor's, Moody's Investors Service, Fitch Ratings, or other Nationally Recognized Statistical Rating Organization for each Applicant and/or Guarantor. The review will focus on the Applicant's or its Guarantor's senior unsecured debt ratings. If senior unsecured debt ratings are not available, PJM may consider other ratings, including issuer ratings, corporate ratings and/or an implied rating based on an internally derived Internal Credit Score pursuant to section II.A.3 below.

#### **2. Financial Statements and Related Information**

Each Applicant and/or its Guarantor must submit, or cause to be submitted, audited financial statements, except as otherwise indicated below, prepared in accordance with United States Generally Accepted Accounting Principles ("US GAAP") or any other format acceptable to PJM for the three (3) fiscal years most recently ended, or the period of existence of the Applicant and/or its Guarantor, if shorter. Applicants and/or their Guarantors must submit, or cause to be submitted, financial statements, which may be unaudited, for each completed fiscal quarter of the current fiscal year. All audited financial statements provided by the Applicant and/or its Guarantor must be audited by an Independent Auditor.

The information should include, but not be limited to, the following:

- (a) If the Applicant and/or its Guarantor has publicly traded securities:
- (i) Annual reports on Form 10-K, together with any amendments thereto;
  - (ii) Quarterly reports on Form 10-Q, together with any amendments thereto;
  - (iii) Form 8-K reports, if any, that have been filed since the most recent Form 10-K;
  - (iv) A summary provided by the Principal responsible, or to be responsible, for PJM Market activity of: (1) the Participant's primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or "hedging or mitigating commercial risks," as such phrase has meaning in the CFTC's regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant's intended participation in the PJM Markets.
  - (v) All audited financial statements provided by an Applicant with publicly traded securities and/or its Guarantor with publicly traded securities must be audited by an Independent Auditor that satisfies the requirements set forth in the Sarbanes-Oxley Act of 2002.
- (b) If the Applicant and/or its Guarantor does not have publicly-traded securities:
- (i) Annual Audited Financial Statements or equivalent independently audited financials, and quarterly financial statements, generally found on:
    - Balance Sheets
    - Income Statements
    - Statements of Cash Flows
    - Statements of Stockholder's or Member's Equity or Net Worth;
  - (ii) Notes to Annual Audited Financial Statements, and notes to quarterly financial statements if any, including disclosures of any material changes from the last report;
  - (iii) Disclosure equivalent to a Management's Discussion & Analysis, including an executive overview of operating results and outlook, and compliance with debt covenants and indentures, and off balance sheet arrangements, if any;
  - (iv) Auditor's Report with an unqualified opinion or written letter from auditor containing the opinion whether the annual audited financial statements comply with the US GAAP or any other format acceptable to PJM; and

- (v) A summary provided by the Principal responsible or to be responsible for PJM Market activity of: (1) the Participant’s primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or “hedging or mitigating commercial risks,” as such phrase has meaning in the CFTC’s regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant’s intended participation in the PJM Markets.
- (c) If Applicant and/or Guarantor is newly formed, does not yet have three (3) years of audited financials, or does not routinely prepare audited financial statements, PJM may specify other information to allow it to assess the entity’s creditworthiness, including but not limited to:
  - (i) Equivalent financial information traditionally found in:
    - Balance Sheets
    - Income Statements
    - Statements of Cash Flows
  - (ii) Disclosure equivalent to a Management’s Discussion & Analysis, including an executive overview of operating results and outlook, and compliance with debt covenants and indentures, and off balance sheet arrangements, if any; and
  - (iii) A summary provided by the Principal responsible or to be responsible for PJM Market activity of: (1) the Participant’s primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or “hedging or mitigating commercial risks,” as such phrase has meaning in the CFTC’s regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant’s intended participation in the PJM Markets.
- (d) During a two year transition period from June 1, 2020 to May 31, 2022, the Applicant or Guarantor may provide a combination of audited financial statements and/or equivalent financial information.

If any of the above information in this section II.A.2 is available on the internet, the Applicant and/or its Guarantor may provide a letter stating where such statements can be located and retrieved by PJM. If an Applicant and/or its Guarantor files Form 10-K, Form 10-Q, or Form 8-K with the SEC, then the Applicant and/or its Guarantor will be deemed to have satisfied the requirement by indicating to PJM where the information in this section II.A.2 can be located on the internet.

If the Applicant and/or its Guarantor fails, for any reason, to provide the information required above in this section II.A.2, PJM has the right to (1) request Collateral and/or Restricted Collateral to cover the amount of risk reasonably associated with the Applicant and/or its Guarantor's expected activity in any PJM Markets, and/or (2) restrict the Applicant from participating in certain PJM Markets, including but not limited to restricting the positions the Applicant (once it becomes a Market Participant) takes in the market.

For certain Applicants and/or their Guarantors, some of the above submittals may not be applicable and alternate requirements for compliant submittals may be specified by PJM. In the credit evaluation of Municipalities and Cooperatives, PJM may also request additional information as part of the initial and ongoing review process and will consider other qualitative factors in determining financial strength and creditworthiness.

### **3. Credit Rating and Internal Credit Score**

PJM will use credit risk scoring methodologies as a tool in determining an Unsecured Credit Allowance for each Applicant and/or its Guarantor. As its source for calculating the Unsecured Credit Allowance, PJM will rely on the ratings from a Rating Agency, if any, on the Applicant's or Guarantor's senior unsecured debt or their issuer ratings or corporate ratings if senior unsecured debt ratings are not available. If there is a split rating between the Rating Agencies, the lower of the ratings shall apply. If no external credit rating is available PJM will utilize its Internal Credit Score in order to calculate the Unsecured Credit Allowance.

The model used to develop the Internal Credit Score will be quantitative, based on financial data found in the income statement, balance sheet, and cash flow statement, and it will be qualitative based on relevant factors that may be internal or external to a particular Applicant and/or its Guarantor.

PJM will employ a framework, as outlined in Tables 1-5 below, based on metrics internal to the Applicant and/or its Guarantor, including capital and leverage, cash flow coverage of fixed obligations, liquidity, profitability, and other qualitative factors. The particular metrics and scoring rules differ according to the Applicant's or Guarantor's line of business and the PJM Markets in which it anticipates participating, in order to account for varying sources and degrees of risk to the PJM Markets and PJM members.

The formulation of each metric will be consistently applied to all Applicants and Guarantors across industries with slight variations based on identifiable differences in entity type, anticipated market activity, and risks to the PJM Markets and PJM members. In instances where the external credit rating is used to calculate the unsecured credit allowance, PJM may also use the Internal Credit Score as an input into determining the overall risk profile of an Applicant and/or its Guarantor.

<b>Table 1.</b> <b>Quantitative Metrics by</b> <b>Line of Business: Leverage</b> <b>and Capital Structure</b>	<b>Investor- Owned</b>	<b>Municipal Utilities</b>	<b>Co- Operative</b>	<b>Power Transmissi</b>	<b>Merchant Devs</b>	<b>Project Developers</b>	<b>Exploration &amp;</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
Debt / Total Capitalization (%)										
FFO / Debt (%)										
Debt / EBITDA (x)										
Debt / Property, Plant & Equipment (%)										
Retained Earnings / Total Assets (%)										
Debt / Avg Daily Production or Kwh (\$)										
Tangible Net Worth (\$)										
Core Capital / Total Assets (%)										
Risk-Based Capital / RWA (%)										
Tier 1 Capital / RWA (%)										
Equity / Investments (%)										
Debt / Investments (%)										

**primary metric** **secondary metric** FFO = Funds From Operations RWA = Risk-Weighted  
Asserts

<b>Table 2.</b> <b>Quantitative Metrics by</b> <b>Line of Business: Fixed</b> <b>Charge Coverage and</b> <b>Funding</b>	<b>Investor- Owned</b>	<b>Municipal Utilities</b>	<b>Co- Operative</b>	<b>Power Transmissio</b>	<b>Merchant Devs</b>	<b>Project Developers</b>	<b>Exploration &amp;</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
EBIT / Interest Expense (x)										
EBITDA / Interest Expense (x)										
EBITDA / [Interest Exp + CPLTD] (x)										
[FFO + Interest Exp] / Interest Exp (x)										
Loans / Total Deposits (%)										
NPL / Gross Loans (%)										
NPL / [Net Worth + LLR] (%)										
Market Funding / Tangible Bank Assets (%)										



**primary metric** **secondary metric** CPLTD = Current Portion of Long-Term Debt EBIT = Earnings Before Interest and Taxes EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization LLR = Loan Loss Reserves NPL = Non-Performing Loans

<b>Table 3.</b> <b>Quantitative Metrics by</b> <b>Line of Business: Liquidity</b>	<b>Investor- Owned</b>	<b>Municipal Utilities</b>	<b>Co- Operative</b>	<b>Power Transmissio</b>	<b>Merchant</b>	<b>Project Developers</b>	<b>Exploration &amp;</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
CFFO / Total Debt (x)										
Current Assets / Current Liabilities (x)										
Liquid Assets / Tangible Bank Assets (%)										
Sources / Uses of Funds (x)										
Weighted Avg Maturity of Debt (yrs)										
Floating Rate Debt / Total Debt (%)										

**primary metric** **secondary metric**

CFFO = Cash Flow From Operations

<b>Table 4.</b> <b>Quantitative Metrics by</b> <b>Line of Business:</b> <b>Profitability</b>	<b>Investor- Owned</b>	<b>Municipa Utilities</b>	<b>Co- Operativ</b>	<b>Power Transmissio</b>	<b>Merchant</b>	<b>Project Developers</b>	<b>Exploration &amp;</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
Return on Assets (%)										
Return on Equity (%)										
Profit Volatility (%)										
Return on Revenue (%)										
Net Income / Tangible Assets (%)										
Net Profit (\$)										
Net Income / Dividends (x)										

**primary metric** **secondary metric**

<b>Table 5. Qualitative Factors: Industry Level</b>	<b>Sample Reference Metrics</b>	<b>Investor-Owned Utilities</b>	<b>Municipal Utilities</b>	<b>Co-Operative Utilities</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
Need for PJM Markets to Achieve Business Goals	Rating Agency criteria or other industry analysis	High	High	High	High	Med	Low	Med	Low	Low	N/A
Ability to Grow/Enter Markets other than PJM	Rating Agency criteria or other industry analysis	Very Low	Very Low	Very Low	Very Low	High	High	Med	Med	High	N/A
Other Participants' Ability to Serve Customers	Rating Agency criteria or other industry analysis	Low	Low	Low	Low	Low	Med	Low	Low	High	N/A
Regulation of Participant's Business	RRA regulatory climate scores, S&P BICRA	PUCS	Govt	N/A	FERC PUCS	N/A	N/A	N/A	N/A	N/A	N/A
Primary Purpose of PJM Activity	Investment ("Inv.)/ Trading ("Trade") / Hedging or Mitigating Commercial Risk of	CRH	CRH	CRH	CRH / Trade	CRH / Trade	CRH / Trade	CRH / Trade	Inv./ Trade	Inv./ Trade	Inv./ Trade

	Operations ("CRH")										
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*RRA = Regulatory Research Associates, a division of S&P Global, Inc.      BICRA = Bank Industry Country Risk Assessment*

The scores developed will range from 1-6, with the following mappings:

- 1 = Very Low Risk (S&P/Fitch: AAA to AA-; Moody's: Aaa to Aa3)
- 2 = Low Risk (S&P/Fitch: A+ to BBB+; Moody's: A1 to Baa1)
- 3 = Low to Medium Risk (S&P/Fitch: BBB; Moody's: Baa2)
- 4 = Medium Risk (S&P/Fitch: BBB-; Moody's: Baa3)
- 5 = Medium to High Risk (S&P/Fitch: BB+ to BB; Moody's Ba1 to Ba2)
- 6 = High Risk (S&P/Fitch: BB- and below; Moody's: Ba3 and below)

**4. Trade References**

If deemed necessary by PJM, whether because the Applicant is newly or recently formed or for any other reason, each Applicant and/or its Guarantor shall provide at least one (1) bank reference and three (3) Trade References to provide PJM with evidence of Applicant's understanding of the markets in which the Applicant is seeking to participate and the Applicant's experience and ability to manage risk. PJM may contact the bank references and Trade References provided by the Applicant to verify their business experience with the Applicant.

**5. Litigation and Contingencies**

Unless prohibited by law, each Applicant and Guarantor is also required to disclose and provide information as to the occurrence of, within the five (5) years prior to the submission of the information to PJM (i) any litigation, arbitration, investigation (formal inquiry initiated by a governmental or regulatory entity), or proceeding, pending or, to the knowledge of the involving, Applicant or its Guarantor or any of their Principals that would likely have a material adverse impact on its financial condition and/or would likely materially affect the risk of non-payment by the Applicant or Guarantor, or (ii) any finding of material defalcation, market manipulation or fraud by or involving the Applicant, Guarantor, or any of their Principals, predecessors, subsidiaries, or Credit Affiliates that participate in any United States power markets based upon a final adjudication of regulatory and/or legal proceedings, (iii) any bankruptcy declarations or petitions by or against an Applicant and/or Guarantor, or (iv) any violation by any of the foregoing of any federal or state regulations or laws regarding energy commodities, U.S. Commodity Futures Trading Commission ("CFTC") or FERC requirements, the rules of any exchange monitored by the National Futures Association, any self-regulatory organization or any other governing, regulatory, or standards body responsible for regulating

activity in North American markets for electricity, natural gas or electricity-related commodity products. Each Applicant and Guarantor shall take reasonable measures to obtain permission to disclose information related to a non-public investigation. These disclosures shall be made by Applicant and Guarantor upon application, and within ten (10) Business Days of any material change with respect to any of the above matters.

## **6. History of Defaults in Energy Projects**

Each Applicant and Guarantor shall disclose their current default status and default history for any energy related generation or transmission project (e.g. generation, solar, development), and within any wholesale or retail energy market, including but not limited to within PJM, any Independent System Operator or Regional Transmission Organization, and exchange that has not been cured within the past five (5) years. Defaults of a non-recourse project financed entity may not be included in the default history.

## **7. Other Disclosures and Additional Information**

Each Applicant and Guarantor is required to disclose any Credit Affiliates that are currently Members of PJM, applying for membership with PJM, Transmission Customers, Participants, applying to become Market Participants, or that participate directly or indirectly in any PJM Markets or any other North American markets for electricity, natural gas or electricity-related commodity products. Each Applicant and Guarantor shall also provide a copy of its limited liability company agreement or equivalent agreement, certification of formation, articles of incorporation or other similar organization document, offering memo or equivalent, the names of its five (5) most senior Principals, and information pertaining to any non-compliance with debt covenants and indentures.

Applicants shall provide PJM the credit application referenced in section III.A and any other information or documentation reasonably required for PJM to perform the initial risk evaluation of Applicant's or Guarantor's creditworthiness and ability to comply with the requirements contained in the Agreements related to settlements, billing, credit requirements, and other financial matters.

### **B. Supplemental Risk Evaluation Process**

As described in section VI below, PJM will conduct a supplemental risk evaluation process for Applicants, Participants, and Guarantors applying to conduct virtual and export transactions or participate in any PJM Markets.

### **C. Unsecured Credit Allowance**

A Market Participant may request that PJM consider it for an Unsecured Credit Allowance pursuant to the provisions herein. Notwithstanding the foregoing, an FTR Participant shall not be considered for an Unsecured Credit Allowance for participation in the FTR markets.

#### **1. Unsecured Credit Allowance Evaluation**

PJM will perform a credit evaluation on each Participant that has requested an Unsecured Credit Allowance, both initially and at least annually thereafter. PJM shall determine the amount of Unsecured Credit Allowance, if any, that can be provided to the Market Participant in accordance with the creditworthiness and other requirements set forth in this Attachment Q. In completing the credit evaluation, PJM will consider:

**(a) Rating Agency Reports**

PJM will review Rating Agency reports as for each Market Participant on the same basis as described in section II.A.1 above and section II.E.1 below.

**(b) Financial Statements and Related Information**

All financial statements and related information considered for an Unsecured Credit Allowance must satisfy all of the same requirements described in section II.A.2 above and section II.E.2 below.

**2. Material Adverse Changes**

Each Market Participant is responsible for informing PJM, in writing, of any Material Adverse Change in its financial condition (or the financial condition of its Guarantor) since the date of the Market Participant or Guarantor's most recent annual financial statements provided to PJM, pursuant to the requirements reflected in section II.A.2 above and section II.E.3 below.

In the event that PJM determines that a Material Adverse Change in the financial condition of a Market Participant warrants a requirement to provide Collateral, additional Collateral or Restricted Collateral, PJM shall comply with the process and requirements described in section II.A above and section II.E below.

**3. Other Disclosures**

Each Market Participant desiring an Unsecured Credit Allowance is required to make the disclosures and upon the same requirements reflected in section II.A.7 above and section II.E.7 below.

**D. Determination of Unreasonable Credit Risk**

Unreasonable credit risk shall be determined by the likelihood that an Applicant will default on a financial obligation arising from its participation in any PJM Markets. Indicators of potentially unreasonable credit risk include, but are not limited to, a history of market manipulation based upon a final adjudication of regulatory and/or legal proceedings, a history of financial defaults, a history of bankruptcy or insolvency within the past five (5) years, or a combination of current market and financial risk factors such as low capitalization, a reasonably likely future material financial liability, a low Internal Credit Score (derived pursuant to section II.A.3 above) and/or a low externally derived credit score. PJM's determination will be based on, but not limited to, information and material provided to PJM during its initial risk evaluation process, information

and material provided to PJM in the Officer's Certification, and/or information gleaned by PJM from public and non-public sources.

If PJM determines that an Applicant poses an unreasonable credit risk to the PJM Markets, PJM may require Collateral, additional Collateral, or Restricted Collateral commensurate with the Applicant's risk of financial default, reject an application, and/or limit or deny Applicant's participation in the PJM Markets, to the extent and for the time period it determines is necessary to mitigate the unreasonable credit risk to the PJM Markets. PJM will reject an application if it determines that Collateral, additional Collateral, or Restricted Collateral cannot address the risk.

PJM will communicate its concerns regarding whether the Applicant presents an unreasonable credit risk, if any, in writing to the Applicant and attempt to better understand the circumstances surrounding that Applicant's financial and credit position before making its determination. In the event PJM determines that an Applicant presents an unreasonable credit risk that warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Applicant with a written explanation of why such determination was made.

#### **E. Ongoing Risk Evaluation**

In addition to the initial risk evaluation set forth in sections II.A through II.D above and the annual certification requirements set forth in section III.A below, each Market Participant and/or its Guarantor has an ongoing obligation to provide PJM with the information required in section IV.A described in more detail below. PJM may also review public information regarding a Market Participant and/or its Guarantor as part of its ongoing risk evaluation. If appropriate, PJM will revise the Market Participant's Unsecured Credit Allowance and/or change its determination of creditworthiness, credit support, Restricted Collateral, required Collateral or other assurances pursuant to PJM's ongoing risk evaluation process.

Each Market Participant and/or its Guarantor must provide the information set forth below on an ongoing basis in order to remain eligible to participate in any PJM Markets. The same quantitative and qualitative factors will be used to evaluate Market Participants whether or not they have rated debt.

##### **1. Rating Agency Reports**

PJM will review Rating Agency reports for each Market Participant and/or Guarantor on the same basis as described in section II.A.1 above.

##### **2. Financial Statements and Related Information**

On an ongoing basis, Market Participants and/or their Guarantors shall provide the information they are required to provide as described in section II.A.2 above, pursuant to the schedule reflected below, with one exception. With regard to the summary that is required to be provided by the Principal responsible for PJM Market activity, with respect to experience of the Participant or its Principals in managing risks in similar markets, the Principal only needs to provide that information for a new Principal that was not serving in the position when the prior

summary was provided. PJM will review financial statements and related information for each Market Participant and/or Guarantor on the same basis as described in section II.A.2 above.

Each Market Participant and/or its Guarantor must submit, or cause to be submitted, annual audited financial statements, except as otherwise indicated below, prepared in accordance with US GAAP or any other format acceptable to PJM for the fiscal year most recently ended within ten (10) calendar days of the financial statements becoming available and no later than one hundred twenty (120) calendar days after its fiscal year end. Market Participants and/or their Guarantors must submit, or cause to be submitted, financial statements, which may be unaudited, for each completed fiscal quarter of the current fiscal year, promptly upon their issuance, but no later than sixty (60) calendar days after the end of each fiscal quarter. All audited financial statements provided by the Market Participant and/or its Guarantor must be audited by an Independent Auditor.

Notwithstanding the foregoing, PJM may upon request, grant a Market Participant or Guarantor an extension of time, if the financials are not available within the time frame stated above.

### **3. Material Adverse Changes**

Each Market Participant and each Guarantor is responsible for informing PJM, in writing, of any Material Adverse Change in its or its Guarantor's financial condition within five (5) Business Days of any Principal becoming aware of the occurrence of a Material Adverse Change since the date of the Market Participant or Guarantor's most recent annual financial statements provided to PJM. However, PJM may also independently establish from available information that a Participant and/or its Guarantor has experienced a Material Adverse Change in its financial condition without regard to whether such Market Participant or Guarantor has informed PJM of the same.

For the purposes of this Attachment Q, a Material Adverse Change in financial condition may include, but is not be limited to, any of the following:

- (a) a bankruptcy filing;
- (b) insolvency;
- (c) a significant decrease in market capitalization;
- (d) restatement of prior financial statements unless required due to regulatory changes;
- (e) the resignation or removal of a Principal unless there is a new Principal appointed or expected to be appointed, a transition plan in place pending the appointment of a new Principal, or a planned restructuring of such roles;
- (f) the filing of a lawsuit or initiation of an arbitration, investigation, or other proceeding that would likely have a material adverse effect on any current or future financial results or financial condition or increase the likelihood of non-payment;
- (g) a material financial default in any other organized energy, ancillary service, financial transmission rights and/or capacity markets including but not limited to those of another Regional Transmission Organization or Independent System

- Operator, or on any commodity exchange, futures exchange or clearing house, that has not been cured or remedied after any required notice has been given and any cure period has elapsed;
- (h) a revocation of a license or other authority by any Federal or State regulatory agency; where such license or authority is necessary or important to the Participant's continued business, for example, FERC market-based rate authority, or State license to serve retail load;
  - (i) a significant change in credit default swap spreads, market capitalization, or other market-based risk measurement criteria, such as a recent increase in Moody's KMV Expected Default Frequency (EDF<sup>tm</sup>) that is materially greater than the increase in its peers' EDF<sup>tm</sup> rates, or a collateral default swap (CDS) premium normally associated with an entity rated lower than investment grade;
  - (j) a confirmed, undisputed material financial default in a bilateral arrangement with another Participant or counterparty that has not been cured or remedied after any required notice has been given and any cure period has elapsed;
  - (k) the sale by a Participant of all or substantially all of its bilateral position(s) in the PJM Markets;
  - (l) any adverse changes in financial condition which, individually, or in the aggregate, are material; and,
  - (m) any adverse changes, events or occurrences which, individually or in the aggregate, could affect the ability of the entity to pay its debts as they become due or could reasonably be expected to have a material adverse effect on any current or future financial results or financial condition.

Upon identification of a Material Adverse Change, PJM shall evaluate the financial strength and risk profile of the Market Participant and/or its Guarantor at that time and may do so on a more frequent basis going forward. If the result of such evaluation identifies unreasonable credit risk to any PJM Market as further described in section II.E.8 below, PJM will take steps to mitigate the financial exposure to the PJM Markets. These steps include, but are not limited to requiring the Market Participant and/or each Guarantor to provide Collateral, additional Collateral or additional Restricted Collateral that is commensurate with the amount of risk in which the Market Participant wants to engage, and/or limiting the Market Participant's ability to participate in any PJM Market to the extent, and for the time-period necessary to mitigate the unreasonable credit risk. In the event PJM determines that a Material Adverse Change in the financial condition or risk profile of a Market Participant and/or Guarantor, warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Market Participant and/or Guarantor, a written explanation of why such determination was made. Conversely, in the event PJM determines there has been an improvement in the financial condition or risk profile of a Market Participant and/or Guarantor such that the amount of Collateral needed for that Market Participant and/or Guarantor can be reduced, PJM shall provide a written explanation why such determination was made, including the amount of the Collateral reduction and indicating when and how the reduction will be made.

#### **4. Litigation and Contingencies**



Each Market Participant and/or Guarantor is required to disclose and provide information regarding litigation and contingencies as outlined in section II.A.5 above.

## **5. History of Defaults in Energy Projects**

Each Market Participant and/or Guarantor is required to disclose current default status and default history as outlined in section II.A.6 above.

## **6. Internal Credit Score**

As part of its ongoing risk evaluation, PJM will use credit risk scoring methodologies as a tool in determining an Internal Credit Score for each Market Participant and/or Guarantor, utilizing the same model and framework outlined in section II.A.3 above.

## **7. Other Disclosures and Additional Information**

Each Market Participant and/or Guarantor is required to make other disclosures and provide additional information outlined in section II.A.7 above.

PJM will monitor each Market Participant's use of services and associated financial obligations on a regular basis to determine their total potential financial exposure and for credit monitoring purposes, and may require the Market Participant and/or Guarantor to provide additional information, pursuant to the terms and provisions described herein.

Market Participants shall provide PJM, upon request, any information or documentation reasonably required for PJM to monitor and evaluate a Market Participant's creditworthiness and compliance with the Agreements related to settlements, billing, credit requirements, and other financial matters.

## **8. Unreasonable Credit Risk**

If PJM has reasonable grounds to believe that a Market Participant and/or its Guarantor poses an unreasonable credit risk to any PJM Markets, PJM may immediately notify the Market Participant of such unreasonable credit risk and (1) issue a Collateral Call to demand Collateral, additional Collateral, or Restricted Collateral or other assurances commensurate with the Market Participant's and/or its Guarantor's risk of financial default or other risk posed by the Market Participant's or Guarantor's financial condition or risk profile to the PJM Markets and PJM members, or (2) limit or suspend the Market Participant's participation in any PJM Markets, to the extent and for such time period PJM determines is necessary to mitigate the unreasonable credit risk to any PJM Markets. PJM will only limit or suspend a Market Participant's market participation if Collateral, additional Collateral or Restricted Collateral cannot address the unreasonable credit risk.

PJM's determination will be based on, but not limited to, information and material provided to PJM during its ongoing risk evaluation process or in the Officer's Certification, and/or information gleaned by PJM from public and non-public sources. PJM will communicate its

concerns, if any, in writing to the Market Participant and attempt to better understand the circumstances surrounding the Market Participant's financial and credit position before making its determination. At PJM's request or upon its own initiative, the Market Participant or its Guarantor may provide supplemental information to PJM that would allow PJM to consider reducing the additional Collateral requested or reducing the severity of limitations or other restrictions designed to mitigate the Market Participant's credit risk. Such information shall include, but not be limited to: (i) the Market Participant's estimated exposure, (ii) explanations for any recent change in the Market Participant's market activity, (iii) any relevant new load or unit outage information; or (iv) any default or supply contract expiration, termination or suspension.

The Market Participant shall have five (5) Business Days to respond to PJM's request for supplemental information. If the requested information is provided in full to PJM's satisfaction during said period, the additional Collateral requirement shall reflect the Market Participant's anticipated exposure based on the information provided. Notwithstanding the foregoing, any additional Collateral requested by PJM in a Collateral Call must be provided by the Market Participant within the applicable cure period.

In the event PJM determines that an Market Participant and/or its Guarantor presents an unreasonable credit risk, as described above, that warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Market Participant with a written explanation of why such final determination was made.

PJM has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current or anticipated market activity as set forth in Tariff, Attachment Q, sections II.A.2 and II.C.1.b. Failure to remit the required amount of additional Collateral within the applicable cure period shall constitute an Event of Default.

## **F. Collateral and Credit Restrictions**

PJM may establish certain restrictions on available credit by requiring that some amounts of credit, i.e. Restricted Collateral, may not be available to satisfy credit requirements. Such designations shall be construed to be applicable to the calculation of credit requirements only, and shall not restrict PJM's ability to apply such designated credit to any obligation(s) in case of a default. Any such Restricted Collateral will be held by PJM, as applicable. Such Restricted Collateral will not be returned to the Participant until PJM has determined that the risk for which such Restricted Collateral is being held has subsided or been resolved.

PJM may post on PJM's web site, and may reference on OASIS, a supplementary document which contains additional business practices (such as algorithms for credit scoring) that are not included in this Attachment Q. Changes to the supplementary document will be subject to stakeholder review and comment prior to implementation. PJM may specify a required compliance date, not less than fifteen (15) calendar days from notification, by which time all Participants and their Guarantors must comply with provisions that have been revised in the supplementary document.

PJM will regularly post each Participant's and/or its Guarantor's credit requirements and credit provisions on the PJM web site in a secure, password-protected location. Each Participant and/or its Guarantor is responsible for monitoring such information, and maintaining sufficient credit to satisfy the credit requirements described herein. Failure to maintain credit sufficient to satisfy the credit requirements of the Attachment Q shall constitute a Credit Breach, and the Participant will be subject to the remedies established herein and in any of the Agreements.

## **G. Unsecured Credit Allowance Calculation**

The external rating from a Rating Agency will be used as the source for calculating the Unsecured Credit Allowance, unless no external credit rating is available in which case PJM will utilize its Internal Credit Score for such purposes. If there is a split rating between the Rating Agencies, the lower of the ratings shall apply.

Where two or more entities, including Participants, are considered Credit Affiliates, Unsecured Credit Allowances will be established for each individual Participant, subject to an aggregate maximum amount for all Credit Affiliates as provided for in Attachment Q, section II.G.3.

In its credit evaluation of Municipalities and Cooperatives, PJM may request additional information as part of the ongoing risk evaluation process and will also consider qualitative factors in determining financial strength and creditworthiness.

### **1. Credit Rating and Internal Credit Score**

As previously described in section II.A.3 above, PJM will determine the Internal Credit Score for an Applicant, Market Participant and/or its Guarantor using the credit risk scoring methodologies contained therein. Internal Credit Scores, ranging from 1-6, for each Applicant, Market Participant and/or its Guarantor, will be determined with the following mappings:

- 1 = Very Low Risk (S&P/Fitch: AAA to AA-; Moody's: Aaa to Aa3)
- 2 = Low Risk (S&P/Fitch: A+ to BBB+; Moody's: A1 to Baa1)
- 3 = Low to Medium Risk (S&P/Fitch: BBB; Moody's: Baa2)
- 4 = Medium Risk (S&P/Fitch: BBB-; Moody's: Baa3)
- 5 = Medium to High Risk (S&P/Fitch: BB+ to BB; Moody's Ba1 to Ba2)
- 6 = High Risk (S&P/Fitch: BB- and below; Moody's: Ba3 and below)

In instances where the external credit rating is used to calculate the unsecured credit allowance, PJM may also use the Internal Credit Score as an input into its determination of the overall risk profile of an Applicant and/or its Guarantor

### **2. Unsecured Credit Allowance**

PJM will determine a Participant's Unsecured Credit Allowance based on its external rating or its Internal Credit Score, as applicable, and the parameters in the table below. The maximum Unsecured Credit Allowance is the lower of:

- (a) A percentage of the Participant’s Tangible Net Worth, as stated in the table below, with the percentage based on the Participant’s external rating or Internal Credit Score, as applicable; and
- (b) A dollar cap based on the external rating or Internal Credit Score, as applicable, as stated in the table below:

<b>Internal Credit Score</b>	<b>Risk Ranking</b>	<b>Tangible Net Worth Factor</b>	<b>Maximum Unsecured Credit Allowance (\$ Million)</b>
1.00 – 1.99	1 – Very Low (AAA to AA-)	Up to 10.00%	\$50
2.00 – 2.99	2 – Low (A+ to BBB+)	Up to 8.00%	\$42
3.00 – 3.49	3 – Low to Medium (BBB)	Up to 6.00%	\$33
3.50 – 4.49	4 – Medium (BBB-)	Up to 5.00%	\$7
4.50 – 5.49	5 – Medium to High (BB+ to BB)	0%	\$0
> 5.49	6 – High (BB- and below)	0%	\$0

If a Corporate Guaranty is utilized to establish an Unsecured Credit Allowance for a Participant, the value of a Corporate Guaranty will be the lesser of:

- (a) The limit imposed in the Corporate Guaranty;
- (b) The Unsecured Credit Allowance calculated for the Guarantor; and
- (c) A portion of the Unsecured Credit Allowance calculated for the Guarantor in the case of Credit Affiliates.

PJM has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current market activity. Failure to remit the required amount of additional Collateral within the applicable cure period shall be deemed an Event of Default.

PJM will maintain a posting of each Participant’s Unsecured Credit Allowance, along with certain other credit related parameters, on the PJM website in a secure, password-protected location. Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

### **3. Unsecured Credit Limits For Credit Affiliates**

If two or more Participants are Credit Affiliates and have requested an Unsecured Credit Allowance, PJM will consider the overall creditworthiness of the Credit Affiliates when determining the Unsecured Credit Allowances in order not to establish more Unsecured Credit for the Credit Affiliates collectively than the overall corporate family could support.

**Example:** Participants A and B each have a \$10.0 million Corporate Guaranty from their common parent, a holding company with an Unsecured Credit Allowance calculation of \$12.0 million. PJM may limit the Unsecured Credit Allowance for each Participant to \$6.0 million, so the total Unsecured Credit Allowance does not exceed the corporate family total of \$12.0 million.

PJM will work with the Credit Affiliates to allocate the total Unsecured Credit Allowance among the Credit Affiliates while assuring that no individual Participant, nor common guarantor, exceeds the Unsecured Credit Allowance appropriate for its credit strength. The aggregate Unsecured Credit for a Participant, including Unsecured Credit Allowance granted based on its own creditworthiness and risk profile, and any Unsecured Credit Allowance conveyed through a Guaranty shall not exceed \$50 million. The aggregate Unsecured Credit for a Credit Affiliates corporate family shall not exceed \$50 million. A Credit Affiliate corporate family subject to this cap shall request PJM to allocate the maximum Unsecured Credit amongst the corporate family, assuring that no individual Participant or common guarantor, shall exceed the Unsecured Credit level appropriate for its credit strength and activity.

#### **H. Contesting an Unsecured Credit Evaluation**

PJM will provide to a Participant, upon request, a written explanation for any determination of or change in Unsecured Credit or credit requirement within ten (10) Business Days of receiving such request.

If a Participant believes that either its level of Unsecured Credit or its credit requirement has been incorrectly determined, according to this Attachment Q, then the Participant may send a request for reconsideration in writing to PJM. Such a request should include:

- (1) A citation to the applicable section(s) of this Attachment Q along with an explanation of how the respective provisions of this Attachment Q were not carried out in the determination as made; and
- (2) A calculation of what the Participant believes should be the appropriate Unsecured Credit or Collateral requirement, according to terms of this Attachment Q.

PJM will provide a written response as promptly as practical, but no more than ten (10) Business Days after receipt of the request. If the Participant still feels that the determination is incorrect, then the Participant may contest that determination. Such contest should be in written form, addressed to PJM, and should contain:

- (1) A complete copy of the Participant's earlier request for reconsideration, including citations and calculations;

- (2) A copy of PJM's written response to its request for reconsideration; and
- (3) An explanation of why it believes that the determination still does not comply with this Attachment Q.

PJM will investigate and will respond to the Participant with a final determination on the matter as promptly as practical, but no more than twenty (20) Business Days after receipt of the request.

Neither requesting reconsideration nor contesting the determination following such request shall relieve or delay Participant's responsibility to comply with all provisions of this Attachment Q, including without limitation posting Collateral, additional Collateral or Restricted Collateral in response to a Collateral Call.

If a Corporate Guaranty is being utilized to establish credit for a Participant, the Guarantor will be evaluated and the Unsecured Credit Allowance granted, if any, based on the financial strength and creditworthiness, and risk profile of the Guarantor. Any utilization of a Corporate Guaranty will only be applicable to non-FTR credit requirements, and will not be applicable to cover FTR credit requirements.

PJM will identify any necessary Collateral requirements and establish a Working Credit Limit for each Participant. Any Unsecured Credit Allowance will only be applicable to non-FTR credit requirements, for positions in PJM Markets other than the FTR market, because all FTR credit requirements must be satisfied by posting Collateral.

### **III. MINIMUM PARTICIPATION REQUIREMENTS**

A Participant seeking to participate in any PJM Markets shall submit to PJM any information or documentation reasonably required for PJM to evaluate its experience and resources. If PJM determines, based on its review of the relevant information and after consultation with the Participant, that the Participant's participation in any PJM Markets presents an unreasonable credit risk, PJM may reject the Participant's application to become a Market Participant, notwithstanding applicant's ability to meet other minimum participation criteria, registration requirements and creditworthiness requirements.

#### **A. Annual Certification**

Before they are eligible to transact in any PJM Market, all Applicants shall provide to PJM (i) an executed copy of a credit application and (ii) a copy of the annual certification set forth in Attachment Q, Appendix 1. As a condition to continued eligibility to transact in any PJM Market, Market Participants shall provide to PJM the annual certification set forth in Attachment Q, Appendix 1.

After the initial submission, the annual certification must be submitted each calendar year by all Market Participants between January 1 and April 30. PJM will accept such certifications as a matter of course and the Market Participants will not need further notice from PJM before commencing or maintaining their eligibility to participate in any PJM Markets.

A Market Participant that fails to provide its annual certification by April 30 shall be ineligible to transact in any PJM Markets and PJM will disable the Market Participant's access to any PJM Markets until such time as PJM receives the certification. In addition, failure to provide an executed annual certification in a form acceptable to PJM and by the specified deadlines may result in a default under the Tariff.

Market Participants acknowledge and understand that the annual certification constitutes a representation upon which PJM will rely. Such representation is additionally made under the Tariff, filed with and accepted by FERC, and any false, misleading or incomplete statement knowingly made by the Market Participant and that is material to the Market Participant's ability to perform may be considered a violation of the Tariff and subject the Market Participant to action by FERC. Failure to comply with any of the criteria or requirements listed herein or in the certification may result in suspension or limitation of a Market Participant's transaction rights in any PJM Markets.

Applicants and Market Participants shall submit to PJM, upon request, any information or documentation reasonably and/or legally required to confirm Applicant's or Market Participant's compliance with the Agreements and the annual certification.

#### **B. PJM Market Participation Eligibility Requirements**

PJM may conduct periodic verification to confirm that Applicants and Market Participants can demonstrate that they meet the definition of "appropriate person" to further ensure minimum criteria are in place. Such demonstration will consist of the submission of evidence and an executed Annual Officer Certification form as set forth in Attachment Q, Appendix 1 in a form acceptable to PJM. If an Applicant or Market Participant does not provide sufficient evidence for verification to PJM within five (5) Business Days of written request, then such Applicant or Market Participant may result in a default under this Tariff. Demonstration of "appropriate person" status and support of other certifications on the annual certification is one part of the Minimum Participation Requirements for any PJM Markets and does not obviate the need to meet the other Minimum Participation Requirements such as those for minimum capitalization and risk profile as set forth in this Attachment Q.

To be eligible to transact in any PJM Markets, an Applicant or Participant must demonstrate in accordance with the Risk Management and Verification processes set forth below that it qualifies in one of the following ways:

1. an "appropriate person," as that term is defined under Commodity Exchange Act, section 4(c)(3), or successor provision, or;
2. an "eligible contract participant," as that term is defined in Commodity Exchange Act, section 1a(18), or successor provision, or;

3. a business entity or person who is in the business of: (1) generating, transmitting, or distributing electric energy, or (2) providing electric energy services that are necessary to support the reliable operation of the transmission system, or;
4. an Applicant or Market Participant seeking eligibility as an “appropriate person” providing an unlimited Corporate Guaranty in a form acceptable to PJM as described in section V below from a Guarantor that has demonstrated it is an “appropriate person,” and has at least \$1 million of total net worth or \$5 million of total assets per Applicant and Market Participant for which the Guarantor has issued an unlimited Corporate Guaranty, or;
5. an Applicant or Market Participant providing a Letter of Credit of at least \$5 million to PJM in a form acceptable to PJM as described in section V below, that the Applicant or Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJM, or;
6. an Applicant or Market Participant providing a surety bond of at least \$5 million to PJM in a form acceptable to PJM as described in section V below, that the Applicant or Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJM.

If, at any time, a Market Participant cannot meet the eligibility requirements set forth above, it shall immediately notify PJM and immediately cease conducting transactions in any PJM Markets. PJM may terminate a Market Participant’s transaction rights in any PJM Markets if, at any time, it becomes aware that the Market Participant does not meet the minimum eligibility requirements set forth above.

In the event that a Market Participant is no longer able to demonstrate it meets the minimum eligibility requirements set forth above, and possesses, obtains or has rights to possess or obtain, any open or forward positions in any PJM Markets, PJM may take any such action it deems necessary with respect to such open or forward positions, including, but not limited to, liquidation, transfer, assignment, sale or allowing position(s) to go to settlement; provided, however, that the Market Participant will, notwithstanding its ineligibility to participate in any PJM Markets, be entitled to any positive market value of those positions, net of any obligations due and owing to PJM.

### **C. Risk Management and Verification**

All Market Participants must maintain current written risk management policies, procedures, or controls to address how market and credit risk is managed, and are required to submit to PJM (at the time they make their annual certification) a copy of their current governing risk control policies, procedures and controls applicable to their market activities. PJM will review such documentation to verify that it appears generally to conform to prudent risk management practices for entities participating in any PJM Markets.



All Market Participants subject to this provision shall make a one-time payment of \$1,500.00 to PJM to cover administrative costs. Thereafter, if such Participant's risk policies, procedures and controls applicable to its market activities change substantively, it shall submit such modified documentation, with applicable administrative charge determined by PJM, to PJM for review and verification at the time it makes its annual certification. All Market Participant's continued eligibility to participate in any PJM Markets is conditioned on PJM notifying a Participant that its annual certification, including the submission of its risk policies, procedures and controls, has been accepted by PJM. PJM may retain outside expertise to perform the review and verification function described in this section, however, in all circumstances, PJM and any third-party it may retain will treat as confidential the documentation provided by a Participant under this section, consistent with the applicable provisions of the Operating Agreement.

Participants must demonstrate that they have implemented prudent risk management policies and procedures in order to be eligible to participate in any PJM Markets. Participants must demonstrate on at least an annual basis that they have implemented and maintained prudent risk management policies and procedures in order to continue to participate in any PJM Markets. Upon written request, the Participant will have fourteen (14) calendar days to provide to PJM current governing risk management policies, procedures, or controls applicable to Participant's activities in any PJM Markets.

#### **D. Capitalization**

In advance of certification, Applicants shall meet the minimum capitalization requirements below. In addition to the annual certification requirements in Attachment Q, Appendix 1, a Market Participant shall satisfy the minimum capitalization requirements on an annual basis thereafter. A Participant must demonstrate that it meets the minimum financial requirements appropriate for the PJM Markets in which it transacts by satisfying either the minimum capitalization or the provision of Collateral requirements listed below:

##### **1. Minimum Capitalization**

Minimum capitalization may be met by demonstrating minimum levels of Tangible Net Worth or tangible assets. FTR Participants must demonstrate a Tangible Net Worth in excess of \$1 million or tangible assets in excess of \$10 million. Other Market Participants must demonstrate a Tangible Net Worth in excess of \$500,000 or tangible assets in excess of \$5 million.

(a) Consideration of tangible assets and Tangible Net Worth shall exclude assets which PJM reasonably believes to be restricted, highly risky, or potentially unavailable to settle a claim in the event of default. Examples include, but are not limited to, restricted assets, derivative assets, goodwill, and other intangible assets.

(b) Demonstration of "tangible" assets and Tangible Net Worth may be satisfied through presentation of an acceptable Corporate Guaranty, provided that both:

- (i) the Guarantor is a Credit Affiliate company that satisfies the Tangible Net Worth or tangible assets requirements herein, and;

- (ii) the Corporate Guaranty is either unlimited or at least \$500,000.

If the Corporate Guaranty presented by the Participant to satisfy these capitalization requirements is limited in value, then the Participant's resulting Unsecured Credit Allowance shall be the lesser of:

- (1) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or,
- (2) the face value of the Corporate Guaranty, reduced by \$500,000 and further reduced by 10%. (For example, a \$10.5 million Corporate Guaranty would be reduced first by \$500,000 to \$10 million and then further reduced 10% more to \$9 million. The resulting \$9 million would be the Participant's Unsecured Credit Allowance available through the Corporate Guaranty).

In the event that a Participant provides Collateral in addition to a limited Corporate Guaranty to increase its available credit, the value of such Collateral shall be reduced by 10%. This reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.

- (c) Demonstrations of minimum capitalization (minimum Tangible Net Worth or tangible assets) must be presented in the form of audited financial statements for the Participant's most recent fiscal year during the initial risk evaluation process and ongoing risk evaluation process.

## **2. Provision of Collateral**

If a Participant does not demonstrate compliance with its applicable minimum capitalization requirements above, it may still qualify to participate in any PJM Markets by posting Collateral, additional Collateral, and/or Restricted Collateral, subject to the terms and conditions set forth herein.

Any Collateral provided by a Participant unable to satisfy the minimum capitalization requirements above will also be restricted in the following manner:

- (a) Collateral provided by Market Participants that engage in FTR transactions shall be reduced by an amount of the current risk plus any future risk to any PJM Markets and PJM membership in general, and may coincide with limitations on market participation. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.

- (b) Collateral provided by other Participants that engage in Virtual Transactions or Export Transactions shall be reduced by \$200,000 and then further reduced by 10%. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.
- (c) Collateral provided by other Participants that do not engage in Virtual Transactions or Export Transactions shall be reduced by 10%. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.

In the event a Participant that satisfies the minimum capital requirement through provision of Collateral also provides a Corporate Guaranty to increase its available credit, then the Participant's resulting Unsecured Credit Allowance conveyed through such Corporate Guaranty shall be the lesser of:

- (a) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q; or
- (b) the face value of the Corporate Guaranty, reduced commensurate with the amount of the current risk plus any anticipated future risk to any PJM Markets and PJM membership in general, and may coincide with limitations on market participation.

#### **IV. ONGOING COVENANTS**

##### **A. Ongoing Obligation to Provide Information to PJM**

So long as a Participant is eligible to participate, or participates or holds positions, in any PJM Markets, it shall deliver to PJM, in form and detail satisfactory to PJM:

- (1) All financial statements and other financial disclosures as required by section II.E.2 by the deadline set forth therein;
- (2) Notice, within five (5) Business Days, of any Principal becoming aware that the Participant does not meet the Minimum Participation Requirements set forth in section III;
- (3) Notice when any Principal becomes aware of any matter that has resulted or would reasonably be expected to result in a Material Adverse Change in the financial condition of the Participant or its Guarantor, if any, a description of such Material Adverse Change in detail reasonable to allow PJM to determine its potential effect on, or any change in, the Participant's risk profile as a participant in any PJM Markets, by the deadline set forth in section II.E.3 above;
- (4) Notice, within the deadline set forth therein, of any Principal becoming aware of a litigation or contingency event described in section II.E.4, or of a Material Adverse Change in any such litigation or contingency event previously disclosed to PJM, information in detail reasonable to allow PJM to determine its potential effect on, or any change in, the Market Participant's risk profile as a participant in any PJM Markets by the deadline set forth therein;
- (5) Notice, within two (2) Business Days after any Principal becomes aware of a Credit Breach, Financial Default, or Credit Support Default, that includes a description of such default or event and the Participant's proposals for addressing the default or event;
- (6) As soon as available but not later than April 30<sup>th</sup> of any calendar year, the annual Certification described in section III.A in a form set forth in Attachment Q, Appendix 1;
- (7) Concurrently with submission of the annual certification, demonstration that the Participant meets the minimum capitalization requirements set forth in section III.D;
- (8) Concurrently with submission of the annual certification and within the applicable deadline of any substantive change, or within the applicable deadline of a request from PJM, a copy of the Participant's written risk management policies, procedures or controls addressing how the Participant manages market and credit risk in the PJM Markets in which it participates, as well as a high level summary by the chief risk officer or other Principal regarding any material violations, breaches, or compliance or disciplinary actions related to the risk management policies, by the Participant under the policies, procedures or controls within the prior 12 months, as set forth in section VI.B below;
- (9) Within five (5) Business Days of request by PJM, evidence demonstrating the Participant meets the definition of "appropriate person" or "eligible contract participant," as those terms are defined in the Commodity Exchange Act and the CFTC regulations promulgated thereunder, or of any other certification in the annual Certification; or

- (10) Within a reasonable time after PJM requests, any other information or documentation reasonably and/or legally required by PJM to confirm Participant's compliance with the Tariff and its eligibility to participate in any PJM Markets.

Participants acknowledge and understand that the deliveries constitute representations upon which PJM will rely in allowing the Participant to continue to participate in its markets, with the Internal Credit Score and Unsecured Credit Allowance, if any, previously determined by PJM.

#### **B. Risk Management Review**

PJM shall also conduct a periodic compliance verification process to review and verify, as applicable, Participants' risk management policies, practices, and procedures pertaining to the Participant's activities in any PJM Markets. PJM shall review such documentation to verify that it appears generally to conform to prudent risk management practices for entities trading in any PJM Markets. Participant shall also provide a high level summary by the chief risk officer or other Principal regarding any material violations, breaches, or compliance or disciplinary actions in connection with such risk management policies, practices and procedures within the prior twelve (12) months.

If a third-party industry association publishes or modifies principles or best practices relating to risk management in North American markets for electricity, natural gas or electricity-related commodity products, PJM may, following stakeholder discussion and with no less than six (6) months prior notice to stakeholders, consider such principles or best practices in evaluating the Participant's risk controls.

PJM will prioritize the verification of risk management policies based on a number of criteria, including but not limited to how long the entity has been in business, the Participant's and its Principals' history of participation in any PJM Markets, and any other information obtained in determining the risk profile of the Participant.

Each Participant's continued eligibility to participate in any PJM Markets is conditioned upon PJM notifying the Participant of successful completion of PJM's verification of the Participant's risk management policies, practices and procedures, as discussed herein. However, if PJM notifies the Participant in writing that it could not successfully complete the verification process, PJM shall allow such Participant fourteen (14) calendar days to provide sufficient evidence for verification prior to declaring the Participant as ineligible to continue to participate in any PJM Markets, which declaration shall be in writing with an explanation of why PJM could not complete the verification. If the Participant does not provide sufficient evidence for verification to PJM within the required cure period, such Participant will be considered in default under this Tariff. PJM may retain outside expertise to perform the review and verification function described in this paragraph. PJM and any third party it may retain will treat as confidential the documentation provided by a Participant under this paragraph, consistent with the applicable provisions of the Agreements. If PJM retains such outside expertise, a Participant may direct in writing that PJM perform the risk management review and verification for such Participant instead of utilizing a third party, provided however, that employees and contract employees of PJM shall not be considered to be such outside expertise or third parties.

Participants are solely responsible for the positions they take and the obligations they assume in any PJM Markets. PJM hereby disclaims any and all responsibility to any Participant or PJM

Member associated with Participant's submitting or failure to submit its annual certification or PJM's review and verification of a Participant's risk policies, procedures and controls. Such review and verification is limited to demonstrating basic compliance by a Participant showing the existence of written policies, procedures and controls to limit its risk in any PJM Markets and does not constitute an endorsement of the efficacy of such policies, procedures or controls.

## **V. FORMS OF CREDIT SUPPORT**

In order to satisfy their PJM credit requirements Participants may provide credit support in a PJM-approved form and amount pursuant to the guidelines herein, provided that, notwithstanding anything to the contrary in this section, a Market Participant in PJM's FTR markets shall meet its credit support requirements related to those FTR markets with either cash or Letters of Credit.

Unless otherwise restricted by PJM, credit support provided may be used by PJM to secure the payment of Participant's financial obligations under the Agreements.

Collateral which may no longer be required to be maintained under provisions of the Agreements, shall be returned at the request of a Participant, no later than two (2) Business Days following determination by PJM within a commercially reasonable period of time that such Collateral is not required.

Except when an Event of Default has occurred, a Participant may substitute an approved PJM form of Collateral for another PJM approved form of Collateral of equal value.

### **A. Cash Deposit**

A Participant's delivery of a cash deposit to PJM as Collateral shall constitute the grant of a first-priority security interest in the cash in favor of PJM and PJM shall be authorized by such delivery to hold the cash as security and to apply it to the Participant's financial obligations under the Tariff or other Agreements. Cash provided by a Participant as Collateral will be held in a depository account by PJM. Interest on a cash deposit shall accrue to the benefit of the Participant, provided that PJM may require Participants to provide appropriate tax and other information in order to accrue such interest credits. A Participant who delivers cash to PJM hereunder agrees that the Tariff and any other agreements incorporating the terms of the Tariff shall for all purposes constitute a security agreement.

Cash Collateral may not be pledged or in any way encumbered or restricted from full and timely use by PJM in accordance with terms of the Agreements.

PJM has the right to liquidate all or a portion of the Collateral account balance at its discretion to satisfy a Participant's Total Net Obligation to PJM in the Event of Default under this Attachment Q or one or more of the Agreements.

### **B. Letter of Credit**

An unconditional, irrevocable standby Letter of Credit can be utilized to meet the Collateral requirement. As stated below, the form, substance, and provider of the Letter of Credit must all be acceptable to PJM.

- (1) The Letter of Credit will only be accepted from U.S.-based financial institutions or U.S. branches of foreign financial institutions (“financial institutions”) that have a minimum corporate debt rating of “A” by Standard & Poor’s or Fitch Ratings, or “A2” from Moody’s Investors Service, or an equivalent short term rating from one of these agencies. PJM will consider the lowest applicable rating to be the rating of the financial institution. If the rating of a financial institution providing a Letter of Credit is lowered below A/A2 by any Rating Agency, then PJM may require the Participant to provide a Letter of Credit from another financial institution that is rated A/A2 or better, or to provide a cash deposit. If a Letter of Credit is provided from a U.S. branch of a foreign institution, the U.S. branch must itself comply with the terms of this Attachment Q, including having its own acceptable credit rating.
- (2) The Letter of Credit shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) calendar days prior written notice from the issuing financial institution. If PJM or PJM receives notice from the issuing financial institution that the current Letter of Credit is being cancelled or expiring, the Participant will be required to provide evidence, acceptable to PJM, that such Letter of Credit will be replaced with appropriate Collateral, effective as of the cancellation date of the Letter of Credit, no later than thirty (30) calendar days before the cancellation date of the Letter of Credit, and no later than ninety (90) calendar days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one or more of the Agreements.
- (3) PJM will post on its web site an acceptable standard form of a Letter of Credit that should be utilized by a Participant choosing to submit a Letter of Credit to establish credit at PJM. If the Letter of Credit varies in any way from the standard format, it must first be reviewed and approved by PJM. All costs associated with obtaining and maintaining a Letter of Credit and meeting the Attachment Q provisions are the responsibility of the Participant.
- (4) PJM may accept a Letter of Credit from a financial institution that does not meet the credit standards of this Attachment Q provided that the Letter of Credit has third-party support, in a form acceptable to PJM, from a financial institution that does meet the credit standards of this Attachment Q.

### **C. Corporate Guaranty**

An irrevocable and unconditional Corporate Guaranty may be utilized to establish an Unsecured Credit Allowance for a Participant. Such credit will be considered a transfer of Unsecured Credit from the Guarantor to the Participant, and will not be considered a form of Collateral.

PJM will post on its web site an acceptable form that should be utilized by a Participant choosing to establish its credit with a Corporate Guaranty. If the Corporate Guaranty varies in any way from the PJM format, it must first be reviewed and approved by PJM before it may be applied to satisfy the Participant's credit requirements.

The Corporate Guaranty must be signed by an officer of the Guarantor, and must demonstrate that it is duly authorized in a manner acceptable to PJM. Such demonstration may include either a corporate seal on the Corporate Guaranty itself, or an accompanying executed and sealed secretary's certificate from the Guarantor's corporate secretary noting that the Guarantor was duly authorized to provide such Corporate Guaranty and that the person signing the Corporate Guaranty is duly authorized, or other manner acceptable to PJM.

PJM will evaluate the creditworthiness of a Guarantor and will establish any Unsecured Credit granted through a Corporate Guaranty using the methodology and requirements established for Participants requesting an Unsecured Credit Allowance as described herein. Foreign Guaranties and Canadian Guaranties shall be subject to additional requirements as established herein.

If PJM determines at any time that a Material Adverse Change in the financial condition of the Guarantor has occurred, or if the Corporate Guaranty comes within thirty (30) calendar days of expiring without renewal, PJM may reduce or eliminate any Unsecured Credit afforded to the Participant through the guaranty. Such reduction or elimination may require the Participant to provide Collateral within the applicable cure period. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

All costs associated with obtaining and maintaining a Corporate Guaranty and meeting the Attachment Q provisions are the responsibility of the Participant.

## **1. Foreign Guaranties**

A Foreign Guaranty is a Corporate Guaranty that is provided by a Credit Affiliate entity that is domiciled in a country other than the United States or Canada. The entity providing a Foreign Guaranty on behalf of a Participant is a Foreign Guarantor. A Participant may provide a Foreign Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJM provided that all of the following conditions are met:

PJM reserves the right to deny, reject, or terminate acceptance of any Foreign Guaranty at any time, including for material adverse circumstances or occurrences.

- (a) A Foreign Guaranty:
  - (i) Must contain provisions equivalent to those contained in PJM's standard form of Foreign Guaranty with any modifications subject to review and approval by PJM counsel.
  - (ii) Must be denominated in US currency.
  - (iii) Must be written and executed solely in English, including any duplicate originals.
  - (iv) Will not be accepted towards a Participant's Unsecured Credit Allowance for more than the following limits, depending on the Foreign Guarantor's credit rating:



Rating of Foreign Guarantor	Maximum Accepted Guaranty if Country Rating is AAA	Maximum Accepted Guaranty if Country Rating is AA+
A- and above	USD50,000,000	USD30,000,000
BBB+	USD30,000,000	USD20,000,000
BBB	USD10,000,000	USD10,000,000
BBB- or below	USD 0	USD 0

- (v) May not exceed 50% of the Participant's total credit, if the Foreign Grantor is rated less than BBB+.
- (b) A Foreign Guarantor:
- (i) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
  - (ii) Must be a Credit Affiliate of the Participant.
  - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
  - (iv) Must be rated by at least one Rating Agency acceptable to PJM; the credit strength of a Foreign Guarantor may not be determined based on an evaluation of its audited financial statements without an actual credit rating as well.
  - (v) Must have a senior unsecured (or equivalent, in PJM's sole discretion) rating of BBB (one notch above BBB-) or greater by any and all agencies that provide rating coverage of the entity.
  - (vi) Must provide audited financial statements, in US GAAP format or any other format acceptable to PJM, with clear representation of net worth, intangible assets, and any other information PJM may require in order to determine the entity's Unsecured Credit Allowance.
  - (vii) Must provide a Secretary's Certificate from the Participant's corporate secretary certifying the adoption of Corporate Resolutions:
    1. Authorizing and approving the Guaranty; and
    2. Authorizing the Officers to execute and deliver the Guaranty on behalf of the Guarantor.
  - (viii) Must be domiciled in a country with a minimum long-term sovereign (or equivalent) rating of AA+/Aa1, with the following conditions:
    1. Sovereign ratings must be available from at least two rating agencies acceptable to PJM (e.g. S&P, Moody's, Fitch, DBRS).
    2. Each agency's sovereign rating for the domicile will be considered to be the lowest of: country ceiling, senior unsecured government debt, long-term foreign currency sovereign rating, long-term local currency sovereign rating, or other equivalent measures, at PJM's sole discretion.
    3. Whether ratings are available from two or three agencies, the lowest of the two or three will be used.
  - (ix) Must be domiciled in a country that recognizes and enforces judgments of US courts.
  - (x) Must demonstrate financial commitment to activity in the United States as evidenced by one of the following:

1. American Depository Receipts (ADR) are traded on the New York Stock Exchange, American Stock Exchange, or NASDAQ.
  2. Equity ownership worth over USD 100,000,000 in the wholly-owned or majority owned subsidiaries in the United States.
- (xi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.
  - (xii) Must pay for all expenses incurred by PJM related to reviewing and accepting a foreign guaranty beyond nominal in-house credit and legal review.
  - (xiii) Must, at its own cost, provide PJM with independent legal opinion from an attorney/solicitor of PJM's choosing and licensed to practice law in the United States and/or Guarantor's domicile, in form and substance acceptable to PJM in its sole discretion, confirming the enforceability of the Foreign Guaranty, the Guarantor's legal authorization to grant the Guaranty, the conformance of the Guaranty, Guarantor, and Guarantor's domicile to all of these requirements, and such other matters as PJM may require in its sole discretion.

## **2. Canadian Guaranties**

The entity providing a Canadian Guaranty on behalf of a Participant is a Canadian Guarantor. A Participant may provide a Canadian Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJM provided that all of the following conditions are met.

PJM reserves the right to deny, reject, or terminate acceptance of any Canadian Guaranty at any time for reasonable cause, including material adverse circumstances or occurrences.

- (a) A Canadian Guaranty:
  - (i) Must contain provisions equivalent to those contained in PJM's standard form of Foreign Guaranty with any modifications subject to review and approval by PJM counsel.
  - (ii) Must be denominated in US currency.
  - (iii) Must be written and executed solely in English, including any duplicate originals.
- (b) A Canadian Guarantor:
  - (i) Must be a Credit Affiliate of the Participant.
  - (ii) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
  - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
  - (iv) Must be rated by at least one Rating Agency acceptable to PJM; the credit strength of a Canadian Guarantor may not be determined based on an evaluation of its audited financial statements without an actual credit rating as well.
  - (v) Must provide audited financial statements, in US GAAP format or any other format acceptable to PJM with clear representation of net worth, intangible assets, and any other information PJM may require in order to determine the entity's Unsecured Credit Allowance.

- (vi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.

#### **D. Surety Bond**

An unconditional, irrevocable surety bond can be utilized to meet the Collateral requirement for Participants. As stated below, the form, substance, and provider of the surety bond must all be acceptable to PJM.

- (i) An acceptable surety bond must be payable immediately upon demand without prior demonstration of the validity of the demand. The surety bond will only be accepted from a U.S. Treasury-listed approved surety that has either (i) a minimum corporate debt rating of “A” by Standard & Poor’s or Fitch Ratings, or “A2” from Moody’s Investors Service, or an equivalent short term rating from one of these agencies, or (ii) a minimum insurer rating of “A” by A.M. Best. PJMSettlement will consider the lowest applicable rating to be the rating of the surety. If the rating of a surety providing a surety bond is lowered below A/A2 by any rating agency, then PJMSettlement may require the Participant to provide a surety bond from another surety that is rated A/A2 or better, or to provide another form of Collateral.
- (ii) The surety bond shall have an initial period of at least one year, and shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) days prior written notice from the issuing surety. If PJM receives notice from the issuing surety that the current surety bond is being cancelled, the Participant will be required to provide evidence, acceptable to PJM, that such surety bond will be replaced with appropriate Collateral, effective as of the cancellation date of the surety bond, no later than thirty (30) days before the cancellation date of the surety bond, and no later than ninety (90) days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one of more of the Agreements enabling PJM to immediately demand payment of the full value of the surety bond.
- (iii) PJM will post on its web site an acceptable standard form of a surety bond that should be utilized by a Participant choosing to submit a surety bond to establish credit at PJM. The acceptable standard form of surety bond will include non-negotiable provisions, including but not be limited to, a payment on demand feature, requirement that the bond be construed pursuant to Pennsylvania law, making the surety’s obligation to pay out on the bond absolute and unconditional irrespective of the principal’s (Market Participant’s) bankruptcy, terms of any other agreements, investigation of the Market Participant by any entity or governmental authority, or PJM first attempting to collect payment from the Market Participant, and will require, among other things, that (a) the surety waive **all** rights that would be available to a principal or surety under the law, including but not limited to any right to investigate or verify any matter related to a demand for payment, rights to set-off amounts due by PJM to the Market Participant, and

all counterclaims, (b) the surety expressly waive *all* of its and the principal's defenses, including illegality, fraud in the inducement, reliance on statements or representations of PJM and every other typically available defense; (c) the language of the bond that is determinative of the surety's obligation, and not the underlying agreement or arrangement between the principal and the obligee; (d) the bond shall not be conditioned on PJM first resorting to any other means of security or collateral, or pursuing any other remedies it may have; and (e) the surety acknowledge the continuing nature of its obligations in the event of termination or nonrenewal of the surety bond to make clear the surety remains liable for any obligations that arose before the effective date of its notice of cancellation of the surety bond. If the surety bond varies in any way from the standard format, it must first be reviewed and approved by PJM. PJM shall not accept any surety bond that varies in any material way from the standard format.

- (iv) All costs associated with obtaining and maintaining a surety bond and meeting the Attachment Q provisions are the responsibility of the Participant.
- (v) PJM shall not accept surety bonds with an aggregate value greater than \$10 million dollars (\$10,000,000) issued by any individual surety on behalf of any individual Participant.
- (vi) PJM shall not accept surety bonds with an aggregate value greater than \$50 million dollars (\$50,000,000) issued by any individual surety.

#### **E. PJM Administrative Charges**

Collateral or credit support held by PJM shall also secure obligations to PJM for PJM administrative charges, and may be liquidated to satisfy all such obligations in an Event of Default.

#### **F. Collateral and Credit Support Held by PJM**

Collateral or credit support submitted by Participants and held by PJM shall be held by PJM for the benefit of PJM.

### **VI. SUPPLEMENTAL CREDIT REQUIREMENTS FOR SCREENED TRANSACTIONS**

#### **A. Virtual and Export Transaction Screening**

##### **1. Credit for Virtual and Export Transactions**

Export Transactions and Virtual Transactions both utilize Credit Available for Virtual Transactions to support their credit requirements.

PJM does not require a Market Participant to establish separate or additional credit for submitting Virtual or Export Transactions; however, once transactions are submitted and accepted by PJM, PJM may require credit supporting those transactions to be held until the transactions are completed and their financial impact incorporated into the Market Participant's Obligations. If a Market Participant chooses to establish additional Collateral and/or Unsecured Credit Allowance in order to increase its Credit Available for Virtual Transactions, the Market Participant's Working Credit Limit for Virtual Transactions shall be increased in accordance with the definition thereof. The Collateral and/or Unsecured Credit Allowance available to increase a Market Participant's Credit Available for Virtual Transactions shall be the amount of Collateral and/or Unsecured Credit Allowance available after subtracting any credit required for Minimum Participation Requirements, FTR, RPM or other credit requirement determinants defined in this Attachment Q, as applicable.

If a Market Participant chooses to provide additional Collateral in order to increase its Credit Available for Virtual Transactions PJM may establish a reasonable timeframe, not to exceed three months, for which such Collateral must be maintained. PJM will not impose such restriction on a deposit unless a Market Participant is notified prior to making the deposit. Such restriction, if applied, shall be applied to all future deposits by all Market Participants engaging in Virtual Transactions.

A Market Participant may increase its Credit Available for Virtual Transactions by providing additional Collateral to PJM. PJM will make a good faith effort to make new Collateral available as Credit Available for Virtual Transactions as soon as practicable after confirmation of receipt. In any event, however, Collateral received and confirmed by noon on a Business Day will be applied (as provided under this Attachment Q) to Credit Available for Virtual Transactions no later than 10:00 am on the following Business Day. Receipt and acceptance of wired funds for cash deposit shall mean actual receipt by PJM's bank, deposit into PJM's customer deposit account, confirmation by PJM that such wire has been received and deposited, and entry into PJM's credit system. Receipt and acceptance of letters of credit or surety bonds shall mean receipt of the original Letter of Credit or surety bond, or amendment thereto, confirmation from PJM's credit and legal staffs that such Letter of Credit or surety bond, or amendment thereto conforms to PJM's requirements, which confirmation shall be made in a reasonable and practicable timeframe, and entry into PJM's credit system. To facilitate this process, bidders submitting additional Collateral for the purpose of increasing their Credit Available for Virtual Transactions are advised to submit such Collateral well in advance of the desired time, and to specifically notify PJM of such submission.

A Market Participant wishing to submit Virtual or Export Transactions must allocate within PJM's credit system the appropriate amount of Credit Available for Virtual Transactions to the virtual and export allocation sections within each customer account in which it wishes to submit such transactions.

## **2. Virtual Transaction Screening**

All Virtual Transactions submitted to PJM shall be subject to a credit screen prior to acceptance in the Day-ahead Energy Market. The credit screen is applied separately for each of a Market

Participant's customer accounts. The credit screen process will automatically reject Virtual Transactions submitted by the Market Participant in a customer account if the Market Participant's Credit Available for Virtual Transactions, allocated on a customer account basis, is exceeded by the Virtual Credit Exposure that is calculated based on the Market Participant's Virtual Transactions submitted, as described below.

A Market Participant's Virtual Credit Exposure will be calculated separately for each customer account on a daily basis for all Virtual Transactions submitted by the Market Participant for the next Operating Day using the following equation:

Virtual Credit Exposure = INC and DEC Exposure + Up-to Congestion Exposure

Where:

(a) INC and DEC Exposure for each customer account is calculated as:

(i) ((the total MWh bid or offered, whichever is greater, hourly at each node) x the Nodal Reference Price x 1 day) summed over all nodes and all hours; plus (ii) ((the difference between the total bid MWh cleared and total offered MWh cleared hourly at each node) x Nodal Reference Price) summed over all nodes and all hours for the previous cleared Day-ahead Energy Market.

(b) Up-to Congestion Exposure for each customer account is calculated as:

(i) Total MWh bid hourly for each Up-to Congestion Transaction x (price bid – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours; plus (ii) Total MWh cleared hourly for each Up-to Congestion Transaction x (cleared price – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours for the previous cleared Day-ahead Energy Market, provided that hours for which the calculation for an Up-to Congestion Transaction is negative, it shall be deemed to have a zero contribution to the sum.

### **3. Export Transaction Screening**

Export Transactions in the Real-time Energy Market shall be subject to Export Transaction Screening. Export Transaction Screening may be performed either for the duration of the entire Export Transaction, or separately for each time interval comprising an Export Transaction. PJM will deny or curtail all or a portion (based on the relevant time interval) of an Export Transaction if that Export Transaction, or portion thereof, would otherwise cause the Market Participant's Export Credit Exposure to exceed its Credit Available for Export Transactions. Export Transaction Screening shall be applied separately for each Operating Day and shall also be applied to each Export Transaction one or more times prior to the market clearing process for each relevant time interval. Export Transaction Screening shall not apply to transactions established directly by and between PJM and a neighboring Balancing Authority for the purpose of maintaining reliability.

A Market Participant's credit exposure for an individual Export Transaction shall be the MWh volume of the Export Transaction for each relevant time interval multiplied by each relevant Export Transaction Price Factor and summed over all relevant time intervals of the Export Transaction.

**B. RPM Auction and Price Responsive Demand Credit Requirements**

Settlement during any Delivery Year of cleared positions resulting or expected to result from any RPM Auction shall be included as appropriate in Peak Market Activity, and the provisions of this Attachment Q shall apply to any such activity and obligations arising therefrom. In addition, the provisions of this section shall apply to any entity seeking to participate in any RPM Auction, to address credit risks unique to such auctions. The provisions of this section also shall apply under certain circumstances to PRD Providers that seek to commit Price Responsive Demand pursuant to the provisions of the Reliability Assurance Agreement.

Credit requirements described herein for RPM Auctions and RPM bilateral transactions are applied separately for each customer account of a Market Participant. Market Participants wishing to participate in an RPM Auction or enter into RPM bilateral transactions must designate the appropriate amount of credit to each account in which their offers are submitted.

## **1. Applicability**

A Market Participant seeking to submit a Sell Offer in any RPM Auction based on any Capacity Resource for which there is a materially increased risk of nonperformance must satisfy the credit requirement specified herein before submitting such Sell Offer. A PRD Provider seeking to commit Price Responsive Demand for which there is a materially increased risk of non-performance must satisfy the credit requirement specified herein before it may commit the Price Responsive Demand. Credit must be maintained until such risk of non-performance is substantially eliminated, but may be reduced commensurate with the reduction in such risk, as set forth in section VI.B.3 below.

For purposes of this provision, a resource for which there is a materially increased risk of nonperformance shall mean: (i) a Planned Generation Capacity Resource; (ii) a Planned Demand Resource or an Energy Efficiency Resource; (iii) a Qualifying Transmission Upgrade; (iv) an existing or Planned Generation Capacity Resource located outside the PJM Region that at the time it is submitted in a Sell Offer has not secured firm transmission service to the border of the PJM Region sufficient to satisfy the deliverability requirements of the Reliability Assurance Agreement; or (v) Price Responsive Demand to the extent the responsible PRD Provider has not registered PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

## **2. Reliability Pricing Model Auction and Price Responsive Demand Credit Requirement**

Except as provided for Credit-Limited Offers below, for any resource specified in section VI.B.1 above, other than Price Responsive Demand, the credit requirement shall be the RPM Auction Credit Rate, as provided in section VI.B.4 below, times the megawatts to be offered for sale from such resource in an RPM Auction. For Qualified Transmission Upgrades, the credit requirements shall be based on the Locational Deliverability Area in which such upgrade was to increase the Capacity Emergency Transfer Limit. The RPM Auction Credit Requirement for each Market Participant shall be determined on a customer account basis, separately for each customer account of a Market Participant, and shall be the sum of the credit requirements for all such resources to be offered by such Market Participant in the auction or, as applicable, cleared by such Market Participant in the relevant auctions. For Price Responsive Demand, the credit requirement shall be based on the Nominal PRD Value (stated in Unforced Capacity terms) times the Price Responsive Demand Credit Rate as set forth in section VI.B.5 below. Except for Credit-Limited Offers, the RPM Auction Credit requirement for a Market Participant will be reduced for any Delivery Year to the extent less than all of such Market Participant's offers clear in the Base Residual Auction or any Incremental Auction for such Delivery Year. Such reduction shall be proportional to the quantity, in megawatts, that failed to clear in such Delivery Year.

A Sell Offer based on a Planned Generation Capacity Resource, Planned Demand Resource, or Energy Efficiency Resource may be submitted as a Credit-Limited Offer. A Market Participant electing this option shall specify a maximum amount of Unforced Capacity, in megawatts, and a maximum credit requirement, in dollars, applicable to the Sell Offer. A Credit-Limited Offer shall clear the RPM Auction in which it is submitted (to the extent it otherwise would clear based



on the other offer parameters and the system's need for the offered capacity) only to the extent of the lesser of: (i) the quantity of Unforced Capacity that is the quotient of the division of the specified maximum credit requirement by the Auction Credit Rate resulting from section VI.B.4.b. below; and (ii) the maximum amount of Unforced Capacity specified in the Sell Offer. For a Market Participant electing this alternative, the RPM Auction Credit requirement applicable prior to the posting of results of the auction shall be the maximum credit requirement specified in its Credit-Limited Offer, and the RPM Auction Credit requirement subsequent to posting of the results will be the Auction Credit Rate, as provided in section VI.B.4.b, c. or d. of this Attachment Q, as applicable, times the amount of Unforced Capacity from such Sell Offer that cleared in the auction. The availability and operational details of Credit-Limited Offers shall be as described in the PJM Manuals.

As set forth in section VI.B.4 below, a Market Participant's Auction Credit requirement shall be determined separately for each Delivery Year.

### **3. Reduction in Credit Requirement**

As specified below, the RPM Auction Credit Rate may be reduced under certain circumstances after the auction has closed.

The Price Responsive Demand credit requirement shall be reduced as and to the extent the PRD Provider registers PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

In addition, the RPM Auction Credit requirement for a Market Participant for any given Delivery Year shall be reduced periodically, after the Market Participant has provided PJM a written request for each reduction, accompanied by documentation sufficient for PJM to verify attainment of required milestones or satisfaction of other requirements, and PJM has verified that the Market Participant has successfully met progress milestones for its Capacity Resource that reduce the risk of non-performance, as follows:

- (a) For Planned Demand Resources and Energy Efficiency Resources, the RPM Auction Credit requirement will be reduced in direct proportion to the megawatts of such Demand Resource that the Resource Provider qualifies as a Capacity Resource, in accordance with the procedures established under the Reliability Assurance Agreement.
- (b) For Existing Generation Capacity Resources located outside the PJM Region that have not secured sufficient firm transmission to the border of the PJM Region prior to the auction in which such resource is first offered, the RPM Auction Credit requirement shall be reduced in direct proportion to the megawatts of firm transmission service secured by the Market Participant that qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.
- (c) For Planned Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit requirement</b>
Effective Date of Interconnection Service Agreement, <u>Generation Interconnection Agreement or Wholesale Market Participation Agreement</u>	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

For externally financed projects, the Market Participant must submit with its request for reduction a sworn, notarized certification of a duly authorized independent engineer for the Financial Close, Full Notice to Proceed and Commencement of Construction, and Main Power Generating Equipment Delivered milestones.

For internally financed projects, the Market Participant must submit with its request for reduction a sworn, notarized certification of a duly authorized officer of the Market Participant for the Financial Close milestone and either a duly authorized independent engineer or Professional Engineer for the Full Notice to Proceed and Commencement of Construction and the Main Power Generating Equipment Delivered milestones.

The required certifications must be in a form acceptable to PJM, certifying that the engineer or officer, as applicable, has personal knowledge, or has engaged in a diligent inquiry to determine, that the milestone has been achieved and that, based on its review of the relevant project information, the engineer or officer, as applicable, is not aware of any information that could reasonably cause it to believe that the Capacity Resource will not be in-service by the beginning of the applicable Delivery Year. The Market Participant shall, if requested by PJM, supply to PJM on a confidential basis all records and documents relating to the engineer's and/or officer's certifications.

(d) For Planned External Generation Capacity Resources, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement shall be no greater than the quotient of (i) the MWs of firm transmission service that the Market Participant has secured for the complete transmission path divided by (ii) the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

<b>Credit Reduction Milestones for Planned External Generation Capacity Resources</b>
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<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit requirement</b>
Effective Date of the equivalent of an Interconnection Service Agreement, <u>Generation Interconnection Agreement or Wholesale Market Participation Agreement</u>	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Market Participant must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(e) For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section VI.B.2 above beginning as of the effective date of the latest associated Interconnection Service Agreement or Generation Interconnection Agreement - (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service.

#### **4. RPM Auction Credit Rate**

As set forth in the PJM Manuals, a separate Auction Credit Rate shall be calculated for each Delivery Year prior to each RPM Auction for such Delivery Year, as follows:

- (a) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Auction Credit Rate shall be:
- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year; and
  - (ii) For Capacity Performance Resources, the greater of ((A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year.
  - (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(b) Subsequent to the posting of the results from a Base Residual Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of calendar days in such Delivery Year; and
- (ii) For Capacity Performance Resources, the (greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of calendar days in such Delivery Year).
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(c) For any resource not previously committed for a Delivery Year that seeks to participate in an Incremental Auction, the Auction Credit Rate shall be:

(i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) 0.24 times the Capacity Resource Clearing Price in the Base Residual Auction for such Delivery Year for the Locational Deliverability Area within which the resource is located or (C) \$20 per MW-day) times the number of calendar days in such Delivery Year; and

(ii) For Capacity Performance Resources, the (greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA or (B) \$20/MW-day) times the number of calendar days in such Delivery Year.

(d) Subsequent to the posting of the results of an Incremental Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For Base Capacity Resources: (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of calendar days in such Delivery Year, but no greater than the Auction Credit Rate previously established for such resource's participation in such Incremental Auction pursuant to subsection (c) above) times the number of calendar days in such Delivery Year;

- (ii) For Capacity Performance Resources, the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of calendar days in such Delivery Year); and
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(e) For the purposes of this section VI.B.4 and section VI.B.5 below, “Relevant LDA” means the Locational Deliverability Area in which the Capacity Performance Resource is located if a separate Variable Resource Requirement Curve has been established for that Locational Deliverability Area for the Base Residual Auction for such Delivery Year.

## **5. Price Responsive Demand Credit Rate**

- (a) For the 2018/2019 through 2022/2023 Delivery Years:
  - (i) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year;
  - (ii) Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive Demand committed in such auction shall be (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand load is located, in \$/MW-day) times the number of calendar days in such Delivery Year times a final price uncertainty factor of 1.05;
  - (iii) For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be the same as the rate for Price Responsive Demand that had cleared in the Base Residual Auction; and
  - (iv) Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for

all Price Responsive Demand, shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Final Zonal Capacity Price for the Locational Deliverability Area within which the Price Responsive Demand is located) times the number of calendar days in such Delivery Year, but no greater than the Price Responsive Demand Credit Rate previously established under subsections (a)(i), (a)(ii), or (a)(iii) of this section for such Delivery Year.

- (b) For the 2022/2023 Delivery Year and Subsequent Delivery Years:
- (i) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year;
  - (ii) Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive Demand committed in such auction shall be (the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located, in \$/MW-day or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located)] times the number of calendar days in such Delivery Year;
  - (iii) For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (B) \$20/MW-day) times the number of calendar days in such Delivery Year; and
  - (iv) Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for all Price Responsive Demand committed in such auction shall be the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Performance Resource Clearing Price in such Incremental Auction for the Locational Deliverability Areas within which the Price

Responsive Demand is located)] times the number of calendar days in such Delivery Year.

## **6. RPM Seller Credit - Additional Form of Unsecured Credit for RPM**

In addition to the forms of credit specified elsewhere in this Attachment Q, RPM Seller Credit shall be available to Market Participants, but solely for purposes of satisfying RPM Auction Credit requirements. If a supplier has a history of being a net seller into PJM Markets, on average, over the past 12 months, then PJM will count as available Unsecured Credit twice the average of that Market Participant's total net monthly PJM bills over the past 12 months. This RPM Seller Credit shall be subject to the cap on available Unsecured Credit as established in section II.G.3 above.

RPM Seller Credit is calculated as a single value for each Market Participant, not separately by account, and must be designated to specific customer accounts in order to be available to satisfy RPM Auction Credit requirements that are calculated in each such customer account.

## **7. Credit Responsibility for Traded Planned RPM Capacity Resources**

PJM may require that credit and financial responsibility for planned Capacity Resources that are traded remain with the original party (which for these purposes, means the party bearing credit responsibility for the planned Capacity Resource immediately prior to trade) unless the receiving party independently establishes consistent with this Attachment Q, that it has sufficient credit with PJM and agrees by providing written notice to PJM that it will fully assume the credit responsibility associated with the traded planned Capacity Resource.

## **C. Financial Transmission Right Auctions**

Credit requirements described herein for FTR activity are applied separately for each customer account of a Market Participant, unless specified otherwise in this section C. FTR Participants must designate the appropriate amount of credit to each separate customer account in which any activity occurs or will occur.

### **1. FTR Credit Limit.**

Participants must maintain their FTR Credit Limit at a level equal to or greater than their FTR Credit Requirement for each applicable account. FTR Credit Limits will be established only by a Participant providing Collateral and designating the available credit to specific accounts.

### **2. FTR Credit Requirement.**

For each Market Participant with FTR activity, PJM shall calculate an FTR Credit Requirement. The FTR Credit Requirement shall be calculated on a portfolio basis for each Market Participant based on (a) initial margin, (b) Auction Revenue Right Credits, (c) Mark-to-Auction Value, (d) application of a 10¢ per MWh minimum value adjustment, and (e) realized gains and/or losses, as set forth in subsections (a)-(e) of this subsection, employing the formula:

Max { Max ( IM – ARR – MTA, Ten Cent per Mwh Minimum) – Realized Gains and/or Losses, 0 }

Where IM is the initial margin, ARR is Auction Revenue Rights Credits and MTA is the Mark-to-Auction Value. The FTR Credit Requirement may be increased to reflect any change in the value of a Market Participant's portfolio requiring an increase in Collateral as further described below.

(a) Initial Margin

Initial margin shall be calculated in accordance with the following formula:

$$\text{IM} = \text{FTR Obligations IM} + \text{FTR Options IM}$$

The model will employ a confidence interval of 99 percent.

(i) FTR Obligations IM

Initial margin values for Financial Transmission Right Obligations shall be determined utilizing a historical simulation value-at-risk methodology that calculates the size and value at risk of the applicable FTR portfolio based on a defined confidence interval and subject to a weighted aggregation method that is represented by a straight sum for long term positions and a combination of straight sum (20%) and weighted root sum of squares (80%) for balance of planning period positions.

(ii) FTR Options IM

The initial margin for Financial Transmission Right Options shall be calculated as the FTR cost minus the FTR Historical Values. FTR Historical Values shall be calculated separately for weekend on-peak, weekday on-peak, off-peak, and 24-hour FTRs for each month of the year. FTR Historical Values shall be adjusted by plus or minus ten percent for cleared counter flow or prevailing flow FTRs, respectively, in order to mitigate exposure due to uncertainty and fluctuations in actual FTR value. Historical values used in the calculation of FTR Historical Values shall be adjusted when the network simulation model utilized in PJM's economic planning process indicates that transmission congestion will decrease due to certain transmission upgrades that are in effect or planned to go into effect for the following Planning Period. The transmission upgrades to be modeled for this purpose shall only include those upgrades that, individually, or together, have 10% or more impact on the transmission congestion on an individual constraint or constraints with congestion of \$5 million or more affecting a common congestion path. The adjustments to historical values shall be the dollar amount of the adjustment shown in the network simulation model.

(b) Auction Revenue Rights Credits



For a given month for which initial margin is calculated, the prorated value of any Auction Revenue Rights Credits held by a Market Participant with Financial Transmission Right Obligations shall be subtracted from the initial margin for that month. In accordance with subsection 3 below, PJM may recalculate Auction Revenue Rights Credits at any time, but shall do so no less frequently than subsequent to each annual FTR auction. If a reduction in such ARR credits at any time increases an FTR Participant's FTR Credit Requirements beyond its credit available for FTR activity, the FTR Participant must increase its Collateral or the FTR Credit Limit.

(c) Mark-to-Auction Value

A Mark-to-Auction Value shall be calculated for each Market Participant in accordance with subsection 7 below.

(d) Ten Cent (10¢) per MWh Minimum Value Adjustment

If the FTR Credit Requirement as calculated pursuant to subsections (a)-(c) above, results in a value that is less than ten cents (10¢) per MWh, the FTR Credit Requirement shall be increased to ten cents (10¢) per MWh. When calculating the portfolio MWh for this comparison, for cleared "Sell" FTRs, the MWh shall be subtracted from the portfolio total; prior to clearing, the MWh for "Sell" FTRs shall not be included in the portfolio total.

(e) Realized Gains and/or Losses

Any realized gains and/or losses resulting from the settlement of Financial Transmission Right Obligations that have not been paid out will be subtracted from the FTR Credit Requirement. A realized gain will decrease the FTR Credit Requirement (but not below \$0.00), whereas a realized loss will increase the FTR Credit Requirement.

### **3. Rejection of FTR Bids.**

Bids submitted into an auction will be rejected if the Market Participant's FTR Credit Requirement including such submitted bids would exceed the Market Participant's FTR Credit Limit, or if the Market Participant fails to provide additional Collateral as required pursuant to provisions related to mark-to-auction.

#### **4. FTR Credit Collateral Returns.**

A Market Participant may request from PJM the return of any Collateral no longer required for the FTR markets. PJM is permitted to limit the frequency of such requested Collateral returns, provided that Collateral returns shall be made by PJM at least once per calendar quarter, if requested by a Market Participant.

#### **5. Credit Responsibility for Bilateral Transfers of FTRs.**

PJM may require that credit responsibility associated with an FTR bilaterally transferred to a new Market Participant remain with the original party (which for these purposes, means the party bearing credit responsibility for the FTR immediately prior to bilateral transfer) unless and until the receiving party independently establishes, consistent with this Attachment Q, sufficient credit with PJM and agrees through confirmation of the bilateral transfer in PJM's FTR reporting tool that it will meet in full the credit requirements associated with the transferred FTR.

#### **6. FTR Administrative Charge Credit Requirement**

In addition to any other credit requirements, PJM may apply a credit requirement to cover the maximum administrative fees that may be charged to a Market Participant for its bids and offers.

#### **7. Mark-to-Auction**

A Mark-to-Auction Value shall be calculated separately for each customer account of a Market Participant. For each such customer account, the Mark-to-Auction Value shall be a single number equal to the sum, over all months remaining in the applicable FTR period and for all cleared FTRs in the customer account, of the most recently available cleared auction price applicable to the FTR minus the original transaction price of the FTR, multiplied by the transacted quantity.

The FTR Credit Requirement, as otherwise described above, shall be increased when the Mark-to-Auction Value is negative and decreased when the Mark-to-Auction Value is positive. The increase shall equal the absolute value of the negative Mark-to-Auction Value less the value of ARR credits that are held in the customer account and have not been used to reduce the FTR Credit Requirement prior to application of the Mark-to-Auction Value. PJM shall recalculate ARR credits held by each Market Participant after each annual FTR auction and may also recalculate such ARR credits at any other additional time intervals it deems appropriate. Application of the Mark-to-Auction Value, including the effect from ARR application, shall not decrease the FTR Credit Requirement below the Ten Cent (10¢) per MWh Minimum.

For Market Participant customer accounts for which FTR bids have been submitted into the current FTR auction, if the Market Participant's FTR Credit Requirement exceeds its credit available for the Market Participant's portfolio of FTRs in the tentative cleared solution for an FTR auction (or auction round), PJM shall issue a Collateral Call to the Market Participant, and the Market Participant must fulfill such demand before 4:00 p.m. Eastern Prevailing Time on the following Business Day. If a Market Participant does not timely satisfy such Collateral Call,

PJM shall, in coordination with PJM, cause the removal of all of that Market Participant's bids in that FTR auction (or auction round), submitted from such Market Participant's customer account, and a new cleared solution shall be calculated for the FTR auction (or auction round).

If necessary, PJM shall repeat the auction clearing calculation. PJM shall repeat these mark-to-auction calculations subsequent to any secondary clearing calculation, and PJM shall require affected Market Participants to establish additional credit.

Subsequent to final clearing of an FTR auction or an annual FTR auction round, PJM shall recalculate the FTR Credit Requirement for all FTR portfolios, and, as applicable, issue to each Market Participant a request for Collateral for the total amount by which the FTR Credit Requirement exceeds the credit allocated in any of the Market Participant's accounts. The Market Participant must fulfill such demand by 4:00 p.m. Eastern Prevailing Time on the following Business Day.

If the request for Collateral is not satisfied within the applicable cure period referenced in Operating Agreement, section 15, then such Market Participant shall be restricted in all of its credit-screened transactions. Specifically, such Market Participant may not engage in any Virtual Transactions or Export Transactions, or participate in RPM Auctions or other RPM activity. Such Market Participant may engage only in the selling of open FTR positions, either in FTR auctions or bilaterally, provided such sales would reduce the Market Participant's FTR Credit Requirements. PJM shall not return any Collateral to such Market Participant, and no payment shall be due or payable to such Market Participant, until its credit shortfall is remedied. Market Participant shall allocate any excess or unallocated Collateral to any of its account in which there is a credit shortfall. Market Participants may remedy their credit shortfall at any time through provision of sufficient Collateral.

If a Market Participant fails to satisfy a request for Collateral for two consecutive auctions of overlapping periods, e.g. two balance of Planning Period auctions, an annual FTR auction and a balance of Planning Period auction, or two long term FTR auctions, (for this purpose the four rounds of an annual FTR auction shall be considered a single auction), the Market Participant shall be declared in default of this Attachment Q.

## **VII. PEAK MARKET ACTIVITY AND WORKING CREDIT LIMIT**

### **A. Peak Market Activity Credit Requirement**

PJM shall calculate a Peak Market Activity credit requirement for each Participant. Each Participant must maintain sufficient Unsecured Credit Allowance and/or Collateral, as applicable, and subject to the provisions herein, to satisfy its Peak Market Activity credit requirement.

Peak Market Activity for Participants will be determined weekly, utilizing an initial Peak Market Activity, as explained in this section VII.A below. Peak Market Activity shall be the greater of the initial Peak Market Activity, or the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in the rolling past one, two, three or four-week period.

However, Peak Market Activity shall not exceed the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two or three-week period in the prior 52 weeks.

Peak Market Activity shall exclude FTR Net Activity, Virtual Transactions Net Activity, and Export Transactions Net Activity.

Peak Market Activity = min [max [initial Peak Market Activity, max [greatest amount invoiced for transaction activity for the rolling past one, two, three, or four-week period]], max [greatest amount invoiced for transaction activity for any rolling one, two or three-week period in the prior 52 weeks]

When calculating Peak Market Activity, PJM may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

The initial Peak Market Activity for Applicants will be determined by PJM based on a review of an estimate of their transactional activity for all PJM Markets and services over the next 52 weeks, which the Applicant shall provide to PJM.

The initial Peak Market Activity for Market Participants and Transmission Customers, calculated weekly upon issuance of the weekly invoice, shall be the three-week average of all non-zero invoice totals over the previous 52 weeks.

Prepayments shall not affect Peak Market Activity unless otherwise agreed to in writing pursuant to this Attachment Q.

Peak Market Activity calculations shall take into account reductions of invoice values effectuated by early payments which are applied to reduce a Participant's Peak Market Activity as contemplated by other terms of this Attachment Q; provided that the initial Peak Market Activity shall not be less than the average value calculated using the weeks for which no early payment was made.

A Participant may reduce its Collateral requirement by agreeing in writing (in a form acceptable to PJM) to make additional payments, including prepayments, as and when necessary to ensure that such Participant's Total Net Obligation at no time exceeds such reduced Collateral requirement.

In the event that the Peak Market Activity Shortfall exceeds or equals the Minimum Exposure, the prior week's Peak Market Activity credit requirement will be increased by an amount equal to  $n * \text{the Minimum Transfer Amount}$ , with  $n$  being the integer that will cause the current week's Peak Market Activity credit requirement to be greater than or equal to the Participant's current Peak Market Activity but less than the Participant's current Peak Market Activity plus the Minimum Transfer Amount. For the avoidance of doubt, if the Peak Market Activity Shortfall is less than the Minimum Exposure, the current week's Peak Market Activity credit requirement will remain the same as the prior week's Peak Market Activity credit requirement.

In the event that the Peak Market Activity Surplus exceeds or equals the Minimum Transfer Amount, the prior week's Peak Market Activity credit requirement will be decreased by an amount equal to  $n * \text{the Minimum Transfer Amount}$ , with  $n$  being the integer that will cause the current week's Peak Market Activity credit requirement to be greater than or equal to the Participant's current Peak Market Activity but less than the Participant's current Peak Market Activity plus the Minimum Transfer Amount. For the avoidance of doubt, if the Peak Market Activity Surplus is less than the Minimum Transfer Amount, the current week's Peak Market Activity credit requirement will remain the same as the prior week's Peak Market Activity credit requirement.

In the event that there is neither a Peak Market Activity Shortfall nor a Peak Market Activity Surplus, then the current week's Peak Market Activity credit requirement is the same as the prior week's Peak Market Activity credit requirement.

PJM may, at its discretion, adjust a Participant's Peak Market Activity credit requirement if PJM determines that the Peak Market Activity is not representative of such Participant's expected activity, as a consequence of known, measurable, and sustained changes. Such changes may include, but shall not be limited to when a Participant makes PJM aware of federal, state or local law that could affect the allocation of charges or credits from a Participant to another party, the loss (without replacement) of short-term load contracts, when such contracts had terms of three months or more and were acquired through state-sponsored retail load programs, but shall not include short-term buying and selling activities.

PJM may waive the credit requirements for a Participant that has no outstanding transactions and agrees in writing that it shall not, after the date of such agreement, incur obligations under any of the Agreements. Such entity's access to all electronic transaction systems administered by PJM shall be terminated.

A Participant receiving unsecured credit may make early payments up to thirteen (13) times in a rolling 52-week period in order to reduce its Peak Market Activity for credit requirement purposes. Imputed Peak Market Activity reductions for credit purposes will be applied to the billing period for which the payment was received. Payments used as the basis for such reductions must be received prior to issuance or posting of the invoice for the relevant billing period. The imputed Peak Market Activity reduction attributed to any payment may not exceed the amount of Unsecured Credit for which the Participant is eligible.

## **B. Working Credit Limit**

PJM will establish a Working Credit Limit for each Participant against which its Total Net Obligation will be monitored.

If a Participant's Total Net Obligation approaches its Working Credit Limit, PJM may require the Participant to make an advance payment or increase its Collateral in order to maintain its Total Net Obligation below its Working Credit Limit. Except as explicitly provided herein, advance payments shall not serve to reduce the Participant's Peak Market Activity for the purpose of calculating credit requirements.

Example: After ten (10) calendar days, and with five (5) calendar days remaining before the bill is due to be paid, a Participant approaches its \$4.0 million Working Credit Limit. PJM may require a prepayment of \$2.0 million in order that the Total Net Obligation will not exceed the Working Credit Limit.

If a Participant exceeds its Working Credit Limit or is required to make advance payments more than ten times during a 52-week period, PJM may require Collateral in an amount as may be deemed reasonably necessary to support its Total Net Obligation.

When calculating Total Net Obligation, PJM may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

## **VIII. SUSPENSION OR LIMITATION ON MARKET PARTICIPATION**

If PJM determines that a Participant presents an unreasonable credit risk as determined pursuant to initial or ongoing risk evaluations, as described in section II above, or in the case of any other event which, after notice, lapse of time, or both, would result in an Event of Default, PJM will take steps to mitigate the exposure of any PJM Markets, which may include, but is not limited to, requiring Collateral, additional Collateral or Restricted Collateral or suspending or limiting the Market Participant's ability to participate in the PJM Markets commensurate to the risk to any PJM Markets.

If a Participant fails to reduce or eliminate any unreasonable credit risks to PJM's satisfaction within the applicable cure period including without limitation by posting Collateral, additional Collateral or Restricted Collateral, PJM may treat such failure as an Event of Default.

Notwithstanding the foregoing, a Participant that transacts in FTRs will be eligible to request that PJM exempt or exclude FTR transactions of such Participant from the effect of any such limitations on market activity established by PJM, and PJM may but shall not be required to so exempt or exclude, any FTR transactions that the Participant reasonably demonstrates to PJM it has entered into to "hedge or mitigate commercial risk" arising from its transactions in the PJM Interchange Energy Market that are intended to result in the actual flow of physical energy or ancillary services in the PJM Region, as the phrase "hedge or mitigate commercial risks" is defined under the CFTC's regulations defining the end-user exception to clearing set forth in 17 C.F.R. §50.50(c).

## **IX. REMEDIES FOR CREDIT BREACH, FINANCIAL DEFAULT OR CREDIT SUPPORT DEFAULT; REMEDIES FOR EVENTS OF DEFAULT; GENERAL BANKRUPTCY PROVISIONS**

If PJM determines that a Market Participant is in Credit Breach, or that a Financial Default or Credit Support Default exists, PJM may issue to the Market Participant a breach notice and/or a Collateral Call or demand for additional documentation or assurances. At such time, PJM may also suspend payments of any amounts due to the Participant and limit, restrict or rescind the Market Participant's privileges to participate in any or all PJM Markets under the Agreements during any such cure period. Failure to remedy the Credit Breach, Financial Default or to satisfy a Collateral Call or demand for additional documentation or assurances within the applicable cure period described in Operating Agreement, section 15.1.5, shall constitute an Event of

Default. If a Participant fails to meet the requirements of this Attachment Q, but then remedies the Credit Breach, Financial Default or Credit Support Default, or satisfies a Collateral Call or demand for additional documentation or assurances within the applicable cure period, then the Participant shall be deemed to again be in compliance with this Attachment Q, so long as no other Credit Breach, Financial Default, Credit Support Default or Collateral Call or demand for additional documentation or assurances has occurred and is continuing.

Only one cure period shall apply to a single event giving rise to a Credit Breach, Financial Default or Credit Support Default. Application of Collateral towards a Financial Default, Credit Breach or Credit Support Breach shall not be considered a cure of such Credit Breach, Financial Default or Credit Support Default unless the Participant is determined by PJM to be in full compliance with all requirements of this Attachment Q after such application.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may take such actions as may be required or permitted under the Agreements to protect the PJM Markets and the PJM Members, including but not limited to (a) suspension and/or termination of the Participant's ongoing Transmission Service, (b) limitation, suspension and/or termination of participation in any PJM Markets, (c) taking all necessary steps to address the Market Participant's market portfolio in accordance with the provisions of the Operating Agreement and PJM Tariff, including, but not limited to, allowing such portfolio's positions to go to settlement, liquidating or otherwise resolving such portfolio positions, exercising judgment in the manner in which this is achieved in any PJM Markets. PJM may permit a defaulting Market Participant to continue to participate in PJM Markets: (a) in support of grid reliability, (b) when such Market Participant is a net market seller, (c) when such Market Participant has the ability to post collateral, or (d) to enable certain customers to continue to receive service prior to PJM receiving regulatory or legal approval to terminate.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM also has the immediate right to liquidate all or a portion of a Participant's Collateral at its discretion to satisfy Total Net Obligations to PJM under this Attachment Q or one or more of the Agreements. No remedy for an Event of Default is or shall be deemed to be exclusive of any other available remedy or remedies by contract or under applicable laws and regulations. Each such remedy shall be distinct, separate and cumulative, shall not be deemed inconsistent with or in exclusion of any other available remedy, and shall be in addition to and separate and distinct from every other remedy.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may continue to retain all payments due to a Participant as a cash security for all such Participant's obligations under the Agreements (regardless of any restrictions placed on such Participant's use of Collateral for any account, market activity or capitalization purpose); provided, however, that an Event of Default will not be deemed cured or no longer continuing because PJM is retaining amounts due the Participant, or because PJM has not yet applied Collateral or credit support to any amounts due PJM, unless PJM determines that the Participant has again satisfied all the Collateral requirements and application requirements as a new Applicant for participation in the PJM Markets, and consistent with the requirements and limitations of Operating Agreement, section 15.

In Event of Default by a Participant, PJM may exercise any remedy or action allowed or prescribed by this Attachment Q immediately or following investigation and determination of an orderly exercise of such remedy or action. Delay in exercising any allowed remedy or action shall not preclude PJM from exercising such remedy or action at a later time.

PJM may hold a defaulting Participant's Collateral for as long as such party's positions exist and consistent with this Attachment Q, in order to protect the PJM Markets and PJM's membership, and minimize or mitigate the impacts or potential impacts or risks associated with such Event of Default when an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing.

PJM may apply towards an ongoing Event of Default any amounts that are held or later become available or due to the defaulting Participant through PJM's markets and systems.

In order to cover the Participant's Obligations, PJM may hold a Participant's Collateral indefinitely and specifically through the end of the billing period which includes the 90th day following the last day a Participant had activity, open positions, or accruing obligations (other than reconciliations and true-ups), until such Participant has satisfactorily paid any obligations invoiced through such period and until PJM determines that the Participant's positions represent no risk exposure to the PJM Markets or the PJM Members. Obligations incurred or accrued through such period shall survive any withdrawal from PJM. When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may apply any Collateral to such Participant's Obligations, even if Participant had previously announced and effected its withdrawal from PJM.

To protect PJM Members and PJM Markets from loss and harm due to uncertainty and delay which may be created upon a Participant's bankruptcy, in the event a Participant becomes a debtor under the United States Bankruptcy Code, 11 U.S.C. §§ 101-1532 (the "Bankruptcy Code"), whether voluntarily or involuntarily, the Participant should upon the commencement of the bankruptcy case immediately seek through a "first day" motion or motions, to the extent appropriate under the circumstances to provide PJM with prompt clarity as to its rights and treatment, the entry of an order of the bankruptcy court: (i) authorizing and directing the Participant to (a) make prompt and full payment of all pre-petition Obligations to PJM; and (b) fulfill all obligations under the Tariff and other Agreements in the ordinary course of business, including but not limited to deposit of additional Collateral post-petition; (ii) authorizing PJM to (x) require, hold and apply Collateral in accordance with this Attachment Q and (y) exercise setoff and recoupment to the fullest extent provided under the Tariff and other Agreements, and applicable nonbankruptcy law; and (iii) confirming the status of Agreements as a "forward contract", "swap agreement", or "master netting agreement" under the Bankruptcy Code, as applicable.

In the event that a debtor Participant fails to file such a "first day" motion within one (1) Business Day of the commencement of the bankruptcy case, or the bankruptcy court does not enter an order granting the relief requested in such "first day" motion within seven (7) days thereof, PJM may file a motion for relief from the automatic stay under section 362(d) of the



Bankruptcy Code, citing the lack of prompt clarity as “cause” thereunder, to the extent necessary to permit PJM to exercise any rights and remedies under the Tariff and other Agreements.

## **X. FTR TRANSACTIONS AS FORWARD CONTRACTS AND/OR SWAP AGREEMENTS UNDER THE BANKRUPTCY CODE**

Under the terms of the Tariff, PJM Settlement is the counterparty to all transactions in PJM Markets, including but not limited to all FTR transactions, other than (i) any bilateral transactions between Participants, or (ii) with respect to self-supplied or self-scheduled transactions reported to the Office of the Interconnection. Pursuant to the “Final Order in Response to a Petition From Certain Independent System Operators and Regional Transmission Organizations To Exempt Specified Transactions Authorized by a Tariff or Protocol Approved by the Federal Energy Regulatory Commission or the Public Utility Commission of Texas From Certain Provisions of the Commodity Exchange Act Pursuant to the Authority Provided in the Act” 78 Fed. Reg. 19880 (April 2, 2013) (the “CFTC RTO/ISO Order”), the Commodity Futures Trading Commission (the “CFTC”) exempts transactions offered or entered into in a market administered by PJM pursuant to the Tariff, including but not limited to FTR transactions, from the provisions of the Commodity Exchange Act and the CFTC’s rules applicable to “swaps,” with the exception of the CFTC’s general anti-fraud and anti-manipulation authority and scienter-based prohibitions.

Notwithstanding the CFTC RTO/ISO Order, all FTR transactions constitute “forward contracts” and/or “swap agreements” within the meaning of the Bankruptcy Code, and PJM shall be deemed to be a “forward contract merchant” and/or a “swap participant” within the meaning of the Bankruptcy Code for purposes of FTR transactions.

Pursuant to this Attachment Q and other provisions of the Agreements, PJM already has, and shall continue to have, the following rights (among other rights) with respect to a Market Participant’s Event of Default under those documents: (a) the right to terminate, liquidate or otherwise resolve any FTR transaction or position held by that Market Participant, including by allowing such position to go to settlement; (b) the right to immediately proceed against any Collateral and additional financial assurance provided by that Market Participant; (c) the right to set off or recoup any obligations due and owing to that Market Participant pursuant to any forward contract, swap agreement, or similar agreement against any amounts due and owing by that Market Participant pursuant to any forward contract, swap agreement, or similar agreement, such arrangement to constitute a “master netting agreement” within the meaning of the Bankruptcy Code; and (d) the right to suspend or limit that Market Participant from entering into further FTR transactions.

For the avoidance of doubt, upon the commencement of a voluntary or involuntary proceeding for a Market Participant under the Bankruptcy Code, and without limiting any other rights of PJM or obligations of any Market Participant under the Tariff (including this Attachment Q) or other Agreements, PJM may exercise any of its rights against such Market Participant, including, without limitation (1) the right to terminate, liquidate or otherwise resolve any FTR transaction or position held by that Market Participant, including by allowing such position to go to settlement, (2) the right to immediately proceed against any Collateral and additional financial

assurance provided by that Market Participant, (3) the right to set off or recoup any obligations due and owing to that Market Participant pursuant to any forward contract, swap agreement and/or master netting agreement against any amounts due and owing by that Market Participant with respect to an FTR transaction including as a result of the actions taken by PJM pursuant to (1) above, and (4) the right to suspend or limit that Market Participant from entering into future FTR transactions.

For purposes of the Bankruptcy Code, all transactions, including but not limited to FTR transactions, between PJM, on the one hand, and a Market Participant, on the other hand, are intended to be, and are, part of a single integrated agreement, and together with the Agreements constitute a “master netting agreement.”

**Attachment Q**  
**Appendix 1**

**PJM MINIMUM PARTICIPATION CRITERIA**  
**ANNUAL OFFICER CERTIFICATION FORM**

<b>Participant Name:</b> _____ ( <b>"Participant"</b> )
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I, \_\_\_\_\_, a duly authorized officer of Participant, understanding that PJM Interconnection, L.L.C. and PJMSettlement, Inc. (“PJMSettlement”) are relying on this certification as evidence that Participant meets the minimum requirements set forth in the PJM Open Access Transmission Tariff (“PJM Tariff”), Attachment Q hereby certify that I have full authority to represent on behalf of Participant and further represent as follows, as evidenced by my initialing each representation in the space provided below:

1. All employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Amended and Restated Operating Agreement (“PJM Operating Agreement”) on behalf of the Participant have received appropriate training and are authorized to transact on behalf of Participant. As used in this representation, the term “appropriate” as used with respect to training means training that is (i) comparable to generally accepted practices in the energy trading industry, and (ii) commensurate and proportional in sophistication, scope and frequency to the volume of transactions and the nature and extent of the risk taken by the participant. \_\_\_\_\_
  
2. Participant has written risk management policies, procedures, and controls, approved by Participant’s independent risk management function and applicable to transactions in any PJM Markets in which it participates and for which employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Operating Agreement have been trained, that provide an appropriate, comprehensive risk management framework that, at a minimum, clearly identifies and documents the range of risks to which Participant is exposed, including, but not limited to credit risks, liquidity risks and market risks. As used in this representation, a Participant’s “independent risk management function” can include appropriate corporate persons or bodies that are independent of the Participant’s trading functions, such as a risk management committee, a risk officer, a Participant’s board or board committee, or a board or committee of the Participant’s parent company.
  - a. Participant is providing to PJM or PJMSettlement, in accordance with Tariff, Attachment Q, section III, with this Annual Officer Certification Form, a copy of its current governing risk management policies, procedures and controls applicable to its activities in any PJM Markets pursuant to Attachment Q or because there have been substantive changes made to such policies, procedures and controls applicable to its market activities since they were last provided to PJM. \_\_\_\_\_
  
  - b. If the risk management policies, procedures and controls applicable to Participant’s market activities submitted to PJM or PJMSettlement were submitted

prior to the current certification, Participant certifies that no substantive changes have been made to such policies, procedures and controls applicable to its market activities since such submission. \_\_\_\_\_

3. An FTR Participant must make either the following 3.a. or 3.b. additional representations, evidenced by the undersigned officer initialing either the one 3.a. representation or the four 3.b. representations in the spaces provided below:

- a. Participant transacts in PJM's FTR markets with the sole intent to hedge congestion risk in connection with either obligations Participant has to serve load or rights Participant has to generate electricity in the PJM Region ("physical transactions") and monitors all of the Participant's FTR market activity to endeavor to ensure that its FTR positions, considering both the size and pathways of the positions, are either generally proportionate to or generally do not exceed the Participant's physical transactions, and remain generally consistent with the Participant's intention to hedge its physical transactions. \_\_\_\_\_

- b. On no less than a weekly basis, Participant values its FTR positions and engages in a probabilistic assessment of the hypothetical risk of such positions using analytically based methodologies, predicated on the use of industry accepted valuation methodologies. \_\_\_\_\_

Such valuation and risk assessment functions are performed either by persons within Participant's organization independent from those trading in PJM's FTR markets or by an outside firm qualified and with expertise in this area of risk management. \_\_\_\_\_

Having valued its FTR positions and quantified their hypothetical risks, Participant applies its written policies, procedures and controls to limit its risks using industry recognized practices, such as value-at-risk limitations, concentration limits, or other controls designed to prevent Participant from purposefully or unintentionally taking on risk that is not commensurate or proportional to Participant's financial capability to manage such risk. \_\_\_\_\_

Exceptions to Participant's written risk policies, procedures and controls applicable to Participant's FTR positions are documented and explain a reasoned basis for the granting of any exception. \_\_\_\_\_

4. Participant has appropriate personnel resources, operating procedures and technical abilities to promptly and effectively respond to all PJM and PJMSettlement communications and directions. \_\_\_\_\_
5. Participant has demonstrated compliance with the Minimum Capitalization criteria set forth in Tariff, Attachment Q that are applicable to any PJM Markets in which Participant transacts, and is not aware of any change having occurred or being imminent that would invalidate such compliance. \_\_\_\_\_

6. All Participants must certify and initial in at least one of the five sections below:

- a. I certify that Participant qualifies as an “appropriate person” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act or an “eligible contract participant” as that term is defined under section 1a(18), or successor provision, of the Commodity Exchange Act. I certify that Participant will cease transacting in any PJM Markets and notify PJM and PJMSettlement immediately if Participant no longer qualifies as an “appropriate person” or “eligible contract participant.” \_\_\_\_\_

If providing audited financial statements, which shall be in US GAAP format or any other format acceptable to PJM, to support Participant’s certification of qualification as an “appropriate person:”

I certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of Participant as of the date of those audited financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$5 million total asset levels reflected in these audited financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

If not providing audited financial statements to support Participant’s certification of qualification as an “appropriate person,” Participant certifies that they qualify as an “appropriate person” under one of the entities defined in section 4(c)(3)(A)-(J) of the Commodities Exchange Act. \_\_\_\_\_

If providing audited financial statements, which shall be in US GAAP format or any other format acceptable to PJM, to support Participant’s certification of qualification as an “eligible contract participant:”

I certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of Participant as of the date of those audited financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$10 million total asset levels reflected in these audited financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

If not providing audited financial statements to support Participant’s certification of qualification as an “eligible contract participant,” Participant certifies that they

qualify as an “eligible contract participant” under one of the entities defined in section 1a(18)(A) of the Commodities Exchange Act. \_\_\_\_\_

- b. I certify that Participant has provided an unlimited Corporate Guaranty in a form acceptable to PJM as described in Tariff, Attachment Q, section III.D from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I also certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of the issuer as of the date of those audited financial statements. Further, I certify that Participant will cease transacting PJM’s Markets and notify PJM and PJMSettlement immediately if issuer of the unlimited Corporate Guaranty for Participant no longer has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. \_\_\_\_\_

I certify that the issuer of the unlimited Corporate Guaranty to Participant continues to have at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I acknowledge that PJM and PJMSettlement are relying upon my certifications to maintain compliance with federal regulatory requirements. \_\_\_\_\_

- c. I certify that Participant fulfills the eligibility requirements of the Commodity Futures Trading Commission exemption order (78 F.R. 19880 – April 2, 2013) by being in the business of at least one of the following in the PJM Region as indicated below (initial those applicable):

1. Generating electric energy, including Participants that resell physical energy acquired from an entity generating electric energy: \_\_\_\_\_
2. Transmitting electric energy: \_\_\_\_\_
3. Distributing electric energy delivered under Point-to-Point or Network Integration Transmission Service, including scheduled import, export and wheel through transactions: \_\_\_\_\_
4. Other electric energy services that are necessary to support the reliable operation of the transmission system: \_\_\_\_\_

Description only if c(4) is initialed:

\_\_\_\_\_

Further, I certify that Participant will cease transacting in any PJM Markets and notify PJM and PJMSettlement immediately if Participant no longer performs at least one of the functions noted above in the PJM Region. I acknowledge that PJM and

PJMSettlement are relying on my certification to maintain compliance with federal energy regulatory requirements. \_\_\_\_\_

d. I certify that Participant has provided a Letter of Credit of \$5 million or more to PJM or PJMSettlement in a form acceptable to PJM and/or PJMSettlement as described in Tariff, Attachment Q, section V.B that the Participant acknowledges cannot be utilized to meet its credit requirements to PJM and PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this letter of credit and my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

e. I certify that Participant has provided a surety bond of \$5 million or more to PJM or PJMSettlement in a form acceptable to PJM and/or PJMSettlement as described in Tariff, Attachment Q, section V.D. that the Participant acknowledges cannot be utilized to meet its credit requirements to PJM and PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this surety bond and my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

7. I acknowledge that I have read and understood the provisions of Tariff, Attachment Q applicable to Participant's business in any PJM Markets, including those provisions describing PJM's Minimum Participation Requirements and the enforcement actions available to PJM and PJMSettlement of a Participant not satisfying those requirements. I acknowledge that the information provided herein is true and accurate to the best of my belief and knowledge after due investigation. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this Certification. \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Participant (Signature)

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_



## Definitions G - H

### **Generating Market Buyer:**

“Generating Market Buyer” shall mean an Internal Market Buyer that is a Load Serving Entity that owns or has contractual rights to the output of generation resources capable of serving the Market Buyer’s load in the PJM Region, or of selling energy or related services in the PJM Interchange Energy Market or elsewhere.

### **Generation Capacity Resource:**

“Generation Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

### **Generation Owner:**

“Generation Owner” shall mean a Member that owns or leases, with right equivalent to ownership, or otherwise controls and operates one or more operating generation resources located in the PJM Region. The foregoing notwithstanding, for a planned generation resource to qualify a Member as a Generation Owner, such resource shall have cleared an RPM auction, and for Energy Resources, the resource shall have a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM. Purchasing all or a portion of the output of a generation resource shall not be sufficient to qualify a Member as a Generation Owner. For purposes of Members Committee sector classification a Member that is primarily a retail end-user of electricity that owns generation may qualify as a Generation Owner if: (1) the generation resource is the subject of a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM; (2) the average physical unforced capacity owned by the Member and its affiliates over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average PJM capacity obligation of the Member and its affiliates over the same time period; and (3) the average energy produced by the Member and its affiliates within PJM over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average energy consumed by the Member and its affiliates within PJM over the same time period.

### **Generation Resource Maximum Output:**

“Generation Resource Maximum Output” shall mean, for Customer Facilities or Generating Facilities, as applicable, identified in an Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output for a generating unit shall equal the unit’s pro rata share of the Maximum Facility Output, determined by the Economic Maximum values for the available units at the Customer Facility. For generating units not identified in an Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output shall equal the generating unit’s Economic Maximum.

**Generator Forced Outage:**

“Generator Forced Outage” shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

**Generator Maintenance Outage:**

“Generator Maintenance Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform necessary repairs on specific components of the facility, if removal of the facility meets the guidelines specified in the PJM Manuals.

**Generator Planned Outage:**

“Generator Planned Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit for inspection, maintenance or repair with the approval of the Office of the Interconnection in accordance with the PJM Manuals.

**Good Utility Practice:**

“Good Utility Practice” shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act Section 215(a)(4).

**Hot Weather Alert:**

“Hot Weather Alert” shall mean the notice provided by PJM to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for extreme hot and/or humid weather conditions which may cause capacity requirements and/or unit unavailability to be substantially higher than forecast are expected to persist for an extended period.

**Hybrid Resource:**

“Hybrid Resource” shall mean an Energy Resource or a Generation Capacity Resource composed of more than one component behind the same Point of Interconnection operating in the capacity, energy, and/or ancillary services market(s) as a single integrated resource, whereby

each component is a separate generation and/or storage technology type. A Hybrid Resource forms all or part of a Mixed Technology Facility.

## **1.7 General.**

### **1.7.1 Market Sellers.**

Only Market Sellers shall be eligible to submit offers to the Office of the Interconnection for the sale of electric energy or related services in the PJM Interchange Energy Market. Market Sellers shall comply with the prices, terms, and operating characteristics of all Offer Data submitted to and accepted by the PJM Interchange Energy Market.

### **1.7.2 Market Buyers.**

Only Market Buyers and Energy Storage Resources shall be eligible to purchase energy or related services in the PJM Interchange Energy Market. Market Buyers shall comply with all requirements for making purchases from the PJM Interchange Energy Market.

#### **1.7.2A Economic Load Response Participants.**

Only Economic Load Response Participants shall be eligible to participate in the Real-time Energy Market and the Day-ahead Energy Market by submitting offers to the Office of the Interconnection to reduce demand.

#### **1.7.2B Energy Storage Resources.**

Energy that an Energy Storage Resource purchases from the PJM Interchange Energy Market must be Direct Charging Energy. Energy Storage Resources shall comply with all requirements for making purchases from the PJM Interchange Energy Market.

### **1.7.3 Agents.**

A Market Participant may participate in the PJM Interchange Energy Market through an agent, provided that the Market Participant informs the Office of the Interconnection in advance in writing of the appointment of such agent. A Market Participant participating in the PJM Interchange Energy Market through an agent shall be bound by all of the acts or representations of such agent with respect to transactions in the PJM Interchange Energy Market, and shall ensure that any such agent complies with the requirements of this Agreement.

### **1.7.4 General Obligations of the Market Participants.**

(a) In performing its obligations to the Office of the Interconnection hereunder, each Market Participant shall at all times (i) follow Good Utility Practice, (ii) comply with all applicable laws and regulations, (iii) comply with the applicable principles, guidelines, standards and requirements of FERC, NERC and each Applicable Regional Entity, (iv) comply with the procedures established for operation of the PJM Interchange Energy Market and PJM Region and (v) cooperate with the Office of the Interconnection as necessary for the operation of the PJM Region in a safe, reliable manner consistent with Good Utility Practice.

(b) Market Participants shall undertake all operations in or affecting the PJM Interchange Energy Market and the PJM Region including but not limited to compliance with all Emergency procedures, in accordance with the power and authority of the Office of the Interconnection with respect to the operation of the PJM Interchange Energy Market and the PJM Region as established in this Agreement, and as specified in the Schedules to this Agreement and the PJM Manuals. Failure to comply with the foregoing operational requirements shall subject a Market Participant to such reasonable charges or other remedies or sanctions for non-compliance as may be established by the PJM Board, including legal or regulatory proceedings as authorized by the PJM Board to enforce the obligations of this Agreement.

(c) The Office of the Interconnection may establish such committees with a representative of each Market Participant, and the Market Participants agree to provide appropriately qualified personnel for such committees, as may be necessary for the Office of the Interconnection and PJMSettlement to perform its obligations hereunder.

(d) All Market Participants shall provide to the Office of the Interconnection the scheduling and other information specified in the Schedules to this Agreement, and such other information as the Office of the Interconnection may reasonably require for the reliable and efficient operation of the PJM Region and PJM Interchange Energy Market, and for compliance with applicable regulatory requirements for posting market and related information. Such information shall be provided as much in advance as possible, but in no event later than the deadlines established by the Schedules to this Agreement, or by the Office of the Interconnection in conformance with such Schedules. Such information shall include, but not be limited to, maintenance and other anticipated outages of generation or transmission facilities, scheduling and related information on bilateral transactions and self-scheduled resources, and implementation of interruption of load, Price Responsive Demand, Economic Load Response Participant resources, and other load reduction measures. The Office of the Interconnection shall abide by appropriate requirements for the non-disclosure and protection of any confidential or proprietary information given to the Office of the Interconnection by a Market Participant. Each Market Participant shall maintain or cause to be maintained compatible information and communications systems, as specified by the Office of the Interconnection, required to transmit scheduling, dispatch, or other time-sensitive information to the Office of the Interconnection in a timely manner. Market Participants that request additional information or communications system access or connections beyond those which are required by the Office of the Interconnection for reliability in the operation of the LLC or the Office of the Interconnection, including but not limited to PJMnet or Internet SCADA connections, shall be solely responsible for the cost of such additional access and connections and for purchasing, leasing, installing and maintaining any associated facilities and equipment, which shall remain the property of the Market Participant.

(e) Subject to the requirements for Economic Load Response Participants in section 1.5A above, each Market Participant shall install and operate, or shall otherwise arrange for, metering and related equipment capable of recording and transmitting all voice and data communications reasonably necessary for the Office of the Interconnection and PJMSettlement to perform the services specified in this Agreement. A Market Participant that elects to be separately billed for its PJM Interchange shall, to the extent necessary, be individually metered in accordance with

Operating Agreement, section 14, or shall agree upon an allocation of PJM Interchange between it and the Market Participant through whose meters the unmetered Market Participant's PJM Interchange is delivered. The Office of the Interconnection shall be notified of the allocation by the foregoing Market Participants.

(f) Each Market Participant shall operate, or shall cause to be operated, any generating resources owned or controlled by such Market Participant that are within the PJM Region or otherwise supplying energy to or through the PJM Region in a manner that is consistent with the standards, requirements or directions of the Office of the Interconnection and that will permit the Office of the Interconnection to perform its obligations under this Agreement; provided, however, no Market Participant shall be required to take any action that is inconsistent with Good Utility Practice or applicable law.

(g) Each Market Participant shall follow the directions of the Office of the Interconnection to take actions to prevent, manage, alleviate or end an Emergency in a manner consistent with this Agreement and the procedures of the PJM Region as specified in the PJM Manuals.

(h) Each Market Participant shall obtain and maintain all permits, licenses or approvals required for the Market Participant to participate in the PJM Interchange Energy Market in the manner contemplated by this Agreement.

(i) Consistent with Tariff, section 36.1.1, to the extent its generating facility is dispatchable, a Market Participant shall submit an Economic Minimum in the Real-time Energy Market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights, as that term is defined in the PJM Tariff, associated with such generating facility under its Interconnection Service Agreement under Attachment O of the PJM Tariff, Generation Interconnection Agreement under Part IX of the PJM Tariff, ~~-or a wholesale market participation agreement~~ Wholesale Market Participation Agreement under Part IX of the PJM Tariff, or functionally equivalent agreement.

### **1.7.5 Market Operations Center.**

Each Market Participant shall maintain a Market Operations Center, or shall make appropriate arrangements for the performance of such services on its behalf. A Market Operations Center shall meet the performance, equipment, communications, staffing and training standards and requirements specified in this Agreement, and as may be further described in the PJM Manuals, for the scheduling and completion of transactions in the PJM Interchange Energy Market and the maintenance of the reliable operation of the PJM Region, and shall be sufficient to enable (i) a Market Seller or an Economic Load Response Participant to perform all terms and conditions of its offers to the PJM Interchange Energy Market, and (ii) a Market Buyer or an Economic Load Response Participant to conform to the requirements for purchasing from the PJM Interchange Energy Market.

### **1.7.6 Scheduling and Dispatching.**

(a) The Office of the Interconnection shall schedule and dispatch in real-time generation resources and/or Economic Load Response Participant resources economically on the basis of least-cost, security-constrained dispatch and the prices and operating characteristics offered by Market Sellers, continuing until sufficient generation resources and/or Economic Load Response Participant resources are dispatched to serve the PJM Interchange Energy Market energy purchase requirements under normal system conditions of the Market Buyers (taking into account any reductions to such requirements in accordance with PRD Curves properly submitted by PRD Providers), as well as the requirements of the PJM Region for ancillary services provided by generation resources and/or Economic Load Response Participant resources, in accordance with this Agreement. Such scheduling and dispatch shall recognize transmission constraints on coordinated flowgates external to the Transmission System in accordance with Appendix A to the Joint Operating Agreement between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38), the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 45), and on other such flowgates that are coordinated in accordance with agreements between the LLC and other entities. Scheduling and dispatch shall be conducted in accordance with this Agreement.

(b) The Office of the Interconnection shall undertake to identify any conflict or incompatibility between the scheduling or other deadlines or specifications applicable to the PJM Interchange Energy Market, and any relevant procedures of another Control Area, or any tariff (including the PJM Tariff). Upon determining that any such conflict or incompatibility exists, the Office of the Interconnection shall propose tariff or procedural changes, and undertake such other efforts as may be appropriate, to resolve any such conflict or incompatibility.

(c) To protect its generation or distribution facilities, or local Transmission Facilities not under the monitoring responsibility and dispatch control of the Office of the Interconnection, an entity may request that the Office of the Interconnection schedule and dispatch generation or reductions in demand to meet a limit on Transmission Facilities different from that which the Office of the Interconnection has determined to be required for reliable operation of the Transmission System. To the extent consistent with its other obligations under this Agreement, the Office of the Interconnection shall schedule and dispatch generation and reductions in demand in accordance with such request. An entity that makes a request pursuant to this section 1.7.6(c) shall be responsible for all generation and other costs resulting from its request that would not have been incurred by operating the Transmission System and scheduling and dispatching generation in the manner that the Office of the Interconnection otherwise has determined to be required for reliable operation of the Transmission System.

### **1.7.7 Pricing.**

The price paid for energy bought and sold in the PJM Interchange Energy Market and for demand reductions will reflect the applicable interval Locational Marginal Price at each load and generation bus, determined by the Office of the Interconnection in accordance with this Agreement. Transmission Congestion Charges and Transmission Loss Charges, which shall be determined by differences in Congestion Prices and Loss Prices in the applicable interval, shall

be calculated by the Office of the Interconnection, and collected by PJMSettlement, and the revenues from there shall be disbursed by PJMSettlement in accordance with this Schedule.

### **1.7.8 Generating Market Buyer Resources.**

A Generating Market Buyer may elect to self-schedule its generation resources up to that Generating Market Buyer's Equivalent Load, in accordance with and subject to the procedures specified in this Schedule, and the accounting and billing requirements specified in Operating Agreement, Schedule 1, section 3. PJMSettlement shall not be a contracting party with respect to such self-scheduled or self-supplied transactions.

### **1.7.9 Delivery to an External Market Buyer.**

A purchase of Spot Market Energy by an External Market Buyer shall be delivered to a bus or buses at the electrical boundaries of the PJM Region specified by the Office of the Interconnection, or to load in such area that is not served by Network Transmission Service, using Point-to-Point Transmission Service paid for by the External Market Buyer. Further delivery of such energy shall be the responsibility of the External Market Buyer.

### **1.7.10 Other Transactions.**

#### **(a) Bilateral Transactions.**

- (i)** In addition to transactions in the PJM Interchange Energy Market, Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity, subject to the obligations of Market Participants to make Generation Capacity Resources available for dispatch by the Office of the Interconnection. Such bilateral contracts shall be for the physical transfer of energy to or from a Market Participant and shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule and pursuant to the LLC's rules relating to its InSchedule and ExSchedule tools.
- (ii)** For purposes of clarity, with respect to all bilateral contracts for the physical transfer of energy to a Market Participant inside the PJM Region, title to the energy that is the subject of the bilateral contract shall pass to the buyer at the source specified for the bilateral contract, and the further transmission of the energy or further sale of the energy into the PJM Interchange Energy Market shall be transacted by the buyer under the bilateral contract. With respect to all bilateral contracts for the physical transfer of energy to an entity outside the PJM Region, title to the energy shall pass to the buyer at the border of the PJM Region and shall be delivered to the border using transmission service. In no event shall the purchase and sale of energy between Market Participants under a bilateral contract constitute a transaction in the PJM Interchange Energy Market or



be construed to define PJMSettlement as a contracting party to any bilateral transactions between Market Participants.

- (iii) Market Participants that are parties to bilateral contracts for the purchase and sale and physical transfer of energy reported to and coordinated with the Office of the Interconnection under this Schedule shall use all reasonable efforts, consistent with Good Utility Practice, to limit the megawatt hours of such reported transactions to amounts reflecting the expected load and other physical delivery obligations of the buyer under the bilateral contract.
- (iv) All payments and related charges for the energy associated with a bilateral contract shall be arranged between the parties to the bilateral contract and shall not be billed or settled by the Office of the Interconnection or PJMSettlement. The LLC, PJMSettlement, and the Members will not assume financial responsibility for the failure of a party to perform obligations owed to the other party under a bilateral contract reported and coordinated with the Office of the Interconnection under this Schedule.
- (v) A buyer under a bilateral contract shall guarantee and indemnify the LLC, PJMSettlement, and the Members for the costs of any Spot Market Backup used to meet the bilateral contract seller's obligation to deliver energy under the bilateral contract and for which payment is not made to PJMSettlement by the seller under the bilateral contract, as determined by the Office of the Interconnection. Upon any default in obligations to the LLC or PJMSettlement by a Market Participant, the Office of the Interconnection shall (i) not accept any new InSchedule or ExSchedule reporting by the Market Participant and (ii) terminate all of the Market Participant's InSchedules and ExSchedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the InSchedules and ExSchedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection. PJMSettlement shall assign its claims against a seller with respect to a seller's nonpayment for Spot Market Backup to a buyer to the extent that the buyer has made an indemnification payment to PJMSettlement with respect to the seller's nonpayment.
- (vi) Bilateral contracts that do not contemplate the physical transfer of energy to or from a Market Participant are not subject to this Schedule, shall not be reported to and coordinated with the Office of the Interconnection, and shall not in any way constitute a transaction in the PJM Interchange Energy Market.

(b) Market Participants shall have Spot Market Backup with respect to all bilateral transactions that contemplate the physical transfer of energy to or from a Market Participant, that are not Dynamic Transfers pursuant to Operating Agreement, Schedule 1, section 1.12 and that are curtailed or interrupted for any reason (except for curtailments or interruptions through Load Management for load located within the PJM Region).

(c) To the extent the Office of the Interconnection dispatches a Generating Market Buyer's generation resources, such Generating Market Buyer may elect to net the output of such resources against its hourly Equivalent Load. Such a Generating Market Buyer shall be deemed a buyer from the PJM Interchange Energy Market to the extent of its PJM Interchange Imports, and shall be deemed a seller to the PJM Interchange Energy Market to the extent of its PJM Interchange Exports.

(d) A Market Seller may self-supply Station Power for its generation facility in accordance with the following provisions:

- (i) A Market Seller may self-supply Station Power for its generation facility during any month (1) when the net output of such facility is positive, or (2) when the net output of such facility is negative and the Market Seller during the same month has available at other of its generation facilities positive net output in an amount at least sufficient to offset fully such negative net output. For purposes of this subsection (d), "net output" of a generation facility during any month means the facility's gross energy output, less the Station Power requirements of such facility, during that month. The determination of a generation facility's or a Market Seller's monthly net output under this subsection (d) will apply only to determine whether the Market Seller self-supplied Station Power during the month and will not affect the price of energy sold or consumed by the Market Seller at any bus during any Real-time Settlement Interval during the month. For each Real-time Settlement Interval when a Market Seller has positive net output and delivers energy into the Transmission System, it will be paid the LMP at its bus for that Real-time Settlement Interval for all of the energy delivered. Conversely, for each Real-time Settlement Interval when a Market Seller has negative net output and has received Station Power from the Transmission System, it will pay the LMP at its bus for that Real-time Settlement Interval for all of the energy consumed.
- (ii) Transmission Provider will determine the extent to which each affected Market Seller during the month self-supplied its Station Power requirements or obtained Station Power from third-party providers (including affiliates) and will incorporate that determination in its accounting and billing for the month. In the event that a Market Seller self-supplies Station Power during any month in the manner described in subsection (1) of subsection (d)(i) above, Market Seller will not use, and will not incur any charges for, transmission service. In the event, and to

the extent, that a Market Seller self-supplies Station Power during any month in the manner described in subsection (2) of subsection (d)(i) above (hereafter referred to as “remote self-supply of Station Power”), Market Seller shall use and pay for transmission service for the transmission of energy in an amount equal to the facility’s negative net output from Market Seller’s generation facility(ies) having positive net output. Unless the Market Seller makes other arrangements with Transmission Provider in advance, such transmission service shall be provided under Tariff, Part II and shall be charged the hourly rate under Tariff, Schedule 8 for Non-Firm Point-to-Point Transmission Service with an election to pay congestion charges, provided, however, that no reservation shall be necessary for such transmission service and the terms and charges under Tariff, Schedule 1; Tariff, Schedule 1A; Tariff, Schedule 2; Tariff, Schedule 3; Tariff, Schedule 4; Tariff, Schedule 5; Tariff, Schedule 6; Tariff, Schedule 9; and Tariff, Schedule 10 shall not apply to such service. The amount of energy that a Market Seller transmits in conjunction with remote self-supply of Station Power will not be affected by any other sales, purchases, or transmission of capacity or energy by or for such Market Seller under any other provisions of the PJM Tariff.

- (iii) A Market Seller may self-supply Station Power from its generation facilities located outside of the PJM Region during any month only if such generation facilities in fact run during such month and Market Seller separately has reserved transmission service and scheduled delivery of the energy from such resource in advance into the PJM Region.
- (iv) The Office of the Interconnection is not responsible for determining Relevant Electric Retail Regulatory Authority-jurisdictional retail rates, and the monthly netting provision in section 1.7.10(d)(i) above does not determine whether a retail sale of station power has occurred in a month. Furthermore, notwithstanding any provision of subsection (d)(i) or (d)(ii) to the contrary, any net output determined for a Market Seller for Station Power purposes shall, as more fully set forth in the PJM manuals, take account of MWh values submitted to the Office of the Interconnection via its metering reporting systems by the Market Seller or the applicable Electric Distribution Company designated to make such submission, that reflect the Market Seller’s purchase of energy at retail to meet its Station Power needs.

### **1.7.11 Emergencies.**

- (a) The Office of the Interconnection, with the assistance of the Members’ dispatchers as it may request, shall be responsible for monitoring the operation of the PJM Region, for declaring the existence of an Emergency, and for directing the operations of Market Participants as necessary to manage, alleviate or end an Emergency. The standards, policies and procedures of the Office of the Interconnection for declaring the existence of an Emergency, including but not

limited to a Minimum Generation Emergency, and for managing, alleviating or ending an Emergency, shall apply to all Members on a non-discriminatory basis. Actions by the Office of the Interconnection and the Market Participants shall be carried out in accordance with this Agreement, the NERC Operating Policies, Applicable Regional Entity reliability principles and standards, Good Utility Practice, and the PJM Manuals. A declaration that an Emergency exists or is likely to exist by the Office of the Interconnection shall be binding on all Market Participants until the Office of the Interconnection announces that the actual or threatened Emergency no longer exists. Consistent with existing contracts, all Market Participants shall comply with all directions from the Office of the Interconnection for the purpose of managing, alleviating or ending an Emergency. The Market Participants shall authorize the Office of the Interconnection and PJMSettlement to purchase or sell energy on their behalf to meet an Emergency, and otherwise to implement agreements with other Control Areas interconnected with the PJM Region for the mutual provision of service to meet an Emergency, in accordance with this Agreement.

(b) To the extent load must be shed to alleviate an Emergency in a Control Zone, the Office of the Interconnection shall, to the maximum extent practicable, direct the shedding of load within such Control Zone. The Office of the Interconnection may shed load in one Control Zone to alleviate an Emergency in another Control Zone under its control only as necessary after having first shed load to the maximum extent practicable in the Control Zone experiencing the Emergency and only to the extent that PJM supports other control areas (not under its control) in those situations where load shedding would be necessary, such as to prevent isolation of facilities within the Eastern Interconnection, to prevent voltage collapse, or to restore system frequency following a system collapse; provided, however, that the Office of the Interconnection may not order a manual load dump in a Control Zone solely to address capacity deficiencies in another Control Zone. This subsection shall be implemented consistent with the North American Electric Reliability Council and applicable reliability council standards.

#### **1.7.12 Fees and Charges.**

Each Market Participant, except for Special Members, shall pay all fees and charges of the Office of the Interconnection for operation of the PJM Interchange Energy Market as determined by and allocated to the Market Participant by the Office of the Interconnection, and for additional services they request from the LLC, PJMSettlement or the Office of the Interconnection that are not required for the operation of the LLC or the Office of the Interconnection, in accordance with Schedule 3.

#### **1.7.13 Relationship to the PJM Region.**

The PJM Interchange Energy Market operates within and subject to the requirements for the operation of the PJM Region.

#### **1.7.14 PJM Manuals.**

The Office of the Interconnection shall be responsible for maintaining, updating, and promulgating the PJM Manuals as they relate to the operation of the PJM Interchange Energy

Market. The PJM Manuals, as they relate to the operation of the PJM Interchange Energy Market, shall conform and comply with this Agreement, NERC operating policies, and Applicable Regional Entity reliability principles, guidelines and standards, and shall be designed to facilitate administration of an efficient energy market within industry reliability standards and the physical capabilities of the PJM Region.

#### **1.7.15 Corrective Action.**

Consistent with Good Utility Practice, the Office of the Interconnection shall be authorized to direct or coordinate corrective action, whether or not specified in the PJM Manuals, as necessary to alleviate unusual conditions that threaten the integrity or reliability of the PJM Region, or the regional power system.

#### **1.7.16 Recording.**

Subject to the requirements of applicable State or federal law, all voice communications with the Office of the Interconnection Control Center may be recorded by the Office of the Interconnection and any Market Participant communicating with the Office of the Interconnection Control Center, and each Market Participant hereby consents to such recording.

#### **1.7.17 [Reserved.]**

#### **1.7.18 Regulation.**

(a) Regulation to meet the Regulation objective of each Regulation Zone shall be supplied from generation resources and/or Economic Load Response Participant resources located within the metered electrical boundaries of such Regulation Zone. Generating Market Buyers, and Market Sellers offering Regulation, shall comply with applicable standards and requirements for Regulation capability and dispatch specified in the PJM Manuals.

(b) The Office of the Interconnection shall obtain and maintain for each Regulation Zone an amount of Regulation equal to the Regulation objective for such Regulation Zone as specified in the PJM Manuals.

(c) The Regulation range of a generation unit or Economic Load Response Participant resource shall be at least twice the amount of Regulation assigned as described in the PJM Manuals.

(d) A resource capable of automatic energy dispatch that is also providing Regulation shall have its energy dispatch range reduced by at least twice the amount of the Regulation provided with consideration of the Regulation limits of that resource, as specified in the PJM Manuals.

(e) Qualified Regulation must satisfy the measurement and verification tests described in the PJM Manuals.

#### **1.7.19 Ramping.**

A generator dispatched by the Office of the Interconnection pursuant to a control signal appropriate to increase or decrease the generator's megawatt output level shall be able to change output at the ramping rate specified in the Offer Data submitted to the Office of the Interconnection for that generator. Market Sellers must specify a ramping rate in the Offer Data that is an accurate representation of the resource's capabilities given the confines of the PJM software.

#### **1.7.19A Synchronized Reserve.**

(a) Synchronized Reserve can be supplied from generation resources and/or Economic Load Response Participant resources located within the metered boundaries of the PJM Region. A resource is not eligible to provide Synchronized Reserve if its entire output has been designated as emergency energy or if the resource is a nuclear, wind, or solar unit, unless the Market Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Synchronized Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. Generating Market Buyers, and Market Sellers offering Synchronized Reserve shall comply with applicable standards and requirements for Synchronized Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone an amount of Primary and Synchronized Reserve equal to the respective Primary Reserve Requirement and Synchronized Reserve Requirement objectives for such Reserve Zone and Reserve Sub-zone, as specified in the PJM Manuals. The Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the required amount of reserves in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Synchronized Reserve capability of a generation resource and Economic Load Response Participant resource shall be the increase in energy output or load reduction achievable by the generation resource and Economic Load Response Participant resource within a continuous 10-minute period.

### **1.7.19A.01 Non-Synchronized Reserve.**

(a) Non-Synchronized Reserve shall be supplied from generation resources located within the metered boundaries of the PJM Region. A resource is not eligible to provide Non-Synchronized Reserve if (i) its entire output has been designated as emergency energy, (ii) it is not available to provide energy, or (iii) it is a nuclear, wind, or solar unit, unless the Market Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Non-Synchronized Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. All other non-emergency generation capacity resources available to provide energy shall also be available to provide Non-Synchronized Reserve, as applicable to the capacity resource's capability to provide these services. Generating Market Buyers and Market Sellers offering Non-Synchronized Reserve shall comply with applicable standards and requirements for Non-Synchronized Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone an amount of Non-Synchronized Reserve such that the sum of the Synchronized Reserve and Non-Synchronized Reserve meets the Primary Reserve Requirement for such Reserve Zone and Reserve Sub-zone, as specified in the PJM Manuals. The Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the required amount of reserves in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Non-Synchronized Reserve capability of a generation resource shall be the increase in energy output achievable by the generation resource within a continuous 10-minute period provided that the resource is not synchronized to the system at the initiation of the response.

### **1.7.19A.02 Secondary Reserve.**

(a) Secondary Reserve can be supplied from synchronized and non-synchronized generation resources and/or Economic Load Response Participant resources located within the metered

boundaries of the PJM Region, as specified in the PJM Manuals. A resource is not eligible to provide Secondary Reserve if (i) its entire output has been designated as emergency energy, (ii) it is not available to provide energy, or (iii) it is a nuclear, wind, or solar unit, unless the Market Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Secondary Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. Generating Market Buyers and Market Sellers offering Secondary Reserve shall comply with applicable standards and requirements for Secondary Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone, as applicable, an amount of Secondary Reserve such that the sum of the Synchronized Reserve, Non-Synchronized Reserve and Secondary Reserve meets the respective 30-minute Reserve Requirement for each such Reserve Zone and Reserve Sub-zone, as applicable, and as specified in the PJM Manuals. In accordance with the PJM Manuals, the Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the 30-minute Reserve Requirement in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Secondary Reserve capability of a generation resource and Economic Load Response Participant resource shall be the increase in energy output or load reduction achievable by the generation resource and Economic Load Response Participant resource within a continuous 30-minute period, minus the increase in energy output or load reduction achievable within a continuous 10-minute period.

#### **1.7.19B Bilateral Transactions Regarding Regulation, Synchronized Reserve, Non-Synchronized Reserve, and Secondary Reserve.**

(a) In addition to transactions in the Regulation market, Synchronized Reserve market, Non-Synchronized Reserve market and Secondary Reserve market, Market Participants may enter into bilateral contracts for the purchase or sale of Regulation, Synchronized Reserve, Non-Synchronized Reserve or Secondary Reserve to or from each other or any other entity. Such bilateral contracts shall be for the physical transfer of Regulation, Synchronized Reserve, Non-



Synchronized Reserve, or Secondary Reserve to or from a Market Participant and shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule and pursuant to the LLC's rules relating to its Markets Gateway tools.

(b) For purposes of clarity, with respect to all bilateral contracts for the physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve to a Market Participant in the PJM Region, title to the product that is the subject of the bilateral contract shall pass to the buyer at the source specified for the bilateral contract, and any further transactions associated with such products or further sale of such Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve in the markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, respectively, shall be transacted by the buyer under the bilateral contract. In no event shall the purchase and sale of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve between Market Participants under a bilateral contract constitute a transaction in PJM's markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, or otherwise be construed to define PJMSettlement as a contracting party to any bilateral transactions between Market Participants.

(c) Market Participants that are parties to bilateral contracts for the purchase and sale and physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve reported to and coordinated with the Office of the Interconnection under this Schedule shall use all reasonable efforts, consistent with Good Utility Practice, to limit the amounts of such reported transactions to amounts reflecting the expected requirements for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve of the buyer pursuant to such bilateral contracts.

(d) All payments and related charges for the Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve associated with a bilateral contract shall be arranged between the parties to the bilateral contract and shall not be billed or settled by the Office of the Interconnection. The LLC, PJMSettlement, and the Members will not assume financial responsibility for the failure of a party to perform obligations owed to the other party under a bilateral contract reported and coordinated with the Office of the Interconnection under this Schedule.

(e) A buyer under a bilateral contract shall guarantee and indemnify the LLC, PJMSettlement, and the Members for the costs of any purchases by the seller under the bilateral contract in the markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve used to meet the bilateral contract seller's obligation to deliver Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve under the bilateral contract and for which payment is not made to PJMSettlement by the seller under the bilateral contract, as determined by the Office of the Interconnection. Upon any default in obligations to the LLC or PJMSettlement by a Market Participant, the Office of the Interconnection shall (i) not accept any new Markets Gateway reporting by the Market Participant and (ii) terminate all of the Market Participant's reporting of Markets Gateway schedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall

be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the reported Markets Gateway schedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection.

(f) Market Participants shall purchase Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve from PJM's markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, in quantities sufficient to complete the delivery or receipt obligations of a bilateral contract that has been curtailed or interrupted for any reason, with respect to all bilateral transactions that contemplate the physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve to or from a Market Participant.

#### **1.7.20 Communication and Operating Requirements.**

(a) Market Participants. Each Market Participant shall have, or shall arrange to have, its transactions in the PJM Interchange Energy Market subject to control by a Market Operations Center, with staffing and communications systems capable of real-time communication with the Office of the Interconnection during normal and Emergency conditions and of control of the Market Participant's relevant load or facilities sufficient to meet the requirements of the Market Participant's transactions with the PJM Interchange Energy Market, including but not limited to the following requirements as applicable, and as may be further described in the PJM Manuals.

(b) Market Sellers selling from generation resources and/or Economic Load Response Participant resources within the PJM Region shall: report to the Office of the Interconnection sources of energy and Economic Load Response Participant resources available for operation; supply to the Office of the Interconnection all applicable Offer Data; report to the Office of the Interconnection generation resources and Economic Load Response Participant resources that are self-scheduled; with respect to generation resources, report to the Office of the Interconnection bilateral sales transactions to buyers not within the PJM Region; confirm to the Office of the Interconnection bilateral sales to Market Buyers within the PJM Region; respond to the Office of the Interconnection's directives to start, shutdown or change output levels of generation units, or change scheduled voltages or reactive output levels of generation units, or reduce load from Economic Load Response Participant resources; continuously maintain all Offer Data concurrent with on-line operating information; and ensure that, where so equipped, generating equipment and Economic Load Response Participant resources are operated with control equipment functioning as specified in the PJM Manuals.

(c) Market Sellers selling from generation resources outside the PJM Region shall: provide to the Office of the Interconnection all applicable Offer Data, including offers specifying amounts of energy available, hours of availability and prices of energy and other services; respond to Office of the Interconnection directives to schedule delivery or change delivery schedules; and communicate delivery schedules to the Market Seller's Control Area.

(d) Market Participants that are Load Serving Entities or purchasing on behalf of Load Serving Entities shall: respond to Office of the Interconnection directives for load management

steps; report to the Office of the Interconnection Generation Capacity Resources to satisfy capacity obligations that are available for pool operation; report to the Office of the Interconnection all bilateral purchase transactions; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(e) Market Participants that are not Load Serving Entities or purchasing on behalf of Load Serving Entities shall: provide to the Office of the Interconnection requests to purchase specified amounts of energy for each hour of the Operating Day during which it intends to purchase from the PJM Interchange Energy Market, along with Dispatch Rate levels above which it does not desire to purchase; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(f) Economic Load Response Participants are responsible for maintaining demand reduction information, including the amount and price at which demand may be reduced. The Economic Load Response Participant shall provide this information to the Office of the Interconnection by posting it on the Load Response Program Registration link of the PJM website as required by the PJM Manuals. The Economic Load Response Participant shall notify the Office of the Interconnection of a demand reduction concurrent with, or prior to, the beginning of such demand reduction in accordance with the PJM Manuals. In the event that an Economic Load Response Participant chooses to measure load reductions using a Customer Baseline Load, the Economic Load Response Participant shall inform the Office of the Interconnection of a change in its operations or the operations of the end-use customer that would affect a relevant Customer Baseline Load as required by the PJM Manuals.

(g) PRD Providers shall be responsible for automation and supervisory control equipment that satisfy the criteria set forth in the RAA to ensure automated reductions to their Price Responsive Demand in response to price in accordance with their PRD Curves submitted to the Office of the Interconnection.

(h) Market Participants engaging in Coordinated External Transactions shall provide to the Office of the Interconnection the information required to be specified in a CTS Interface Bid, in accordance with the procedures of Tariff, Attachment K-Appendix, section 1.13 and the parallel provisions of Operating Agreement, Schedule 1, section 1.13.

## **1.5 Procedure for Development of the Regional Transmission Expansion Plan.**

### **1.5.1 Commencement of the Process.**

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b), constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to the Operating Agreement, Schedule 1, section 7.8. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

### **1.5.2 Development of Scope, Assumptions and Procedures.**

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

### **1.5.3 Scope of Studies.**

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs. The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to the Operating Agreement, Schedule 1, section 7.8.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b). Enhancements and expansions related to stage 1A

Auction Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Operating Agreement, Schedule 6, section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to the Operating Agreement, Schedule 6, section 1.5.6(m) and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

#### **1.5.4 Supply of Data.**

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current local planning information, including all criteria, assumptions and models used by the Transmission Owners, such as those used to develop Supplemental Projects. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's local planning information, including all criteria, assumptions and models

used by the Transmission Owners in their internal planning processes, including the development of Supplemental Projects (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in the Operating Agreement, section 18.17; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in the Operating Agreement, section 18.17 and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

### **1.5.5 Coordination of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements:

- Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at Schedule 6-B and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at Operating Agreement, Schedule 6-A ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at Tariff, Schedule 12-B;
- Joint Reliability Coordination Agreement Between PJM Interconnection, L.L.C., Tennessee Valley Authority, and Louisville Gas and Electric Company and Kentucky Utilities.

(i) Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(ii) An entity, including existing Transmission Owners and Nonincumbent Developers, may submit potential Interregional Transmission Projects pursuant to the Operating Agreement, Schedule 6, section 1.5.8.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

#### **1.5.6 Development of the Recommended Regional Transmission Expansion Plan.**

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Requirements identified by the states for consideration in the Office of the Interconnection's transmission planning analyses; (iii) Public Policy Objectives identified by stakeholders for consideration in the Office of the Interconnection's transmission planning analyses; (iv) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (v) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (v) of this subsection. Following the assumptions meeting and prior to performing the evaluation and analyses of transmission needs, the Office of the Interconnection shall determine the range of assumptions to be used in the studies and



scenario analyses, based on the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees and, through the Independent State Agencies, the statement of Public Policy Requirements provided individually by the states and any state member's assessment or prioritization of Public Policy Objectives proposed by other stakeholders. The Office of the Interconnection shall document and publicly post its determination for review. Such posting shall include an explanation of those Public Policy Requirements and Public Policy Objectives adopted at the assumptions stage to be used in performing the evaluation and analysis of transmission needs. Following identification of transmission needs and prior to evaluating potential enhancements and expansions to the Transmission System the Office of the Interconnection shall publicly post all transmission need information identified as described further in the Operating Agreement, Schedule 6, section 1.5.8(b) herein to support the role of the Subregional RTEP Committees in the development of the Local Plan and support the role of Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection shall also post an explanation of why other Public Policy Requirements and Public Policy Objectives introduced by stakeholders at the assumptions stage were not adopted.

(c) The Subregional RTEP Committees shall also schedule and facilitate meetings related to Supplemental Projects, as described in the Tariff, Attachment M-3.

(d) After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in the Operating Agreement, Schedule 6, sections 1.3(b) and 1.3(c)) to review, evaluate and offer comments and alternatives to the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

(e) In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the

current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in section (b), above.

(f) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in the Operating Agreement, Schedule 6, section 1.5.8(b) to afford entities an opportunity to submit proposed enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in the Operating Agreement, Schedule 6, section 1.5.8(c). Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c); (ii) consider proposals submitted during the proposal windows consistent with the Operating Agreement, Schedule 6, section 1.5.8(d) and develop a recommended plan. Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to the Operating Agreement, Schedule 6, section 1.5.3, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(h) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(i) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in

accordance with the procedures, criteria and analyses described in the Operating Agreement, Schedule 6, sections 1.5.7 and 1.5.8.

(j) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to the Operating Agreement, Schedule 6, section 1.5.9.

(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Operating Agreement, Schedule 6, 1.5.6, or Tariff Parts VII or VIII~~section 1.1~~, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI, or Tariff, Parts VII or VIII, as applicable; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI, or Tariff, Parts VII or VIII, as applicable with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARR, to facilitate Incremental ARR pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, or Tariff, Parts VII or VIII, as applicable and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(m) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to this Agreement or the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff or this Agreement, (2) in the event and to the extent that no provision of the PJM Tariff or this Agreement assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through

charges established pursuant to the Tariff, Schedule 12, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to the Tariff, Schedule 12 that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under the Operating Agreement, Schedule 6, sections 1.5.6(i) and 1.5.7, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7 shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under the Tariff, Schedule 12, section (b) for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in the Tariff, Attachment DD, section 15 shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(n) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection.

These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

#### **1.5.7 Development of Economic-based Enhancements or Expansions.**

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Operating Agreement, Schedule 6, section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in the Operating Agreement, Schedule 1, section 7.4.2(c); or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items in the Operating Agreement, Schedule 6, section 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan,

which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional Economic-based Enhancements or Expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c), any market participant may submit to the Office of the Interconnection a proposal to construct an additional Economic-based Enhancement or Expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed Economic-based Enhancements or Expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new Economic-based Enhancements or Expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new Economic-based Enhancements or Expansions for inclusion in the Regional Transmission Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional Economic-based Enhancements or Expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional Economic-based Enhancements or Expansions pursuant to the Operating Agreement, Schedule 6, section 1.5.6(m). In the event the entity or entities designated as responsible for construction, owning or financing a designated new Economic-based Enhancement or Expansion declines to construct, own or finance the new Economic-based Enhancement or Expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with the Operating Agreement, Schedule 6, sections 1.6 and 1.7. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional Economic-based Enhancements or Expansions and whether such Economic-based Enhancements or Expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional Economic-based Enhancements or Expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this Operating Agreement, Schedule 6, section 1.5.7(d). An Economic-based Enhancement or Expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the Economic-based Enhancement or Expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for the 15 year period starting with the RTEP Year (defined as current year plus five) minus benefits for years when the project is not yet in-service] ÷ [Present value of the Total Enhancement Cost for the same 15 year period]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Energy Market Benefit is as follows:

Energy Market Benefit = [.50] \* [Change in Total Energy Production Cost] + [.50] \* [Change in Load Energy Payment]

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Energy Market Benefit is as follows:

Energy Market Benefit = [1] \* [Change in Load Energy Payment]  
and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the Economic-based Enhancement or Expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the Economic-based Enhancement or Expansion]. The change in costs for purchases from outside of the PJM Region and sales to outside the PJM Region will be captured, if appropriate. Purchases will be valued at the Load Weighted LMP and sales will be valued at the Generation Weighted LMP.

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly

estimated zonal Locational Marginal Price for each Zone without the Economic-based Enhancement or Expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each Zone with the Economic-based Enhancement or Expansion)] – [the change in value of transmission rights for each Zone with the Economic-based Enhancement or Expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion)]. The Change in the Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in the Load Energy Payment.

And

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [.50] * [\text{Change in Total System Capacity Cost}] + [.50] * [\text{Change in Load Capacity Payment}]$$

and

For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [1] * [\text{Change in Load Capacity Payment}]$$

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]

and



Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion. The Change in the Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in the Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the Economic-based Enhancement or Expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new Economic-based Enhancement or Expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new Economic-based Enhancements or Expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the Economic-based Enhancement or Expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of the Operating Agreement, Schedule 6, section 1.5.7(i). The Office of the Interconnection will not be required to review annually the costs and benefits of constructing Economic-based Enhancements or Expansions with capital costs less than \$20 million if, based on updated cost estimates and the original benefits, the Benefit/Cost Ratio remains at or above 1.25. The Office of the Interconnection shall no longer be required to review costs and benefits of constructing Economic-based Enhancements and Expansions once: (i) a certificate of public convenience and necessity or its equivalent is granted by the state or relevant regulatory authority in which such enhancements or expansions will be located; or (ii) if a certificate of public convenience and necessity or its equivalent is not required by the state or relevant regulatory authority in which an economic-based enhancement or expansion will be located, once construction activities commence at the project site.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new Economic-based Enhancements or Expansions is consistent with the new Economic-based Enhancements or Expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to the Tariff, Parts IV and VI that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, the Tariff, Part VI, Subpart B, section 216, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, that are committed to the PJM Region as a result of any Reliability Pricing

Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

- (ii) Availability of Generation Capacity Resources, as defined by the RAA, section 1.33, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iii) Availability of Demand Resources that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iv) Addition of Customer Facilities or Generating Facilities, as applicable, pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed, or Generating Facilities pursuant to an executed Generation Interconnection Agreement or executed Engineering and Procurement Agreement for which Generation Interconnection Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement, or that have an approved Decision Point II submission, under Tariff Part VII or VIII, as applicable, may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues or Cycles as applicable and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities or Generating Facilities pursuant to an

executed Facilities Study Agreement approved Decision Point II submission under Tariff Part VII or VIII, or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues or Cycles as applicable to determine the likelihood of a Customer Facility or Generating Facility, pursuant to an executed Facilities Study Agreement approved Decision Point II submission under Tariff Part VII or VIII, or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities or Generating Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues or Cycles as applicable and, if necessary, add transmission enhancements to address congestion that arises from such modeling.

- (viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an Economic-based Enhancement or Expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the Economic-based Enhancement or Expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to Economic-based Enhancements or Expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with the Operating Agreement, Schedule 6, section 1.5.3 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

### **1.5.8 Development of Long-lead Projects, Short-term Projects, Immediate-need Reliability Projects, and Economic-based Enhancements or Expansions.**

- (a) **Pre-Qualification Process.**

(a)(1) On September 1 of each year, the Office of the Interconnection shall open a thirty-day pre-qualification window for entities, including existing Transmission Owners and Nonincumbent Developers, to submit to the Office of the Interconnection: (i) applications to pre-qualify as eligible to be a Designated Entity; or (ii) updated information as described in the Operating Agreement, Schedule 6, section 1.5.8(a)(3). Pre-qualification applications shall contain the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's, or parent company's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities; (ix) a description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Operating Agreement, Schedule 6, section 1.5.8(a).

(a)(2) No later than October 31, the Office of the Interconnection shall notify the entities that submitted pre-qualification applications or updated information during the annual thirty-day pre-qualification window, whether they are, or will continue to be, pre-qualified as eligible to be a Designated Entity. In the event the Office of the Interconnection determines that an entity (i) is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, or (ii) provided insufficient information to determine pre-qualification, the Office of the Interconnection shall inform that the entity it is not pre-qualified and include in the notification the basis for its determination. The entity then may submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is, or will continue to be, pre-qualified as eligible to be a Designated Entity. If the entity submits additional information by November 30, the Office of the Interconnection shall notify the entity of the results of its re-evaluation no later than December 15. If the entity submits additional information after November 30, the Office of the Interconnection shall use reasonable efforts to re-evaluate the application, with the additional information, and notify the entity of its determination as soon as practicable. No later than December 31, the Office of the Interconnection shall post on the PJM website the list of entities that are pre-qualified as eligible to be Designated Entities. If an entity is notified by the Office of the Interconnection that it does not pre-qualify or will not continue to be pre-qualified as eligible to be a Designated Entity, such entity may request dispute resolution pursuant to the Operating Agreement, Schedule 5.

(a)(3) In order to continue to pre-qualify as eligible to be a Designated Entity, such entity must confirm its information with the Office of the Interconnection no later than three years following its last submission or sooner if necessary as required below. In the event the information on which the entity's pre-qualification is based changes with respect to the upcoming year, such entity must submit to the Office of the Interconnection all updated information during the annual thirty-day pre-qualification window and the timeframes for notification in the Operating Agreement, Schedule 6, section 1.5.8(a)(2) shall apply. In the event the information on which the entity's pre-qualification is based changes with respect to the current year, such entity must submit to the Office of the Interconnection all updated information at the time the information changes and the Office of the Interconnection shall use reasonable efforts to evaluate the updated information and notify the entity of its determination as soon as practicable.

(a)(4) As determined by the Office of the Interconnection, an entity may submit a pre-qualification application outside the annual thirty-day pre-qualification window for good cause shown. For a pre-qualification application received outside of the annual thirty-day pre-qualification window, the Office of the Interconnection shall use reasonable efforts to process the application and notify the entity as to whether it pre-qualifies as eligible to be a Designated Entity as soon as practicable.

(a)(5) To be designated as a Designated Entity for any project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8, existing Transmission Owners and Nonincumbent Developers must be pre-qualified as eligible to be a Designated Entity pursuant to this Operating Agreement, Schedule 6, section 1.5.8(a). This Operating Agreement, Schedule 6, section 1.5.8(a) shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Following identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Operating Agreement, Schedule 6 and the PJM Manuals, and after consideration of non-transmission solutions, and prior to evaluating potential enhancements and expansions to the Transmission System, the Office of the Interconnection shall publicly post on the PJM website all transmission need information, including violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in the Operating Agreement, Schedule 6, section 1.5.9, as applicable. Such posting shall support the role of the Subregional RTEP Committees in the development of the Local Plans and support the role of the Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 60-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects and Economic-based Enhancements or Expansions. The specifics regarding whether or not the following types of violations or projects are subject to a proposal window are detailed in the Operating Agreement, Schedule 6, section 1.5.8(m) for Immediate-need Reliability Projects; Operating Agreement, Schedule 6, section 1.5.8(n) for reliability violations on transmission facilities below 200 kV; and Operating Agreement, Schedule 6, section 1.5.8(p) for violations on transmission substation equipment. The Office of Interconnection may shorten a proposal window should an identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions, or extend a proposal window as needed to accommodate updated information regarding system conditions. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on one or more of the following criteria: (1) complexity of the violation or system condition; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. The Office of the Interconnection may lengthen a proposal window that already is opened based on or more of the following criteria: (i) changes in assumptions or conditions relating to the underlying need for the project, such as load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change in the proposal window period. During these windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) All proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(1)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Transmission Provider to evaluate the submitted project proposal. To the extent the Transmission Provider incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Transmission Provider shall invoice equal shares of the non-severable costs among the project proposals that cause such non-

severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(1)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Transmission Provider as a result of the evaluation of a submitted project proposal.

(c)(1)(iii) Following the close of a proposal window but before the Transmission Provider incurs any third-party consultant work costs to evaluate a submitted project proposal, the Transmission Provider will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Transmission Provider may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the Transmission Provider receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(1)(iv) At the completion of the evaluation activities associated with a project proposal, the Transmission Provider will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(1)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Transmission Provider sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Transmission Provider. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Transmission Provider in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Transmission Provider as a result of the evaluation of the proposing entity's project proposal(s).

(c)(2) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a



financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost containment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. PJM may not alter the requirements for proposal submission to require the submission of a binding cost containment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.

(c)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.8(e) and 1.5.8(f). If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c)(3) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(c)(5) Within 30 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with the Operating Agreement, Schedule 6, section 1.5.9. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.8(e) and 1.5.8(f). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Operating Agreement, Schedule 6.

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to the Operating Agreement, Schedule 6, section 1.5.3, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to the Operating Agreement, Schedule 6, section 1.5.7(d); (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) the ability to timely complete the project, and project development feasibility; and (v) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each project finalist's proposal, including any Transmission Owner Upgrades, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each

finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the TEAC for review and comment. In evaluating any cost, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates from the Commission. PJM may modify the technical specifications of a proposal, as outlined in the PJM Manuals, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board. Neither PJM, the Designated Entity nor any stakeholders are waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

**(f) Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project, Long-lead Project or Economic-based Enhancement or Expansion recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Operating Agreement, Schedule 6, section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

**(g) Procedures if No Long-lead Project or Economic-based Enhancement or Expansion Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, or system condition, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, or system conditions pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office

of the Interconnection shall propose a project to solve the posted violation, or system condition for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall develop and post on the PJM website a transmission solution construction timeline for input and review by the Transmission Expansion Advisory Committee that will include factors such as, but not limited to: (i) deadlines for obtaining regulatory approvals, (ii) dates by which long lead equipment should be acquired, (iii) the time necessary to complete a proposed solution to meet the required in-service date, and (iv) other time-based factors impacting the feasibility of achieving the required in-service date. Based on input from the Transmission Expansion Advisory Committee and the time frames set forth in the construction timeline, the Office of the Interconnection shall determine whether there is sufficient time to conduct a re-evaluation and re-post and timely address the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion. To the extent that an economic constraint remains unaddressed, the economic constraint will be re-evaluated and re-posted.

(h) **Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) **Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

(j) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause shown, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as

required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. In the alternative, the Designated Entity may request dispute resolution pursuant to the Operating Agreement, Schedule 5, or request that the Designated Entity Agreement be filed unexecuted with the Commission.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to comply with one or more of the requirements of the Operating Agreement, Schedule 6, section 1.5.8(j); or fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Operating Agreement, Schedule 6, section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law,

regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

**(m) Immediate-need Reliability Projects:**

(m)(1) Pursuant to the expansion planning process set forth in Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify immediate reliability needs that must be addressed within three years or less. For those immediate reliability needs for which PJM determines a proposal window may not be feasible, PJM shall identify and post such immediate need reliability criteria violations and system conditions for review and comment by the Transmission Expansion Advisory Committee and other stakeholders. Following review and comment, the Office of the Interconnection shall develop Immediate-need Reliability Projects for which a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2) is infeasible. The Office of the Interconnection shall consider the following factors in determining the infeasibility of such a proposal window: (i) nature of the reliability criteria violation; (ii) nature and type of potential solution required; and (iii) projected construction time for a potential solution to the type of reliability criteria violation to be addressed. The Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the Immediate-need Reliability Projects for which a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2) is infeasible. Stakeholders shall be afforded no less than ten days to review Immediate-need Reliability Project materials prior to providing comments at stakeholder meetings. However, PJM may review Immediate-need Reliability Project materials with stakeholders without the requisite ten-day notice so long as: (i) stakeholders do not object to reviewing the materials or (ii) PJM identifies in its posting to the meeting materials extenuating circumstances identified by PJM that require review of the materials at the stakeholder meeting. The descriptions shall include an explanation of the decision to designate the Transmission Owner as the Designated Entity for the Immediate-need Reliability Project rather than conducting a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2), including an explanation of the time-sensitive need for the Immediate-need Reliability Project, other transmission and non-transmission options that were considered but concluded would not sufficiently address the immediate reliability need, the circumstances that generated the immediate reliability need, and why the immediate reliability need was not identified earlier. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments to the Office of the Interconnection. All comments received by the Office of the Interconnection shall be publicly available on the PJM website. Based on the comments received from stakeholders and the review by Transmission Expansion Advisory Committee, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. In January of each year, the Office of the Interconnection shall post on the PJM website and file with the Commission for informational purposes a list of the Immediate-need Reliability Projects for which an existing Transmission Owner was designated in the prior year as the Designated Entity in accordance with this Operating Agreement, Schedule 6, section 1.5.8(m)(1). The list

shall include the need-by date of Immediate-need Reliability Project and the date the Transmission Owner actually energized the Immediate-need Reliability Project.

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals, including an explanation of the time-sensitive need for an Immediate-need Reliability Project and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in the Operating Agreement, Schedule 6, section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with the Operating Agreement, Schedule 6, section 1.5.8(i), shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with the Operating Agreement, Schedule 6, section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with the Operating Agreement, Schedule 6, section 1.5.8(m)(1).

(n) **Reliability Violations on Transmission Facilities Below 200 kV.** Pursuant to the expansion planning process set forth in the Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify reliability violations on facilities below 200 kV. The Office of the Interconnection shall not post such a violation pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b) for inclusion in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations. If the reliability violation is identified on multiple facilities rated below

200 kV that are determined by the Office of the Interconnection to meet one of the two exceptions stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). If the Office of the Interconnection determines that the identified reliability violations do not satisfy either of the two exceptions stated above, the Office of the Interconnection shall develop a solution to address the reliability violation on below 200 kV Transmission Facilities that will not be included in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). The Office of Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the below 200 kV reliability violations that will not be included in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the below 200 kV reliability violation(s) in Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, a description of the facility on which the violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such below 200 kV reliability violation will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. With the exception of Immediate-need Reliability Projects under the Operating Agreement, Schedule 6, section 1.5.8(m), PJM will not select an above 200 kV solution for inclusion in the recommended plan that would address a reliability violation on a below 200 kV transmission facility without posting the violation for inclusion in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

(o) **[Reserved]**

(p) **Thermal Reliability Violations on Transmission Substation Equipment.** Pursuant to the regional transmission expansion planning process set forth in the Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify thermal reliability violations on existing transmission substation equipment. The Office of the Interconnection shall not post such thermal reliability violations pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b) for inclusion in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) if the Office of the Interconnection determines that the reliability violations would be more efficiently addressed by an upgrade to replace in kind transmission substation equipment with higher rated equipment, excluding power transmission transformers, but including station service transformers and instrument transformers. If the Office of the Interconnection determines that the reliability violation does not meet the exemption stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). If the Office of the Interconnection determines that the identified thermal reliability violations satisfy the above exemption to the proposal window process, the Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the transmission substation equipment thermal reliability violations that will not be included in a proposal window pursuant to Operating Agreement, Schedule 6, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the



transmission substation equipment thermal reliability violation(s) in Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, a description of the facility on which the thermal violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such transmission substation equipment thermal violations will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

### **1.5.9 State Agreement Approach.**

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. As determined by the authorized state governmental entities, such transmission enhancements or expansions may be included in the recommended plan, either as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in the Operating Agreement, Schedule 6, section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with the Operating Agreement, Schedule 6, section 1.5.9(a) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a).

### **1.5.10 Multi-Driver Project.**

(a) When a proposal submitted by an existing Transmission Owner or Nonincumbent Developer pursuant to Operating Agreement, Schedule 6, section 1.5.8(c) meets the definition of a Multi-Driver Project and is designated to be included in the Regional Transmission Expansion Plan for purposes of cost allocation, the Office of the Interconnection shall designate the Designated Entity for the project as follows: (i) if the Multi-Driver Project does not contain a state Public Policy Requirement component, the Office of the Interconnection shall designate the Designated Entity pursuant to the criteria in the Operating Agreement, Schedule 6, section 1.5.8; or (ii) if the Multi-Driver Project contains a state Public Policy Requirement component, the

Office of the Interconnection shall evaluate potential Designated Entity candidates based on the criteria in the Operating Agreement, Schedule 6, section 1.5.8, and provide its evaluation to and elicit feedback from the sponsoring state governmental entities responsible for allocation of all costs of the proposed state Public Policy Requirement component (“state governmental entity(ies)”) regarding its evaluation. Based on its evaluation of the Operating Agreement, Schedule 6, section 1.5.8 criteria and consideration of the feedback from the sponsoring state governmental entity(ies), the Office of the Interconnection shall designate the Designated Entity for the Multi-Driver Project and notify such entity consistent with the Operating Agreement, Schedule 6, section 1.5.8(i). A Multi-Driver Project may be based on proposals that consist of (1) newly proposed transmission enhancements or expansions; (2) additions to, or modifications of, transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan; and/or (3) one or more transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan.

(b) A Multi-Driver Project may contain an enhancement or expansion that addresses a state Public Policy Requirement component only if it meets the requirements set forth in the Operating Agreement, Schedule 6, section 1.5.9(a) and its cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(c) If a state governmental entity(ies) desires to include a Public Policy Requirement component after an enhancement or expansion has been included in the Regional Transmission Expansion Plan, the Office of the Interconnection may re-evaluate the relevant reliability-based enhancement or expansion, Economic-based Enhancement or Expansion, or Multi-Driver Project to determine whether adding the state-sponsored Public Policy Requirement component would create a more cost effective or efficient solution to system conditions. If the Office of the Interconnection determines that adding the state-sponsored Public Policy Requirement component to an enhancement or expansion already included in the Regional Transmission Expansion Plan would result in a more cost effective or efficient solution, the state-sponsored Public Policy Requirement component may be included in the relevant enhancement or expansion, provided all of the requirements of the Operating Agreement, Schedule 6, section 1.5.10(b) are met, and cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(d) If, subsequent to the inclusion in the Regional Transmission Expansion Plan of a Multi-Driver Project that contains a state Public Policy Requirement component, a state governmental entity(ies) withdraws its support of the Public Policy Requirement component of a Multi-Driver Project, then: (i) the Office of the Interconnection shall re-evaluate the need for the remaining components of the Multi-Driver Project without the state Public Policy Requirement component, remove the Multi-Driver Project from the Regional Transmission Expansion Plan, or replace the Multi-Driver Project with an enhancement or expansion that addresses remaining reliability or economic system needs; (ii) if the Multi-Driver Project is retained in the Regional Transmission Expansion Plan without the state Public Policy Requirement component, the costs of the remaining components will be allocated in accordance with the Tariff, Schedule 12; (iii) if more than one state is responsible for the costs apportioned to the state Public Policy Requirement component of the Multi-Driver Project, the remaining state governmental entity(ies) shall have the option to continue supporting the state Public Policy component of the

Multi-Driver Project and if the remaining state governmental entity(ies) choose this option, the apportionment of the state Public Policy Requirement component will remain in place and the remaining state governmental entity(ies) shall agree upon their respective apportionments; (iv) if a Multi-Driver Project must be retained in the Regional Transmission Expansion Plan and completed with the State Public Policy component, the state Public Policy Requirement apportionment will remain in place and the withdrawing state governmental entity(ies) shall continue to be responsible for its/their share of the FERC-accepted cost allocations as filed pursuant to the Tariff, Schedule 12, section (b)(xii)(B).

(e) The actual costs of a Multi-Driver Project shall be apportioned to the different components (reliability-based enhancement or expansion, Economic-based Enhancement or Expansion and/or Public Policy Requirement) based on the initial estimated costs of the Multi-Driver Project in accordance with the methodology set forth in the Tariff, Schedule 12.

(f) The benefit metric calculation used for evaluating the market efficiency component of a Multi-Driver Project will be based on the final voltage of the Multi-Driver Project using the Benefit/Cost Ratio calculation set forth in the Operating Agreement, Schedule 6, section 1.5.7(d) where the Cost component of the calculation is the present value of the estimated cost of the enhancement apportioned to the market efficiency component of the Multi-Driver Project for each of the first 15 years of the life of the enhancement or expansion.

(g) Except as provided to the contrary in this Operating Agreement, Schedule 6, section 1.5.10 and Operating Agreement, Schedule 6, section 1.5.8 applies to Multi-Driver Projects.

(h) The Office of the Interconnection shall determine whether a proposal(s) meets the definition of a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).

(i) In determining whether a Multi-Driver Project may be designated to more than one entity, PJM shall consider whether: (i) the project consists of separable transmission elements, which are physically discrete transmission components, such as, but not limited to, a transformer, static var compensator or definable linear segment of a transmission line, that can be designated individually to a Designated Entity to construct and own and/or finance; and (ii) each entity satisfies the criteria set forth in the Operating Agreement, Schedule 6, section 1.5.8(f). Separable transmission elements that qualify as Transmission Owner Upgrades shall be designated to the Transmission Owner in the Zone in which the facility will be located.

## ARTICLE 1 – DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used herein shall have the respective meanings assigned herein or in the Schedules hereto, or in the PJM Tariff or PJM Operating Agreement if not otherwise defined in this Agreement, for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Articles, Sections or Schedules, are to Articles, Sections or Schedules of this Agreement. As used in this Agreement:

### **Accredited UCAP:**

“Accredited UCAP” shall mean the quantity of Unforced Capacity, as denominated in Effective UCAP, that an ELCC Resource is capable of providing in a given Delivery Year.

### **Accredited UCAP Factor:**

“Accredited UCAP Factor” shall mean, through the 2024/2025 Delivery Year, one minus EFORd, and for 2025/2026 Delivery Year and subsequent Delivery Years, the ratio of the Capacity Resource’s Accredited UCAP to the Capacity Resource’s installed capacity.

### **Agreement:**

“Agreement” shall mean this Reliability Assurance Agreement, together with all Schedules hereto, as amended from time to time.

### **Annual Demand Resource:**

“Annual Demand Resource” shall mean a resource that is placed under the direction of the Office of the Interconnection during the Delivery Year, and will be available for an unlimited number of interruptions during such Delivery Year by the Office of the Interconnection, and will be capable of maintaining each such interruption between the hours of 10:00AM to 10:00PM Eastern Prevailing Time for the months of June through October and the following May, and 6:00AM through 9:00PM Eastern Prevailing Time for the months of November through April unless there is an Office of the Interconnection approved maintenance outage during October through April. The Annual Demand Resource must be available in the corresponding Delivery year to be offered for sale or Self-Supplied in an RPM Auction, or included as an Annual Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

### **Annual Energy Efficiency Resource:**

“Annual Energy Efficiency Resource” shall mean a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of Reliability Assurance Agreement, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the summer and winter periods described in such Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast

prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall have the same meaning as in the PJM Tariff.

**Base Capacity Demand Resource:**

“Base Capacity Demand Resource” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a resource that is placed under the direction of the Office of the Interconnection and that will be available June through September of a Delivery Year, and will be available to the Office of the Interconnection for an unlimited number of interruptions during such months, and will be capable of maintaining each such interruption for at least a 10-hour duration between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Base Capacity Demand Resource must be available June through September in the corresponding Delivery Year to be offered for sale or self-supplied in an RPM Auction, or included as a Base Capacity Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Base Capacity Energy Efficiency Resource:**

“Base Capacity Energy Efficiency Resource” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of RAA, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the summer peak periods as described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Base Capacity Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Base Capacity Resource:**

“Base Capacity Resource” shall have the same meaning as in Tariff, Attachment DD.

**Base Residual Auction:**

“Base Residual Auction” shall have the same meaning as in Tariff, Attachment DD.

**Behind The Meter Generation:**

“Behind The Meter Generation” shall refer to a generating unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities consented to such use of the distribution facilities and such

consent has been demonstrated to the satisfaction of the Office of the Interconnection; provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit's capacity that is designated as a Capacity Resource or (ii) in any hour, any portion of the output of such generating unit that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

**Black Start Capability:**

“Black Start Capability” shall mean the ability of a generating unit or station to go from a shutdown condition to an operating condition and start delivering power without assistance from the power system.

**Capacity Emergency Transfer Objective (CETO):**

“Capacity Emergency Transfer Objective” or “CETO” shall mean, through the 2024/2025 Delivery Year, the amount of electric energy that a given area must be able to import in order to remain within a loss of load expectation of one event in 25 years when the area is experiencing a localized capacity emergency, as determined in accordance with the PJM Manuals. Without limiting the foregoing, CETO shall be, for Delivery Years through 2024/2025, calculated based in part on EFORD determined in accordance with Reliability Assurance Agreement, Schedule 5, Paragraph C. Beginning with the 2025/2026 Delivery Year, CETO shall mean the amount of electric energy that a given area must be able to import in order to satisfy a normalized expected unserved energy for the area that is equal to forty percent of the normalized expected unserved energy for the RTO when at the annual reliability criteria, where normalized expected unserved energy is the expected unserved energy (for the area or RTO, as appropriate) divided by the forecasted annual energy (for the area or RTO, as appropriate), when the area is experiencing a localized capacity emergency, as determined in accordance with the PJM Manuals.

**Capacity Emergency Transfer Limit (CETL):**

Capacity Emergency Transfer Limit” or “CETL” shall mean the capability of the transmission system to support deliveries of electric energy to a given area experiencing a localized capacity emergency as determined in accordance with the PJM Manuals.

**Capacity Import Limit:**

For any Delivery Year up to and including the 2019/2020 Delivery Year, “Capacity Import Limit” shall mean, (a) for the PJM Region, (1) the maximum megawatt quantity of external Generation Capacity Resources that PJM determines for each Delivery Year, through appropriate modeling and the application of engineering judgment, the transmission system can receive, in aggregate at the interface of the PJM Region with all external balancing authority areas and deliver to load in the PJM Region under capacity emergency conditions without violating applicable reliability criteria on any bulk electric system facility of 100kV or greater, internal or external to the PJM Region, that has an electrically significant response to transfers on such interface, minus (2) the then-applicable Capacity Benefit Margin; and (b) for certain source zones identified in the PJM manuals as groupings of one or more balancing authority areas, (1)

the maximum megawatt quantity of external Generation Capacity Resources that PJM determines the transmission system can receive at the interface of the PJM Region with each such source zone and deliver to load in the PJM Region under capacity emergency conditions without violating applicable reliability criteria on any bulk electric system facility of 100kV or greater, internal or external to the PJM Region, that has an electrically significant response to transfers on such interface, minus the then-applicable Capacity Benefit Margin times (2) the ratio of the maximum import quantity from each such source zone divided by the PJM total maximum import quantity. As more fully set forth in the PJM Manuals, PJM shall make such determination based on the latest peak load forecast for the studied period, the same computer simulation model of loads, generation and transmission topography employed in the determination of Capacity Emergency Transfer Limit for such Delivery Year, including external facilities from an industry standard model of the loads, generation, and transmission topography of the Eastern Interconnection under peak conditions. PJM shall specify in the PJM Manuals the areas and minimum distribution factors for identifying monitored bulk electric system facilities that have an electrically significant response to such transfers on the PJM interface. Employing such tools, PJM shall model increased power transfers from external areas into PJM to determine the transfer level at which one or more reliability criteria is violated on any monitored bulk electric system facilities that have an electrically significant response to such transfers. For the PJM Region Capacity Import Limit, PJM shall optimize transfers from other source areas not experiencing any reliability criteria violations as appropriate to increase the Capacity Import Limit. The aggregate megawatt quantity of transfers into PJM at the point where any increase in transfers on the interface would violate reliability criteria will establish the Capacity Import Limit. Notwithstanding the foregoing, a Capacity Resource located outside the PJM Region shall not be subject to the Capacity Import Limit if the Capacity Market Seller seeks an exception thereto by demonstrating to PJM, by no later than five (5) business days prior to the commencement of the offer period for the relevant RPM Auction, that such resource meets all of the following requirements:

(i) it has, at the time such exception is requested, met all applicable requirements to be pseudo-tied into the PJM Region, or the Capacity Market Seller has committed in writing that it will meet such requirements, unless prevented from doing so by circumstances beyond the control of the Capacity Market Seller, prior to the relevant Delivery Year;

(ii) at the time such exception is requested, it has long-term firm transmission service confirmed on the complete transmission path from such resource into PJM; and

(iii) it is, by written commitment of the Capacity Market Seller, subject to the same obligations imposed on Generation Capacity Resources located in the PJM Region by Tariff, Attachment DD, section 6.6 to offer their capacity into RPM Auctions; provided, however, that (a) the total megawatt quantity of all exceptions granted hereunder for a Delivery Year, plus the Capacity Import Limit for the applicable interface determined for such Delivery Year, may not exceed the total megawatt quantity of Network External Designated Transmission Service on such interface that PJM has confirmed for such Delivery Year; and (b) if granting a qualified exception would result in a violation of the rule in clause (a), PJM shall grant the requested exception but reduce the Capacity Import Limit by the quantity necessary to ensure that the total quantity of Network External Designated Transmission Service is not exceeded.

**Capacity Only Option:**

“Capacity Only Option” shall mean participation in Emergency Load Response Program or Pre-Emergency Program which allows, pursuant to Tariff, Attachment DD and as applicable, a capacity payment for the ability to reduce load during a pre-emergency or emergency event.

**Capacity Performance Resource:**

“Capacity Performance Resource” shall have the same meaning as in Tariff, Attachment DD.

**Capacity Resources:**

“Capacity Resources” shall mean megawatts of (i) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources meeting the requirements of the Reliability Assurance Agreement, Schedules 9 and Reliability Assurance Agreement, Schedule 10 that are or will be owned by or contracted to a Party and that are or will be committed to satisfy that Party's obligations under the Reliability Assurance Agreement, or to satisfy the reliability requirements of the PJM Region, for a Delivery Year; (ii) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources not owned or contracted for by a Party which are accredited to the PJM Region pursuant to the procedures set forth in such Schedules 9 and 10; or (iii) load reduction capability provided by Demand Resources or Energy Efficiency Resources that are accredited to the PJM Region pursuant to the procedures set forth in the Reliability Assurance Agreement, Schedule 6.

**Capacity Storage Resource Class:**

“Capacity Storage Resource Class” shall mean the ELCC Classes specified in Schedules 9.1 and 9.2, section B of this Agreement, each of which is composed of Capacity Storage Resources with the same specified characteristic duration of 4, 6, 8, and 10 hours. The characteristic duration of an Energy Storage Resource Class is the ratio of the modeled MWh energy storage capability of members of the class to the modeled MW power capability of members of the class.

**Capacity Transfer Right:**

“Capacity Transfer Right” shall have the meaning specified in Tariff, Attachment DD.

**Coal Class:**

“Coal Class” shall mean an ELCC Class consisting of Unlimited Resources primarily fueled by coal.

**Combination Resource:**

“Combination Resource” shall mean a Generation Capacity Resource that has a component that has the characteristics of a Limited Duration Resource combined with (i) a component that has



the characteristics of an Unlimited Resource or (ii) a component that has the characteristics of a Variable Resource.

**Compliance Aggregation Area (CAA):**

“Compliance Aggregation Area” or “CAA” shall have the same meaning as in the Tariff.

**Complex Hybrid Class:**

“Complex Hybrid Class” shall mean an ELCC Class composed of Combination Resources that combine three or more components, whereby one component is a class of Limited Duration Resource, and the other components are different Variable Resource classes, and such Combination Resources cannot be included in any other Combination Resource class. A resource that is a member of a Complex Hybrid Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean that certain Consolidated Transmission Owners Agreement, dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common generation control scheme is applied in order to:

- (a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (b) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and each Applicable Regional Entity;
- (d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and

(e) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Daily Unforced Capacity Obligation:**

“Daily Unforced Capacity Obligation” shall mean the capacity obligation of a Load Serving Entity during the Delivery Year, determined in accordance with the Reliability Assurance Agreement, Schedule 8 or, as to an FRR Entity, in the Reliability Assurance Agreement, Schedule 8.1.

**Delivery Year:**

“Delivery Year” shall mean a Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Tariff, Attachment DD or pursuant to an FRR Capacity Plan under RAA, Schedule 8.1.

**Demand Resource (DR):**

“Demand Resource” or “DR” shall mean a Limited Demand Resource, Extended Summer Demand Resource, Annual Demand Resource, Base Capacity Demand Resource or Summer-Period Demand Resource with a demonstrated capability to provide a reduction in demand or otherwise control load in accordance with the requirements of RAA, Schedule 6 that offers and that clears load reduction capability in a Base Residual Auction or Incremental Auction or that is committed through an FRR Capacity Plan.

**Demand Resource Factor or DR Factor:**

“Demand Resource Factor” or “DR Factor” shall mean, for Delivery Years through May 31, 2018, that factor approved from time to time by the PJM Board used to determine the unforced capacity value of a Demand Resource in accordance with Reliability Assurance Agreement, Schedule 6

**Demand Resource Officer Certification Form:**

“Demand Resource Officer Certification Form” shall mean a certification as to an intended Demand Resource Sell Offer, in accordance with Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1 and the PJM Manuals.

**Demand Resource Registration:**

“Demand Resource Registration” shall mean a registration in the Full Program Option or Capacity Only Option of the Emergency or Pre-Emergency Load Resource Program in accordance with Tariff, Attachment K-Appendix, section 8.

**Demand Resource Sell Offer Plan:**

“Demand Resource Sell Offer Plan” shall mean the plan required by Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1 in support of an intended offer of Demand Resources in an RPM Auction, or an intended inclusion of Demand Resources in an FRR Capacity Plan.

**Diesel Utility Class:**

"Diesel Utility Class" shall mean an ELCC Class consisting of Unlimited Resources of the diesel technology type that is not primarily fueled by landfill gas.

**Effective Nameplate Capacity:**

“Effective Nameplate Capacity” shall mean (i) for each Variable Resource and Combination Resource, the resource’s Maximum Facility Output (or, for a Co-Located Resource, the applicable share of the Mixed Technology Facility’s Maximum Facility Output); (ii) for each Limited Duration Resource, the sustained level of output that the unit can provide and maintain over a continuous period, whereby the duration of that continuous period matches the characteristic duration of the corresponding ELCC Class, with consideration given to ambient conditions expected to exist at the time of PJM system peak load, to the extent that such conditions impact such resource’s capability, not to exceed the Maximum Facility Output (or, for a Co-Located Resource, the applicable share of the Mixed Technology Facility’s Maximum Facility Output). For the 2025/2026 Delivery Year and subsequent Delivery Years, the Effective Nameplate Capacity of each Limited Duration Resource shall not exceed the greater of the Capacity Interconnection Rights of such Limited Duration Resource, or the transitional system capability as limited by the transitional resource MW ceiling as defined in the PJM Manuals, awarded for the applicable Delivery Year.

**Effective UCAP:**

“Effective UCAP” shall mean a unit of measure that represents the capacity product transacted in the Reliability Pricing Model and included in FRR Capacity Plans. One megawatt of Effective UCAP has the same capacity value of one megawatt of Unforced Capacity.

**ELCC Class:**

“ELCC Class” shall mean a defined group of ELCC Resources that share a common set of operational characteristics and for which effective load carrying capability analysis, as set forth in RAA, Schedules 9.1 and 9.2, will establish a unique ELCC Class UCAP and corresponding ELCC Class Rating(s). ELCC Classes shall be defined in the Schedules 9.1 and 9.2, section B of this Agreement. Members of an ELCC Class shall share a common method of calculating the ELCC Resource Performance Adjustment, provided that the individual ELCC Resource Performance Adjustment values will generally differ among ELCC Resources.

**ELCC Class Rating:**

“ELCC Class Rating” shall mean the rating factor, based on effective load carrying capability analysis, that applies to ELCC Resources that are members of an ELCC Class as part of the calculation of their Accredited UCAP.

**ELCC Class UCAP:**

“ELCC Class UCAP” shall mean the aggregate Effective UCAP all modeled ELCC Resources in a given ELCC Class are capable of providing in a given Delivery Year.

**ELCC Portfolio UCAP:**

“ELCC Portfolio UCAP” shall mean the aggregate Effective UCAP that all modeled ELCC Resources are capable of providing in a given Delivery Year.

**ELCC Resource:**

“ELCC Resource” shall mean, through the 2024/2025 Delivery Year, a Generation Capacity Resource that is a Variable Resource, a Limited Duration Resource, or a Combination Resource, and beginning with the 2025/2026 Delivery Year, a Generation Capacity Resource or a Demand Resource.

**ELCC Resource Performance Adjustment:**

“ELCC Resource Performance Adjustment” shall mean the performance of a specific ELCC Resource relative to the aggregate performance of the ELCC Class to which it belongs as further described in RAA, Schedule 9.1, section F and RAA, Schedule 9.2, section D.

**Electric Cooperative:**

“Electric Cooperative” shall mean an entity owned in cooperative form by its customers that is engaged in the generation, transmission, and/or distribution of electric energy.

**Electric Distributor:**

“Electric Distributor” shall mean a Member that 1) owns or leases with rights equivalent to ownership of electric distribution facilities that are used to provide electric distribution service to electric load within the PJM Region; or 2) is a generation and transmission cooperative or a joint municipal agency that has a member that owns electric distribution facilities used to provide electric distribution service to electric load within the PJM Region.

**Emergency:**

“Emergency” shall mean (i) an abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or (ii) a fuel shortage requiring departure from normal operating procedures

in order to minimize the use of such scarce fuel; or (iii) a condition that requires implementation of emergency procedures as defined in the PJM Manuals.

**End-Use Customer:**

“End-Use Customer” shall mean a Member that is a retail end-user of electricity within the PJM Region. For purposes of Members Committee sector classification, a Member that is a retail end-user that owns generation may qualify as an End-Use customer if: (1) the average physical unforced capacity owned by the Member and its affiliates in the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average PJM capacity obligation for the Member and its affiliates over the same time period; or (2) the average energy produced by the Member and its affiliates within the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average energy consumed by that Member and its affiliates within the PJM region over the same time period. The foregoing notwithstanding, taking retail service may not be sufficient to qualify a Member as an End-Use Customer.

**Energy Efficiency Resource:**

“Energy Efficiency Resource” shall mean a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of RAA, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the periods described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention. Annual Energy Efficiency Resources, Base Capacity Energy Efficiency Resources and Summer-Period Energy Efficiency Resources are types of Energy Efficiency Resources.

**Exigent Water Storage:**

“Exigent Water Storage” shall mean water stored in the pondage or reservoir of a hydropower resource which is not typically available during normal operating conditions (as those conditions are described in the relevant FERC hydropower license), but which can be drawn upon during emergency conditions (as described in the FERC hydropower license), including in order to avoid a load shed. In an effective load carrying capability analysis, exigent storage capability from an upstream hydro facility can be considered relative to a downstream hydro facility by assessing cascading storage and flows.

**Existing Demand Resource:**

“Existing Demand Resource” shall mean a Demand Resource for which the Demand Resource Provider has identified existing end-use customer sites that are registered for the current Delivery

Year with PJM (even if not registered by such Demand Resource Provider) and that the Demand Resource Provider reasonably expects to have under a contract to reduce load based on PJM dispatch instructions by the start of the Delivery Year for which such resource is offered.

**Existing Generation Capacity Resource:**

“Existing Generation Capacity Resource” shall mean, for purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource that, as of the date on which bidding commences for such auction: (a) is in service; or (b) is not yet in service, but has cleared any RPM Auction for any prior Delivery Year. A Generation Capacity Resource shall be deemed to be in service if interconnection service has ever commenced (for resources located in the PJM Region), or if it is physically and electrically interconnected to an external Control Area and is in full commercial operation (for resources not located in the PJM Region). The additional megawatts of a Generation Capacity Resource that is being, or has been, modified to increase the number of megawatts of available installed capacity thereof shall not be deemed to be an Existing Generation Capacity Resource until such time as those megawatts (a) are in service; or (b) are not yet in service, but have cleared any RPM Auction for any prior Delivery Year.

**Extended Summer Demand Resource:**

“Extended Summer Demand Resource” shall mean, for Delivery Years through May 31, 2018, and for FRR Capacity Plans Delivery Years through May 31, 2019, a resource that is placed under the direction of the Office of the Interconnection and that will be available June through October and the following May, and will be available for an unlimited number of interruptions during such months by the Office of the Interconnection, and will be capable of maintaining each such interruption for at least a 10-hour duration between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Extended Summer Demand Resource must be available June through October and the following May in the corresponding Delivery Year to be offered for sale or Self-Supplied in an RPM Auction, or included as an Extended Summer Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Facilities Study Agreement:**

“Facilities Study Agreement” shall have the same meaning as in Tariff, Part VI, section 206.

**FERC or Commission:**

“FERC” or “Commission” shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

**Firm Point-To-Point Transmission Service:**

“Firm Point-To-Point Transmission Service” shall have the meaning specified in the Tariff.

**Firm Service Level:**

“Firm Service Level” or “FSL” of Price Responsive Demand for the 2022/2023 Delivery Year and subsequent Delivery Years shall mean the level, determined at a PRD Substation level, to which Price Responsive Demand shall be reduced during the Delivery Year when an Emergency Action that triggers a Performance Assessment Interval is declared and the Locational Marginal Price exceeds the price associated with such Price Responsive Demand identified by the PRD Provider in its PRD Plan. “Firm Service Level” or “FSL” of Demand Resource shall mean the pre-determined level for which an end-use customer’s load shall be reduced, upon notification from the Curtailment Service Provider’s market operations center or its agent.

**Firm Transmission Service:**

“Firm Transmission Service” shall mean transmission service that is intended to be available at all times to the maximum extent practicable, subject to an Emergency, an unanticipated failure of a facility, or other event beyond the control of the owner or operator of the facility or the Office of the Interconnection.

**Fixed Resource Requirement Alternative or FRR Alternative:**

“Fixed Resource Requirement Alternative” or “FRR Alternative” shall mean an alternative method for a Party to satisfy its obligation to provide Unforced Capacity hereunder, as set forth in the Reliability Assurance Agreement, Schedule 8.1.

**Fixed-Tilt Solar Class:**

“Fixed-Tilt Solar Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with solar panels that are primarily mounted in a fixed orientation.

**Forecast Pool Requirement:**

“Forecast Pool Requirement” or “FPR” shall mean the amount equal to one plus the unforced reserve margin (stated as a decimal number) for the PJM Region required pursuant to this Reliability Assurance Agreement, as approved by the PJM Board pursuant to Reliability Assurance Agreement, Schedule 4.1.

**FRR Capacity Plan or FRR Plan:**

“FRR Capacity Plan” or “FRR Plan” shall mean a long-term plan for the commitment of Capacity Resources and Price Responsive Demand to satisfy the capacity obligations of a Party that has elected the FRR Alternative, as more fully set forth in the Reliability Assurance Agreement, Schedule 8.1.

**FRR Entity:**

“FRR Entity” shall mean, for the duration of such election, a Party that has elected the FRR Alternative hereunder.

**FRR Service Area:**

“FRR Service Area” shall mean (a) the service territory of an IOU as recognized by state law, rule or order; (b) the service area of a Public Power Entity or Electric Cooperative as recognized by franchise or other state law, rule, or order; or (c) a separately identifiable geographic area that is: (i) bounded by wholesale metering, or similar appropriate multi-site aggregate metering, that is visible to, and regularly reported to, the Office of the Interconnection, or that is visible to, and regularly reported to an Electric Distributor and such Electric Distributor agrees to aggregate the load data from such meters for such FRR Service Area and regularly report such aggregated information, by FRR Service Area, to the Office of the Interconnection; and (ii) for which the FRR Entity has or assumes the obligation to provide capacity for all load (including load growth) within such area. In the event that the service obligations of an Electric Cooperative or Public Power Entity are not defined by geographic boundaries but by physical connections to a defined set of customers, the FRR Service Area in such circumstances shall be defined as all customers physically connected to transmission or distribution facilities of such Electric Cooperative or Public Power Entity within an area bounded by appropriate wholesale aggregate metering as described above.

**Full Program Option:**

“Full Program Option” shall mean participation in Emergency Load Response Program or Pre-Emergency Program which allows, pursuant to Tariff, Attachment DD and as applicable, (i) an energy payment for load reductions during a pre-emergency or emergency event, and (ii) a capacity payment for the ability to reduce load during a pre-emergency or emergency event.

**Full Requirements Service:**

“Full Requirements Service” shall mean wholesale service to supply all of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

**Gas Combined Cycle Class:**

“Gas Combined Cycle Class” shall mean an ELCC Class consisting of Unlimited Resources of the combined cycle technology type that is primarily fueled by natural gas, but does not meet the requirements to be included in the Gas Combined Cycle Dual Fuel Class.

**Gas Combined Cycle Dual Fuel Class:**

“Gas Combined Cycle Dual Fuel Class” shall mean an ELCC Class consisting of Unlimited Resources of the combined cycle technology type that is primarily fueled by natural gas, and that attests that it has the capability to start independently using onsite sources and operate independently on alternate onsite fuel source(s) up to its maximum capacity level during the



winter season of the applicable Delivery Year in which it is providing capacity, and capable of operating on the alternate fuel for two 16-hour periods over two consecutive days at its maximum capacity level.

**Gas Combustion Turbine Class:**

“Gas Combustion Turbine Class” shall mean an ELCC Class consisting of Unlimited Resources of the combustion turbine technology type that is primarily fueled by natural gas, but does not meet the requirements to be included in the Gas Combustion Turbine Dual Fuel Class.

**Gas Combustion Turbine Dual Fuel Class:**

“Gas Combustion Turbine Dual Fuel Class” shall mean an ELCC Class consisting of Unlimited Resources of the combustion turbine technology type that is primarily fueled by natural gas, and attests that it has the capability to start independently using onsite sources and operate independently on alternate onsite fuel source(s) up to its maximum capacity level during the winter season of the applicable Delivery Year in which it is providing capacity, and capable of operating on the alternate fuel for two 16-hour periods over two consecutive days at its maximum capacity level.

**Generation Capacity Resource:**

“Generation Capacity Resource” shall mean a Generating Facility, or the contractual right to capacity from a specified Generating Facility, that meets the requirements of RAA, Schedule 9 and RAA, Schedule 10, and, for Generating Facilities that are committed to an FRR Capacity Plan, that meets the requirements of RAA, Schedule 8.1. A Generation Capacity Resource may be an Existing Generation Capacity Resource or a Planned Generation Capacity Resource.

**Generation Capacity Resource Provider:**

“Generation Capacity Resource Provider” shall mean a Member that owns, or has the contractual authority to control the output of, a Generation Capacity Resource, that has not transferred such authority to another entity.

**Generation Owner:**

“Generation Owner” shall mean a Member that owns or leases with rights equivalent to ownership, or otherwise controls and operates one or more operating generation resources located in the PJM Region. The foregoing notwithstanding, for a planned generation resource to qualify a Member as a Generation Owner, such resource shall have cleared an RPM auction, and for Energy Resources, the resource shall have a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM. Purchasing all or a portion of the output of a generation resource shall not be sufficient to qualify a Member as a Generation Owner. For purposes of Members Committee sector classification, a Member that is primarily a retail end-user of electricity that owns generation may qualify as a Generation Owner if: (1) the generation resource is the subject of a FERC-jurisdictional interconnection agreement or

wholesale market participation agreement within PJM; (2) the average physical unforced capacity owned by the Member and its affiliates over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average PJM capacity obligation of the Member and its affiliates over the same time period; and (3) the average energy produced by the Member and its affiliates within PJM over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average energy consumed by the Member and its affiliates within PJM over the same time period.

**Generator Forced Outage:**

“Generator Forced Outage” shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

**Generator Maintenance Outage:**

“Generator Maintenance Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform repairs on specific components of the facility, if removal of the facility qualifies as a maintenance outage pursuant to the PJM Manuals.

**Generator Planned Outage:**

“Generator Planned Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit for inspection, maintenance or repair with the approval of the Office of the Interconnection in accordance with the PJM Manuals.

**Good Utility Practice:**

“Good Utility Practice” shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act Section 215(a)(4).

**Hybrid Resource Class:**

“Hybrid Resource Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 Section B. Each Hybrid Resource Class has a specified combination of two components, whereby, absent being part of a Combination Resource, one component would be in a Capacity

Storage Resource Class, and the other component would be in a Variable Resource Class or would be an Unlimited Resource. A resource that is a member of a Hybrid Resource Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Hydropower With Non-Pumped Storage:**

“Hydropower With Non-Pumped Storage” shall mean a hydropower facility that can capture and store incoming stream flow, without use of pumps, in pondage or a reservoir, and the Generation Owner has the ability, within the constraints available in the applicable operating license, to exert material control over the quantity of stored water and output of the facility throughout an Operating Day.

**Hydropower With Non-Pumped Storage Class:**

“Hydropower With Non-Pumped Storage Class” shall mean an ELCC Class consisting of Combination Resources that are Hydropower With Non-Pumped Storage resources.

**Incremental Auction:**

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction, or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction), shall be held for the purposes of:

- (i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORd increase, Accredited UCAP Factor decrease, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and
- (ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

**Intermittent Hydropower Class:**

“Intermittent Hydropower Class” shall mean an ELCC Class consisting of Variable Resources that are run-of-river hydropower generators that must generally pass incoming water and

therefore cannot appreciably store water to later increase the output of the facility. Resources in the Intermittent Hydropower Class are not Hydropower with Non-Pumped Storage resources.

**IOU:**

“IOU” shall mean an investor-owned utility with substantial business interest in owning and/or operating electric facilities in any two or more of the following three asset categories: generation, transmission, distribution.

**Intermittent Landfill Gas Class:**

“Intermittent Landfill Gas Class” shall mean an ELCC Class consisting of Variable Resources fueled by landfill gas that, because of fuel availability patterns, cannot run consistently at installed capacity levels for 24 or more hours.

**Limited Demand Resource:**

“Limited Demand Resource” shall mean, for Delivery Years through May 31, 2018, and for FRR Capacity Plans Delivery Years through May 31, 2019, a resource that is placed under the direction of the Office of the Interconnection and that will, at a minimum, be available for interruption for at least 10 Load Management Events during the summer period of June through September in the Delivery Year, and will be capable of maintaining each such interruption for at least a 6-hour duration. At a minimum, the Limited Demand Resource shall be available for such interruptions on weekdays, other than NERC holidays, from 12:00PM (noon) to 8:00PM Eastern Prevailing Time. The Limited Demand Resource must be available during the summer period of June through September in the corresponding Delivery Year to be offered for sale or Self-Supplied in an RPM Auction, or included as a Limited Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Limited Duration Resource:**

“Limited Duration Resource” shall mean a Generation Capacity Resource that is not a Variable Resource, that is not a Combination Resource, and that is not capable of running continuously at Maximum Facility Output for 24 hours or longer. A Capacity Storage Resource is a Limited Duration Resource.

**Load Serving Entity or LSE:**

“Load Serving Entity” or “LSE” shall mean any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer, (i) serving end-users within the PJM Region, and (ii) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region. Load Serving Entity shall include any end-use customer that qualifies under state rules or a utility retail tariff to manage directly its own supply of electric power and energy and use of transmission and ancillary services.

**Locational Reliability Charge:**

“Locational Reliability Charge” shall mean the charge determined pursuant to RAA, Article 7, section 2.

**Markets and Reliability Committee:**

“Markets and Reliability Committee” shall mean the committee established pursuant to the Operating Agreement as a Standing Committee of the Members Committee.

**Maximum Emergency Service Level:**

“Maximum Emergency Service Level” or “MESL” of Price Responsive Demand for the 2017/2018 through the 2021/2022 Delivery Years shall mean the level, determined at a PRD Substation level, to which Price Responsive Demand shall be reduced during the Delivery Year when a Maximum Generation Emergency is declared and the Locational Marginal Price exceeds the price associated with such Price Responsive Demand identified by the PRD Provider in its PRD Plan.

**Member:**

“Member” shall have the meaning provided in the Operating Agreement.

**Members Committee:**

“Members Committee” shall mean the committee specified in Operating Agreement, section 8 composed of the representatives of all the Members.

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Network External Designated Transmission Service:**

“Network External Designated Transmission Service” shall mean the quantity of network transmission service confirmed by PJM for use by a market participant to import power and energy from an identified Generation Capacity Resource located outside the PJM Region, upon demonstration by such market participant that it owns such Generation Capacity Resource, has an executed contract to purchase power and energy from such Generation Capacity Resource, or has a contract to purchase power and energy from such Generation Capacity Resource contingent upon securing firm transmission service from such resource.

**Network Resources:**

“Network Resources” shall have the meaning set forth in the PJM Tariff.

**Network Transmission Service:**

“Network Transmission Service” shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Tariff, Part III or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Nominal PRD Value:**

“Nominal PRD Value” shall mean, as to any PRD Provider, an adjustment, determined in accordance with Reliability Assurance Agreement, Schedule 6.1, to the peak-load forecast used to determine the quantity of capacity sought through an RPM Auction, reflecting the aggregate effect of Price Responsive Demand on peak load resulting from the Price Responsive Demand to be provided by such PRD Provider.

**Nominated Demand Resource Value:**

“Nominated Demand Resource Value” shall have the meaning specified in Tariff, Attachment DD.

**Non-Retail Behind the Meter Generation:**

“Non-Retail Behind the Meter Generation” shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, and electric distribution companies to serve load.

**Nuclear Class:**

“Nuclear Class” shall mean an ELCC Class consisting of Unlimited Resources primarily fueled by nuclear fuel.

**Obligation Peak Load:**

“Obligation Peak Load” shall have the meaning specified in Reliability Assurance Agreement, Schedule 8.

**Office of the Interconnection:**

“Office of the Interconnection” shall mean the employees and agents of PJM Interconnection, L.L.C., subject to the supervision and oversight of the PJM Board, acting pursuant to the Operating Agreement.

**Offshore Wind Class:**

“Offshore Wind Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with offshore wind turbines located in the ocean.

**Onshore Wind Class:**

“Onshore Wind Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy using wind turbines and that are not in the Offshore Wind Class.

**Operating Agreement of the PJM Interconnection, L.L.C., Operating Agreement or PJM Operating Agreement:**

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean that agreement, dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C, on file with the Commission.

**Operating Day:**

“Operating Day” shall have the same meaning as provided in the Operating Agreement.

**Operating Reserve:**

“Operating Reserve” shall mean the amount of generating capacity scheduled to be available for a specified period of an Operating Day to ensure the reliable operation of the PJM Region, as specified in the PJM Manuals.

**Ordinary Water Storage:**

“Ordinary Water Storage” shall mean water stored in the pondage or reservoir of a hydropower resource which is typically available during normal operating conditions pursuant to the FERC license governing the operation of the hydropower resource.

**Other Limited Duration Class:**

“Other Limited Duration Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 section B of this Agreement, each of which has a specified characteristic duration and consists of Limited Duration Resources that are not Capacity Storage Resources. The characteristic duration of an Other Limited Duration Class is the maximum period of time represented in the ELCC model that the resources of the class can run at a stated capability.

**Other Limited Duration Combination Class:**

“Other Limited Duration Combination Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 section B. Each Other Limited Duration Class has a specified combination of two components, whereby, absent being part of a Combination Resource, one component would be in an Other Limited Duration Class, and the other component would be in a Variable Resource Class or would be an Unlimited Resource. A resource that is a member of an Other

Limited Duration Combination Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Other Supplier:**

“Other Supplier” shall mean a Member that: (i) is engaged in buying, selling or transmitting electric energy, capacity, ancillary services, Financial Transmission Rights or other services available under PJM’s governing documents in or through the Interconnection or has a good faith intent to do so, and (ii) is not a Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer.

**Other Unlimited Resource Class:**

“Other Unlimited Resource Class” shall mean an ELCC Class consisting of Unlimited Resources that do not qualify for any other ELCC Class specified in RAA Schedule 9.2, section D.

**Other Variable Resource Class:**

“Other Variable Resource Class” shall mean an ELCC Class consisting of Variable Resources that are not in any other Variable Resource class, including Variable Resources that are composed of multiple components, each of which would be a Variable Resource. A resource composed of both fixed-tilt solar panels and tracking solar panels is not in this class. A resource that is a member of a Other Variable Resource Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Partial Requirements Service:**

“Partial Requirements Service” shall mean wholesale service to supply a specified portion, but not all, of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

**Party:**

“Party” shall mean an entity bound by the terms of the Operating Agreement.

**Peak Shaving Adjustment:**

“Peak Shaving Adjustment” shall mean a load forecast mechanism that allows load reductions by end-use customers to result in a downward adjustment of the summer load forecast for the associated Zone. Any end-use customer identified in an approved peak shaving plan shall not also participate in PJM Markets as Price Responsive Demand, Demand Resource, Base Capacity Demand Resource, Capacity Performance Demand Resource, or Economic Load Response Participant.



**Percentage Internal Resources Required:**

“Percentage Internal Resources Required” shall mean, for purposes of an FRR Capacity Plan, the percentage of the LDA Reliability Requirement for an LDA that must be satisfied with Capacity Resources located in such LDA.

**Performance Assessment Interval:**

“Performance Assessment Interval” shall have the meaning specified in Tariff, Attachment DD.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, acting pursuant to the Operating Agreement, except when such term is being used in Tariff, Attachment M, in which case PJM Board shall mean the Board of Managers of PJM or its designated representative, exclusive of any members of PJM Management.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning and accounting requirements of the PJM Region.

**PJM Region:**

“PJM Region” shall have the same meaning as provided in the Operating Agreement.

**PJM Region Installed Reserve Margin:**

“PJM Region Installed Reserve Margin” shall mean the percent installed reserve margin for the PJM Region required pursuant to Reliability Assurance Agreement, Schedule 4.1, as approved by the PJM Board.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices, or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Planned Demand Resource:**

“Planned Demand Resource” shall mean any Demand Resource that does not currently have the capability to provide a reduction in demand or to otherwise control load, but that is scheduled to be capable of providing such reduction or control on or before the start of the Delivery Year for which such resource is to be committed, as determined in accordance with the requirements of Reliability Assurance Agreement, Schedule 6. As set forth in Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1, a Demand Resource Provider submitting a DR Sell Offer Plan shall identify as Planned Demand Resources in such plan all Demand Resources in excess of those that qualify as Existing Demand Resources.

### **Planned External Generation Capacity Resource:**

“Planned External Generation Capacity Resource” shall mean a proposed Generation Capacity Resource, or a proposed increase in the capability of a Generation Capacity Resource, that (a) is to be located outside the PJM Region, (b) participates in the generation interconnection process of a Control Area external to PJM, (c) is scheduled to be physically and electrically interconnected to the transmission facilities of such Control Area on or before the first day of the Delivery Year for which such resource is to be committed to satisfy the reliability requirements of the PJM Region, and (d) is in full commercial operation prior to the first day of such Delivery Year, such that it is sufficient to provide the Installed Capacity set forth in the Sell Offer forming the basis of such resource’s commitment to the PJM Region. Prior to participation in any Base Residual Auction for such Delivery Year, the Capacity Market Seller must demonstrate that it has ~~a fully executed system impact study agreement (or other~~ documentation which is functionally equivalent to an approved Decision Point I submission~~System Impact Study Agreement~~ under the PJM Tariff Part VII or VIII as applicable) or, for resources which are greater than 20MWs participating in a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, an agreement or other documentation which is functionally equivalent to an approved Decision Point II submission~~Facilities Study Agreement~~ under the PJM Tariff Part VII or VIII as applicable), with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider. Prior to participating in any Incremental Auction for such Delivery Year, the Capacity Market Seller must demonstrate it has entered into an interconnection agreement, or such other documentation that is functionally equivalent to ~~a~~ Generation Interconnection Service Agreement under the PJM Tariff, with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider. A Planned External Generation Capacity Resource must provide evidence to PJM that it has been studied as a Network Resource, or such other similar interconnection product in such external Control Area, must provide contractual evidence that it has applied for or purchased transmission service to be deliverable to the PJM border, and must provide contractual evidence that it has applied for transmission service to be deliverable to the bus at which energy is to be delivered, the agreements for which must have been executed prior to participation in any Reliability Pricing Model Auction for such Delivery Year. Any such resource shall cease to be considered a Planned External Generation Capacity Resource as of the earlier of (i) the date that interconnection service commences as to such resource; or (ii) the resource has cleared an RPM Auction, in which case it shall become an Existing Generation

Capacity Resource for purposes of the mitigation of offers for any RPM Auction for all subsequent Delivery Years.

**Planned Generation Capacity Resource:**

“Planned Generation Capacity Resource” shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, Part VII or Part VIII, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual Auction, ~~a System Impact Study Agreement~~ all the requirements for an approved Decision Point I submission have been met under Tariff Part VII or VIII (or, for resources for which a Decision Point I submission ~~System Impact Study Agreement~~ is not required, has such other agreement or documentation that is functionally equivalent to an approved Decision Point I submission ~~System Impact Study Agreement~~) ~~has been executed~~ prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, ~~a Facilities Study Agreement~~ all the requirements for an approved Decision Point II submission have been met under Tariff Part VII or VIII (or, for resources for which ~~a Facilities Study Agreement~~ Decision Point II submission is not required, has such other agreement or documentation that is functionally equivalent to an approved Decision Point II submission ~~Facility Studies Agreement~~) has been executed prior to the Base Residual Auction for such Delivery Year; and (iv) ~~an~~ Generation Interconnection Service Agreement or Wholesale Market Participation Agreement has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity Resource for any RPM Auction for all subsequent Delivery Years.

**Planning Period:**

“Planning Period” shall mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

**Portfolio Expected Unserved Energy:**

“Portfolio Expected Unserved Energy” shall mean the annual amount of expected unserved energy, in MWh, that is expected for the RTO when at the annual reliability criteria that provides an acceptable level of reliability consistent with the Reliability Principles and Standards.

**PRD Curve:**

“PRD Curve” shall mean a price-consumption curve at a PRD Substation level, if available, and otherwise at a Zonal (or sub-Zonal LDA, if applicable) level, that details the base consumption level of Price Responsive Demand and the decreasing consumption levels at increasing prices.

**PRD Provider:**

“PRD Provider” shall mean a PJM Member that has entered contractual arrangements with end-use customers that satisfy the eligibility criteria for and provides Price Responsive Demand.

**PRD Provider’s Zonal Expected Peak Load Value of PRD:**

“PRD Provider’s Zonal Expected Peak Load Value of PRD” shall mean the expected contribution to Delivery Year peak load of a PRD Provider’s Price Responsive Demand, were such demand not to be reduced in response to price, based on the contribution of the end-use customers comprising such Price Responsive Demand to the most recent prior Delivery Year’s peak demand, escalated to the Delivery Year in question, as determined in a manner consistent with the Office of the Interconnection’s load forecasts used for purposes of the RPM Auctions.

**PRD Reservation Price:**

“PRD Reservation Price” shall mean an RPM Auction clearing price identified in a PRD Plan for Price Responsive Demand load below which the PRD Provider desires not to commit the identified load as Price Responsive Demand.

**PRD Substation:**

“PRD Substation” shall mean an electrical substation that is located in the same Zone or in the same sub-Zonal LDA as the end-use customers identified in a PRD Plan or PRD registration and that, in terms of the electrical topography of the Transmission Facilities comprising the PJM Region, is as close as practicable to such loads.

**Price Responsive Demand:**

“Price Responsive Demand” or “PRD” shall mean end-use customer load registered by a PRD Provider pursuant to Reliability Assurance Agreement, Schedule 6.1 that have, as set forth in more detail in the PJM Manuals, the metering capability to record electricity consumption at an interval of one hour or less, Supervisory Control capable of curtailing such load (consistent with applicable RERRA requirements) at each PRD Substation identified in the relevant PRD Plan or PRD registration in response to a Maximum Generation Emergency declared by the Office of the Interconnection (prior to 2022/2023 Delivery Year) or a Performance Assessment Interval that triggers a PRD performance assessment (effective with 2022/2023 Delivery Year), and a retail rate structure, or equivalent contractual arrangement, capable of changing retail rates as frequently as an hourly basis, that is linked to or based upon changes in real-time Locational Marginal Prices at a PRD Substation level and that results in a predictable automated response to varying wholesale electricity prices.

**Price Responsive Demand Credit:**

“Price Responsive Demand Credit” shall mean a credit, based on committed Price Responsive Demand, as determined under Reliability Assurance Agreement, Schedule 6.1.

**Price Responsive Demand Plan or PRD Plan:**

“Price Responsive Demand Plan” or “PRD Plan” shall mean a plan, submitted by a PRD Provider and received by the Office of the Interconnection in accordance with Reliability Assurance Agreement, Schedule 6.1 and procedures specified in the PJM Manuals, claiming a peak demand limitation due to Price Responsive Demand to support the determination of such PRD Provider’s Nominal PRD Value.

**Public Power Entity:**

“Public Power Entity” shall mean any agency, authority, or instrumentality of a state or of a political subdivision of a state, or any corporation wholly owned by any one or more of the foregoing, that is engaged in the generation, transmission, and/or distribution of electric energy.

**Qualifying Transmission Upgrades:**

“Qualifying Transmission Upgrades” shall have the meaning specified in Tariff, Attachment DD.

**Relevant Electric Retail Regulatory Authority:**

“Relevant Electric Retail Regulatory Authority” or “RERRA” shall have the meaning specified in the PJM Operating Agreement.

**Reliability Principles and Standards:**

“Reliability Principles and Standards” shall mean the principles and standards established by the Office of the Interconnection that define, among other things, an acceptable probabilistic of loss of load criteria due to inadequate generation or transmission capability, as amended from time to time.

**Required Approvals:**

“Required Approvals” shall mean all of the approvals required for the Operating Agreement to be modified or to be terminated, in whole or in part, including the acceptance for filing by FERC and every other regulatory authority with jurisdiction over all or any part of the Operating Agreement.

**Self-Supply:**

“Self-Supply” shall have the meaning provided in Tariff, Attachment DD.

**Small Commercial Customer:**

“Small Commercial Customer” shall have the same meaning as in the PJM Tariff.

**State Consumer Advocate:**

“State Consumer Advocate” shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, inter alia, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

**State Regulatory Structural Change:**

“State Regulatory Structural Change” shall mean as to any Party, a state law, rule, or order that, after September 30, 2006, initiates a program that allows retail electric consumers served by such Party to choose from among alternative suppliers on a competitive basis, terminates such a program, expands such a program to include classes of customers or localities served by such Party that were not previously permitted to participate in such a program, or that modifies retail electric market structure or market design rules in a manner that materially increases the likelihood that a substantial proportion of the customers of such Party that are eligible for retail choice under such a program (a) that have not exercised such choice will exercise such choice; or (b) that have exercised such choice will no longer exercise such choice, including for example, without limitation, mandating divestiture of utility-owned generation or structural changes to such Party’s default service rules that materially affect whether retail choice is economically viable.

**Steam Class:**

“Steam Class” shall mean an ELCC Class consisting of Unlimited Resources of the steam technology type and the primary fuel is not coal or nuclear.

**Summer-Period Demand Resource:**

Summer-Period Demand Resource shall mean, for the 2020/2021 Delivery Year and subsequent Delivery Years, a resource that is placed under the direction of the Office of the Interconnection, and will be available June through October and the following May of the Delivery Year, and will be available for an unlimited number of interruptions during such months by the Office of the Interconnection, and will be capable of maintaining each such interruption between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Summer-Period Demand Resource must be available June through October and the following May in the corresponding Delivery Year to be offered for sale in an RPM Auction, or included as a Summer-Period Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Summer-Period Energy Efficiency Resource:**

Summer-Period Energy Efficiency Resource shall mean, for the 2020/2021 Delivery Year and subsequent Delivery Years, a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of Reliability Assurance Agreement, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the summer peak periods as described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Summer-Period Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Supervisory Control:**

“Supervisory Control” shall mean the capability to curtail, in accordance with applicable RERRA requirements, load registered as Price Responsive Demand at each PRD Substation identified in the relevant PRD Plan or PRD registration in response to a Maximum Generation Emergency declared by the Office of the Interconnection. Except to the extent automation is not required by the provisions of the Operating Agreement, the curtailment shall be automated, meaning that load shall be reduced automatically in response to control signals sent by the PRD Provider or its designated agent directly to the control equipment where the load is located without the requirement for any action by the end-use customer.

**Threshold Quantity:**

“Threshold Quantity” shall mean, as to any FRR Entity for any Delivery Year, the sum of (a) the Unforced Capacity equivalent (determined using the Pool-Wide Average EFORD through the 2024/2025 Delivery Year, or pool-wide average Accredited UCAP Factor effective with the 2025/2026 Delivery Year) of the Installed Reserve Margin for such Delivery Year multiplied by the Preliminary Forecast Peak Load for which such FRR Entity is responsible under its FRR Capacity Plan for such Delivery Year, plus (b) the lesser of (i) 3% of the Unforced Capacity amount determined in (a) above or (ii) 450 MW. If the FRR Entity is not responsible for all load within a Zone, the Preliminary Forecast Peak Load for such entity shall be the FRR Entity’s Obligation Peak Load last determined prior to the Base Residual Auction for such Delivery Year, times the Base FRR Scaling Factor (as determined in accordance with Reliability Assurance Agreement, Schedule 8.1).

**Tracking Solar Class:**

“Tracking Solar Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with solar panels that are primarily mounted on trackers that align the panels with incoming sunlight over the course of the day.

**Transmission Facilities:**

“Transmission Facilities” shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have

been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Unforced Capacity:**

“Unforced Capacity” shall mean installed capacity rated at summer conditions that is not on average experiencing a forced outage or forced derating, calculated for each Capacity Resource on the 12-month period from October to September without regard to the ownership of or the contractual rights to the capacity of the unit.

**Unlimited Resource:**

“Unlimited Resource” shall mean a generating unit having the ability to maintain output at a stated capability continuously on a daily basis without interruption. Through the 2024/2025 Delivery Year, an Unlimited Resource is a Generation Capacity Resource that is not an ELCC Resource.

**Variable Resource:**

“Variable Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power without storage, and landfill gas units without an alternate fuel source. All Intermittent Resources are Variable Resources, with the exception of Hydropower with Non-Pumped Storage.

**Winter Peak Load (or WPL):**

“Winter Peak Load” or “WPL” shall mean the average of the Demand Resource customer’s specific peak hourly load between hours ending 7:00 EPT through 21:00 EPT on the PJM defined 5 coincident peak days from December through February two Delivery Years prior the Delivery Year for which the registration is submitted. Notwithstanding, if the average use between hours ending 7:00 EPT through 21:00 EPT on a winter 5 coincident peak day is below 35% of the average hours ending 7:00 EPT through 21:00 EPT over all five of such peak days, then up to two such days and corresponding peak demand values may be excluded from the calculation. Upon approval by the Office of the Interconnection, a Curtailment Service Provider may provide alternative data to calculate Winter Peak Load, as outlined in the PJM Manuals, when there is insufficient hourly load data for the two Delivery Years prior to the relevant Delivery Year or if more than two days meet the exclusion criteria described above.



**Zonal Capacity Price:**

“Zonal Capacity Price” shall mean the clearing price required in each Zone to meet the demand for Unforced Capacity and satisfy Locational Deliverability Requirements for the LDA or LDAs associated with such Zone. If the Zone contains multiple LDAs with different Capacity Resource Clearing Prices, the Zonal Capacity Price shall be a weighted average of the Capacity Resource Clearing Prices for such LDAs, weighted by the Unforced Capacity of Capacity Resources cleared in each such LDA.

**Zone or Zonal:**

“Zone” or “Zonal” shall refer to an area within the PJM Region, as set forth in Tariff, Attachment J and RAA, Schedule 15, or as such areas may be (i) combined as a result of mergers or acquisitions or (ii) added as a result of the expansion of the boundaries of the PJM Region. A Zone shall include any Non-Zone Network Load located outside the PJM Region that is served from such Zone under Tariff, Attachment H-A.

**Zonal Winter Weather Adjustment Factor (ZWWAF):**

“Zonal Winter Weather Adjustment Factor” or “ZWWAF” shall mean the PJM zonal winter weather normalized coincident peak divided by PJM zonal average of 5 coincident peak loads in December through February.

# **Attachment B**

GDECS

Revisions to the  
Open Access Transmission Tariff,  
Operating Agreement  
and  
Reliability Assurance Agreement

(Clean Format)

**Tariff, Part VII, Subpart A, section 300**  
**Definitions A**

**Abnormal Condition:**

“Abnormal Condition” shall mean any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

**Affected System:**

“Affected System” shall mean an electric system other than the Transmission Provider’s Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

**Affected System Customer**

“Affected System Customer” shall mean the developer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System,

**Affected System Facility**

“Affected System Facility” shall mean a new, expanded or upgraded generation or transmission facility outside of Transmission Provider’s Transmission System, the effect of which requires Network Upgrades to Transmission Provider’s Transmission System.

**Affected System Operator**

“Affected System Operator” shall mean an entity that operates an Affected System or, if the Affected System is under the operational control of an independent system operator or a regional transmission organization, such independent entity.

**Affected System Customer Facilities Study Application and Agreement**

“Affected System Customer Facilities Study Application and Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart L, Affected System Customer Facilities Study Application and Agreement.

**Affiliate:**

“Affiliate” shall mean any two or more entities, one of which Controls the other or that are under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in Control or affiliation for purposes of the Tariff or Operating Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on the entity’s board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, Control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, 10 percent or more of the voting securities of such entity.

**Ancillary Services:**

“Ancillary Services” shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider’s Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations:**

“Applicable Laws and Regulations” shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall mean the Regional Entity for the region in which a Network Customer, Transmission Customer, Project Developer, Eligible Customer, or Transmission Owner operates.

**Applicable Standards:**

“Applicable Standards” shall mean the requirements and guidelines of NERC, the Applicable Regional Entity, the Control Area in which the Generating Facility or Merchant Transmission Facility is electrically located and the Transmission Owner FERC Form No. 715 – Annual Transmission Planning and Evaluation Report for each Applicable Regional Entity; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

“Applicable Technical Requirements and Standards” shall mean those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Transmission Owner or, as the case may be and to the extent

applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual. All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**Application and Studies Agreement:**

“Application and Studies Agreement” shall mean the application that must be submitted by a Project Developer or Eligible Customer that seeks to initiate a New Service Request, a form of which is set forth in Tariff, Part VII, Subpart A. An Application and Studies Agreement must be submitted electronically through PJM's web site in accordance with PJM's Manuals.

**Application Deadline:**

“Application Deadline” shall mean the Cycle deadline for submitting a Completed New Service Request, as set forth in Tariff, Part VII, Subpart C, section 306(A). If Project Developer's or Eligible Customer's Completed New Service Request is received by Transmission Provider after a particular Cycle deadline, such Completed New Service Request shall automatically be considered as part of the immediate subsequent Cycle.

**Application Phase:**

“Application Phase” shall mean the Cycle period encompassing both the submission and review of New Service Requests as set forth in Tariff, Part VII, Subpart C, subsections 306(A) and 306(B).

**Tariff, Part VII, Subpart A, section 300**  
**Definitions C**

**Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in as set forth in Appendix 2, section 16.1.4 of this GIA, that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.

**Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

**Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with a Generation Interconnection Agreement.

**Common Use Upgrade:**

“Common Use Upgrade” or “CUU” shall mean a Network Upgrade that is needed for the interconnection of Generating Facilities or Merchant Transmission Facilities of more than one Project Developer or Eligible Customer and which is the shared responsibility of each Project Developer or Eligible Customer.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Completed New Service Request:**

“Completed New Service Request” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit(s). A Completed New Service Request, if accepted upon review, shall become a valid New Service Request.

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Generation Interconnection Agreement or a Construction Service Agreement.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner, Project Developer, Eligible Customer or Affected System Customer, depending on which entity has the construction responsibility pursuant to the Tariff, Part VII and the applicable GIA or Construction Service Agreement; this term shall also be used to refer to a Project Developer or Eligible Customer with respect to the construction of the Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or a party to a GIA that requires activities pursuant to a GIA.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to the Tariff, Part VII.

**Cost Responsibility Agreement:**

“Cost Responsibility Agreement” shall mean a form of agreement between Transmission Provider and a Project Developer with an existing generating facility, intended to provide the terms and conditions for the Transmission Provider to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with PJM and the



Transmission Owner. A form of the Cost Responsibility Agreement is set forth in Tariff, Part IX, Subpart F.

**Costs:**

As used in the Tariff, Part VII and related agreements and attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Distribution Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on a Project Developer or Eligible Customer pursuant to Tariff, Part VII, Subpart D, section 307(A)(5), or (ii) is voluntarily undertaken by an Upgrade Customer in fulfillment of an Upgrade Request. No Network Upgrade, Distribution Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Cycle:**

“Cycle” shall mean that period of time between the start of an Application phase and conclusion of the corresponding Final Agreement Negotiation Phase. The Cycle consists of the Application Phase, Phase I, Decision Point I, Phase II, Decision Point II, Phase III, Decision Point III, and the Final Agreement Negotiation Phase.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions E**

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VII, Eligible Customer shall mean only those Eligible Customers that have submitted an Application and Study Agreement.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Project Developer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Generating Facility or to the Project Developer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Project Developer is not obligated by a Generation Interconnection Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open- Loop Hybrid Resources are not Energy Storage Resources.

**Engineering and Procurement Agreement:**

“Engineering and Procurement Agreement” shall mean an agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. A form of the Engineering and Procurement Agreement is set forth in Tariff, Part IX, Subpart D. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions I**

**Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Generating Facility and for the Interconnection Facilities.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Capacity Transfer Rights:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Project Developer or Transmission Project Developer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” (“IDR”) shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Project Developer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Generating Facility and Project Developer Interconnection Facilities after satisfaction of the conditions of Tariff, Part IX, Subpart B, Appendix 2, section 1.4.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Project Developer or the Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Project Developer, Transmission Owner and the Transmission Provider pursuant to this Tariff, Part VII in the form set forth in Tariff, Part IX, Subpart J or Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades, Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities and coordination of the construction and interconnection of an associated Generating Facility.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner’s Interconnection Facilities and the Project Developer’s Interconnection Facilities. Collectively Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modifications, additions, or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades, or Network Upgrades.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Project Developer, or the Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Generating Facility with the Transmission System pursuant to the terms of this Tariff, Part VII and the Generation Interconnection Agreement entered into pursuant thereto by Project Developer, the Transmission Owner and Transmission Provider.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions N**

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Necessary Study Agreement:**

“Necessary Study Agreement” shall mean the form of agreement for preparation of one or more Necessary Studies, as set forth in Tariff, Part IX, Subpart G.

**Necessary Study:**

“Necessary Study(ies)” shall mean the assessment(s) undertaken by the Transmission Provider to determine whether a planned modification under Appendix 2, section 3.4.1 of the GIA will have a permanent material impact on the Transmission System and to identify the additions, modifications, or replacements to the Transmission System, if any, that are necessary, in accordance with Good Utility Practice, and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, to accommodate the planned modifications. A form of the Necessary Study Agreement is set forth in Tariff, Part IX, Subpart G.

**Network Upgrade Cost Responsibility Agreement:**

“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include Stand Alone Network Upgrades which are Network Upgrades that are not part of an Affected System; only serve the Generating Facility or Merchant Transmission Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in the GIA, Schedule L or in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer a written technical

explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request or a Completed Application.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Project Developer’s Generating Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Project Developer’s Generating Facility, as determined in accordance with pertinent Applicable Standards and specified in the Generation Interconnection Agreement.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions P**

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VII:**

“Part VII” shall mean Tariff, Part VII, sections 300 through 337 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VIII:**

“Part VIII” shall mean Tariff, Part VIII, sections 400 through 435 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the



applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IX:**

“Part IX” shall mean Tariff, Part IX, section 500 and Subparts A through L pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Permissible Technological Advancement:**

"Permissible Technological Advancement" shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the end of Decision Point II. Provided such change may not: (i) increase the capability of the Generating Facility or Merchant Transmission Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**Phase I**

“Phase I” shall start on the first Business Day immediately after the close of the Application Phase of a Cycle, but no earlier than 30 calendar days following the distribution of the Phase I System Impact Study Base Case Data. During Phase I, Transmission Provider shall conduct the Phase I System Impact Study.

**Phase I System Impact Study:**

“Phase I System Impact Study” shall mean System Impact Study conducted during the Phase I System Impact Study Phase.

**Phase II**

“Phase II” shall start on the first Business Day immediately after the close of Decision Point I Phase unless the Decision Point III of the immediately preceding Cycle is still open. In no event,

shall Phase II of a Cycle commence before the conclusion of Decision Point III of the immediately preceding Cycle. During Phase II, Transmission Provider shall conduct the Phase II System Impact Study.

**Phase II System Impact Study:**

“Phase II System Impact Study” shall mean System Impact Study conducted during the Phase II System Impact Study Phase.

**Phase III**

“Phase III” shall start on the first Business Day immediately after the close of Decision Point II, unless the Final Agreement Negotiation Phase of the immediately preceding Cycle is still open. In no event shall Phase III of a Cycle commence before the conclusion of the Final Agreement Negotiation Phase of the immediately preceding Cycle. During Phase III, Transmission Provider shall conduct the Phase III System Impact Study.

**Phase III System Impact Study:**

“Phase III System Impact Study” shall mean System Impact Study conducted during Phase III.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Region:**

“PJM Region” shall have the meaning specified in the Operating Agreement.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Point of Change in Ownership:**

“Point of Change in Ownership” shall mean the point, as set forth Schedule B of the Generation Interconnection Agreement, where the Project Developer’s Interconnection Facilities connect to the Transmission Owner’s Interconnection Facilities.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Interconnection Facilities connect with the Transmission System.

**Project Developer:**

“Project Developer” shall mean a Generation Project Developer and/or a Transmission Project Developer.

**Project Developer Interconnection Facilities:**

“Project Developer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Project Developer on Project Developer’s side of the Point of Change of Ownership identified in the Schedule B of the Generation Interconnection Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Generating Facility with the Transmission System.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Generating Facility to which Project Developer has granted a mortgage or other lien as security for some or all of Project Developer’s obligations under the corresponding power purchase agreement.

**Project Identifier:**

“Project Identifier” shall mean, when an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], the assigned Project Identifier to such request as confirmed by Transmission Provider. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification purposes, and does not indicate priority within a Cycle.

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Project Developer’s Generating Facility to Transmission Provider’s Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of

Interconnection pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VII, Subpart A, section 301(A)(3)(b).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Request Number:**

“Request Number” shall mean, when an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], the assigned Request Number to such request as confirmed by Transmission Owner. The Request Number will indicate the serial position and priority.

**Tariff, Part VII, Subpart A, section 300**  
**Definitions S**

**Schedule of Work:**

“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of Schedule L of a GIA, or Schedule of a CSA, as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work set forth in Specification section 3.0 of the GIA to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Security:**

“Security” shall mean the financial guaranty provided by the Project Developer, Eligible Customer or Upgrade Customer pursuant to Tariff, Part VII, Subpart D, sections 309(A)(2)(i), 309(A)(3)(a), 311(a)(2)(d)(i)(a), 311(A)(2)(h), and 313(A)(1)(a), to secure the Project Developer’s, Eligible Customer’s or Upgrade Customer responsibility for Costs under an interconnection-related agreement set forth in Tariff, Part IX.

**Service Agreement:**

“Service Agreement” shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Site:**

“Site” shall mean all of the real property including, but not limited to, any owned or leased real property, bodies of water and/or submerged land, and easements, or other forms of property rights acceptable to PJM, on which the Generating Facility or Merchant Transmission Facility is situated and/or on which the Project Developer Interconnection Facilities are to be located.

**Site Control:**

“Site Control” shall mean the evidentiary documentation provided by Project Developer in relation to a New Service Request demonstrating the requirements as set forth in the following Tariff, Part VII, Subpart A, section 302, and Tariff, Part VII, Subpart C, section 306, and Subpart D, sections 309 and 313.

**Stand Alone Network Upgrades:**

“Stand Alone Network Upgrades” shall mean Network Upgrades, which are not part of an Affected System, which a Project Developer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Specifications section 3.0 of Appendix L of the GIA. If the Transmission Provider or Transmission Owner and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider or Transmission Owner that disagrees with the Project Developer must provide the Project Developer a written technical explanation outlining why the Transmission Provider or Transmission Owner does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State of Charge:**

“State of Charge” shall mean the quantity of physical energy stored in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Study Deposit:**

“Study Deposit” shall mean the payment in the form of cash required to initiate and fund any study provided for in Tariff, Part VII, Subpart A, section 301(A)(3)(a).

**Surplus Project Developer:**

“Surplus Project Developer” shall mean either a Project Developer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.

**Surplus Service Request Number:**

“Surplus Service Request Number” shall mean, when an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, the assigned Surplus Service Request Number to such request as confirmed by Transmission Provider. The Request Number will indicate the serial position and priority.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in a Generation Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study Agreement:**

“Surplus Interconnection Study Agreement” shall mean the form of the Surplus Interconnection Study Agreement set forth in Tariff, Part IX, Subpart I.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Transmission Owners and Project Developer as they may be amended from time to time.

**System Impact Study:**

“System Impact Study” shall mean an assessment(s) by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a New Service Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate a New Service Request, and (iii) an estimated date that the New Service Requests can be interconnected with the Transmission System and an estimate of the cost responsibility for the interconnection of the New Service Request; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.



**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Generating Facility, and (ii) the Generating Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Generating Facility.

**Tariff, Part VII, Subpart A, section 302**  
**Site Control**

A. Site Control Evidentiary Requirements

Site Control is evidence provided by the Project Developer to Transmission Provider in relation to Project Developer's New Service Request demonstrating Project Developer's interest in, control over, and right to utilize the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades at the Point of Interconnection. Specific Site Control phase requirements are set forth in the following Tariff, Part VII, Subpart C, section 306, and Subpart D, sections 309 and 312.

1. Site Control consistent with the requirements herein is required for a project to have a valid position within a Cycle.
2. Proof of Site Control can be in the form of one of the following: (1) deed; (2) lease; (3) option to lease or purchase; or (4) as deemed acceptable by the Transmission Provider, any other contractual or legal right to possess, occupy and control the Site.
  - a. Memorandums are not acceptable.
  - b. Documentation solely evidencing an intent to purchase or control the Site is not acceptable.
  - c. Rights of Way are only acceptable for Project Developer Interconnection Facilities up to the Point of Interconnection.
  - d. Notwithstanding the foregoing, for a New Service Request, all or a portion of which requires the use of Sites owned or physically controlled by a state and/or federal governmental entity, and authorization for such use is subject to environmental and other state and/or federal governmental permitting requirements, including 42 U.S.C. § 4331 et seq. and any succeeding statutes, acceptable evidence of Site Control can be in any form the governmental entity issues. For Decision Point I and Decision Point III, Project Developers shall provide evidence that the Project Developer is taking identifiable steps acceptable to the Transmission Provider in furtherance of the issuance of such authorization by the state and/or federal governmental entity, including documentation sufficiently describing and explaining the source of and effects of such regulatory requirements, including a description of any conditions that must be met in order to satisfy the regulatory requirements and the anticipated time by which the Project Developer expects to satisfy the regulatory requirements. For Decision Point I and Decision Point III, Project Developers shall also identify any additional property rights for the

portion of the Site that is not owned or physically controlled by a state and/or federal governmental entity but which cannot be secured until the regulatory requirements have been met and authorization has been provided by the requisite state and/or federal governmental entity.

3. Demonstration of Site Control must include verification, to PJM's satisfaction, that the total feet or acreage ("acreage") of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, as set forth in the PJM Manuals.
  - a. The Project Developer must submit a Geographic Information System (GIS) Site Plan map and data files acceptable to PJM demonstrating the arrangement of the resource-specific proposed facilities for the amount of MW requested.
  - b. Any GIS Site Plan map and data files submitted in accordance with this section must be consistent with all other modeling data submitted in connection with Project Developer's New Service Request.
  - c. In the event of a disagreement between the Transmission Provider and the Project Developer over whether the total acreage of the Site is fully sufficient for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, Transmission Provider will accept a Professional Engineer (PE) stamped site plan drawing (licensed in the state of the facility location) that depicts the proposed generation arrangement and specifies the Maximum Facility Output for that arrangement.
    - i. Failure to verify to Transmission Provider's satisfaction that the total acreage of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility shall result in the New Service Request being deemed terminated and withdrawn.
4. Site Control must be in the name of the Project Developer identified on the corresponding New Service Request. Otherwise, the Project Developer must demonstrate to PJM's satisfaction the relationship between the entity owning or controlling the Site ("landowner" or "owner") with Site Control and the Project Developer identified on the New Service Request.
5. Project Developers are prohibited from submitting evidence of Site Control that utilizes the same Site for multiple New Service Requests unless the total acreage amount of such Site is adequate to support all such New Service Requests.
  - a. To the extent that multiple New Service Requests are submitted by a Project Developer using the same Site Control evidence and the total acreage amount of such Site is not adequate to support all such New

Service Requests, all such New Service Requests shall be deemed terminated and withdrawn.

- b. To the extent that a Project Developer submits a New Service Request with Site Control evidence utilizing the Site that is also the subject of Site Control in New Service Requests submitted by other Project Developer's, such Project Developer shall include with its New Service Request evidence, to Transmission Provider's satisfaction, demonstrating that the project referenced in the Project Developer's New Service Request is concurrently feasible with the development of any other projects that will share the Site identified in the Site Control. Such proof of concurrent feasibility shall include:
  - i. Identification of any other New Service Requests that will share all or a portion of the Site identified in the Site Control; and
  - ii. Identification of the proposed location and space utilization of all projects that will share the Site, including acreage and boundaries for all projects sharing the Site identified in the Site Control; and
  - iii. Any related technical information required by the Transmission Provider to enable the Transmission Provider to determine that development of the project referenced in the submitted New Service Request is not inconsistent with development of any of the other New Service Requests that will share all or a portion of the same Site.
6. Multiple projects may share Project Developer Interconnection Facilities. A shared facilities agreement is required if jointly owned common Interconnection Facilities are proposed.
7. Project Developers are prohibited from submitting evidence of Site Control for the Site which is also the subject of an interconnect request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system. To the extent that Project Developers submit evidence of Site Control for the Site which is also the subject of an interconnection request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system, the relevant New Service Request submitted to Transmission Provider shall be deemed terminated and withdrawn.
8. Site Control must demonstrate three key elements: conveyance, term, and exclusivity:
  - a. Term  

Term is the minimum duration required to evidence Site Control. The Term requirements vary, and are established in the following Tariff, Part

VII rules, at various points within a Cycle. The Term cannot be satisfied by an agreement with an initial term shorter than the requisite required term that has extensions, including unilateral extensions, unless those extensions have been exercised and any requisite conditions fulfilled, including any payment obligations, by the Project Developer at the time evidence of Site Control is provided to the Transmission Provider.

b. Exclusivity

With the exception of Tariff, Part VII, Subpart A, section 302(A)(5)(b), exclusivity is evidenced by written acknowledgement from the landowner provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.

c. Conveyance

The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VII, Subpart C, section 302(A)(2), above.

9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual 14H, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.

**Tariff, Part VII, Subpart C, section 305**  
**Introduction, Overview and Eligibility**

A. Introduction and Overview of AG2-AH1 Transition Cycle #2

1. AG2-AH1 Transition Cycle #2

Tariff, Part VII, Subpart C, section 305 applies to AG2 through AH1 projects in Transition Cycle #2, and sets forth the procedures and other terms governing the Transmission Provider's administration of the AG2 through AH1 Transition Cycle #2 approach; procedures and other terms regarding studies and other processing of New Service Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to New Service Customers.

2. To move forward in Transition Cycle #2, each Project Developer or Eligible Customer with valid projects in AG2 through AH1 must submit the Application and Studies Agreement in the form set forth in Tariff, Attachment IX and submit the required Study Deposit amounts and a Readiness Payment, as set forth below in Tariff, Part VII, Subpart C, section 306, Application Rules. The following restrictions apply to the Application and Studies Agreement to be submitted by the Project Developer or Eligible Customer:

- a. the fuel type may not change from that which was previously submitted for the valid projects in AG2 through AH1; and
- b. Maximum Facility Output and/or Capacity Interconnection Rights values shall not increase but may be reduced up to 100 percent from that which was previously submitted for the valid projects in AG2 through AH1; and
- c. the Project Developer must choose between the primary or secondary Point of Interconnection as previously identified in its New Service Request from that which was previously submitted for the valid projects in AG2 through AH1; and
- d. Eligible Customer transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission System shall not increase but may be reduced up to 100 percent from that which was previously submitted for the valid projects in AG2 through AH1.
  - i. Each valid New Service Request from AG2-AH1 shall be assigned to AG2-AH1 Transition Cycle #2. Phase I of AG2-AH1 Transition Cycle #2 will only start after: (i) all Application Review period activities have been completed for that Cycle; and (ii) the Phase I Base Case data has been made available for a 30 day review during the Application Phase of that Cycle; and (iii) Decision Point II of Transition Cycle #1 has concluded. Phase II of

AG2-AH1 Transition Cycle #2 will only start after all Decision Point III determinations have concluded in Transition Cycle #1. Phase III of AG2-AH1 Transition Cycle #2 will only start after the Final Agreement Negotiation Phase of Transition Cycle #1 has concluded (with all New Service Requests within Transition Cycle #1 either being withdrawn or resulting in a fully executed Tariff, Part IX service agreement).

3. To move forward in Transition Cycle #2, each Upgrade Customer with valid projects in AG2-AH1 must submit revised technical data and/or configuration information, and updates other requirements for its Upgrade Request, and submit the required Study Deposit amounts, as set forth in Tariff, Part VII, Subpart H, section 337, Upgrade Requests.
  - a. Each valid Upgrade Request from AG2-AH1 shall maintain its existing priority upon successful resubmission under Tariff, Part VII, Subpart C, section 306, Application Rules within 60 days of the Transition Date. Such existing priority shall be subsequent to valid AG1 and prior Upgrade Requests.
  - b. A valid Upgrade Request will be processed in accordance with Tariff, Part VII, Subpart H, section 337, Upgrade Requests.

**Tariff, Part VII, Subpart D, section 307**  
**Introduction**

A. Phase I, Phase II and Phase III System Impact Studies

1. Introduction

Tariff, Part VII, Subpart D sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VII includes three study Phases and the three Decision Points:

- a. Phase I System Impact Study
- b. Decision Point I
- c. Phase II System Impact Study
- d. Decision Point II
- e. Phase III System Impact Study
- f. Decision Point III.

Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VII, Subpart D, sections 308 through 313.

2. Overview of System Impact Studies

- a. The Phase I, Phase II and Phase III System Impact Studies are a regional analysis of the effect of adding to the Transmission System the new facilities and services proposed by valid New Service Requests and an evaluation of their impact on deliverability to the aggregate of PJM Network Load.
  - i. These studies identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests included therein and any resulting Interconnection Facilities, Network Upgrades, and/or Contingent Facilities required to accommodate such New Service Requests.
  - ii. These studies provide estimates of cost responsibility and construction lead times for new facilities required to interconnect the project and system upgrades.
  - iii. Transmission Provider, in its sole discretion, can aggregate multiple New Service Requests at the same Point of Interconnection for purposes of Phase I, Phase II and Phase III System Impact Studies.



- iv. The scope of the studies may include (a) an assessment of sub-area import deliverability, (b) an assessment of sub-area export deliverability, (c) an assessment of project related system stability issues (only occurs in Phase II and Phase III); (d) an assessment of project-related short circuit duty issues (only occurs in Phase II and Phase III), (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria and the transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity, (f) an assessment of regional transmission upgrades that most effectively meet identified needs, and (g) an analysis to determine cost allocation responsibility for required facilities and upgrades.
- v. For purposes of determining necessary Interconnection Facilities and Network Upgrades, these studies shall consider the level of service requested in the New Service Request unless otherwise required to study the full electrical capability of the New Service Request due to safety or reliability concerns.
- vi. The studies' results shall include the list and facility loading of all reliability criteria violations specific to the New Service Requests.
- vii. If applicable, the studies for a Transmission Project Developer New Service Request shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the Transmission Project Developer's proposed Merchant Transmission Facilities.

### 3. Contingent Facilities

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Interconnection Facilities and/or Network Upgrades, upon which the New Service Request's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the New Service Request or reassessment of the Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies) and Generator Interconnection Agreement, including why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall also provide, upon request of the Project Developer or Eligible Customer, the estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least 5 percent distribution factor (DFAX) or contributing at least 5 percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

4. Additional System Impact Study Procedures for Eligible Customers

The following provisions apply to System Impact Studies conducted for Eligible Customers:

- a. The Transmission Provider will notify Eligible Customers of the need to conduct a System Impact Study whenever the Transmission Provider determines that available transmission capability may not be sufficient to provide the requested firm service(s). The purpose of the System Impact Study will be to determine the effect the requested service(s) will have on system operations, identify any system constraints, redispatch options and whether system expansion will be required to provide the requested service(s).
- b. The Commission's comparability standard will be applied in evaluating the impact of all requests. Specifically, the Transmission Provider will use the same due diligence in completing System Impact Studies for Eligible Customers that it uses when completing studies for any Transmission Owner that requests service from the Transmission Provider.
- c. Requests for long-term firm transmission service will be evaluated, to the extent possible, as a part of the on-going planning process for Bulk Transmission Supply in the PJM Region. Appropriate planning studies will be conducted annually to assess the capability of the PJM Region Transmission System to deliver the planned Network Resources to the Forecasted Network Loads of the existing load serving entities and any prior committed Firm Point-to-Point Service transmission customers. The loads and resources of Eligible Customers requesting new or additional service during the normal planning cycle will be incorporated into this aggregate planning process along with the loads and resources of all other Firm Point-to-Point and load serving entities for which prior commitments to provide service have been made. Requests for long-term firm service

made at times that will not permit the evaluation of impacts as part of the normal planning process, and requests for short-term firm service, will require that special impact studies be completed.

- d. The Transmission Provider plans and evaluates the PJM Region Transmission System in strict compliance with the following:
  - i. North American Electric Reliability Council ("NERC") Reliability Principles and Guides
  - ii. Applicable Standards
  - iii. Transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity.
- e. In evaluating the impact of any request for new or additional service(s), the Transmission Provider will first determine the capability of the system to reliably provide prior committed Network and Point-to-Point service for the term of the requested new or additional service(s), or the normal planning horizon (generally 10 years), whichever is shorter. Requests for new or additional service(s) will then be incorporated into the system representation data and the appropriate system analyses will be completed to evaluate the impacts of the requested services.

#### 5. Cost Allocation for Network Upgrades

- a. General: Each Project Developer and Eligible Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its New Service Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such New Service Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the New Service Request; or the construction of Supplemental Projects.
- b. Cost Responsibility for Accelerating Network Upgrades included in the Regional Transmission Expansion Plan: Where the New Service Request calls for accelerating the construction of Network Upgrades that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Project Developer or Eligible Customer shall pay all costs that would not have been incurred under the Regional

Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

- c. The Transmission Provider shall determine the minimum amount of Network Upgrades required to resolve each reliability criteria violation in each Cycle, by studying the impact of the projects the Cycle in their entirety, and not incrementally. Interconnection Facilities and Network Upgrades shall be studied in their entirety and according to the following process:

The Transmission Provider shall identify the New Service Requests in the Cycle contributing to the need for the required Network Upgrades within the Cycle. All New Service Requests that contribute to the need for a Network Upgrade will receive cost allocation for that upgrade pursuant to each New Service Request's contribution to the reliability violation identified on the transmission system in accordance with PJM Manuals.

There will be no inter-Cycle cost allocation for Interconnection Facilities or Network Upgrades identified in the System Impact Study costs identified in a Cycle; all such costs shall be allocated to New Service Requests in that Cycle.

6. Interconnection Facilities

A Project Developer shall be obligated to pay 100 percent of the costs of the Interconnection Facilities necessary to accommodate its Interconnection Request.

7. Facilities Study Procedures:

The Facilities Studies will include good faith estimates of the cost, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), (a) to be charged to each affected New Service Customer for the Interconnection Facilities and Network Upgrades that are necessary to accommodate each New Service Request evaluated in the study; (b) the time required to complete detailed design and construction of the facilities and upgrades; (c) a description of any site-specific environmental issues or requirements that could reasonably be anticipated to affect the cost or time required to complete construction of such facilities and upgrades.

The Facilities Study will document the engineering design work necessary to begin construction of any required transmission facilities, including estimating the

costs of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice and, when applicable, identifying the electrical switching configuration of the connection equipment, including without limitation: the transformer, switchgear, meters, and other station equipment; and the nature and estimated costs of Interconnection Facilities and Network Upgrades necessary to accommodate the New Service Request.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Facilities Study shall consider the level of Interconnection Service requested by the Project Developer unless otherwise required to study the full electrical capability of the Generating Facility or Merchant Transmission Facility due to safety or reliability concerns. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the full electrical capability of the Generating Facility or Merchant Transmission Facility.

**Tariff, Part VII, Subpart D, section 309**  
**Decision Point I**

A. Requirements

The Decision Point I shall commence on the first Business Day immediately following the end of Phase I. New Service Requests that are studied in Phase I will enter Decision Point I. Before the close of the Decision Point I, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such New Service Request must meet the requirements set forth below in Tariff, Part VII, Subpart D, section 309(A)(2) (acceleration provisions).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point I:
    - i. The applicable Readiness Deposit No. 2
      - (a) The Decision Point I Readiness Deposit No. 2 is to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase. The Decision Point I Readiness Deposit No. 2 will be calculated by the Transmission Provider during Phase I, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - (b) At Decision Point I, the Readiness Deposit No. 2 required shall be an amount equal to:
        - (i) the greater of (i) 10 percent of the cost allocation for the Network Upgrades as calculated in Phase I or (ii) the Readiness Deposit No. 1 paid by the Project Developer with its New Service Request during the Application Phase; minus
        - (ii) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase
      - (c) The Readiness Deposit No. 2 amount due can be zero, but cannot be a negative number (i.e., there will not be any

refunded amounts associated with Readiness Deposit No. 2).

- b. Project Developers must provide evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
  - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase I.
    - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
    - (b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
      - (i) Such Site Control evidence shall cover 50 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
    - (c) If applicable, Interconnection Switchyard Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
      - (i) Such Site Control evidence shall cover 50 percent of the acreage required for the identified required Interconnection Switchyard facilities associated with a New Service Request.
- c. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control

Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- d. Evidence of air and water permits (if applicable)
  - e. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
  - f. Submission of New Service Request data for Phase II System Impact Study.
  - g. If Project Developer or Eligible Customer fails to submit all of the criteria in (a) through (f) above, before the close of the Decision Point I Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
  - h. If Project Developer or Eligible Customer submits all elements in (a) through (f) above, then, at the close of the Decision Point I, Transmission Provider will begin the deficiency review of the elements set forth in (b) through (e) above, as follows:
    - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
    - ii. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
    - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase II.
    - iv. Transmission Provider's review of the above required elements may run co-extensively with Phase II.
2. Acceleration at Decision Point I. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase I System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
- a. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the



Project Developer all of the following required elements before the close of Decision Point I:

- i. Security
  - (a) Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase I System Impact Study Results.
- ii. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
- iii. Project Developer must provide evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
  - (a) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  - (b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
  - (c) Interconnection Switchyard, if applicable, Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase I.
    - (i) Such Site Control evidence shall cover 100 percent of the acreage required identified required Interconnection Switchyard associated with a New Service Request.
- iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in

Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above.

(a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

(1) Such condition precedent shall not be extended under any circumstances for any reason.

- b. Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- c. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- d. For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
  - e. If Project Developer or Eligible Customer fails to submit all of the criteria in (a) through (d) above (noting the exception provided for Site Control), before the close of the Decision Point I Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
  - f. If Project Developer or Eligible Customer subject to Acceleration at Decision Point I submits all elements in (a) through (d) above, then, at the close of the Decision Point I, Transmission Provider will begin the deficiency review of the elements set forth in (a) through (d) above, as follows:
    - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
    - ii. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
    - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.
3. For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point I to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
- a. Security. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase I System Impact Study Results.
  - b. Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - c. Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
    - i. Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the

relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.

- (a) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
- ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- iii. Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- iv. PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase I through a date that extends one year beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- v. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the

Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above.

- (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with (i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle
- e. Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- f. Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- g. If Project Developer fails to submit all of the criteria in (a) through (f) above (noting the exception provided for Site Control), before the close of

the Decision Point III Phase, Project Developer's New Service Request shall be deemed terminated and withdrawn.

- h. When Project Developer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in (a) through (f) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in (a) through (f) above, as follows:
  - i. Transmission Provider will exercise Reasonable Efforts to inform Project Developer of deficiencies within 10 Business Days after the close of Decision Point I.
  - ii. Project Developer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - iii. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.

4. New Service Request Withdraw or Termination at Decision Point I

- a. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point I. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point I, the Transmission Provider must receive before the close of the Decision Point I Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
- b. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point I requirements, as set forth in this Tariff, Part VII, Subpart D, section 309.
- c. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - i. For Readiness Deposits:
    - (a) At the conclusion of Transmission Provider's deficiency review for Decision Point I or upon voluntary withdrawal of a New Service Request, refund to the Project Developer or Eligible Customer 50 percent of Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase, and 100 percent of Readiness Deposit No. 2 paid by the Project

Developer or Eligible Customer during this Decision Point I. Notwithstanding the preceding, Project Developers or Eligible Customers in Transition Cycle # 1 will be refunded 100 percent of Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request provided pursuant to Tariff, Part VII, Subpart C, section 306(A)(5)(b), and 100 percent of the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during this Decision Point I; and

(b) At the conclusion of the Cycle, Project Developers or Eligible Customers will be refunded up to 50 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).

ii. At the conclusion of Transmission Provider's deficiency review for Decision Point I, Project Developers or Eligible Customers will be refunded up to 90 percent of their Study Deposit submitted with their New Service Request during the Application Phase, less any actual costs.

**B. New Service Request Modification Requests at Decision Point I**

1. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
2. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 100 percent of the requested amount
3. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
4. Point of Interconnection.
  - a. The Point of Interconnection must be finalized before the close of the Decision Point I Phase.
    - i. Project Developer may only move the location of the Point of Interconnection 1) along the same segment of transmission line, as defined by the two electrical nodes located on the transmission line as modeled in the Phase I Base Case Data, or 2) move the location of the Point of Interconnection to a different breaker position within the same substation, subject to Transmission Owner review

and approval. Project Developer may not modify its Point of Interconnection to/from a transmission line from/to a direct connection into a substation.

- (a) Project Developer must notify Transmission Provider in writing of any changes to its Point of Interconnection prior to the close of Decision Point I. No modifications to the Point of Interconnection will be accepted for any reason after the close of Decision Point I.

5. Generating Facility or Merchant Transmission Facility Site Changes

Project Developer may specify a change to the project Site only if:

- a. the Project Developer satisfied the requirements for Site Control for both the initial Site proposed in the New Service Request Application and the newly proposed Site; and
- b. the initial Site and the proposed Site are adjacent parcels.
- c. Such Site Control is subject to the verification procedures set forth in Tariff, Subpart D, section 309(A)(2)(c) (Decision Point I Site Control verification).

6. Equipment Changes

- a. During Decision Point I, Project Developer may modify its Interconnection Request for updated equipment data. Project Developer shall submit machine modeling data as specified in the PJM Manuals before the close of Decision Point I.



**Tariff, Part VII, Subpart D, section 311**  
**Decision Point II**

A. Requirements

Decision Point II shall commence on the first Business Day immediately following the end of Phase II. New Service Requests that are studied in Phase II will enter Decision Point II. Before the close of Decision Point II, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such new Service Request must meet the requirements set forth below in Tariff, Part VII, Subpart D, section 311(A)(2)(d).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - b. The applicable Readiness Deposit No. 3
      - i. The Decision Point II Readiness Deposit No. 3 to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase, and the Readiness Deposit No. 2 that was submitted at Decision Point I. The Decision Point II Readiness Deposit No. 3 will be calculated by the Transmission Provider during Phase II, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - ii. The Decision Point II Readiness Deposit No. 3 required amount shall be an amount equal to the greater of:
        - (a) (i) 20 percent of the cost allocation for the Network Upgrades as calculated in Phase II or (ii) the Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase plus the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I; minus
        - (b) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase, plus the Readiness Deposit No. 2 amount paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I.

- iii. The Readiness Deposit No. 3 amount due can be zero, but cannot be a negative number (i.e., there will not be any refunded amounts associated with Readiness Deposit No. 3).
  - c. Notification in writing that Project Developer or Eligible Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its New Service Request
  - d. Evidence of Site Control. There are no Site Control evidentiary requirements at Decision Point II.
  - e. Evidence of air and water permits (if applicable)
  - f. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
  - g. Submission of New Service Request Data for Phase II System Impact Study data.
  - h. Evidence that Project Developer or Eligible Customer entered into a fully executed Affected System Study Agreement, if applicable to its New Service Request by the later of Decision Point II or 60 days after notification from Transmission Provider that an Affected System Study Agreement is required.
  - i. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
  - j. If Project Developer or Eligible Customer fails to submit all of the criteria in (b) through (i) above, before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
2. If Project Developer or Eligible Customer submits all elements in (b) through (i) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in (b) through (i) above, as follows:

- a. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point II.
- b. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- c. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase III.
  - i. Transmission Provider's review of the above required elements may run co-extensively with Phase III.
- d. Acceleration at Decision Point II. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase II System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
  - i. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - (a) Security
      - (i) Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
    - (b) Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - (c) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
      - (i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase II.

- (1) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  - (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the linear distance for identified required Interconnection Facilities associated with a New Service Request.
  - (iii) If applicable, Interconnection Switchyard Site Control evidence for a one-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- e. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(d)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(d)(i), (ii) and (iii) above.
  - i. If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(d)(i), (ii) and (iii) above, shall be met or,

otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

- (a) Such condition precedent shall not be extended under any circumstances for any reason.
- (b) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (c) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.
- (d) For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
- (e) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above (noting the exception provided for Site Control), before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

- (f) If Project Developer or Eligible Customer submits all elements in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(e)(i)(a) through (d) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.
- (g) For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point II to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
  - (h) Security. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
  - (i) Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - (j) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A,

section 302, and is also in accordance with the following additional specifications:

- (i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one-year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
- (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus one year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100 percent of linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- (iii) Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus one year beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.

- (1) Such Site Control evidence shall cover 100 percent of acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- (iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends one year beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- (v) If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above.
  - (1) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 311(A)(2)(j)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (1.a) Such condition precedent shall not be extended under any circumstances for any reason.



- (k) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle
- (l) Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- (m) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (n) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (o) When Project Developer or Eligible Customer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 311(A)(2)(a) through (m) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible

Customer of deficiencies within 10 Business Days after the close of Decision Point I.

- (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VII, Subpart D, section 314.

**B. New Service Request Withdraw or Termination at Decision Point II**

1. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point II. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point II, the Transmission Provider must receive before the close of the Decision Point II Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
2. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point II requirements, as set forth in this Tariff, Part VII, Subpart D, section 311.
3. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to Project Developer or Eligible Customer 100 percent of Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during Decision Point I;
    - ii. At the conclusion of the Cycle, refund to Project Developer or Eligible Customer up to 100 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).
  - b. For Study Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible

Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.

- c. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VII, Subpart D, section 311(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase if the Project Developer's Network Upgrade cost from Phase I to Phase II:
  - i. increases overall by 25 percent or more; and
  - ii. increases by more than \$10,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

#### 4. New Service Request Modification Requests at Decision Point II

- a. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
- b. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 10 percent of the values studied in Phase II.
- c. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
- d. Point of Interconnection. The Point of Interconnection may not be changed or modified in any way for any reason at this point in the Cycle process.
- e. Generating Facility or Merchant Transmission Facility Site Changes. Project Developer may specify a change to the project Site only if the Project Developer satisfied the requirements for Site Control for both (i) the initial Site proposed in the New Service Request Application and the newly proposed Site; and (ii) the initial Site and the proposed Site are adjacent parcels. Such Site Control is subject to the verification procedures set forth in Tariff, Part VII, Subpart D, section 313.

f. Equipment Changes

During Decision Point II, Project Developer is limited to modifying its New Service Request to Permissible Technological Advancement changes only. Project Developer shall submit machine modeling data as specified in the PJM Manuals associated with the Permissible Technological Advancement before the close of Decision Point II.

**Tariff, Part VII, Subpart D, section 313**  
**Decision Point III**

- A. Decision Point III shall commence on the first Business Day immediately following the end of Phase II, and shall run concurrently with the Final Agreement Negotiation Phase. New Service Requests that are studied in Phase II will enter Decision Point III. Before the close of Decision Point III, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.
1. Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point III for a New Service Request to remain in the Cycle and proceed through the Final Agreement Negotiation Phase as set forth below:
    - a. Security
      - i. Security shall be calculated for New Service Requests based upon Network Upgrades costs allocated pursuant to the Phase III System Impact Study Results.
    - b. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - c. Project Developers must present evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VII, Subpart A, section 302, and is also in accordance with the following additional specifications:
      - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional one-year term beginning from last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
      - ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence for an additional one-year term beginning from the last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.

- iii. Interconnection Switchyard, if applicable, Site Control evidence for an additional one-year term beginning from the last day of the relevant Cycle, Phase III.
  - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above.
  - (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- e. Project Developer or Eligible Customer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment. If Project Developer or Eligible Customer does not satisfy these requirements, these requirements can be addressed through a milestone in the applicable interconnection-related service agreement entered into pursuant to Tariff, Part IX.
- f. For state-level, non-jurisdictional interconnection projects, evidence of a fully executed Interconnection Agreement with the applicable entity.
- g. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

B. If Project Developer or Eligible Customer submits all elements in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above, then, at the close of the Decision Point III, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VII, Subpart D, section 313(A)(1)(a) through (f) above, as follows:

- 1. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point III.
- 2. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
- 3. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to the Final Agreement Negotiation Phase.

Transmission Provider's review of the above required elements may run co-extensively with the Final Agreement Negotiation Phase.

- 4. If the New Service Request is deemed terminated and withdrawn by the Transmission Provider, then Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer

up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.

5. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point III. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point III, the Transmission Provider must receive before the close of Decision Point III written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request. Following receipt of such written notification from the Project Developer or Eligible Customer, the Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VII, Subpart A, section 301(A)(3).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  - d. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VII, Subpart D, sections 313(B)(4)(b) and (c) and 313(B)(5)(b), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer if the Project Developer's or Eligible Customer's Network Upgrade cost from Phase II to Phase III:
    - i. increases overall by 35 percent or more; and
    - ii. increased by more than \$25,000 per MW.Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

C. New Service Request Modification Requests at Decision Point III

New Service Requests may not be changed or modified in any way for any reason during Decision Point III. A New Service Request must be withdrawn and resubmitted in a subsequent Cycle to the extent a Project Developer or Eligible Customer wants to make any changes to such New Service Request at this point in the Cycle process.



**Tariff, Part VII, Subpart E, section 329**  
**Incremental Rights**

A. Incremental Auction Revenue Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Auction Revenue Rights

A Transmission Project Developer or Upgrade Customer that (a) pursuant to this Tariff, Part VII reimburses Transmission Provider for the costs of constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, shall be entitled to receive the Incremental Auction Revenue Rights as determined in accordance with this Tariff, Part VII, Subpart E, section 329(A). However, a Transmission Project Developer that interconnects Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System shall be entitled to Incremental Auction Revenue Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Transmission Project Developer has elected, pursuant to Tariff, Part VII, Subpart E, section 330 to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Auction Revenue Rights

No less than 45 days prior to the in-service date, as determined by the Office of the Interconnection, of the applicable transmission facility or upgrade related to a New Service Request or Upgrade Request, the Office of the Interconnection shall notify the Transmission Project Developer or Upgrade Customer that has responsibility to reimburse the costs of, or responsibility for, constructing or completing the transmission facility or upgrade, that initial requests for Incremental Auction Revenue Rights associated with the transmission facility or upgrade must be submitted to the Office of the Interconnection within a time period specified by the Office of the Interconnection in the notification. The Office of the Interconnection then shall commence a three-round allocation process. In round one, one-third of the Incremental Auction Revenue Rights available for each point-to-point combination requested in that round will be assigned to the requesters of the specific combinations in accordance with Tariff, Part VII, Subpart E, section 329(A)(3).

In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In round three, all

available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.

3. Determination of Incremental Auction Revenue Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Auction Revenue Rights to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VII, Subpart E, section 329(A)(2) using the tools described in Tariff, Attachment K, including an assessment of the simultaneous feasibility of any Incremental Auction Revenue Rights and all other outstanding Auction Revenue Rights. For each requested point-to-point combination, the Office of the Interconnection shall determine, simultaneously with all other requested point-to-point combinations, the base system Auction Revenue Rights capability, excluding the impact of any new transmission facilities or upgrades necessary to accommodate New Service Requests or Upgrade Requests. The Office of the Interconnection then shall similarly determine, for each requested point-to-point combination, the Auction Revenue Rights capability, including the impact of any new transmission facilities or upgrades. For each point-to-point combination, the Incremental Auction Revenue Rights capability shall be the difference between the Auction Revenue Rights capability in the base system analysis and the Auction Revenue Rights capability in the analysis including the impact of the new transmission facilities and upgrades. When multiple Transmission Project

Developers or Upgrade Customers have cost responsibility for the same new transmission facility or upgrade, Incremental Auction Revenue Rights shall be assigned to each Transmission Project Developer or Upgrade Customer in proportion to the Transmission Project Developer's or Upgrade Customer's relative cost responsibilities for the facility and in inverse proportion to the relative flow impact on constrained facilities or interfaces of the point-to-point combinations selected by the Transmission Project Developer or Upgrade Customer.

4. Duration of Incremental Auction Revenue Rights

Incremental Auction Revenue Rights received by a Transmission Project Developer or Upgrade Customer pursuant to this Tariff, Part VII, Subpart E, section 329(A) shall be available as of the first day of the first month that the Network Upgrades required to accommodate its New Service Request or Upgrade Request that are associated with the Incremental Auction Revenue Rights are included in the transmission system model for the monthly FTR auction and shall continue to be available for 30 years or for the life of the associated facility or upgrade, whichever is less, subject to any subsequent pro-rata reductions of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with Tariff, Attachment K - Appendix. At any time during this 30-year period (or the life of the facility or upgrade, whichever is less), in lieu of continuing this 30-year Auction Revenue Right, the Transmission Project Developer or Upgrade Customer shall have a one-time choice to switch to an optional mechanism, whereby, on an annual basis, the Transmission Project Developer or Upgrade Customer has the choice to request an Auction Revenue Right during the annual Auction Revenue Rights allocation process (pursuant to Tariff, Attachment K – Appendix, section 7.4.2) between the same source and sink, provided the Auction Revenue Right is simultaneously feasible, pursuant to Tariff, Attachment K – Appendix, section 7.5. A Transmission Project Developer or Upgrade Customer may return Incremental Auction Revenue Rights that it no longer desires at any time, provided that the Office of the Interconnection determines that it can simultaneously accommodate all remaining outstanding Auction Revenue Rights following the return of such Auction Revenue Rights. In the event a Transmission Project Developer or Upgrade Customer returns Incremental Auction Revenue Rights, the Transmission Project Developer or Upgrade Customer shall have no further rights regarding such Incremental Auction Revenue Rights.

5. Value of Incremental Auction Revenue Rights

The value of Incremental Auction Revenue Right(s) to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VII, Subpart E, section 329(A)(2) that become effective at the beginning of a Planning Period shall be determined in the same manner as annually allocated Auction Revenue Right(s)

based on the nodal prices resulting from the annual Financial Transmission Rights auction. The value of such Incremental Auction Revenue Rights that become effective after the commencement of a Planning Period shall be determined on a monthly basis for each month in the Planning Period beginning with the month the Incremental Auction Revenue Right(s) becomes effective. The value of such Incremental Auction Revenue Right shall be equal to the megawatt amount of the Incremental Auction Revenue Rights multiplied by the LMP differential between the source and sink nodes of the corresponding FTR obligations in each prompt-month FTR auction that occurs from the effective date of the Incremental Auction Revenue Rights through the end of the relevant Planning Period. For each Planning Period thereafter, the value of such Incremental Auction Revenue Rights shall be determined in the same manner as Incremental Auction Revenue Rights that became effective at the beginning of a Planning Period.

6. Rate-based Facilities

No Incremental Auction Revenue Rights shall be received by a Transmission Project Developer, Eligible Customer, or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

B. Incremental Capacity Transfer Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Capacity Transfer Rights

A Transmission Project Developer that interconnects Merchant Transmission Facilities with the Transmission System shall be entitled to receive any Incremental Capacity Transfer Rights that are associated with the interconnection of such Merchant Transmission Facilities as determined in accordance with this Tariff, Part VII, Subpart E, section 329(B). In addition, an Upgrade Customer that (a) reimburses Transmission Provider for the costs of constructing or completing Customer-Funded Upgrades, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Customer-Funded Upgrades shall be entitled to receive any Incremental Capacity Transfer Rights associated with such required facilities and upgrades as determined in accordance with this Tariff, Part VII, Subpart E, section 329(B).

a. Certain Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities

A Transmission Project Developer (a) that interconnects Merchant D.C. transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System, one terminus of which is located outside the PJM Region and the other terminus of which is located within the PJM Region, and (b) that will be a Merchant Transmission Provider,

shall not receive any Incremental Capacity Transfer Rights with respect to its Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities. Transmission Provider shall not include available transfer capability at the interface(s) associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities in its calculations of Available Transfer Capability under Tariff, Attachment C.

2. Procedures for Assigning Incremental Capacity Transfer Rights

After execution of a Study Agreement but prior to the issuance of an Interconnection Agreement or Upgrade Construction Service Agreement, a Transmission Project Developer or Upgrade Customer may request the Office of the Interconnection to determine the Incremental Capacity Transfer Rights as measured by the increase in Capacity Emergency Transfer Limit resulting from the interconnection or addition of Merchant Transmission Facilities or a Customer-Funded Upgrade identified in the System Impact Study for the related New Service Request. At the time of such request, the Transmission Project Developer or Upgrade Customer must also specify no more than three Locational Deliverability Areas in which to determine the Incremental Capacity Transfer Rights. Subject to the limitation of Tariff, Part VII, Subpart E, section 329(B)(1)(a), the Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with Merchant Transmission Facilities to the Transmission Project Developer that is interconnecting such facilities. The Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with a Customer-Funded Upgrade to the Upgrade Customer(s) bearing cost responsibility for such facility or upgrade in proportion to each Upgrade Customer's cost responsibility for the facility or upgrade.

3. Determination of Incremental Capacity Transfer Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Capacity Transfer Rights to be provided to Transmission Project Developers or Upgrade Customers in accordance with the applicable terms of the Reliability Pricing Model, in Tariff, Attachment DD, and pursuant to the procedures specified in the PJM Manuals.

4. Duration of Incremental Capacity Transfer Rights

Incremental Capacity Transfer Rights received by a Transmission Project Developer or Upgrade Customer shall be effective for 30 years from, as applicable, commencement of Interconnection Service, Transmission Service, or Network Service for the affected Transmission Project Developer or Upgrade Customer or the life of the pertinent facility or upgrade, whichever is shorter, subject to any subsequent pro-rata reallocations of all Capacity Transfer Rights

(including Incremental Capacity Transfer Rights) in accordance with the PJM Manuals.

5. Rate-based Facilities

No Incremental Capacity Transfer Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

C. Incremental Deliverability Rights

1. Right of Transmission Interconnection Customer to Incremental Deliverability Rights

A Transmission Project Developer shall be entitled to receive the Incremental Deliverability Rights associated with its Merchant Transmission Facilities as determined in accordance with this section, provided, however, that a Transmission Project Developer that proposes to interconnect Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area shall be entitled to Incremental Deliverability Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Interconnection Customer has elected, pursuant to Tariff, Part VII, Subpart E, section 330, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Deliverability Rights

Transmission Provider shall include in the System Impact Study a determination of the Incremental Deliverability Rights associated with the Transmission Project Developer's Merchant Transmission Facilities. Transmission Provider shall post on its OASIS the Incremental Deliverability Rights that it assigns to the Transmission Project Developer under this section 329(C)(2).

3. Determination of Incremental Deliverability Rights to be Provided to Transmission Project Developer

Transmission Provider shall determine the Incremental Deliverability Rights to be provided to a Transmission Project Developer associated with proposed Merchant Transmission Facilities under Tariff, Part VII, Subpart E, section 329(C)(2) pursuant to procedures specified in the PJM Manuals.

4. Duration of Incremental Deliverability Rights

Incremental Deliverability Rights assigned to a Transmission Project Developer shall be effective until the earlier of the date that is one year after the commencement of Interconnection Service for such customer or the date that such Transmission Project Developer's New Service Request is withdrawn and terminated, or deemed to be so, in accordance with the Tariff. Notwithstanding the preceding sentence, Incremental Deliverability Rights that are transferred pursuant to an IDR Transfer Agreement under the Tariff shall be deemed to be Capacity Interconnection Rights of the generation owner that acquires them under such agreement upon commencement of Interconnection Service related to the generation owner's Generating Facility and shall remain effective for the life of such Generating Facility, or for the life of the Merchant Transmission Facilities associated with the transferred IDRs, whichever is shorter. The deemed conversion of IDRs to Capacity Interconnection Rights under this Tariff, Part VII, Subpart E, section 329(C)(4) shall not affect application to such IDRs of the other provisions of this Tariff, Part VII, Subpart E, section 329(C). A Transmission Project Developer may return Incremental Deliverability Rights that it no longer desires at any time. In the event that a Transmission Project developer returns Incremental Deliverability Rights, it shall have no further rights regarding such Incremental Deliverability Rights.

5. Transfer of Incremental Deliverability Rights

Incremental Deliverability Rights may be sold or otherwise transferred at any time after they are assigned pursuant to Tariff, Part VII, Subpart E, section 329(C)(2), subject to execution and submission of an IDR Transfer Agreement in accordance with the Tariff. The transfer of Incremental Deliverability Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 329(C)(7) regarding loss of Incremental Deliverability Rights.

6. Effectiveness of Incremental Deliverability Rights

Incremental Deliverability Rights shall not entitle the holder thereof to use the capability associated with such rights unless and until Transmission Provider commences Interconnection Service related to the Merchant Transmission Facilities associated with such rights.

7. Loss of Incremental Deliverability Rights

Incremental Deliverability Rights shall be extinguished (a) in the event that the New Service Request of the Transmission Project Developer to which the rights were assigned is withdrawn and terminated, or deemed to be so, as provided in the Tariff, without regard for whether the rights have been transferred pursuant to an IDR Transfer Agreement, or (b) such rights are not transferred pursuant to an IDR Transfer Agreement on or before the date that is one year after the commencement of Interconnection Service related to the Merchant Transmission Facilities with which the rights are associated.

8. Rate-based Facilities

No Incremental Deliverability Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.



**Tariff, Part VII, Subpart F, section 335**  
**Wholesale Market Participation Agreement/Non-Jurisdictional Agreements**

- A. In some instances, Generation Project Developer may physically connect its Generating Facility to non-jurisdictional distribution or sub-transmission facilities in order to access the electrical Point of Interconnection on the Transmission System (the “POI”), for the purpose of engaging in FERC-jurisdictional Wholesale Transactions. In those instances, Generation Project Developer must enter into both a (1) non-jurisdictional interconnection agreement with the owner or operator of the non-jurisdictional distribution or sub-transmission facilities, which governs the physical connection of the Generating Facility to those non-jurisdictional facilities; and (2) a three-party Wholesale Market Participation Agreement (“WMPA”) with PJM and the affected Transmission Owner in order to effectuate Wholesale Transactions in PJM’s markets.
  
- B. Generation Project Developer shall follow the Application Rules of Tariff, Part VII, Subpart C, section 306 that apply to a Generating Facility, and shall complete the Application and Studies Agreement set forth in Tariff, Part IX, Subpart A (the “Application”). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction for the purpose of injecting energy at the Point of Interconnection and engaging in FERC-jurisdictional Wholesale Transactions.
  
- C. Generation Project Developer shall provide with the Application a copy of the executed interconnection agreement that governs the physical connection of the Generating Facility to the non-jurisdictional distribution or sub-transmission facilities, if the interconnection agreement is available. If the interconnection agreement is not yet available, Generation Project Developer shall provide with the Application all available documentation demonstrating that Generation Project Developer has requested or applied for interconnection through the relevant non-jurisdictional process, and Generation Project Developer shall provide a status report.
  
- D. In order to proceed to the execution of a WMPA, Generation Project Developer must demonstrate that it has executed the non-jurisdictional interconnection agreement by no later than Decision Point III in the applicable Cycle.

**Tariff, Part VII, Subpart G, section 336**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VII, Subpart D, section 310, as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facilities Study Application and Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facilities Study Application and Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
  - b. Transmission Provider shall not start the review of the Affected System Customer Facilities Study Application and Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
  - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - i. Affected System Customer is responsible for, and must pay, all actual study costs.
    - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facilities Study Application and Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facilities Study Application and Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
  - i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with the FERC.
- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement,

Project Developer or Affected System Customer shall elect one of the following:

- i. to execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement in unexecuted form.
    - (a) The unexecuted Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider.
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VII, Subpart H, section 337**  
**Upgrade Requests**

A. Applicability

Tariff, Part VII Subpart H applies to valid Upgrade Requests submitted on or after October 1, 2020 and up to and including September 10, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30



days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- i. Readiness Deposit refunds will be handled as follows:
    - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
    - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
  - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.
  6. Tariff, Part VII, Subpart C (Base Case Data) requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
  7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and

acquires all rights and obligations as identified in the Upgrade Request for such project.

8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

#### C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.
2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.
  - a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
5. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven years; and
6. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.
- c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

- a. Minimum Thresholds to Identify Contingent Facilities

- (i) **Load Flow Violations**  
Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.
- (ii) **Short Circuit Violations**  
Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.
- (iii) **Stability and Dynamic Criteria Violations**  
Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. **System Impact Study Results**

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
- d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
- e. Upgrade Customer may not elect Option to Build after such date.

4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report,

Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the upgrade study process, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall

conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse

If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the Upgrade Construction Service Agreement, Upgrade Customer shall elect one of the following:

(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

(c) to request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after

PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

- (a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
- (b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. In order to exercise the Option to Build, as set forth in Upgrade Construction Service Agreement, Tariff, Part IX, Subpart E, Appendix III, section 6.2.1, Upgrade Customer must provide Transmission Provider and the Transmission Owner with written notice of its election to exercise the option no later than 30 days from the date the Upgrade Customer receives the results of the Facilities Study (or the System Impact performed, if a Facilities Study was not required).

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the



Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VII, Subpart H, section 337(H)(1) to the affected Transmission Owner(s).

2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330, except to the extent the applicable terms of Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Operating Agreement, Schedule 6.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions A**

**Abnormal Condition:**

“Abnormal Condition” shall mean any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

**Affected System:**

“Affected System” shall mean an electric system other than the Transmission Provider’s Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

**Affected System Customer**

“Affected System Customer” shall mean the developer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System,

**Affected System Facility**

“Affected System Facility” shall mean a new, expanded or upgraded generation or transmission facility outside of Transmission Provider’s Transmission System, the effect of which requires Network Upgrades to Transmission Provider’s Transmission System.

**Affected System Operator**

“Affected System Operator” shall mean an entity that operates an Affected System or, if the Affected System is under the operational control of an independent system operator or a regional transmission organization, such independent entity.

**Affected System Customer Facilities Study Application and Agreement**

“Affected System Customer Facilities Study Application and Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart L, Affected System Customer Facilities Study Application and Agreement.

**Affiliate:**

“Affiliate” shall mean any two or more entities, one of which Controls the other or that are under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in Control or affiliation for purposes of the Tariff or Operating Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on the entity’s board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, Control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, 10 percent or more of the voting securities of such entity.

**Ancillary Services:**

“Ancillary Services” shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider’s Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations:**

“Applicable Laws and Regulations” shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall mean the Regional Entity for the region in which a Network Customer, Transmission Customer, Project Developer, Eligible Customer, or Transmission Owner operates.

**Applicable Standards:**

“Applicable Standards” shall mean the requirements and guidelines of NERC, the Applicable Regional Entity, the Control Area in which the Generating Facility or Merchant Transmission Facility is electrically located and the Transmission Owner FERC Form No. 715 – Annual Transmission Planning and Evaluation Report for each Applicable Regional Entity; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

“Applicable Technical Requirements and Standards” shall mean those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Transmission Owner or, as the case may be and to the extent applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual.

All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**Application and Studies Agreement:**

"Application and Studies Agreement" shall mean the application that must be submitted by a Project Developer or Eligible Customer that seeks to initiate a New Service Request, a form of which is set forth in Tariff, Part VIII, Subpart A. An Application and Studies Agreement must be submitted electronically through PJM's web site in accordance with PJM's Manuals.

**Application Deadline:**

"Application Deadline" shall mean the Cycle deadline for submitting a Completed New Service Request, as set forth in Tariff, Part VIII, Subpart B, section 403(A). If Project Developer's or Eligible Customer's Completed New Service Request is received by Transmission Provider after a particular Cycle deadline, such Completed New Service Request shall automatically be considered as part of the immediate subsequent Cycle.

**Application Phase:**

"Application Phase" shall mean the Cycle period encompassing both the submission and review of New Service Requests as set forth in Tariff, Part VIII, Subpart B, subsections 403(A) and (B).

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions C**

**Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VIII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in as set forth in Appendix 2, section 16.1.4 of this GIA, that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.

**Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

**Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with a Generation Interconnection Agreement.

**Common Use Upgrade:**

“Common Use Upgrade” or “CUU” shall mean a Network Upgrade that is needed for the interconnection of Generating Facilities or Merchant Transmission Facilities of more than one Project Developer or Eligible Customer and which is the shared responsibility of each Project Developer or Eligible Customer.

**Completed Application:**

“Completed Application” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Completed New Service Request:**

“Completed New Service Request” shall mean an application that satisfies all of the information and other requirements of the Tariff, including any required deposit(s). A Completed New Service Request, if accepted upon review, shall become a valid New Service Request.

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any Project Developer, Eligible Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Generation Interconnection Agreement or a Construction Service Agreement.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner, Project Developer, Eligible Customer, or Affected System Customer, depending on which entity has the construction responsibility pursuant to the Tariff, Part VIII and the applicable GIA or Construction Service Agreement; this term shall also be used to refer to a Project Developer or Eligible Customer with respect to the construction of the Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or a party to a GIA that requires activities pursuant to a GIA.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to the Tariff, Part VIII.

**Cost Responsibility Agreement:**

“Cost Responsibility Agreement” shall mean a form of agreement between Transmission Provider and a Project Developer with an existing generating facility, intended to provide the terms and conditions for the Transmission Provider to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with PJM and the



Transmission Owner. A form of the Cost Responsibility Agreement is set forth in Tariff, Part IX, Subpart F.

**Costs:**

As used in the Tariff, Part VIII and related agreements and attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean any Network Upgrade, Distribution Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on a Project Developer or Eligible Customer pursuant to Tariff, Part VIII, Subpart C, section 404(A)(5), or (ii) is voluntarily undertaken by an Upgrade Customer in fulfillment of an Upgrade Request. No Network Upgrade, Distribution Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Cycle:**

“Cycle” shall mean that period of time between the start of an Application phase and conclusion of the corresponding Final Agreement Negotiation Phase. The Cycle consists of the Application Phase, Phase I, Decision Point I, Phase II, Decision Point II, Phase III, Decision Point III, and the Final Agreement Negotiation Phase.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions E**

**Eligible Customer:**

“Eligible Customer” shall mean:

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Tariff, Part VIII, Eligible Customer shall mean only those Eligible Customers that have submitted an Application and Study Agreement.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Project Developer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Generating Facility or to the Project Developer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Project Developer is not obligated by a Generation Interconnection Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open- Loop Hybrid Resources are not Energy Storage Resources.

**Engineering and Procurement Agreement:**

“Engineering and Procurement Agreement” shall mean an agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. A form of the Engineering and Procurement Agreement is set forth in Tariff, Part IX, Subpart D. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions I**

**Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Generating Facility and for the Interconnection Facilities.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Capacity Transfer Rights:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Project Developer or Transmission Project Developer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” (“IDR”) shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Project Developer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Generating Facility and Project Developer Interconnection Facilities after satisfaction of the conditions of Tariff, Part IX, Subpart B, Appendix 2, section 1.4.

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Project Developer or the Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Project Developer, Transmission Owner and the Transmission Provider pursuant to this Tariff, Part VIII in the form set forth in Tariff, Part IX, Subpart J or Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades, Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities and coordination of the construction and interconnection of an associated Generating Facility.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner’s Interconnection Facilities and the Project Developer’s Interconnection Facilities. Collectively Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modifications, additions, or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades, or Network Upgrades.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Project Developer, or the Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Generating Facility with the Transmission System pursuant to the terms of this Tariff, Part VIII and the Generation Interconnection Agreement entered into pursuant thereto by Project Developer, the Transmission Owner and Transmission Provider.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions N**

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Necessary Study Agreement:**

“Necessary Study Agreement” shall mean the form of agreement for preparation of one or more Necessary Studies, as set forth in Tariff, Part IX, Subpart G.

**Necessary Study:**

“Necessary Study(ies)” shall mean the assessment(s) undertaken by the Transmission Provider to determine whether a planned modification under Appendix 2, section 3.4.1 of the GIA will have a permanent material impact on the Transmission System and to identify the additions, modifications, or replacements to the Transmission System, if any, that are necessary, in accordance with Good Utility Practice, and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, to accommodate the planned modifications. A form of the Necessary Study Agreement is set forth in Tariff, Part IX, Subpart G.

**Network Upgrade Cost Responsibility Agreement:**

“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.

**Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include Stand Alone Network Upgrades which are Network Upgrades that are not part of an Affected System; only serve the Generating Facility or Merchant Transmission Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in the GIA, Schedule L or in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer a written technical

explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**New Service Request:**

“New Service Request” shall mean an Interconnection Request or a Completed Application.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Project Developer’s Generating Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Project Developer’s Generating Facility, as determined in accordance with pertinent Applicable Standards and specified in the Generation Interconnection Agreement.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions P**

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VII:**

“Part VII” shall mean Tariff, Part VII, sections 300 through 337 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VIII:**

“Part VIII” shall mean Tariff, Part VIII, sections 400 through 435 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the



applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IX:**

“Part IX” shall mean Tariff, Part IX, section 500 and Subparts A through L pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**Permissible Technological Advancement:**

"Permissible Technological Advancement" shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the end of Decision Point II. Provided such change may not: (i) increase the capability of the Generating Facility or Merchant Transmission Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**Phase I**

“Phase I” shall start on the first Business Day immediately after the close of the Application Phase of a Cycle, but no earlier than 30 calendar days following the distribution of the Phase I System Impact Study Base Case Data. During Phase I, Transmission Provider shall conduct the Phase I System Impact Study.

**Phase I System Impact Study:**

“Phase I System Impact Study” shall mean System Impact Study conducted during the Phase I System Impact Study Phase.

**Phase II**

“Phase II” shall start on the first Business Day immediately after the close of Decision Point I Phase unless the Decision Point III of the immediately preceding Cycle is still open. In no event,

shall Phase II of a Cycle commence before the conclusion of Decision Point III of the immediately preceding Cycle. During Phase II, Transmission Provider shall conduct the Phase II System Impact Study.

**Phase II System Impact Study:**

“Phase II System Impact Study” shall mean System Impact Study conducted during the Phase II System Impact Study Phase.

**Phase III**

“Phase III” shall start on the first Business Day immediately after the close of Decision Point II, unless the Final Agreement Negotiation Phase of the immediately preceding Cycle is still open. In no event shall Phase III of a Cycle commence before the conclusion of the Final Agreement Negotiation Phase of the immediately preceding Cycle. During Phase III, Transmission Provider shall conduct the Phase III System Impact Study.

**Phase III System Impact Study:**

“Phase III System Impact Study” shall mean System Impact Study conducted during Phase III.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Region:**

“PJM Region” shall have the meaning specified in the Operating Agreement.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Point of Change in Ownership:**

“Point of Change in Ownership” shall mean the point, as set forth Schedule B of the Generation Interconnection Agreement, where the Project Developer’s Interconnection Facilities connect to the Transmission Owner’s Interconnection Facilities.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Interconnection Facilities connect with the Transmission System.

**Project Developer:**

“Project Developer” shall mean a Generation Project Developer and/or a Transmission Project Developer.

**Project Developer Interconnection Facilities:**

“Project Developer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Project Developer on Project Developer’s side of the Point of Change of Ownership identified in the Schedule B of the Generation Interconnection Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Generating Facility with the Transmission System.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Generating Facility to which Project Developer has granted a mortgage or other lien as security for some or all of Project Developer’s obligations under the corresponding power purchase agreement.

**Project Identifier:**

“Project Identifier” shall mean, when an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], the assigned Project Identifier to such request as confirmed by Transmission Provider. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification purposes, and does not indicate priority within a Cycle.

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Project Developer’s Generating

Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VIII, Subpart A, section 401(D).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VIII, a Generation Interconnection Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Request Number:**

“Request Number” shall mean, when an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], the assigned Request Number to such request as confirmed by Transmission Owner. The Request Number will indicate the serial position and priority.

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions S**

**Schedule of Work:**

“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of a GIA Schedule L of, or Schedule of a CSA, as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work set forth in Specification section 3.0 of the GIA to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Security:**

“Security” shall mean the financial guaranty provided by the Project Developer, Eligible Customer or Upgrade Customer pursuant to Tariff, Part VIII, Subpart C, sections 406(A)(2) and (3), 408(A)(2)(d), and 410(A)(1) to secure the Project Developer’s, Eligible Customer’s or Upgrade Customer responsibility for Costs under an interconnection-related agreement set forth in Tariff, Part IX.

**Service Agreement:**

“Service Agreement” shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Site:**

“Site” shall mean all of the real property including, but not limited to, any owned or leased real property, bodies of water and/or submerged land, and easements, or other forms of property rights acceptable to PJM, on which the Generating Facility or Merchant Transmission Facility is situated and/or on which the Project Developer Interconnection Facilities are to be located.

**Site Control:**

“Site Control” shall mean the evidentiary documentation provided by Project Developer in relation to a New Service Request demonstrating the requirements as set forth in the following Tariff, Part VIII, Subpart A, section 402, and Tariff, Part VIII, Subpart B, section 403, and Subpart C, sections 406 and 410.

**Stand Alone Network Upgrades:**

“Stand Alone Network Upgrades” shall mean Network Upgrades, which are not part of an Affected System, which a Project Developer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Specifications section 3.0 of Appendix L of the GIA. If the Transmission Provider or Transmission Owner and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider or Transmission Owner that disagrees with the Project Developer must provide the Project Developer a written technical explanation outlining why the Transmission Provider or Transmission Owner does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State of Charge:**

“State of Charge” shall mean the quantity of physical energy stored in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Study Deposit:**

“Study Deposit” shall mean the payment in the form of cash required to initiate and fund any study provided for in Tariff, Part VIII, Subpart A, section 401.

**Surplus Project Developer:**

“Surplus Project Developer” shall mean either a Project Developer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region.

**Surplus Service Request Number:**

“Surplus Service Request Number” shall mean, when an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, the assigned Surplus Service Request Number to such request as confirmed by Transmission Provider. The Request Number will indicate the serial position and priority.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Project Developer, pursuant to Tariff, Part VIII, Subpart E, section 414, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in a Generation Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Surplus Interconnection Study Agreement:**

“Surplus Interconnection Study Agreement” shall mean the form of the Surplus Interconnection Study Agreement set forth in Tariff, Part IX, Subpart I.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Transmission Owners and Project Developer as they may be amended from time to time.

**System Impact Study:**

“System Impact Study” shall mean an assessment(s) by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a New Service Request, (ii) whether any



additional costs may be incurred in order to provide such transmission service or to accommodate a New Service Request, and (iii) an estimated date that the New Service Requests can be interconnected with the Transmission System and an estimate of the cost responsibility for the interconnection of the New Service Request; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Generating Facility, and (ii) the Generating Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Generating Facility.

**Tariff, Part VIII, Subpart A, section 401**  
**Applications for Cycle Process**  
**Introduction**

A. New Cycle Process

Part VIII of the Tariff applies to valid New Service Requests submitted on or after October 1, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of the Cycle process; procedures and other terms regarding studies and other processing of New Service Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Project Developers and Eligible Customers. To initiate a New Services Request, Eligible Customers must first submit a Completed Application following the procedures outlined in Tariff, Parts II and III as applicable. For projects submitted by Eligible Customers, the project's priority is defined by the Cycle in which an Eligible Customer submits a Completed Application. For projects submitted by Project Developers, the project's priority is defined by the Cycle in which a Project Developer submits a completed New Service Request. A Cycle's priority is established by the Application deadline. A given Cycle has priority over Cycles that commence at a later date.

B. Part VIII of the Tariff applies to (a) Generation Interconnection Requests; (b) Transmission Interconnection Requests; and (c) Completed Applications.

C. A Project Developer that proposes to (i) interconnect a Generating Facility to the Transmission System in the PJM Region, (ii) increase the capability of a Generating Facility in the PJM Region, (iii) interconnect Merchant Transmission Facilities with the Transmission System; (iv) increase the capability of existing Merchant Transmission Facilities interconnected to the Transmission System, or (v) interconnect a Generating Facility to distribution facilities located in the PJM Region that are used for transmission of power in interstate commerce, and to make wholesale sales using the output of the Generating Facility, shall request interconnection with the Transmission System pursuant to, and shall comply with, the terms, conditions, and procedures set forth in Tariff, Part VIII and related portions of the PJM Manuals.

D. Required Study Deposits and Readiness Deposits.

1. Study Deposits. Pursuant to Tariff, Part VIII, Subpart B, section 403, each New Service Request must submit with its Application a Study Deposit, the amount of which will be determined based upon the MWs requested in such Application. Ten percent of the Study Deposit is non-refundable. Project Developer and Eligible Customers are responsible for actual study costs, which may exceed the Study Deposit amount.

a. If any Study Deposit monies remain after all System Impact Studies are completed and any outstanding monies owed by Project Developer or Eligible Customer in connection with outstanding invoices related to the

present or prior New Service Requests have been paid, such remaining deposit monies shall be returned to the Project Developer or Eligible Customer at the conclusion of the required studies for the New Service Request.

2. Readiness Deposits. Readiness Deposits are funds committed by the Project Developer or Eligible Customer based upon the MW size of the project and, where applicable, the study results.
  - a. Readiness Deposits are due at the following Phases of a Cycle:
    - i. Readiness Deposit No. 1: Application Submission
    - ii. Readiness Deposit No. 2: Decision Point I; and
    - iii. Readiness Deposit No. 3: Decision Point II
  - b. Readiness Deposits No. 2 and/or No. 3 may equal an amount equal to or greater than zero, but may never be a negative dollar amount.
  - c. Readiness Deposit refunds will be handled as follows:
    - i. If the project is withdrawn or terminated, the Readiness Deposit refunds for the project will be determined by the study phase at which the project was withdrawn or terminated, and adverse study results tests, as set forth below in Tariff, Part VIII, Subpart C, section 408(B)(3)(c).
    - ii. When all Cycle New Service Requests have either entered into final agreements and met the Decision Point III Site Control requirements, or have withdrawn, remaining Readiness Deposit funds will be dispositioned as follows:
      - (a) Transmission Provider will incorporate all project withdraws and retool analysis results to provide a final determination on the Network Upgrades that are required for the Cycle.
      - (b) Underfunded Network Upgrades will be identified as those where one or more withdrawn New Service Requests that were identified as having a cost allocation in the Phase III analysis results. In the event that there are no underfunded Network Upgrades, all Readiness Deposits will be refunded.
      - (c) Readiness Deposits will be applied to underfunded Network Upgrades on a pro-rata share of funds missing from the Phase III cost allocation. In the event that all underfunded Network Upgrades are made whole relative to the withdrawn New Service Requests, remaining Readiness Deposits will be refunded on a pro-rata share.

3. Study Deposits and Readiness Deposits are separate financial obligation, and non-transferrable and cannot be commingled. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific New Service Request be applied in whole or in part to a different New Service Request.
- E. If Project Developer is proposing a Generating Facility that will physically connect to non-jurisdictional distribution or sub-transmission facilities for the purpose of engaging in wholesale sales in the PJM markets, such Project Developer must provide additional required information and documentation associated with the non-jurisdictional arrangements, as set forth in Tariff, Part VIII, Subpart C, sections 406 and 410 and Tariff, Part IX, Subpart F.
  - F. A Project Developer or Eligible Customer cannot combine, swap or exchange all or part of a New Service Request with any other New Service Request within the same or a different Cycle.
  - G. Prior to entering into a final agreement from Tariff, Part IX, a Project Developer or Eligible Customer may assign its New Service Request to another entity only if the acquiring entity:
    1. as applicable, accepts and acquires the rights to the same Point of Interconnection and Point of Change of Ownership as identified in the New Service Request for such project; and/or
    2. as applicable, accepts, the same receipt and delivery points or the same source and sink points as stated in the New Service Request for such project.
    3. Additional Interconnection-Related Agreements. In connection with interconnection with the Transmission System pursuant to Tariff, Part VIII, Project Developer may be required, or may elect, to enter into one or more of the following interconnection-related agreements:
      - a. Cost Responsibility Agreement. A Project Developer with an existing generating facility that is not a party to an interconnection agreement with Transmission Provider and the relevant Transmission Owner, that desires to enter into a GIA with Transmission Provider and Transmission Owner, shall be required to enter into a Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart F. The Cost Responsibility Agreement provides the terms, conditions, Study Deposit, and cost responsibility for Project Developer to pay Transmission Provider's actual costs to perform certain modeling, studies or analysis to determine whether the Project Developer may enter into a GIA with Transmission Provider and Transmission Owner.
      - b. Engineering and Procurement Agreement. A Project Developer that wishes to advance the implementation of its Interconnection Request during Phase III of a Cycle may enter into an Engineering and Procurement Agreement with Transmission Provider and Transmission

Owner, in the form set forth in Tariff, Part IX, Subpart D, to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. An Engineering and Procurement Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades. An Engineering and Procurement Agreement can only be requested by a Project Developer, and can only be requested in Phase III.

- c. Necessary Study Agreement. A Project Developer that has entered into a GIA that plans to undertake modifications pursuant to that GIA to its Generating Facility or Merchant Transmission Facility shall be required to enter into a Necessary Study Agreement with Transmission Provider in the form set forth in Tariff, Part IX, Subpart G. The Necessary Study Agreement provides the terms, conditions, Study Deposit, and cost responsibility for Project Developer to pay Transmission Provider's actual costs to perform the Necessary Study(ies) to determine: (a) the type and scope of the permanent material impact, if any, the change will have on the Transmission System; (b) the additions, modifications, or replacements to the Transmission System required to accommodate the change; and (c) a good faith estimate of the cost of the additions, modifications, or replacements to the Transmission System required to accommodate the change.

**Tariff, Part VIII, Subpart A, section 402**  
**Applications for Cycle Process**  
**Site Control**

A. Site Control Evidentiary Requirements

Site Control is evidence provided by the Project Developer to Transmission Provider in relation to Project Developer's New Service Request demonstrating Project Developer's interest in, control over, and right to utilize the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades at the Point of Interconnection. Specific Site Control phase requirements are set forth in the following Tariff, Part VIII, Subpart B, section 403, and Subpart C, sections 406 and 410

1. Site Control consistent with the requirements herein is required for a project to have a valid position within a Cycle.
2. Proof of Site Control can be in the form of one of the following: (1) deed; (2) lease; (3) option to lease or purchase; or (4) as deemed acceptable by the Transmission Provider, any other contractual or legal right to possess, occupy and control the Site.
  - a. Memorandums are not acceptable.
  - b. Documentation solely evidencing an intent to purchase or control the Site is not acceptable.
  - c. Rights of Way are only acceptable for Project Developer Interconnection Facilities up to the Point of Interconnection.
  - d. Notwithstanding the foregoing, for a New Service Request, all or a portion of which requires the use of Sites owned or physically controlled by a state and/or federal governmental entity, and authorization for such use is subject to environmental and other state and/or federal governmental permitting requirements, including 42 U.S.C.A. § 4331 et seq. and any succeeding statutes, acceptable evidence of Site Control can be in any form the governmental entity issues. For Decision Point I and Decision Point III, Project Developers shall provide evidence that the Project Developer is taking identifiable steps acceptable to the Transmission Provider in furtherance of the issuance of such authorization by the state and/or federal governmental entity, including documentation sufficiently describing and explaining the source of and effects of such regulatory requirements, including a description of any conditions that must be met in order to satisfy the regulatory requirements and the anticipated time by which the Project Developer expects to satisfy the regulatory requirements. For Decision Point I and Decision Point III, Project Developers shall also identify any additional property rights for the portion of the Site that is not owned or physically controlled by a state

and/or federal governmental entity but which cannot be secured until the regulatory requirements have been met and authorization has been provided by the requisite state and/or federal governmental entity.

3. Demonstration of Site Control must include verification, to PJM's satisfaction, that the total feet or acreage ("acreage") of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, as set forth in the PJM Manuals.
  - a. The Project Developer must submit a Geographic Information System (GIS) Site Plan map and data files acceptable to PJM demonstrating the arrangement of the resource-specific proposed facilities for the amount of MW requested.
  - b. Any GIS Site Plan map and data files submitted in accordance with this section must be consistent with all other modeling data submitted in connection with Project Developer's New Service Request.
  - c. In the event of a disagreement between the Transmission Provider and the Project Developer over whether the total acreage of the Site is fully sufficient for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility, Transmission Provider will accept a Professional Engineer (PE) stamped Site plan drawing (licensed in the state of the facility location) that depicts the proposed generation arrangement and specifies the Maximum Facility Output for that arrangement.
    - i. Failure to verify to Transmission Provider's satisfaction that the total acreage of the Site is adequate for the resource-specific technology and MWs requested for a proposed Generating Facility or Merchant Transmission Facility shall result in the New Service Request being deemed terminated and withdrawn.
4. Site Control must be in the name of the Project Developer identified on the corresponding New Service Request. Otherwise, the Project Developer must demonstrate to PJM's satisfaction the relationship between the entity owning or controlling the Site ("landowner" or "owner") with Site Control and the Project Developer identified on the New Service Request.
5. Project Developers are prohibited from submitting evidence of Site Control that utilizes the same Site for multiple New Service Requests unless the total acreage amount of such Site is adequate to support all such New Service Requests.
  - a. To the extent that multiple New Service Requests are submitted by a Project Developer using the same Site Control evidence and the total acreage amount of such Site is not adequate to support all such New Service Requests, all such New Service Requests shall be deemed terminated and withdrawn.

- b. To the extent that a Project Developer submits a New Service Request with Site Control evidence utilizing the Site that is also the subject of Site Control in New Service Requests submitted by other Project Developer's, such Project Developer shall include with its New Service Request evidence, to Transmission Provider's satisfaction, demonstrating that the project referenced in the Project Developer's New Service Request is concurrently feasible with the development of any other projects that will share the Site identified in the Site Control. Such proof of concurrent feasibility shall include:
  - i. Identification of any other New Service Requests that will share all or a portion of the Site identified in the Site Control; and
  - ii. Identification of the proposed location and space utilization of all projects that will share the Site, including acreage and boundaries for all projects sharing the Site identified in the Site Control; and
  - iii. Any related technical information required by the Transmission Provider to enable the Transmission Provider to determine that development of the project referenced in the submitted New Service Request is not inconsistent with development of any of the other New Service Requests that will share all or a portion of the same Site.
- 6. Multiple projects may share Project Developer Interconnection Facilities. A shared facilities agreement is required if jointly owned common Interconnection Facilities are proposed.
- 7. Project Developers are prohibited from submitting evidence of Site Control for the Site which is also the subject of an interconnect request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system. To the extent that Project Developers submit evidence of Site Control for the Site which is also the subject of an interconnection request submitted in an adjacent Regional Transmission Organization, Independent System Operator, or other system, the relevant New Service Request submitted to Transmission Provider shall be deemed terminated and withdrawn.
- 8. Site Control must demonstrate three key elements: conveyance, term, and exclusivity:
  - a. Term

Term is the minimum duration required to evidence Site Control. The Term requirements vary, and are established in the following Tariff, Part VIII rules, at various points within a Cycle. The Term cannot be satisfied by an agreement with an initial term shorter than the requisite required term that has extensions, including unilateral extensions, unless those extensions have been exercised and any requisite conditions fulfilled, including any payment obligations, by the Project Developer at the time evidence of Site Control is provided to the Transmission Provider.



b. Exclusivity

With the exception of Tariff, Part VIII, Subpart A, section 402(A)(5)(b), exclusivity is evidenced by written acknowledgement from the landowner provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, that the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities and, if applicable, the Transmission Owner's Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.

c. Conveyance

The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VIII, Subpart A, section 402(A)(2), above.

9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual 14H, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met.

a. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.

**Tariff, Part VIII, Subpart C, section 404**  
**Introduction**

A. Phase I, Phase II and Phase III System Impact Studies

1. Introduction

Tariff, Part VIII, Subpart C sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VIII includes three study Phases and the three Decision Points:

- a. Phase I System Impact Study
- b. Decision Point I
- c. Phase II System Impact Study
- d. Decision Point II
- e. Phase III System Impact Study
- f. Decision Point III.

Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VIII, Subpart C, sections 405, 407, and 409.

2. Overview of System Impact Studies

- a. The Phase I, Phase II and Phase III System Impact Studies are a regional analysis of the effect of adding to the Transmission System the new facilities and services proposed by valid New Service Requests and an evaluation of their impact on deliverability to the aggregate of PJM Network Load.
  - i. These studies identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests included therein and any resulting Interconnection Facilities, Network Upgrades, and/or Contingent Facilities required to accommodate such New Service Requests.
  - ii. These studies provide estimates of cost responsibility and construction lead times for new facilities required to interconnect the project and system upgrades.

- iii. Transmission Provider, in its sole discretion, can aggregate multiple New Service Requests at the same Point of Interconnection for purposes of Phase I, Phase II and Phase III System Impact Studies.
- iv. The scope of the studies may include (a) an assessment of sub-area import deliverability, (b) an assessment of sub-area export deliverability, (c) an assessment of project related system stability issues (only occurs in Phase II and Phase III); (d) an assessment of project-related short circuit duty issues (only occurs in Phase II and Phase III), (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria and the transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity, (f) an assessment of regional transmission upgrades that most effectively meet identified needs, and (g) an analysis to determine cost allocation responsibility for required facilities and upgrades.
- v. For purposes of determining necessary Interconnection Facilities and Network Upgrades, these studies shall consider the level of service requested in the New Service Request unless otherwise required to study the full electrical capability of the New Service Request due to safety or reliability concerns.
- vi. The studies' results shall include the list and facility loading of all reliability criteria violations specific to the New Service Requests.
- vii. If applicable, the studies for a Transmission Project Developer New Service Request shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the Transmission Project Developer's proposed Merchant Transmission Facilities.

### 3. Contingent Facilities

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Interconnection Facilities and/or Network Upgrades, upon which the New Service Request's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the New Service Request or reassessment of the Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the New Service Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies) and Generator Interconnection Agreement, including why a specific Contingent Facility was

identified and how it relates to the New Service Request. Transmission Provider shall also provide, upon request of the Project Developer or Eligible Customer, the estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

4. Additional System Impact Study Procedures for Eligible Customers

The following provisions apply to System Impact Studies conducted for Eligible Customers:

a. The Transmission Provider will notify Eligible Customers of the need to conduct a System Impact Study whenever the Transmission Provider determines that available transmission capability may not be sufficient to provide the requested firm service(s). The purpose of the System Impact Study will be to determine the effect the requested service(s) will have on system operations, identify any system constraints, redispatch options and whether system expansion will be required to provide the requested service(s).

b. The Commission's comparability standard will be applied in evaluating the impact of all requests. Specifically, the Transmission Provider will use the same due diligence in completing System Impact Studies for Eligible Customers that it uses when completing studies for any Transmission Owner that requests service from the Transmission Provider.

- c. Requests for long-term firm transmission service will be evaluated, to the extent possible, as a part of the on-going planning process for Bulk Transmission Supply in the PJM Region. Appropriate planning studies will be conducted annually to assess the capability of the PJM Region Transmission System to deliver the planned Network Resources to the Forecasted Network Loads of the existing load serving entities and any prior committed Firm Point-to-Point Service transmission customers. The loads and resources of Eligible Customers requesting new or additional service during the normal planning cycle will be incorporated into this aggregate planning process along with the loads and resources of all other Firm Point-to-Point and load serving entities for which prior commitments to provide service have been made. Requests for long-term firm service made at times that will not permit the evaluation of impacts as part of the normal planning process, and requests for short-term firm service, will require that special impact studies be completed.
- d. The Transmission Provider plans and evaluates the PJM Region Transmission System in strict compliance with the following:
  - i. North American Electric Reliability Council ("NERC") Reliability Principles and Guides
  - ii. Applicable Standards
  - iii. Transmission planning criteria, methods and procedures described in the "FERC Form No. 715 - Annual Transmission Planning and Evaluation Report" for each Applicable Regional Entity.
- e. In evaluating the impact of any request for new or additional service(s), the Transmission Provider will first determine the capability of the system to reliably provide prior committed Network and Point-to-Point service for the term of the requested new or additional service(s), or the normal planning horizon (generally 10 years), whichever is shorter. Requests for new or additional service(s) will then be incorporated into the system representation data and the appropriate system analyses will be completed to evaluate the impacts of the requested services.

5. Cost Allocation for Network Upgrades

- a. General: Each Project Developer and Eligible Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its New Service Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such New Service Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated

with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the New Service Request; or the construction of Supplemental Projects.

- b. Cost Responsibility for Accelerating Network Upgrades included in the Regional Transmission Expansion Plan: Where the New Service Request calls for accelerating the construction of Network Upgrades that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Project Developer or Eligible Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.
- c. The Transmission Provider shall determine the minimum amount of Network Upgrades required to resolve each reliability criteria violation in each Cycle, by studying the impact of the projects the Cycle in their entirety, and not incrementally. Interconnection Facilities and Network Upgrades shall be studied in their entirety and according to the following process:

The Transmission Provider shall identify the New Service Requests in the Cycle contributing to the need for the required Network Upgrades within the Cycle. All New Service Requests that contribute to the need for a Network Upgrade will receive cost allocation for that upgrade pursuant to each New Service Request's contribution to the reliability violation identified on the transmission system in accordance with PJM Manuals.

There will be no inter-Cycle cost allocation for Interconnection Facilities or Network Upgrades identified in the System Impact Study; all such costs shall be allocated to New Service Requests in that Cycle.

## 6. Interconnection Facilities

A Project Developer shall be obligated to pay 100 percent of the costs of the Interconnection Facilities necessary to accommodate its Interconnection Request.

## 7. Facilities Study Procedures

The Facilities Studies will include good faith estimates of the cost, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5), (a) to be charged to each affected New Service Customer for the Interconnection Facilities and Network Upgrades that are necessary to accommodate each New Service Request evaluated in the study; (b) the time required to complete detailed design and construction of the facilities and upgrades; (c) a description of any site-specific environmental issues or requirements that could reasonably be anticipated to affect the cost or time required to complete construction of such facilities and upgrades.

The Facilities Study will document the engineering design work necessary to begin construction of any required transmission facilities, including estimating the costs of the equipment, engineering, procurement and construction work needed to implement the conclusions of the System Impact Study in accordance with Good Utility Practice and, when applicable, identifying the electrical switching configuration of the connection equipment, including without limitation: the transformer, switchgear, meters, and other station equipment; and the nature and estimated costs of Interconnection Facilities and Network Upgrades necessary to accommodate the New Service Request.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Facilities Study shall consider the level of Interconnection Service requested by the Project Developer unless otherwise required to study the full electrical capability of the Generating Facility or Merchant Transmission Facility due to safety or reliability concerns. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the full electrical capability of the Generating Facility or Merchant Transmission Facility.

**Tariff, Part VIII, Subpart C, section 408**  
**Decision Point II**

A. Requirements

Decision Point II shall commence on the first Business Day immediately following the end of Phase II. New Service Requests that are studied in Phase II will enter Decision Point II. Before the close of Decision Point II, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.

1. For a New Service Request to remain in the Cycle, it must either proceed as set forth immediately below, or, if Transmission Provider determines a New Service Request qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX), such new Service Request must meet the requirements set forth below in Tariff, Part VIII, Subpart C, section 408(A)(2)(d).
  - a. For a New Service Request that is not otherwise eligible to accelerate to a final interconnection related agreement (from Tariff, Part IX) to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
    - b. The applicable Readiness Deposit No. 3
      - i. The Decision Point II Readiness Deposit No. 3 to be paid cumulatively, i.e., in addition to the Readiness Deposit No. 1 that was submitted with the New Service Request at the Application Phase, and the Readiness Deposit No. 2 that was submitted at Decision Point I. The Decision Point II Readiness Deposit No. 3 will be calculated by the Transmission Provider during Phase II, and shall not be reduced or refunded based upon subsequent New Service Request modifications or cost allocation changes.
      - ii. The Decision Point II Readiness Deposit No. 3 required amount shall be an amount equal to the greater of:
        - (a) (i) 20 percent of the cost allocation for the Network Upgrades as calculated in Phase II or (ii) the Readiness Deposit No. 1 paid by the Project Developer or Eligible Customer with its New Service Request during the Application Phase plus the Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I; minus



- (b) the Readiness Deposit No. 1 amount paid by the Project Developer with its New Service Request during the Application Phase, plus the Readiness Deposit No. 2 amount paid by the Project Developer or Eligible Customer with its New Service Request during Decision Point I.
- iii. The Readiness Deposit No. 3 amount due can be zero, but cannot be a negative number (i.e., there will not be any refunded amounts associated with Readiness Deposit No. 3).
- c. Notification in writing that Project Developer or Eligible Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its New Service Request.
- d. Evidence of Site Control. There are no Site Control evidentiary requirements at Decision Point II.
- e. Evidence of air and water permits (if applicable).
- f. For state-level, non-jurisdictional interconnection projects, evidence of participation in the state-level interconnection process with the applicable entity.
- g. Submission of New Service Request Data for Phase III System Impact Study data.
- h. Evidence that Project Developer or Eligible Customer entered into a fully executed Affected System Study Agreement, if applicable to its New Service Request by the later of Decision Point II or 60 days after notification from Transmission Provider that an Affected System Study Agreement is required.
- i. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- j. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
2. If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(1)(a) through (i) above, as follows:
- a. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point II.
  - b. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - c. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or include the New Service Request in Phase III.
    - i. Transmission Provider's review of the above required elements may run co-extensively with Phase III.
  - d. Acceleration at Decision Point II. Only New Service Requests that have no cost allocation for Network Upgrades and do not require further studies are eligible for acceleration. Upon completion of the Phase II System Impact Study, Transmission Provider may accelerate treatment of such New Service Request.
    - i. For (i) a jurisdictional project that qualifies to accelerate, or (ii) a non-jurisdictional project that qualifies to accelerate and which retains a fully executed state level interconnection agreement with the applicable entity, to remain in the Cycle, Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point II:
      - (a) Security
        - (i) Security shall be calculated for New Service Requests based upon based upon Network Upgrades

costs allocated pursuant to the Phase II System Impact Study Results.

- (b) Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
- (c) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
  - (i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
  - (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the linear distance for identified required Interconnection Facilities associated with a New Service Request.
  - (iii) If applicable, Interconnection Switchyard Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.
    - (1) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.

- e. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above.
  - i. If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(d)(i)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
    - (a) Such condition precedent shall not be extended under any circumstances for any reason.
    - (b) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
    - (c) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission

Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle.

- (d) For a non-jurisdictional project, evidence of a fully executed state level interconnection agreement with the applicable entity.
- (e) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above (noting the exception provided for Site Control), before the close of Decision Point II, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (f) If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above, then, at the close of the Decision Point II, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(e)(i)(a) through (d) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement

shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VIII, Subpart D, section 411.

- (g) For a New Service Request for a non-jurisdictional project that qualifies to accelerate to a final interconnection related agreement (from Tariff, Part IX) but which has not yet secured a fully executed state level interconnection agreement with the applicable entity before the close of Decision Point II to remain in the Cycle, Transmission Provider must receive from the Project Developer all of the following required elements, before the close of Decision Point III:
  - (h) Security. Security shall be calculated for New Service Requests based upon based upon Network Upgrades costs allocated pursuant to the Phase II System Impact Study Results.
  - (i) Notification in writing that Project Developer elects to proceed to a final agreement with respect to its New Service Request
  - (j) Evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
    - (i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
      - (1) Such Site Control evidence shall be identical to the Generating Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility Site, including the location of the high-voltage side of the

Generating Facility's main power transformer(s).

- (ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100% percent of linear distance for the identified required Interconnection Facilities associated with a New Service Request.
- (iii) If applicable, Interconnection Switchyard Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.
  - (1) Such Site Control evidence shall cover 100 percent of acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
- (iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends three years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity
- (v) If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above, then Project Developer must provide

evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above.

(1) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 408(A)(2)(j)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.

(1.a) Such condition precedent shall not be extended under any circumstances for any reason.

(k) For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid corresponding interconnection request with any required adjacent Control Area(s) in which it is interconnecting or is required to interconnect with as part of such Transmission Interconnection Request. Project Developer shall maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its interconnection request positions with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process



for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn, and will be removed from the Cycle

- (l) Evidence of a fully executed state level Interconnection Agreement with the applicable entity
- (m) Project Developer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment.
- (n) If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.
- (o) When Project Developer or Eligible Customer meets all of the requirements above, then, at the point at which the last required piece of evidence as set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above was submitted, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 408(A)(2)(a) through (m) above, as follows:
  - (i) Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point I.
  - (ii) Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
  - (iii) Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to a final

interconnection related agreement (from Tariff, Part IX). The final interconnection related agreement shall be negotiated and issued in accordance with the rules set forth in Tariff, Part VIII, Subpart D, section 411.

B. New Service Request Withdraw or Termination at Decision Point II

1. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point II. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point II, the Transmission Provider must receive before the close of the Decision Point II Phase written notification from the Project Developer or Eligible Customer of Project Developer's or Eligible Customer's decision to withdraw its New Service Request.
2. Transmission Provider may deem a New Service Request terminated and withdrawn for failing to meet any of the Decision Point II requirements, as set forth in this Tariff, Part VIII, Subpart C, section 408.
3. If a New Service Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the relevant Cycle, and Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to Project Developer or Eligible Customer 100 percent of Readiness Deposit No. 2 paid by the Project Developer or Eligible Customer during Decision Point I;
    - ii. At the conclusion of the Cycle, refund to Project Developer or Eligible Customer up to 100 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - b. For Study Deposits:
    - i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  - c. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 408(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible

Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase if the Project Developer's Network Upgrade cost from Phase I to Phase II:

- i. increases overall by 25 percent or more; and
- ii. increases by more than \$10,000 per MW.

Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

4. New Service Request Modification Requests at Decision Point II

- a. Project Developer or Eligible Customer may not request a modification that is not expressly allowed. To the extent Project Developer or Eligible Customer desires a modification that is not expressly allowed, Project Developer or Eligible Customer must withdraw its New Service Request and resubmit the New Service Request with the proposed modification in a subsequent Cycle.
- b. Reductions in Maximum Facility Output and/or Capacity Interconnection Rights. Project Developer may reduce the previously requested New Service Request Maximum Facility Output and/or Capacity Interconnection Rights values, up to 10 percent of the values studied in Phase II.
- c. Fuel Changes. The fuel type specified in the New Service Request may not be changed or modified in any way for any reason, except that for New Service Requests that involve multiple fuel types, removal of a fuel type through these reduction rules will not constitute a fuel type change.
- d. Point of Interconnection. The Point of Interconnection may not be changed or modified in any way for any reason at this point in the Cycle process.
- e. Generating Facility or Merchant Transmission Facility Site Changes. Project Developer may specify a change to the project Site only if the Project Developer satisfied the requirements for Site Control for both (i) the initial Site proposed in the New Service Request Application and the newly proposed Site; and (ii) the initial Site and the proposed Site are adjacent parcels. Such Site Control is subject to the verification procedures set forth in Tariff, Part VIII, Subpart C, section 410(A)(1)(c).
- f. Equipment Changes

During Decision Point II, Project Developer is limited to modifying its New Service Request to Permissible Technological Advancement changes

only. Project Developer shall submit machine modeling data as specified in the PJM Manuals associated with the Permissible Technological Advancement before the close of Decision Point II.

**Tariff, Part VIII, Subpart C, section 410**  
**Decision Point III**

- A. Decision Point III shall commence on the first Business Day immediately following the end of Phase II, and shall run concurrently with the Final Agreement Negotiation Phase. New Service Requests that are studied in Phase II will enter Decision Point III. Before the close of Decision Point III, Project Developer or Eligible Customer shall choose either to remain in the Cycle subject to the terms set forth below, or to withdraw its New Service Request.
1. Transmission Provider must receive from the Project Developer or Eligible Customer all of the following required elements before the close of Decision Point III for a New Service Request to remain in the Cycle and proceed through the Final Agreement Negotiation Phase as set forth below:
    - a. Security
      - i. Security shall be calculated for New Service Requests based upon based upon Network Upgrades costs allocated pursuant to the Phase III System Impact Study Results.
    - b. Notification in writing that Project Developer or Eligible Customer elects to proceed to a final agreement with respect to its New Service Request
    - c. Project Developers must present evidence of Site Control that is in accordance with the Site Control rules set forth above in Tariff, Part VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
      - i. Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase III.
        - (a) Such Site Control evidence shall be identical to the Generating Facility or Merchant Transmission Facility Site Control evidence submitted for a New Service Request in the Application Phase, and shall continue to cover 100 percent of the Generating Facility or Merchant Transmission Facility Site, including the location of the high-voltage side of the Generating Facility's main power transformer(s).
      - ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence for an additional three-year term beginning from the last day of the relevant Cycle, Phase III.

- (a) Such Site Control evidence shall cover 100 percent of the linear distance for the identified required Interconnection Facilities associated with a New Service Request.
  - iii. Interconnection Switchyard, if applicable, Site Control evidence for an additional three-year term beginning from the last day of the relevant Cycle, Phase III.
    - (a) Such Site Control evidence shall cover 100 percent of the acreage required for the identified required Interconnection Switchyard associated with a New Service Request.
  - iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, then Project Developer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above.
    - (a) If Transmission Provider determines that the evidence of such negotiations is acceptable, then Transmission Provider shall add a condition precedent in the New Service Request final interconnection related agreement (from Tariff, Part IX) requiring that within 180 days from the effective date of such final agreement, all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, shall be met or, otherwise, such agreement shall automatically be deemed terminated and cancelled, and the related New Service Request shall automatically be deemed terminated and withdrawn from the Cycle.
      - (i) Such condition precedent shall not be extended under any circumstances for any reason.
- d. For a Project Developer that has submitted a Transmission Interconnection Request, Project Developer shall provide evidence acceptable to the Transmission Provider that Project Developer has submitted and maintained a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Project Developer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire

PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request. If Project Developer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- e. Project Developer or Eligible Customer must provide evidence that it has: (i) entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; (ii) obtained any necessary local, county, and state site permits; and (iii) signed a memorandum of understanding for the acquisition of major equipment. If Project Developer or Eligible Customer does not satisfy these requirements, these requirements can be addressed through a milestone in the applicable interconnection-related service agreement entered into pursuant to Tariff, Part IX.
- f. For state-level, non-jurisdictional interconnection projects, evidence of a fully executed Interconnection Agreement with the applicable entity.
- g. If Project Developer or Eligible Customer fails to submit all of the criteria in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (f) above (noting the exception provided for Site Control), before the close of the Decision Point III Phase, Project Developer's or Eligible Customer's New Service Request shall be deemed terminated and withdrawn.

B. If Project Developer or Eligible Customer submits all elements in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (f) above, then, at the close of the Decision Point III, Transmission Provider will begin the deficiency review of the elements set forth in Tariff, Part VIII, Subpart C, section 410(A)(1)(d)(a) through (e) above, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Project Developer or Eligible Customer of deficiencies within 10 Business Days after the close of Decision Point III.
2. Project Developer or Eligible Customer then has five Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Project Developer's or Eligible Customer's response within 10 Business Days, and then will either terminate and withdraw the New Service Request, or proceed to the Final Agreement Negotiation Phase.

Transmission Provider's review of the above required elements may run co-extensively with the Final Agreement Negotiation Phase.

4. If the New Service Request is deemed terminated and withdrawn by the Transmission Provider, then Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  
5. A Project Developer or Eligible Customer may withdraw its New Service Request during Decision Point III. If the Project Developer or Eligible Customer elects to withdraw its New Service Request during Decision Point III, the Transmission Provider must receive before the close of Decision Point III written notification from the Project Developer or Eligible Customer of its decision to withdraw its New Service Request. Following receipt of such written notification from the Project Developer or Eligible Customer, the Transmission Provider shall:
  - a. remove the withdrawn New Service Request from the Cycle and terminate the New Service Request;
  - b. Readiness Deposits will be treated pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).
  - c. At the conclusion of Transmission Provider's deficiency review for Decision Point III, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.
  - d. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 410(B)(4)(b) and (c), and 410(B)(5)(b), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer if the Project Developer's or Eligible Customer's Network Upgrade cost from Phase II to Phase III:
    - i. increases overall by 35 percent or more; and
    - ii. increased by more than \$25,000 per MW.



Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.

C. New Service Request Modification Requests at Decision Point III

New Service Requests may not be changed or modified in any way for any reason during Decision Point III. A New Service Request must be withdrawn and resubmitted in a subsequent Cycle to the extent a Project Developer or Eligible Customer wants to make any changes to such New Service Request at this point in the Cycle process.

**Tariff, Part VIII, Subpart E, section 427**  
**Incremental Rights**

A. Incremental Auction Revenue Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Auction Revenue Rights

A Transmission Project Developer or Upgrade Customer that (a) pursuant to this Tariff, Part VIII reimburses Transmission Provider for the costs of constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Network Upgrades required to accommodate its New Service Request or Upgrade Request, shall be entitled to receive the Incremental Auction Revenue Rights as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(A). However, a Transmission Project Developer that interconnects Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System shall be entitled to Incremental Auction Revenue Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Transmission Project Developer has elected, pursuant to Tariff, Part VIII, Subpart E, section 428, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Auction Revenue Rights

No less than 45 days prior to the in-service date, as determined by the Office of the Interconnection, of the applicable transmission facility or upgrade related to a New Service Request or Upgrade Request, the Office of the Interconnection shall notify the Transmission Project Developer or Upgrade Customer that has responsibility to reimburse the costs of, or responsibility for, constructing or completing the transmission facility or upgrade, that initial requests for Incremental Auction Revenue Rights associated with the transmission facility or upgrade must be submitted to the Office of the Interconnection within a time period specified by the Office of the Interconnection in the notification. The Office of the Interconnection then shall commence a three-round allocation process. In round one, one-third of the Incremental Auction Revenue Rights available for each point-to-point combination requested in that round will be assigned to the requesters of the specific combinations in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3).

In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In round three,

all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.

3. Determination of Incremental Auction Revenue Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Auction Revenue Rights to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VIII, Subpart E, section 427(A)(2) using the tools described in Tariff, Attachment K, including an assessment of the simultaneous feasibility of any Incremental Auction Revenue Rights and all other outstanding Auction Revenue Rights. For each requested point-to-point combination, the Office of the Interconnection shall determine, simultaneously with all other requested point-to-point combinations, the base system Auction Revenue Rights capability, excluding the impact of any new transmission facilities or upgrades necessary to accommodate New Service Requests or Upgrade Requests. The Office of the Interconnection then shall similarly determine, for each requested point-to-point combination, the Auction Revenue Rights capability, including the impact of any new transmission facilities or upgrades. For each point-to-point combination, the Incremental Auction Revenue Rights capability shall be the difference between the Auction Revenue Rights capability in the base system analysis and the Auction Revenue Rights capability in the analysis including the impact of the new transmission facilities and upgrades. When multiple Transmission Project

Developers or Upgrade Customers have cost responsibility for the same new transmission facility or upgrade, Incremental Auction Revenue Rights shall be assigned to each Transmission Project Developer or Upgrade Customer in proportion to the Transmission Project Developer's or Upgrade Customer's relative cost responsibilities for the facility and in inverse proportion to the relative flow impact on constrained facilities or interfaces of the point-to-point combinations selected by the Transmission Project Developer or Upgrade Customer.

4. Duration of Incremental Auction Revenue Rights

Incremental Auction Revenue Rights received by a Transmission Project Developer or Upgrade Customer pursuant to this Tariff, Part VIII, Subpart E, section 427(A) shall be available as of the first day of the first month that the Network Upgrades required to accommodate its New Service Request or Upgrade Request that are associated with the Incremental Auction Revenue Rights are included in the transmission system model for the monthly FTR auction and shall continue to be available for 30 years or for the life of the associated facility or upgrade, whichever is less, subject to any subsequent pro-rata reductions of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with Tariff, Attachment K - Appendix. At any time during this 30-year period (or the life of the facility or upgrade, whichever is less), in lieu of continuing this 30-year Auction Revenue Right, the Transmission Project Developer, or Upgrade Customer shall have a one-time choice to switch to an optional mechanism, whereby, on an annual basis, the Transmission Project Developer or Upgrade Customer has the choice to request an Auction Revenue Right during the annual Auction Revenue Rights allocation process (pursuant to Tariff, Attachment K – Appendix, section 7.4.2) between the same source and sink, provided the Auction Revenue Right is simultaneously feasible, pursuant to Tariff, Attachment K – Appendix, section 7.5. A Transmission Project Developer or Upgrade Customer may return Incremental Auction Revenue Rights that it no longer desires at any time, provided that the Office of the Interconnection determines that it can simultaneously accommodate all remaining outstanding Auction Revenue Rights following the return of such Auction Revenue Rights. In the event a Transmission Project Developer or Upgrade Customer returns Incremental Auction Revenue Rights, the Transmission Project Developer or Upgrade Customer shall have no further rights regarding such Incremental Auction Revenue Rights.

5. Value of Incremental Auction Revenue Rights

The value of Incremental Auction Revenue Right(s) to be provided to a Transmission Project Developer or Upgrade Customer associated with a particular transmission facility or upgrade pursuant to Tariff, Part VIII, Subpart E, section 427(A)(2) that become effective at the beginning of a Planning Period shall be determined in the same manner as annually allocated Auction Revenue Right(s)

based on the nodal prices resulting from the annual Financial Transmission Rights auction. The value of such Incremental Auction Revenue Rights that become effective after the commencement of a Planning Period shall be determined on a monthly basis for each month in the Planning Period beginning with the month the Incremental Auction Revenue Right(s) becomes effective. The value of such Incremental Auction Revenue Right shall be equal to the megawatt amount of the Incremental Auction Revenue Rights multiplied by the LMP differential between the source and sink nodes of the corresponding FTR obligations in each prompt-month FTR auction that occurs from the effective date of the Incremental Auction Revenue Rights through the end of the relevant Planning Period. For each Planning Period thereafter, the value of such Incremental Auction Revenue Rights shall be determined in the same manner as Incremental Auction Revenue Rights that became effective at the beginning of a Planning Period.

6. Rate-based Facilities

No Incremental Auction Revenue Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

B. Incremental Capacity Transfer Rights

1. Right of Transmission Project Developer or Upgrade Customer to Incremental Capacity Transfer Rights

A Transmission Project Developer that interconnects Merchant Transmission Facilities with the Transmission System shall be entitled to receive any Incremental Capacity Transfer Rights that are associated with the interconnection of such Merchant Transmission Facilities as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(B). In addition, an Upgrade Customer that (a) reimburses Transmission Provider for the costs of constructing or completing Customer-Funded Upgrades, or (b) pursuant to its Construction Service Agreement undertakes responsibility for constructing or completing Customer-Funded Upgrades shall be entitled to receive any Incremental Capacity Transfer Rights associated with such required facilities and upgrades as determined in accordance with this Tariff, Part VIII, Subpart E, section 427(B).

a. Certain Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities

A Transmission Project Developer (a) that interconnects Merchant D.C. transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System, one terminus of which is located outside the PJM Region and the other terminus of which is located within the PJM Region, and (b) that will be a Merchant Transmission Provider,

shall not receive any Incremental Capacity Transfer Rights with respect to its Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities. Transmission Provider shall not include available transfer capability at the interface(s) associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities in its calculations of Available Transfer Capability under Tariff, Attachment C.

2. Procedures for Assigning Incremental Capacity Transfer Rights

After execution of a Study Agreement but prior to the issuance of an Interconnection Agreement or Upgrade Construction Service Agreement, a Transmission Project Developer or Upgrade Customer may request the Office of the Interconnection to determine the Incremental Capacity Transfer Rights as measured by the increase in Capacity Emergency Transfer Limit resulting from the interconnection or addition of Merchant Transmission Facilities or a Customer-Funded Upgrade identified in the System Impact Study for the related New Service Request. At the time of such request, the Transmission Project Developer or Upgrade Customer must also specify no more than three Locational Deliverability Areas in which to determine the Incremental Capacity Transfer Rights. Subject to the limitation of Tariff, Part VIII, Subpart E, section 427(B)(1)(a), the Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with Merchant Transmission Facilities to the Transmission Project Developer that is interconnecting such facilities. The Office of the Interconnection shall allocate the Incremental Capacity Transfer Rights associated with a Customer-Funded Upgrade to the Upgrade Customer(s) bearing cost responsibility for such facility or upgrade in proportion to each Upgrade Customer's cost responsibility for the facility or upgrade.

3. Determination of Incremental Capacity Transfer Rights to be Provided to Transmission Project Developer or Upgrade Customer

The Office of the Interconnection shall determine the Incremental Capacity Transfer Rights to be provided to Transmission Project Developers or Upgrade Customers in accordance with the applicable terms of the Reliability Pricing Model, in Tariff, Attachment DD, and pursuant to the procedures specified in the PJM Manuals.

4. Duration of Incremental Capacity Transfer Rights

Incremental Capacity Transfer Rights received by a Transmission Project Developer or Upgrade Customer shall be effective for 30 years from, as applicable, commencement of Interconnection Service, Transmission Service, or Network Service for the affected Transmission Project Developer or Upgrade Customer or the life of the pertinent facility or upgrade, whichever is shorter, subject to any subsequent pro-rata reallocations of all Capacity Transfer Rights

(including Incremental Capacity Transfer Rights) in accordance with the PJM Manuals.

5. Rate-based Facilities

No Incremental Capacity Transfer Rights shall be received by a Transmission Project Developer or Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

C. Incremental Deliverability Rights

1. Right of Transmission Interconnection Customer to Incremental Deliverability Rights

A Transmission Project Developer shall be entitled to receive the Incremental Deliverability Rights associated with its Merchant Transmission Facilities as determined in accordance with this section, provided, however, that a Transmission Project Developer that proposes to interconnect Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area shall be entitled to Incremental Deliverability Rights associated with such Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities only if the Interconnection Customer has elected, pursuant to Tariff, Part VIII, Subpart E, section 428, to receive Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Deliverability Rights in lieu of Transmission Injection Rights and/or Transmission Withdrawal Rights.

2. Procedures for Assigning Incremental Deliverability Rights

Transmission Provider shall include in the System Impact Study a determination of the Incremental Deliverability Rights associated with the Transmission Project Developer's Merchant Transmission Facilities. Transmission Provider shall post on its OASIS the Incremental Deliverability Rights that it assigns to the Transmission Project Developer under this section 427(C)(2).

3. Determination of Incremental Deliverability Rights to be Provided to Transmission Project Developer

Transmission Provider shall determine the Incremental Deliverability Rights to be provided to a Transmission Project Developer associated with proposed Merchant Transmission Facilities under Tariff, Part VIII, Subpart E, section 427(C)(2) pursuant to procedures specified in the PJM Manuals.

4. Duration of Incremental Deliverability Rights

Incremental Deliverability Rights assigned to a Transmission Project Developer shall be effective until the earlier of the date that is one year after the commencement of Interconnection Service for such customer or the date that such Transmission Project Developer's New Service Request is withdrawn and terminated, or deemed to be so, in accordance with the Tariff. Notwithstanding the preceding sentence, Incremental Deliverability Rights that are transferred pursuant to an IDR Transfer Agreement under the Tariff shall be deemed to be Capacity Interconnection Rights of the generation owner that acquires them under such agreement upon commencement of Interconnection Service related to the generation owner's Generating Facility and shall remain effective for the life of such Generating Facility, or for the life of the Merchant Transmission Facilities associated with the transferred IDRs, whichever is shorter. The deemed conversion of IDRs to Capacity Interconnection Rights under this Tariff, Part VIII, Subpart E, section 427(C)(4) shall not affect application to such IDRs of the other provisions of this Tariff, Part VIII, Subpart E, section 427(C). A Transmission Project Developer may return Incremental Deliverability Rights that it no longer desires at any time. In the event that a Transmission Project developer returns Incremental Deliverability Rights, it shall have no further rights regarding such Incremental Deliverability Rights.

5. Transfer of Incremental Deliverability Rights

Incremental Deliverability Rights may be sold or otherwise transferred at any time after they are assigned pursuant to Tariff, Part VIII, Subpart E, section 427(C)(2), subject to execution and submission of an IDR Transfer Agreement in accordance with the Tariff. The transfer of Incremental Deliverability Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 427(C)(7) regarding loss of Incremental Deliverability Rights.

6. Effectiveness of Incremental Deliverability Rights

Incremental Deliverability Rights shall not entitle the holder thereof to use the capability associated with such rights unless and until Transmission Provider commences Interconnection Service related to the Merchant Transmission Facilities associated with such rights.

7. Loss of Incremental Deliverability Rights

Incremental Deliverability Rights shall be extinguished (a) in the event that the New Service Request of the Transmission Project Developer to which the rights were assigned is withdrawn and terminated, or deemed to be so, as provided in the Tariff, without regard for whether the rights have been transferred pursuant to an IDR Transfer Agreement, or (b) such rights are not transferred pursuant to an IDR Transfer Agreement on or before the date that is one year after the commencement of Interconnection Service related to the Merchant Transmission Facilities with which the rights are associated.



8. Rate-based Facilities

No Incremental Deliverability Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

**Tariff, Part VIII, Subpart F, section 433**  
**Wholesale Market Participation Agreement/Non-Jurisdictional Agreements**

- A. In some instances, Generation Project Developer may physically connect its Generating Facility to non-jurisdictional distribution or sub-transmission facilities in order to access the electrical Point of Interconnection on the Transmission System (the “POI”), for the purpose of engaging in FERC-jurisdictional Wholesale Transactions. In those instances, Generation Project Developer must enter into both a (1) non-jurisdictional interconnection agreement with the owner or operator of the non-jurisdictional distribution or sub-transmission facilities, which governs the physical connection of the Generating Facility to those non-jurisdictional facilities; and (2) a three-party Wholesale Market Participation Agreement (“WMPA”) with PJM and the affected Transmission Owner in order to effectuate Wholesale Transactions in PJM’s markets.
  
- B. Generation Project Developer shall follow the Application Rules of Tariff, Part VIII, Subpart C, section 403 that apply to a Generating Facility, and shall complete the Application and Studies Agreement set forth in Tariff, Part IX, Subpart A (the “Application”). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of injecting energy at the Point of Interconnection and engaging in FERC-jurisdictional Wholesale Transactions.
  
- C. Generation Project Developer shall provide with the Application a copy of the executed interconnection agreement that governs the physical connection of the Generating Facility to the non-jurisdictional distribution or sub-transmission facilities, if the interconnection agreement is available. If the interconnection agreement is not yet available, Generation Project Developer shall provide with the Application all available documentation demonstrating that Generation Project Developer has requested or applied for interconnection through the relevant non-jurisdictional process, and Generation Project Developer shall provide a status report.
  
- D. In order to proceed to the execution of a WMPA, Generation Project Developer must demonstrate that it has executed the non-jurisdictional interconnection agreement by no later than Decision Point III in the applicable Cycle.

**Tariff, Part VIII, Subpart G, section 434**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VIII, Subpart C, section 407(A)(1)(c), as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facilities Study Application and Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facilities Study Application and Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
  - b. Transmission Provider shall not start the review of the Affected System Customer Facilities Study Application and Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
  - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - i. Affected System Customer is responsible for, and must pay, all actual study costs.
    - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facilities Study Application and Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facilities Study Application and Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the

developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VIII.

- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
  - i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement with the FERC.

- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall either:
  - i. execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement or Network Upgrade Cost Responsibility Agreement unexecuted, with the unexecuted Construction Service Agreement or Network Upgrade Cost Responsibility Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement unexecuted, with the unexecuted Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such

agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.



**Tariff, Part VIII, Subpart H, section 435**  
**Upgrade Requests**

A. Applicability

Tariff, Part VIII, Subpart H, section 435 applies to valid Upgrade Requests submitted on or after October 1, 2020, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction

Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)

- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to

- complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30<sup>th</sup> day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.
    - i. Readiness Deposit refunds will be handled as follows:
      - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
      - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
    - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
  3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.

6. Tariff, Part VIII, Subpart E, section 416, Base Case Data, requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.
8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.

2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.

a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

b. Application Requirements for Merchant Network Upgrade Requests

For Transmission Provider to consider an Application complete, the Upgrade Customer must include, at a minimum, each of the following, as further described in the Application and PJM Manuals:

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
- v. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and

construction of the Merchant Network Upgrade will take more than seven years; and

- vi. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.

c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

#### F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

#### G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade



Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the upgrade study process, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation  
Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60<sup>th</sup> day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse  
If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. If Transmission Provider, in its sole discretion, determines that the negotiations are at an

impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the Upgrade Construction Service Agreement, Upgrade Customer shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

(c) request in writing that Transmission Provider file with FERC the Upgrade Construction Service Agreement unexecuted, with the Upgrade Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or

(c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

#### H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system.

##### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5) of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VIII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VIII, Subpart H, section 435 to the affected Transmission Owner(s).

##### 2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430, except to the extent the applicable terms of Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430 provide otherwise.

##### 3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with Operating Agreement, Schedule 6.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VIII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;

4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

### **Tariff, Part IX, Section 500, Execution Deadlines**

Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer, Upgrade Customer, or Affected System Customer and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider's tender for execution of such agreement, Project Developer, Eligible Customer, Upgrade Customer, or Affected System Customer, shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer, Upgrade Customer or Affected System Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer, Upgrade Customer or Affected System Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.

With the filing of any unexecuted agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between the parties.

**Tariff, Part IX, Subpart A**

**Form of  
Application and Studies Agreement**

1. This Application and Studies Agreement (“Application” or “Agreement”), dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (Project Developer or Eligible Customer, hereafter “Applicant”) and PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) (individually a “Party” and together the “Parties”) pursuant to PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part VII, Subpart C or Part VIII, Subpart B. Capitalized terms used in this Application, unless otherwise indicated, shall have the meanings ascribed to them in Tariff, Part VII, Subpart A, section 300 or Part VIII, Subpart A, section 400.
2. Prior to the Application Deadline, Applicant must electronically provide to Transmission Provider through the PJM website or OASIS, as applicable, all applicable information identified below, which is then subject to validation during the Application Phase as set forth in Tariff, Part VII, Subpart C or Tariff, Part VIII, Subparts B and C and in the PJM Manuals. Only valid New Service Requests will proceed past the Application Phase.
3. Before Transmission Provider will review or process the Application, in addition to submitting a completed and signed Application prior to the Application Deadline, Applicant must electronically submit to Transmission Provider prior to the Application Deadline the (i) required cash Study Deposit by wire transfer and (ii) required Readiness Deposit by wire transfer or letter of credit. Applicant’s wire transfer(s) or letter(s) of credit must specify the Application reference number to which the Study Deposit and Readiness Deposit correspond, or Transmission Provider will not review or process the Application.

**SECTION 1: APPLICANT INFORMATION**

4. Name, address, telephone number, and e-mail address of Applicant. If Applicant has designated an agent, include the agent’s contact information.

Applicant

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Applicant’s Agent (if applicable)

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Agent's contact person: \_\_\_\_\_

5. An Internal Revenue Service Form W-9 or comparable state-issued document for Applicant.
6. Documentation proving the existence of a legally binding relationship between Applicant and any entity with a vested interest in this Application and associated project (*e.g.*, a parent company, a subsidiary, or financing company acting as agent for Applicant). Such documentation may include, but is not limited to, Applicant's Articles of Organization and Operating Agreement describing the nature of the legally binding relationship.
7. Applicant's banking information, or the banking information of any entity with a legally binding relationship to Applicant that wishes to make payments and receive refunds on behalf of Applicant, in association with this Application and corresponding project:

Bank Name: \_\_\_\_\_

Account Holder Name: \_\_\_\_\_

ABA number: \_\_\_\_\_

Account Number: \_\_\_\_\_

Company: \_\_\_\_\_

Tax Reporting Name: \_\_\_\_\_

Tax ID: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

8. If the Application is a request for long-term firm transmission service, see section 3.
9. Location of the proposed Point of Interconnection (POI) to the Transmission System, including the substation name or the name of the line to be tapped (including the voltage),



the estimated distance from the substation endpoints of a line tap, address, and GPS coordinates.

POI substation name: \_\_\_\_\_ or  
POI line name: \_\_\_\_\_ (endpoint 1) to \_\_\_\_\_ (endpoint 2)  
POI Distance from endpoint 1: \_\_\_\_\_ miles  
POI Distance from endpoint 2: \_\_\_\_\_ miles  
Interconnection voltage: \_\_\_\_\_ kV  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
GPS Coordinates: \_\_\_\_\_ N \_\_\_\_\_ W

10. If the project is a Merchant Transmission Facility, see section 4.

## SECTION 2: GENERATING FACILITY SPECIFICATIONS

11. Specify the nature of the Generating Facility project.

\_\_\_\_ New Generating Facility

\_\_\_\_ Increase in generation capability of an existing Generating Facility

\_\_\_\_ Replacement of existing Generating Facility with no increase in generation capability

12. Specify the type of Interconnection Service requested for the Generating Facility.

\_\_\_\_ Energy Resource only

\_\_\_\_ Capacity Resource (includes Energy Resource) with Capacity Interconnection Rights

13. Provide the following information about the Generating Facility:

- a. Generating Facility location and site plan:

Provide a physical address or equivalent written description of the location of the Generating Facility, as well as global positioning system (GPS) coordinates. When known, provide GPS coordinates for the location of the Generating Facility's main power transformer(s).

Provide a current site plan in PDF depicting the (1) property boundaries; (2) Generating Facility layout, including the Generating Facility's collector substation (if applicable) or interconnection switchyard (if required); and (3) Interconnection Facilities extending from the Generating Facility's main power transformer(s) to the proposed POI.

b. Generating Facility Site Control:

In accordance with Tariff, Part VII, Subpart A, section 302 or Part VIII, Subpart A, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for the Generating Facility, including the location of the high-voltage side of the Generating Facility's main power transformer(s). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.

c. Will the Generating Facility physically connect to distribution or sub-transmission facilities currently not subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC), for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions, as described in Tariff, Part VII, Subpart F or Tariff, Part VIII, Subpart F? (Y/N)

If yes, if available, provide with this Application a copy of the executed interconnection agreement between Applicant and the owner of the distribution or sub-transmission facilities to which the Generating Facility will physically connect. If the two-party interconnection agreement is not yet available, provide any available documentation demonstrating that Applicant has requested or applied for interconnection through the relevant non-jurisdictional process, and provide a status report.

d. For the Generating Facility, has Applicant obtained, or does Applicant intend to obtain, Qualifying Facility status under the Public Utility Regulatory Policies Act? (Y/N)

If yes, provide evidence of Qualifying Facility status or eligibility. Further, verify that Applicant intends that the Qualifying Facility will engage in Wholesale Transactions in PJM's FERC-jurisdictional wholesale markets (Y/N).

e. Will the Generating Facility share Project Developer's Interconnection Facilities with another Generating Facility, either existing or planned? (Y/N)

If yes, demonstrate that the relevant parties have entered into, or will enter into, a shared facilities agreement with respect to the shared Interconnection Facilities.

f. Maximum Facility Output and Capacity Interconnection Rights:

i. For a new Generating Facility, provide the following information:

Total Requested Maximum Facility Output (maximum injection at the POI), in Megawatts	
Total Requested Capacity Interconnection Rights, in Megawatts	

ii. For a requested increase in generation capability of an existing Generating Facility, identify the Generating Facility and provide the following information:

	Existing	Requested Increase	Total
Maximum Facility Output (maximum injection at the POI), in Megawatts			
Capacity Interconnection Rights, in Megawatts			

iii. For a new Behind the Meter Generating Facility, provide the following information:

Gross Output in Megawatts	
Behind the Meter Load in Megawatts (the sum of auxiliary load and any other load to be served behind the meter)	
Total Requested Maximum Facility Output (maximum injection at the POI), in Megawatts	

Total Requested Capacity Interconnection Rights, in Megawatts	
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- iv. For a requested increase in generation capability of an existing Behind the Meter Generating Facility, identify the Generating Facility and provide the following information:

	Existing	Increase	Total
Gross Output in Megawatts			
Behind the Meter Load in Megawatts (the sum of auxiliary load and any other load to be served behind the meter)			
Maximum Facility Output (maximum injection at the POI), in Megawatts			
Capacity Interconnection Rights, in Megawatts			

- g. Provide a description of the equipment configuration and electrical design specifications for the Generating Facility, as further defined in the PJM Manuals and reflected in the single-line diagram.
- h. Specify the fuel type of the Generating Facility.
- i. If the Generating Facility will be a multi-fuel Generating Facility, or if a proposed increase in generation capability of an existing Generating Facility will create a multi-fuel Generating Facility, describe the physical and electrical configuration in as much detail as possible.
- j. If the Generating Facility will include storage device(s), will the storage device(s) be charged using energy from the Transmission System at any time? (Y/N)

If yes, specify the maximum that will be withdrawn from the Transmission System at any time: \_\_\_ MWh (or kWh)

If yes, provide other technical and operating information on the storage device(s) as set forth in the PJM Manuals, including MWh stockpile and hour class, as applicable.

- k. If the Generating Facility will include storage, provide the primary frequency response operating range for the electric storage component, as described in the PJM Manuals.

Minimum State of Charge: \_\_\_\_\_ Maximum State of Charge: \_\_\_\_\_

- l. For a Behind the Meter Generating Facility, provide the following information (note that all of the provisions in Tariff, Part VII, Subpart E, section 317 or Tariff, Part VIII, Subpart E, section 415 apply):

- i. Identify the type and size of the load co-located (or to be co-located) with the Generating Facility, and attach a detailed single-line diagram in PDF depicting the electrical location of the load in relation to the Generating Facility.

- ii. Describe the electrical connections between the Generating Facility and the co-located load, as shown in the single-line diagram.

- m. Provide the date that the new Generating Facility, or the increase in generation capability of an existing Generating Facility, will be in service.

- n. Provide other relevant information for the Generating Facility including, but not limited to, identifying whether Applicant has submitted a previous Application; and, if this Application proposes an increase in generation capability of a Generating Facility, identify whether the Generating Facility is subject to an existing PJM Service Agreement; and, if so, provide those details.

**SECTION 3: LONG-TERM FIRM TRANSMISSION SERVICE**

- 14. Request:

OASIS Request	Start	Stop	Amount	Path	Date & Time Request

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- 15. **PURPOSE:** A Phase I System Impact Study, incorporated within a Cycle’s System Impact Studies, is used to determine whether the Transmission System is adequate to accommodate all or part of an Applicant’s request for long-term firm transmission service under Tariff, Part II (POINT-TO-POINT TRANSMISSION SERVICE) and Tariff, Part III (NETWORK INTEGRATION TRANSMISSION SERVICE). The FERC comparability standard is applied in evaluating the impact of all requests.
- 16. **SCOPE OF WORK AND STUDY DEPOSIT:** PJM will perform a Phase I System Impact Study to determine if the PJM network has sufficient capability to grant Applicant’s request for long-term firm transmission service, based on expected system conditions and topology. The required cash Study Deposit for the Phase I System Impact Study, as described in Tariff, Part VII, Subpart B, section 306(A) or Tariff, Part VIII, Subpart B, section 403(A), is due prior to the Application Deadline.
- 17. **NETWORK ANALYSIS AND DELIVERABILITY TEST:** PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating Interconnection Requests. The energy from a Generating Facility or the energy delivered using long-term firm transmission service that is ultimately committed to meet resource requirements must be deliverable to where it is needed in the event of a system emergency. Therefore, there must be sufficient transmission network transfer capability within the control area. PJM determines the sufficiency of network transfer capability through a series of “deliverability tests.” All Interconnection Requests and long-term firm transmission service requests in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.
- 18. Skip to section 5.

**SECTION 4: MERCHANT TRANSMISSION FACILITY SPECIFICATIONS**

- 19. Applicant requests interconnection to the Transmission System of Merchant Transmission Facilities with the following specifications:
  - a. Location of proposed facilities:  


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  - b. Substation(s) where Applicant proposes to interconnect or add its facilities:  


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  - c. Proposed voltage and nominal capability of new facilities or increase in capability of existing facilities:  


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d. Description of proposed facilities and equipment:

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e. Planned date the proposed facilities or increase in capability will be in service:

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f. Will the proposed facilities be Merchant A.C. or Merchant D.C. Transmission Facilities or Controllable A.C. Merchant Transmission Facilities?

A.C. \_\_\_\_\_ or D.C. \_\_\_\_\_ or Controllable A.C. \_\_\_\_\_

i. If the proposed facilities will be Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, does Applicant elect to receive either:

\_\_\_\_\_ (1) Firm or Non-Firm Transmission Injection Rights (TIR) and/or Firm or Non-Firm Transmission Withdrawal Rights (TWR)

OR

\_\_\_\_\_ (2) Incremental Deliverability Rights, Incremental Auction Revenue Rights, and Incremental Available Transfer Capability Revenue Rights.

If Applicant elects (1) above, provide the following:

\_\_\_\_\_ Total project MWs to be evaluated as Firm (capacity) injection for TIR.

\_\_\_\_\_ Total project MWs to be evaluated as Non-firm (energy) injection for TIR.

\_\_\_\_\_ Total project MWs to be evaluated as Firm (capacity) withdrawal for TWR.

\_\_\_\_\_ Total project MWs to be evaluated a Non-firm (energy) withdrawal for TWR.

If Applicant elects (2) above, state the location on the Transmission System where Applicant proposes to receive Incremental Deliverability Rights associated with its proposed facilities:

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ii. If the proposed facilities will be Controllable A.C. Merchant Transmission Facilities, and provided that Applicant contractually binds itself in the Service Agreement related to its project always to operate its Controllable A.C. Merchant Transmission Facilities in a manner effectively the same as operation of D.C. transmission facilities, the Service Agreement will provide Applicant with the same types of transmission rights that are available under the Tariff for Merchant D.C. Transmission Facilities. For purposes of this Agreement, Applicant represents that, should it execute a Service Agreement for its project described herein, it will agree in the Service Agreement to operate its facilities continuously in a controllable mode.

iii. If the proposed facilities will be Merchant A.C. Transmission Facilities without continuous controllability as described in the preceding paragraph, specify the location on the Transmission System where Applicant proposes to receive any Incremental Deliverability Rights associated with its proposed facilities:

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20. Site Control: In accordance with Tariff, Part VII, Subpart A, section 302 or Part VIII, Subpart A, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for Applicant's major equipment (e.g., converter station). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.

#### **SECTION 5: SCOPE AND TIMING OF SYSTEM IMPACT STUDIES**

21. Transmission Provider, in consultation with the affected Transmission Owner(s), will conduct System Impact Studies, in three phases, to provide Applicant with information on the required Interconnection Facilities and Network Upgrades needed to support Applicant's New Service Request.
22. Consistent with Tariff, Part VII, Subpart C or Tariff, Part VIII, Subparts C and D, the Phase I System Impact Study begins at the end of the 90-day Application Review Phase, and runs for 120 days followed by a 30-day Decision Point I period for withdrawal or modification. If no withdrawal, the Phase II System Impact Study begins at the end of the Decision Point 1 period and runs for 180 days followed by a 30-day Decision Point II period for withdrawal or modification. If no withdrawal, the Phase III System Impact Study begins at the end of the Decision Point II period and runs for 180 days followed by release of the Phase III System Impact Study report and the start of final agreement



negotiations. If a phase or period does not end on a Business Day, the phase or period shall be extended to end on the next Business Day.

23. The System Impact Studies include good faith estimates that attempt to determine the cost of necessary facilities, and upgrades to existing facilities, to accommodate Applicant's New Service Request, and to identify Applicant's cost responsibility, but those estimates shall not be deemed final or binding. The scope of the System Impact Studies may include, but are not limited to, short circuit analyses, stability analyses, an interconnection facilities study, and a system upgrades facilities study.
24. The System Impact Studies necessarily will employ various assumptions regarding Applicant's New Service Request, other New Service Requests, and PJM's Regional Transmission Expansion Plan at the time of study. IN NO EVENT SHALL THIS AGREEMENT OR THE SYSTEM IMPACT STUDIES IN ANY WAY BE DEEMED TO OBLIGATE TRANSMISSION PROVIDER OR TRANSMISSION OWNERS TO CONSTRUCT ANY FACILITIES OR UPGRADES OR TO PROVIDE ANY TRANSMISSION OR INTERCONNECTION SERVICE TO OR ON BEHALF OF APPLICANT EITHER AT THIS POINT IN TIME OR IN THE FUTURE.
25. Consistent with Tariff, Part VII, Subpart G or Tariff, Part VIII, Subpart G, Transmission Provider will coordinate with Affected System Operators the conduct of studies required to determine the impact of a New Service Request on any Affected System, and will include those results in the Phase II System Impact Study if available from the Affected System. Applicant will cooperate with Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate Applicant's New Service Request.

#### **SECTION 6: CONFIDENTIALITY**

26. Applicant agrees to provide all information requested by Transmission Provider necessary to complete and review this Application. Subject to this section 6, and to the extent required by Tariff Part VII, Subpart E, section 327 or Tariff, Part VIII, Subpart E, section 425, information provided pursuant to this Application shall be and remain confidential.
27. Upon completion of each System Impact Study for a New Service Request, the corresponding reports will be listed on Transmission Provider's website and, to the extent required by Tariff, Part VII, Subpart E, section 327 or Tariff, Part VIII, Subpart E, section 425 or Commission regulations, will be made publicly available. Applicant acknowledges and consents to such disclosures as may be required under Tariff, Part VIII, Subpart E, section 425 or Commission regulations.
28. Applicant acknowledges that, consistent with the confidentiality provisions of Tariff, Part VII, Subpart E, section 327 or Tariff, Part VIII, Subpart E, section 425, Transmission Provider may contract with consultants, including Transmission Owners, to provide services or expertise in the study process, and Transmission Provider may disseminate

information as necessary to those consultants, and rely upon them to conduct part or all of the System Impact Studies.

#### **SECTION 7: COST RESPONSIBILITY**

29. Transmission Provider shall apply Applicant's Study Deposit in payment of the invoices for the costs of the System Impact Studies.
30. Actual study costs may exceed the Study Deposit. Notwithstanding the amount of the Study Deposit, Applicant shall reimburse Transmission Provider for all, or for Applicant's allocated portion of, the actual cost of the System Impact Studies in accordance with Applicant's cost responsibility. Applicant is responsible for, and must pay, all actual study costs. If Transmission Provider sends Applicant notification of additional study costs, then Applicant must either: (i) pay all additional study costs within 20 days (or, if the 20<sup>th</sup> day is not a Business Day, then the next Business Day) of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its New Service Request. If Applicant fails to complete either (i) or (ii), then Transmission Provider shall deem the New Service Request to be terminated and withdrawn.

#### **SECTION 8: DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

31. In completing the System Impact Studies, Transmission Provider, Transmission Owner(s), and any other subcontractors employed by Transmission Provider must rely on information provided by Applicant and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDIES. Applicant acknowledges that it has not relied on any representations or warranties not specifically set forth herein, and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the System Impact Studies prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by Transmission Provider or Transmission Owner(s) to provide Interconnection Service or transmission service to or on behalf of Applicant either at this time or in the future.
32. In no event will Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether under this agreement or otherwise, even if Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider have been advised of the possibility

of such a loss. Nor shall Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of Transmission Provider's obligations under this Agreement.

### SECTION 9: MISCELLANEOUS

33. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Applicant:

\_\_\_\_\_  
\_\_\_\_\_

34. No waiver by either Party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
35. This Agreement, or any part thereof, may not be amended, modified, or waived other than by a writing signed by all Parties.
36. This Agreement shall be binding upon the Parties, their heirs, executors, administrators, successors, and assigns.
37. This Agreement shall become effective on the date it is executed by both Parties and shall remain in effect until the earlier of (a) the date on which Applicant enters into a final Service Agreement with PJM (and Transmission Owner as applicable) in accordance with Tariff, Part VII, Subpart D or Tariff, Part VIII, Subpart D or (b) termination or withdrawal of this Application.
38. **Governing Law, Regulatory Authority, and Rules:**  
This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and

construed in accordance with, the applicable Federal laws and/or laws of the State of Delaware without regard to conflicts of law provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

39. No Third-Party Beneficiaries:

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest, and where permitted their assigns.

40. Multiple Counterparts:

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which constitute one and the same instrument.

41. No Partnership:

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

42. Severability:

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

43. Reservation of Rights:

Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission ("FERC") to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; and Applicant shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC

under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

Applicant: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

(Project Identifier #\_\_\_\_)

**GENERATION INTERCONNECTION AGREEMENT**  
**By and Between**  
**PJM INTERCONNECTION, L.L.C.**  
**And**

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**And**

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**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_)

- 1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), \_\_\_\_\_ (“Project Developer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]
- 2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a GIA under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.
- 3.0 Generating Facility or Merchant Transmission Facility Specifications. Attached are Specifications for the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect with the Transmission System. Project Developer represents and warrants that, upon completion of construction of such facilities, it will own or control the Generating Facility or Merchant Transmission Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that Project Developer will not own the Generating Facility or Merchant Transmission



Facility, Project Developer represents and warrants that it is authorized by the owner(s) thereof to enter into this GIA and to represent such control.

- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this GIA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is filed with FERC unexecuted, upon the date specified by FERC. This GIA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this GIA. The term of the GIA shall be as provided in section 1.3 of Appendix 2 to this GIA. Interconnection Service shall commence as provided in section 1.2 of Appendix 2 to this GIA.
- 5.0 Security. In accord with the GIP, Project Developer shall provide the Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmissions Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$\_\_\_\_\_. Such Security can also be applied to unpaid Cancellation Costs and for completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades. This amount represents the sum of the estimated Costs, determined in accordance with the GIP for which the Project Developer will be responsible, less any Costs already paid by Project Developer. Project Developer acknowledges that its ultimate cost responsibility will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.
- 6.0 Project Specific Milestones. In addition to the milestones stated in the GIP as applicable, during the term of this GIA, Project Developer shall ensure that it meets each of the following development milestones:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand (sections should be renumbered as appropriate):]

- 6.1 Substantial Site work completed. On or before \_\_\_\_\_, Project Developer must demonstrate completion of at least 20 percent of project site construction. At this time, Project Developer must submit to Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities.
- 6.2 Delivery of major electrical equipment. On or before \_\_\_\_\_, Project Developer must demonstrate that \_\_\_\_ generating units have been delivered to Project Developer’s project site.  
[Instructions: the following provisions can be used be as mutually agreed upon, and as an alternative to the milestones set forth in the GIP (renumber sections as appropriate):]

6.2.1\_\_\_\_ Fuel delivery agreement and water agreement. Project Developer must demonstrate it has entered into a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnection by \_\_\_\_\_.

6.2.2\_\_\_\_ Local, county, and state site permits. Project Developer must obtain all necessary local, county, and state site permits by \_\_\_\_\_.

[Instruction to be used if the Project Developer has not provided evidence of the 100 percent Site Control for the Project Developer's Interconnection Facilities, and any Transmission Owner's Interconnection Facilities or Transmission Owner Upgrades at the Point of Interconnection that the Project Developer will develop prior to entering to a GIA (renumber remaining sections as appropriate):]

6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

6.3 Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of all generating units in order to achieve the full Maximum Facility Output set forth in section 1.0(c) of the Specifications to this GIA. Failure to achieve this Maximum Facility Output may result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes achieving Initial Operation in accordance with section 1.4 of Appendix 2 to this GIA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Instructions: If this GIA is for an incremental increase in output for a facility that already is in commercial operation (i.e., an uprate), then, instead of the above, use the following language for the Commercial Operation milestone.]

[For an uprate where MFO and CIRs will increase, use this alternate language:]

Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase over Project Developer's previous interconnection, as set forth in Specifications, section 1.0(c) of this GIA for increases in Maximum Facility Output and in Specifications, section 2.1 of this GIA for increases in Capacity Interconnection Rights. This incremental increase is a result of the Interconnection Request associated with this GIA. Failure to achieve this Maximum Facility Output shall result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[For CIR-only uprates, use the alternate language that follows. The September 1, \_\_\_\_\_ date for CIR-only uprates is meant to align with Summer Capability Testing for the unit(s). Without this Commercial Operation milestone that is specific to CIR-only uprates, it can be difficult to implement or enforce a Commercial Operation milestone for CIR-only uprates, because the unit is already in Commercial Operation at its specified MFO:]

Commercial Operation. On or before September 1, \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase in Capacity Interconnection Rights over Project Developer's previous interconnection, as set forth in Specifications, section 2.1 of this GIA. Failure to achieve this level of Capacity Interconnection Rights shall result in a permanent reduction of the Capacity Interconnection Rights to the level achieved. This incremental increase in Capacity Interconnection Rights is a result of the Interconnection Request associated with this GIA. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Additional instructions (separate from the Commercial Operation Date provisions): if a specific situation requires a separate Construction Service Agreement by a certain date then use the following:]

Construction Service Agreement. On or before \_\_\_\_\_, Project Developer must have either (a) executed a Construction Service Agreement for Interconnection Facilities or Transmission Owner Upgrades for which Project Developer has cost responsibility; (b) requested dispute resolution under section 12 of the PJM Tariff, or if concerning the Regional Transmission Expansion Plan, consistent with Schedule 5 of the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement"); or (c) requested that the Transmission Provider file the Construction Service Agreement unexecuted with FERC.

- 6.4 Within one month following commercial operation of generating unit(s), Project Developer must provide certified documentation demonstrating that “as-built” Generating Facility or the Merchant Transmission Facilities, and Project Developer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Project Developer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

**[Add Additional Project Specific Milestones as appropriate]**

Project Developer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Project Developer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. Project Developer shall also have a one-time option to extend its milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. This option may only be applied one time for an Interconnection Request, and may only be applied to one single milestone specified in this GIA. Other milestone dates stated in this GIA shall be deemed to be extended coextensively with Project Developer’s use of this provision. Once this extension is used, it is no longer available with regard to any other milestones or other deadlines in this GIA. If the Project Developer fails to meet any of the milestones set forth above, including any extended milestones, its Interconnection Request shall be terminated and withdrawn, in accordance with the provisions of Appendix 2, sections 15 and 16. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

- 7.0 Provision of Interconnection Service. Transmission Provider and Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Project Developer’s Generating Facility or Merchant Transmission Facility identified in the Specifications in accordance with the GIP, the Operating Agreement, and this GIA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 System Impact Study(ies) and/or Facilities Study(ies). In analyzing and preparing the [System Impact Study(ies) and/or Facilities Study(ies)], and in designing and constructing the Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades and/or Transmission Owner Interconnection Facilities described in the Specifications attached to this GIA, Transmission Provider, the Transmission Owner(s),

and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY(IES) AND/OR FACILITIES STUDY(IES) OF THE DISTRIBUTION UPGRADES, NETWORK UPGRADES, STAND ALONE NETWORK UPGRADES AND/OR TRANSMISSION OWNER INTERCONNECTION FACILITIES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.0 Construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

10.1. Cost Responsibility. Project Developer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Generating Facility or Merchant Transmission Facility as specified in the GIP. These Costs may include, but are not limited to, a Distribution Upgrades charge, Network Upgrades charge, Stand Alone Network Upgrades charge, Transmission Owner Interconnection Facilities charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in sections 3.0 and 4.0 of the Specifications to this GIA.

10.2. Billing and Payments. Transmission Provider shall bill the Project Developer for the Costs associated with the facilities contemplated by this GIA, estimates of which are set forth in the Specifications to this GIA, and the Project Developer shall pay such Costs, in accordance with section 11 of Appendix 2 to this GIA and the applicable provisions of Schedule L. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the applicable Transmission Owner. Project Developer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

\_\_\_\_\_ No

10.3. Contract Option. In the event that the Project Developer and Transmission Owner agree to utilize the Negotiated Contract Option as set forth in Schedule L, Appendix 1 to establish, subject to FERC acceptance, non-standard terms

regarding cost responsibility, payment, billing and/or financing, the terms of sections 10.1 and/or 10.2 of this section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in Schedule L to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement if all Project Developers and the relevant Transmission Owner agree.

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

#### 10.4 Interconnection Construction Terms and Conditions

10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.

10.4.2 In the event that the Project Developer elects to construct some or all of the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades under the Option to Build, billing and payment for the Costs associated with the facilities contemplated by this GIA shall relate only to such portion of the Interconnection Facilities and Transmission Owner Upgrades as the Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this GIA.

11.2 List and Ownership of Interconnection Facilities and Transmission Owner Upgrades. The Interconnection Facilities and Transmission Owner Upgrades to be constructed and ownership of the components thereof are identified in section 3.0 of the Specifications attached to this GIA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this GIA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades are identified in Schedule D to this GIA.

## 12.0 Power Factor Requirement.

Consistent with section 4.6 of Appendix 2 to this GIA, the power factor requirement is as follows:

[For Generation Project Developers]

{The following language should be included for new large and small synchronous generation facilities that will have the Tariff specified power factor. This section does not apply if the Interconnection Request is for an incremental increase in generating capability.}

The Project Developer shall design its Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{Include the following language if the Interconnection Request is for an incremental increase in capacity or energy output to a synchronized generation facility}

The existing \_\_\_ MW portion of the Generating Facility shall retain its existing ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

The increase of \_\_\_ MW to the Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 1.0 (unity) to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{For new wind or non-synchronous generation facilities which have submitted a New Service Request. after November 1, 2016, the following applies: }

The Generation Project Developer shall design its [wind-powered] [non-synchronous] Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

{For all wind or non-synchronous Generating Facilities requesting an incremental increase in capacity or energy output which have submitted an Interconnection Request after November 1, 2016, and were not commercially operable prior to November 1, 2016

include the following requirements: }

The existing [wind-powered] [non-synchronous] \_\_\_ MW portion of the Generating Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

The increase of \_\_\_ MW to the [wind-powered] [non-synchronous] Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

[For Transmission Project Developers]

{The following language should be included only for new Merchant Transmission Facilities }

Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.

- 13.0 Charges. In accordance with sections 10 and 11 of Appendix 2 to this GIA, the Project Developer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this GIA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this GIA, except, however, that, subject to modification of the payment terms stated in section 10 of this GIA pursuant to the Negotiated Contract Option, payment obligations imposed on Project Developer under this GIA are agreed and acknowledged to be for the benefit of the Transmission Owner(s). Project Developer expressly agrees that the Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Project Developer for the payment of any Costs or charges authorized under this GIA or the GIP with respect to Interconnection Service for which Project Developer fails, in whole or in part, to pay as provided in this GIA, the GIP and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this GIA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 16.0 Amendment. Except as set forth in Appendix 2, section 12.0 of this GIA, this GIA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the



error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.

- 17.0 Construction With Other Parts of The Tariff. This GIA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this GIA shall be made, in accordance with the terms of Appendix 2 to this GIA, to the representatives of the other party and as applicable, to the Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmission Owner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 19.0 Incorporation of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this GIA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this GIA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this GIA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Project Developer’s Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section 24.1 of Appendix 2 to this GIA, Schedule G to this GIA shall set forth the Project Developer’s agreement to conform with the IRS safe harbor provisions for non-taxable status.

- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this GIA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this GIA.
- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 24.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this GIA to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

Transmission Provider: **PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SPECIFICATIONS FOR  
GENERATION INTERCONNECTION AGREEMENT  
By and Among  
PJM INTERCONNECTION, L.L.C.  
And  
[Name of Project Developer]  
And  
[Name of Transmission Owner]  
(Project Identifier # \_\_\_\_)**

1.0 Description of [Generating Facility] [Merchant Transmission Facilities] to be interconnected with the Transmission System in the PJM Region:

a. Name of Generating Facility or Merchant Transmission Facility:

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b. Location of Generating Facility or Merchant Transmission Facility:

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c. Size in megawatts of Generating Facility or Merchant Transmission Facility:

{The following language should be included only for generating units

For Generation Project Developer:

{Use the following language for all resources}

Maximum Facility Output of \_\_\_\_\_ MW

{Include the following language for Energy Storage Resources}

Maximum load capacity of \_\_\_\_\_ MW)

Minimum State of Charge: \_\_\_\_\_; and

Maximum State of Charge: \_\_\_\_\_.

{The following language applies when a Generation Interconnection Request involves an increase of the capacity of an existing Generating Facility:

The stated size of the generating unit includes an increase in the Maximum Facility Output of the generating unit of \_\_\_ MW over Project Developer’s previous interconnection. This increase is a result of the Interconnection Request associated with this Generation Interconnection Agreement. }

{The following language should be included only for Merchant Transmission Facilities

For Transmission Project Developer:

Nominal Rated Capability: \_\_\_\_\_ MW }

d. Description of the equipment configuration:

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## 2.0 Rights

[for Generation Project Developers]

2.1 Capacity Interconnection Rights: {Instructions: this section will not apply if the Generating Facility is exclusively an Energy Resource and thus is granted no CIRs; see alternate section 2.1 below }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Generation Interconnection Agreement in the amount of \_\_\_ MW. {Instructions: this number is the total of the Capacity Interconnection Rights that are granted as a result of the Interconnection Request, plus any prior Capacity Interconnection Rights }

{OR: Instructions: include the following options when the projected Initial Operation is in advance of the study year used for the System Impact Study and Capacity Interconnection Rights are only interim until the study year: }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Generation Interconnection Agreement in the amount of \_\_\_ MW commencing \_\_\_\_\_ {e.g., June 1, 2023}. During the time period from

the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), the Project Developer may be awarded interim Capacity Interconnection Rights in the amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and the results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_\_ {e.g., May 31, 2023}.

{OR: Instructions: include the following options when there are a combination of previously awarded CIRs and interim CIRs that have a termination date or event: }

Pursuant to and subject to the applicable terms of the GIP, the Project Developer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this GIA in the amount of \_\_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2023}. From the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), in addition to the \_\_\_\_ MW of Capacity Interconnection Rights the Project Developer had at the same Point of Interconnection prior to its Interconnection Request associated with this GIA, the Project Developer also may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_\_ {e.g., May 31, 2023}.

{OR: Instructions: include the following language in the case of combined Cycle Positions with a combination of (1) already studied, and confirmed deliverable, CIRs for the first Interconnection Request; and (2) potential interim CIRs for the second Interconnection Request, subject to an interim deliverability study: }

Pursuant to and subject to the applicable terms of the Tariff, the Project Developer shall have Capacity Interconnection Rights at the Point of Interconnection specified in this GIA in the amount of \_\_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2023}. From the effective date of this GIA until \_\_\_\_\_ {e.g., May 31, 2023} (the “interim time period”), in addition to the \_\_\_\_\_ MW of Capacity Interconnection Rights the Project Developer will have commencing \_\_\_\_\_ {e.g., June 1, 2022} at the Point of Interconnection pursuant to the \_\_\_\_ Interconnection Request, the Project Developer also may be awarded interim Capacity Interconnection Rights at the Point of Interconnection in an amount not to exceed \_\_\_\_ MW pursuant to the \_\_\_\_ Interconnection Request. Accordingly, during the interim time period, the Project Developer shall have \_\_\_\_ MW of previously studied and awarded

Capacity Interconnection Rights, and may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_ {e.g., May 31, 2023}.

{Add to address partial deactivations:}

Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point of Interconnection specified in this Interconnection Service Agreement in the amount of \_\_\_ MW commencing \_\_\_\_ {e.g., June 1, 2022}. From the effective date of this GIA until \_\_\_\_ {e.g., May 31, 2023} (the "interim time period"), in addition to the \_\_\_\_ MW of Capacity Interconnection Rights the Interconnection Customer will have commencing \_\_\_\_ {e.g., June 1, 2023} at the Point of Interconnection pursuant to the \_\_\_\_ Interconnection Request, the Interconnection Customer also may be awarded interim Capacity Interconnection Rights at the Point of Interconnection in an amount not to exceed \_\_\_\_ MW pursuant to the \_\_\_\_ Interconnection Request. Accordingly, during the interim time period, the Interconnection Customer shall have \_\_\_\_ MW of previously studied and awarded Capacity Interconnection Rights, and may be awarded interim Capacity Interconnection Rights in an amount not to exceed \_\_\_\_ MW. The availability and amount of such interim Capacity Interconnection Rights shall be dependent upon completion and results of an interim deliverability study. To the extent applicable, during the interim time period, PJM reserves the right to limit total injections of the Generating Facility consistent with the results of the interim deliverability study (which may be less than the Maximum Facility Output). Any interim Capacity Interconnection Rights awarded during the interim time period shall terminate on \_\_\_\_ {e.g., May 31, 2023}.

{OR: Instruction: include the following language to the extent applicable for interconnection of additional generation at an existing Generating Facility:}

The amount of Capacity Interconnection Rights specified above (\_\_\_\_ MW) includes \_\_\_ MW of Capacity Interconnection Rights that the Project Developer had at the same Point(s) of Interconnection prior to its Interconnection Request associated with this GIA, and \_\_\_MW of Capacity Interconnection Rights granted as a result of such Interconnection Request.

{OR: Instructions: include the following language when the CIRs are only interim and have a termination date or event:}

Project Developer shall have \_\_\_ MW of Capacity Interconnection Rights for the time period from \_\_\_ to \_\_\_\_\_. These Capacity Interconnection Rights are interim and will terminate upon {Instructions: explain circumstances – e.g. interim agreement; completion of another facility, etc.}

- 2.1a To the extent that any portion of the Generating Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Generating Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.

{Instructions: this alternate version of section 2.1 that appears below will be used in lieu of section 2.1 above when a Generating Facility will be an Energy Resource and therefore will not be granted any CIRs:}

- [2.1 The generating unit(s) described in section 1.0 shall be an Energy Resource. Pursuant to this GIA, the generating unit will be permitted to inject \_\_\_ MW (nominal) into the system. PJM reserves the right to limit injections to this quantity in the event reliability would be affected by output greater than such quantity. ]

[for Transmission Project Developers]

- 2.1 Transmission Injection Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]

Pursuant to the GIP, Project Developer shall have Transmission Injection Rights at each indicated Point of Interconnection in the following quantity(ies):

- 2.2 Transmission Withdrawal Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]

Pursuant to the GIP, Project Developer shall have Transmission Withdrawal Rights at each indicated Point of Interconnection in the following quantity(ies):

[Include section 2.2A only if customer is interconnecting Controllable A.C. Merchant Transmission Facilities]

- 2.2A Project Developer is interconnecting Controllable A.C. Merchant Transmission Facilities as defined in the Part I of the Tariff, and has elected, pursuant to the GIP, to receive Transmission Injection Rights and Transmission Withdrawal Rights in lieu of the other applicable rights for which it may be eligible the GIP. Accordingly, Project Developer hereby agrees that the Transmission Injection Rights and Transmission Withdrawal Rights awarded to it pursuant to the GIP and



this GIA are, and throughout the duration of this GIA shall be, conditioned on Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

{Instructions – use for Merchant Transmission Developers as applicable}

2.3 Incremental Deliverability Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(C), Project Developer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies):

2.4 Incremental Auction Revenue Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(A), Project Developer shall have Incremental Auction Revenue Rights in the following quantities:

2.5 Incremental Capacity Transfer Rights:

Pursuant to Tariff, Part VIII, Subpart E, section 427(B), Project Developer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities:

3.0 Construction Responsibility and Ownership of Interconnection Facilities and Transmission Owner Upgrades/Scope of Work.

a. Project Developer.

(1) Project Developer shall construct and, unless otherwise indicated, shall own, the following Interconnection Facilities:

**[Specify Facilities to Be Constructed or state "None"]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.

(2) In the event that Project Developer has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in Attachment L, the following portions of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades which

constitute or are part of the Generating Facility or Merchant Transmission Facility:

**[Specify Facilities to Be Constructed or state “None”]**

Ownership of the facilities built by Project Developer pursuant to the Option to Build shall be as provided in Schedule L.

- b. Transmission Owner {or Name of Transmission Owners if more than one Transmission Owner}

**[Specify Facilities to Be Constructed and Owned or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
  - ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.
- c. [if applicable, include the following][Name of any additional Transmission Owner constructing facilities with which Project Developer and Transmission Provider will also execute an Interconnection Construction Service Agreement]

**[Specify Facilities to Be Constructed and Owned]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Project Developer has sole cost responsibility
  - ii. Facilities for which a Network Upgrade Cost Responsibility Agreement is required.
- d. [if applicable] Additional Contingent Facilities which must be completed prior to Commercial Operation of the Generating Facility or Merchant Transmission Facility

**[Specify Facilities to Be Constructed and Owned]**

- 4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build, Project Developer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, section 11 of this GIA and Schedule L, section 9.0 {instruction - to be included if there is an additional Transmission

Owner that has a separate CSA [and in Appendix 2, section 3.2.3.2 of the Construction Service Agreement with **[insert Transmission Owner name].**] {Instruction - to be included if there is a Network Upgrade Cost Responsibility Agreement [and in **[insert reference to NUCRA provisions]**]}

4.1 Transmission Owner Interconnection Facilities Charge: \$\_\_\_\_\_

**[Optional: Provide Charge and Identify Transmission Owner]**

4.2 Network Upgrades Charge: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities and costs subject to the Network Upgrade Cost Responsibility Agreement]**

4.3 Option to Build Charges \$

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.4 Distribution Upgrades Charge: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.5 Other Charges: \$\_\_\_\_\_

**[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]**

4.6 Cost breakdown:

\$ Direct Labor  
\$ Direct Material  
\$ Indirect Labor  
\$ Indirect Material

**[Additional items for breakdown as necessary]**

\$ Total

4.7 Security Amount Breakdown:

\$ Estimated Cost of Network Upgrades, Distribution Upgrades, Transmission Owner Interconnection Facilities, and Other Charges

plus \$ Option to Build Security for Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (including Cancellation Costs)

\$ Sum of Security required for costs listed in Specifications sections 4.1 through 4.5 of this GIA

less \$ Portion of Costs already paid by Project Developer

\$ Net Security {Instructions: **if the resultant is negative, use:** reduction with this GIA; **if the resultant is zero or positive use:** amount required} {Instructions: this value should be in section 5.0 of this GIA}

**APPENDICES:**

- **APPENDIX 1 - DEFINITIONS**
- **APPENDIX 2 - STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

**SCHEDULES:**

- **SCHEDULE A - GENERATING FACILITY LOCATION/SITE PLAN**
- **SCHEDULE B - SINGLE-LINE DIAGRAM**
- **SCHEDULE C - LIST OF METERING EQUIPMENT**
- **SCHEDULE D - APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**
- **SCHEDULE E - SCHEDULE OF CHARGES**
- **SCHEDULE F - SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**
- **SCHEDULE G - PROJECT DEVELOPER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**
- **SCHEDULE H - INTERCONNECTION REQUIREMENTS FOR ALL WIND, SOLAR AND NON-SYNCHRONOUS GENERATION FACILITIES**
- **SCHEDULE I – INTERCONNECTION SPECIFICATIONS FOR AN ENERGY STORAGE RESOURCE**
- **SCHEDULE J – SCHEDULE OF TERMS AND CONDITIONS FOR SURPLUS INTERCONNECTION SERVICE**
- **SCHEDULE K – REQUIREMENTS FOR INTERCONNECTION SERVICE BELOW FULL ELECTRICAL GENERATING CAPABILITY**
- **SCHEDULE L – INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**
- **SCHEDULE L, APPENDIX 1 – NEGOTIATED CONTRACT OPTION TERMS**

**SCHEDULE A**  
**GENERATING FACILITY LOCATION/SITE PLAN**

## SCHEDULE D

### APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS

{Include the following language if not required:}

Not Required.

{Otherwise, include the following language:}

The following Applicable Technical Requirements and Standards shall apply. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this GIA, the Tariff and/or this GIA shall control.

*{Instructions: If the relevant TO Applicable Technical Requirements and Standards **are** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.

*{Instructions. If the relevant TO Applicable Technical Requirements and Standards **are not** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply.

## **SCHEDULE L**

### **INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**

**{Instructions: to be used if construction of facilities is required in connection with this GIA. If Interconnection Construction Terms and Conditions are not required, state “Not Applicable” and delete reminder of Schedule L}**



**INTERCONNECTION CONSTRUCTION TERMS AND CONDITIONS**

**For the Generation Interconnection Agreement**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_\_)

- 1.0 These Interconnection Construction Terms and Conditions (“IC Terms & Conditions”), including the Schedules and Appendices attached hereto or incorporated by reference herein, shall apply to the Generation Interconnection Agreement (“GIA”) by and between Transmission Provider, Project Developer, and Transmission Owner. All capitalized terms herein shall have the meanings set forth in Appendix 1 to this Generation GIA.
- 2.0 The standard terms and conditions for construction included in Appendix 2 of the GIA associated with this Interconnection Request are hereby specifically incorporated herein.
- 3.0 Generating Facility or Merchant Transmission Facility. These IC Terms & Conditions specifically relate to the following Generating Facility or Merchant Transmission Facility at the following location:
  - a. Name of Generating Facility or Merchant Transmission Facility:  
\_\_\_\_\_
  - b. Location of Generating Facility or Merchant Transmission Facility:  
\_\_\_\_\_
- 4.0 Commencement of Construction.
  - 4.1 The Transmission Owner shall have no obligation to begin construction of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades prior to the Effective Date of this GIA. Construction shall commence as provided in the Schedule of Work set forth in section 8.0 of these IC Terms & Conditions.
- 5.0 Construction Responsibility for
  - a. Project Developer Interconnection Facilities. Project Developer is responsible for designing and constructing the Project Developer Interconnection Facilities described in Specifications section 3.0(a)(1) of this GIA.

b. Construction of Transmission Owner Interconnection Facilities.

1. The Transmission Owner Interconnection Facilities and Transmission Owner Upgrades for which Transmission Owner shall be responsible for constructing are described in Specifications section 3.0(b) of this GIA.

2. Election of Construction Option. Specify below whether the Project Developer and Transmission Owner have mutually agreed to construction of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that will be built by the Transmission Owner pursuant to the Standard Option or the Negotiated Contract Option.

\_\_\_\_\_ Standard Option.

\_\_\_\_\_ Negotiated Contract Option.

If the parties have mutually agreed to use the Negotiated Contract Option, the permitted, negotiated terms on which they have agreed and which are not already set forth as part of the Scope of Work and/or Schedule of Work set forth in sections 7.0 and 8.0 of these IC Terms & Conditions shall be as set forth in Appendix 1 to this Schedule L.

3. Exercise of Option to Build. Has Project Developer timely exercised the Option to Build?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If Yes is indicated, Project Developer shall build, in accordance with and subject to the conditions and limitations set forth in section 11.2.3 of this Schedule L, those portions of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades described in Specifications section 3.0(a)(2) of this GIA.

6.0 Facilitation by Transmission Provider: Transmission Provider shall keep itself apprised of the status of the Transmission Owner's and Project Developer's construction-related activities and, upon request of either of them, Transmission Provider shall meet with the Transmission Owner and Project Developer separately or together to assist them in resolving issues between them regarding their respective activities, rights and obligations under this Schedule L and Appendix 2 of the this GIA. Each of Transmission Owner and Project Developer shall cooperate in good faith with the other in Transmission Provider's efforts to facilitate resolution of disputes.

7.0 Scope of Work. The Scope of Work for all construction shall be as set forth in Specifications section 3.0 of this GIA, provided, however, that the scope of work is

subject to change in accordance with Transmission Provider's scope change process for interconnection projects as set forth in the PJM Manuals. The scope change process is intended to be used for changes to the Scope of Work as defined herein, and is not intended to be used to change any of the milestone set forth in the GIA. Any change to the Scope of Work must be agreed to by all Parties in writing by executing a scope change document.

- 8.0 Schedule of Work. The Schedule of Work for all construction is set forth below, provided, however, that such schedule is subject to change in accordance with section 11.3 of this Schedule L.

**Transmission Owner:**

**[Provide start and completion date for construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades listed in Specifications, section 3.0, including any supervisory or other responsibilities associated with use of the Option to Build or state "Not Applicable"]**

**Project Developer:**

**[Provide start and completion date for construction of Project Developer Interconnection Facilities listed in Specifications, section 3.0, including any facilities being constructed to pursuant to the Option to Build, or state "Not Applicable"]**

- 9.0 If Project Developer exercises the Option to Build, Project Developer shall pay Transmission Owner for Transmission Owner to execute the responsibilities enumerated to Transmission Owner under section 11.2.3.

10.0 Construction Obligations

10.1 Project Developer Obligations: Project Developer shall, at its sole cost and expense, design, procure, construct, own, and install the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the Scope of Work, and the System Impact Study(ies) (to the extent that design of the Project Developer Interconnection Facilities is included therein), provided, however, that, in the event and to the extent that the Generating Facility or Merchant Transmission Facility is comprised of or includes Merchant Network Upgrades, subject to the terms of section 11.2.3 of this Schedule L, the Transmission Owner shall design, procure, construct and install such Merchant Network Upgrades.

10.2 Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

- 10.2.1 Generally: All Transmission Owner Interconnection Facilities and Transmission Owner Upgrades necessary for the interconnection of the Generating Facility or Merchant Transmission Facility shall be designed, procured, installed and constructed in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the System Impact Study(ies), and the Scope of Work.
- 10.2.2 Cost Responsibility: Responsibility for the Costs of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades shall be assigned in accordance with the GIP, as applicable, and shall be stated in this GIA.
- 10.2.3 Construction Responsibility: Except as otherwise permitted under, or as otherwise agreed upon by the Project Developer and the Transmission Owner pursuant to this GIA, the Transmission Owner shall be responsible for the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. In the event that there are multiple Transmission Owners, the Transmission Provider shall determine how to allocate the construction responsibility among them unless they have reached agreement among themselves on how to proceed.
- 10.2.4 Ownership of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades: The Transmission Owner shall own all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that it builds. In addition, the Project Developer will convey to the Transmission Owner, as provided in section 23.3.5 of Appendix 2 of this GIA, title to all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer pursuant to the terms of this Schedule L. Nothing in this section shall affect the interconnection rights otherwise available to a Transmission Project Developer under the GIP.
- 10.2A Scope of Applicable Technical Requirements and Standards: Applicable Technical Requirements and Standards shall apply to the design, procurement, construction and installation of the Interconnection Facilities, Transmission Owner Upgrades and Merchant A.C. Transmission Facilities only to the extent that the provisions thereof relate to the design, procurement, construction and/or installation of such facilities. Such provisions relating to the design, procurement, construction and/or installation of facilities shall be appended as Schedule D to this GIA. The Interconnection Parties shall mutually agree upon, or in the absence of such agreement, Transmission Provider shall determine, which provisions of the Applicable Technical Requirements and Standards should be identified in this GIA. In the event of any conflict between the provisions of the Applicable Technical Requirements and Standards that are appended as Schedule

D to this GIA and any later-modified provisions that are stated in the pertinent PJM Manual, the provisions appended as Schedule D to this GIA shall control.

### 10.3 Construction by Project Developer

10.3.1 Construction Prior to Execution of GIA: If the Project Developer procures materials for, and/or commences construction of, the Project Developer Interconnection Facilities, any Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades that it has elected to construct by exercising the Option to Build, or for any subsequent modification thereto, prior to the execution of this GIA or, if this GIA has been executed, before the Transmission Owner and Transmission Provider have accepted the Project Developer's initial design, or any subsequent modification to the design, of such Interconnection Facilities or Stand Alone Network Upgrades, such procurement and/or construction shall be at the Project Developer's sole risk, cost and expense.

10.3.2 Monitoring and Inspection: The Transmission Owner may monitor construction and installation of Interconnection Facilities and Transmission Owner Upgrades that the Project Developer is constructing. Upon reasonable notice, authorized personnel of the Transmission Owner may inspect any or all of such Interconnection Facilities and Transmission Owner Upgrades to assess their conformity with Applicable Standards.

10.3.3 Notice of Completion: The Project Developer shall notify the Transmission Provider and the Transmission Owner in writing when it has completed construction of (i) the Generating Facility or Merchant Transmission Facility; (ii) the Project Developer Interconnection Facilities; and (iii) any Transmission Owner Interconnection Facilities and Stand Alone for which it has exercised the Option to Build.

10.4 Construction-Related Access Rights: The Transmission Owner and the Project Developer herein grant each other at no charge such rights of access to areas that it owns or otherwise controls as may be necessary for performance of their respective obligations, and exercise of their respective rights, pursuant to this Schedule L, provided that either of them performing the construction will abide by the safety, security and work rules applicable to the area where construction activity is occurring.

10.5 Coordination Among Parties: The Transmission Provider, the Project Developer, and all Transmission Owners shall communicate and coordinate their activities as necessary to satisfy their obligations under this Schedule L.

## 11.0 Construction Requirements

11.1 Construction by Project Developer:

The Project Developer shall use Reasonable Efforts to design, procure, construct and install the Project Developer Interconnection Facilities and any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it elects to build by exercise of the Option to Build (defined in section 11.2.3.1 below) in accordance with the Schedule of Work.

## 11.2 Construction by Transmission Owner

### 11.2.1 Standard Option:

The Transmission Owner shall use Reasonable Efforts to design, procure, construct and install the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that it is responsible for constructing in accordance with the Schedule of Work.

#### 11.2.1.1 Construction Sequencing:

In general, the sequence of the proposed dates of Initial Operation of Project Developers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades.

### 11.2.2 Negotiated Contract Option:

As an alternative to the Standard Option set forth in section 11.2.1 above, the Transmission Owner and the Project Developer may mutually agree to a Negotiated Contract Option for the Transmission Owner's design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. Under the Negotiated Contract Option, the Project Developer and the Transmission Owner may agree to terms different from those included in the Standard Option of section 11.2.1 above and the corresponding standard terms set forth in the applicable provisions of the GIP. Under the Negotiated Contract Option, negotiated terms may include the work schedule applicable to the Transmission Owner's construction activities and changes to same; payment provisions, including the schedule of payments; incentives, penalties and/or liquidated damages related to timely completion of construction; use of third party contractors; and responsibility for Costs, but only as between the Project Developer and the Transmission Owner that are parties to this GIA; no other Project Developer's responsibility for Costs may be affected. No other terms of the Tariff or this Schedule L shall be subject to modification under the Negotiated Contract Option. The terms and conditions of the Tariff that may be negotiated pursuant to the Negotiated Contract Option shall not be affected by use of the Negotiated Contract Option except as and to the extent that they are modified by the parties' agreement pursuant to such option. All terms agreed upon pursuant to the Negotiated Contract Option are set forth in Schedule L, Appendix 1 to this GIA. The Negotiated Option can only be used in

connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement all Project Developers and the relevant Transmission Owner agree.

### 11.2.3 Option to Build

#### 11.2.3.1 Option:

Project Developer has the option (“Option to Build”) to assume responsibility for the design, procurement, and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in the Schedule of Work in section 8.0 of this Schedule L. Transmission Provider and Project Developer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Specifications section 3.0(a)(2) of this GIA. If the Transmission Provider and Project Developer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Project Developer with a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination. Except for Stand Alone Network Upgrades, Project Developer shall have no right to construct Network Upgrades under this option. In order to exercise this Option to Build, Project Developer must provide Transmission Provider and the Transmission Owner with written notice of Project Developer’s election to exercise the option consistent with the deadline applicable to its New Service Request or Upgrade Request. Project Developer may not elect Option to Build after such date.

#### 11.2.3.2 General Conditions Applicable to Option:

In addition to the other terms and conditions applicable to the construction of facilities under this Schedule L, the Option to Build is subject to the following conditions:

(a) If the Project Developer assumes responsibility for the design, procurement and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades:

(i) Project Developer shall engineer, procure equipment, and construct Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and Specifications provided in advance by Transmission Owner;

(ii) Project Developer's engineering, procurement and construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Owner shall be subject in the engineering, procurement or construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(iii) Transmission Owner shall review and approve engineering design, equipment acceptance tests, and the construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(iv) Prior to commencement of construction, Project Developer shall provide to Transmission Owner a schedule for construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and shall promptly respond to requests for information from Transmission Owner;

(v) At any time during construction, Transmission Owner shall have the right to gain unrestricted access to Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(vi) At any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and Specifications provided by Interconnection Transmission Owner, Project Developer shall be obligated to remedy deficiencies in that portion of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades;

(vii) Project Developer shall indemnify Transmission Owner and Transmission Provider for claims arising from Project Developer's construction of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to section 16 of Appendix 2 of this GIA;

(viii) Project Developer shall transfer control of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;

(ix) Unless Parties otherwise agree, Project Developer shall transfer ownership of Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;



(x) Transmission Owner shall approve and accept for operation and maintenance Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with section 11.2.3.2 of this Schedule L; and

(xi) Project Developer shall deliver to Transmission Owner “as-built” drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades are built to the standards and Specifications required by Transmission Provider.

(b) In addition to the General Conditions applicable to Option to Build set forth in section 11.2.3.2(a) above, the following conditions also apply:

(i) The Project Developer must obtain or arrange to obtain all necessary permits and authorizations for the construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it is building, provided, however, that when the Transmission Owner’s assistance is required, the Transmission Owner shall assist the Project Developer in obtaining such necessary permits or authorizations with efforts similar in nature and extent to those that the Transmission Owner typically undertakes in acquiring permits and authorizations for construction of facilities on its own behalf;

(ii) The Project Developer must obtain all necessary land rights for the construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that it is building, provided, however, that upon Project Developer’s reasonable request, the Transmission Owner shall assist the Project Developer in acquiring such land rights with efforts similar in nature and extent to those that the Transmission Owner typically undertakes in acquiring land rights for construction of facilities on its own behalf;

(iii) Notwithstanding anything stated herein, each Transmission Owner shall have the exclusive right and obligation to perform the line attachments (tie-in work), and to calibrate remote terminal units and relay settings, required for the interconnection to such Transmission Owner’s existing facilities of any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer builds; and

(iv) The Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer shall

be successfully inspected, tested and energized pursuant to sections 11.7 and 11.8 of this Schedule L.

#### 11.2.3.3 Additional Conditions Regarding Network Facilities:

To the extent that the Project Developer utilizes the Option to Build for design, procurement, construction and/or installation of (a) any Transmission Owner Interconnection Facilities that are Stand Alone Network Upgrades to Transmission System facilities that are in existence or under construction by or on behalf of the Transmission Owner on the date that the Project Developer solicits bids under section 11.2.3.7 below, or (b) Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that are to be located on land or in right-of-way owned or controlled by the Transmission Owner, and in addition to the other terms and conditions applicable to the design, procurement, construction and/or installation of facilities under this GIA, all work shall comply with the following further conditions:

(i) All work performed by or on behalf of the Project Developer shall be conducted by contractors, and using equipment manufacturers or vendors, that are listed on the Transmission Owner's List of Approved Contractors;

(ii) The Transmission Owner shall have full site control of, and reasonable access to, its property at all times for purposes of tagging or operation, maintenance, repair or construction of modifications to, its existing facilities and/or for performing all tie-ins of Interconnection Facilities and Stand Alone Network Upgrades built by or for the Project Developer; and for acceptance testing of any equipment that will be owned and/or operated by the Transmission Owner;

(iii) The Transmission Owner shall have the right to have a reasonable number of appropriate representatives present for all work done on its property/facilities or regarding the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades and the right to stop, or to order corrective measures with respect to, any such work that reasonably could be expected to have an adverse effect on reliability, safety or security of persons or of property of the Transmission Owner or any portion of the Transmission System, provided that, unless circumstances do not reasonably permit such consultations, the Transmission Owner shall consult with the Project Developer and with Transmission Provider before directing that work be stopped or ordering any corrective measures;

(iv) The Project Developer and its contractors, employees and agents shall comply with the Transmission Owner's safety, security and

work rules, environmental guidelines and training requirements applicable to the area(s) where construction activity is occurring and shall provide all reasonably required documentation to the Transmission Owner, provided that the Transmission Owner previously has provided its safety, security and work rules and training requirements applicable to work on its facilities to Transmission Provider and the Project Developer within 20 Business Days after a request therefor made by Project Developer;

(v) The Project Developer shall be responsible for controlling the performance of its contractors, employees and agents; and

(vi) All activities performed by or on behalf of the Project Developer pursuant to its exercise of the Option to Build shall be subject to compliance with Applicable Laws and Regulations, including those governing union staffing and bargaining unit obligations, and Applicable Standards.

#### 11.2.3.4 Administration of Conditions:

To the extent that the Transmission Owner exercises any discretion in the application of any of the conditions stated in sections 11.2.3.2 and 11.2.3.3 of this Schedule L, it shall apply each such condition in a manner that is reasonable and not unduly discriminatory and it shall not unreasonably withhold, condition, or delay any approval or authorization that the Project Developer may require for the purpose of complying with any of those conditions.

#### 11.2.3.5 Approved Contractors:

(a) Each Transmission Owner shall develop and shall provide to Transmission Provider a List of Approved Contractors. Each Transmission Owner shall include on its List of Approved Contractors no fewer than three contractors and no fewer than three manufacturers or vendors of major transmission-related equipment, unless a Transmission Owner demonstrates to Transmission Provider's reasonable satisfaction that it is feasible only to include a lesser number of construction contractors, or manufacturers or vendors, on its List of Approved Contractors. Transmission Provider shall publish each Transmission Owner's List of Approved Contractors in a PJM Manual and shall make such manual available on its internet website.

(b) Upon request of a Project Developer, a Transmission Owner shall add to its List of Approved Contractors (1) any design or construction contractor regarding which the Project Developer provides such information as the Transmission Owner may reasonably require which demonstrates to the Transmission Owner's reasonable satisfaction

that the candidate contractor is qualified to design, or to install and/or construct new facilities or upgrades or modifications to existing facilities on the Transmission Owner's system, or (2) any manufacturer or vendor of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) regarding which the Project Developer provides such information as the Transmission Owner may reasonably require which demonstrates to the Transmission Owner's reasonable satisfaction that the candidate entity's major transmission-related equipment is acceptable for installation and use on the Transmission Owner's system. No Transmission Owner shall unreasonably withhold, condition, or delay its acceptance of a contractor, manufacturer, or vendor proposed for addition to its List of Approved Contractors.

#### 11.2.3.6 Construction by Multiple Project Developers:

In the event that there are multiple Project Developers that wish to exercise an Option to Build with respect to Interconnection Facilities and Stand Alone Network Upgrades of the types described in section 11.2.3.3 of this Schedule L, the Transmission Provider shall determine how to allocate the construction responsibility among them unless they reach agreement among themselves on how to proceed.

#### 11.2.3.7 Option Procedures:

(a) Within 10 days after executing this GIA or directing that this GIA be filed with FERC unexecuted, Project Developer shall solicit bids from one or more Approved Contractors named on the Transmission Owner's List of Approved Contractors to procure equipment for, and/or to design, construct and/or install, the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer seeks to build under the Option to Build on terms (i) that will meet the Project Developer's proposed schedule; (ii) that, if the Project Developer seeks to have an Approved Contractor construct or install Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades, will satisfy all of the conditions on construction specified in sections 11.2.3.2 and 11.2.3.3 of this Schedule L; and (iii) that will satisfy the obligations of a Constructing Entity (other than those relating to responsibility for the costs of facilities).

(b) Any additional costs arising from the bidding process or from the final bid of the successful Approved Contractor shall be the sole responsibility of the Project Developer.

(c) Upon receipt of a qualifying bid acceptable to it, the Project Developer shall contract with the Approved Contractor that submitted the

qualifying bid. Such contract shall meet the standards stated in paragraph (a) of this section.

(d) In the absence of a qualifying bid acceptable to the Project Developer in response to its solicitation, the Transmission Owner(s) shall be responsible for the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades in accordance with the Standard Option described in section 11.2.1 of this Schedule L.

#### 11.2.3.8 Project Developer Drawings:

Project Developer shall submit to the Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer arranges to build under this Option to Build. The Transmission Owner shall review and approve the initial drawings and engineering design of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades to be constructed under the Option to Build. The Transmission Owner shall review the drawings to assess the consistency of Project Developer's design of the pertinent Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades with Applicable Standards and the System Impact Study(ies). Transmission Owner, with facilitation and oversight by Transmission Provider, shall provide comments on such drawings to Project Developer within 60 days after its receipt thereof, after which time any drawings not subject to comment shall be deemed to be approved. All drawings provided hereunder shall be deemed to be Confidential Information.

#### 11.2.3.9 Effect of Review:

Transmission Owner's review of Project Developer's initial drawings of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that the Project Developer is building shall not be construed as confirming, endorsing or providing a warranty as to the fitness, safety, durability or reliability of such facilities or the design thereof. At its sole cost and expense, Project Developer shall make such changes to the design of the pertinent Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades as may reasonably be required by Transmission Provider, in consultation with the Transmission Owner, to ensure that the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer is building meet Applicable Standards and conform with the System Impact Study(ies).

### 11.3 Revisions to Schedule of Work:

The Schedule of Work shall be revised as required in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals, or otherwise by mutual agreement of the Interconnection Parties, which agreement shall not be unreasonably withheld, conditioned or delayed. The scope change process is intended to be used for changes to the Scope of Work as defined herein, and is not intended to be used to change any of the milestone set forth in the GIA.

#### 11.4 Right to Complete Transmission Owner Interconnection Facilities and Transmission Owner Upgrades:

In the event that, at any time prior to successful Stage Two energization of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades pursuant to section 11.8 of this Schedule L, the Project Developer terminates its obligations under this GIA pursuant to Appendix 2, section 16.2. of this GIA due to a Default by the Transmission Owner, the Project Developer may elect to complete the design, procurement, construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. The Project Developer shall notify the Transmission Owner and Transmission Provider in writing of its election to complete the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades within 10 days after the date of Project Developer's notice of termination pursuant to Appendix 2, section 16.2. of this GIA. In the event that the Project Developer elects to complete the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades, it shall do so in accordance with the terms and conditions of the Option to Build under section 11.2.3 of this Schedule L and shall be responsible for paying all costs of completing the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades incurred after the date of its notice of election to complete the facilities. Project Developer may take possession of, and may use in completing the Transmission Owner Interconnection Facilities, any materials and supplies and equipment (other than equipment and facilities that already have been installed or constructed) acquired by the Transmission Owner for construction, and included in the Costs, of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades, provided that Project Developer shall pay Transmission Provider, for the benefit of the Transmission Owner and upon presentation by Transmission Owner of reasonable and appropriate documentation thereof, any amounts expended by the Transmission Owner for such materials, supplies and equipment that Project Developer has not already paid. Title to all Transmission Owner Interconnection Facilities and Transmission Owner Upgrades constructed by Project Developer under this section 11 shall be transferred to the Transmission Owner in accordance with Appendix 2, section 23.3.5 of this GIA.

#### 11.5 Suspension of Work upon Default:

Upon the occurrence of a Default by Project Developer as defined in Appendix 2, section 16 of this GIA, the Transmission Provider or the Transmission Owner may by written notice to Project Developer suspend further work associated with the construction and installation of the Transmission Owner Interconnection Facilities and Transmission

Owner Upgrades that the Transmission Owner is responsible for constructing. Such suspension shall not constitute a waiver of any termination rights under this GIA. In the event of a suspension by Transmission Provider or Transmission Owner, the Project Developer shall be responsible for the Costs incurred in connection with any suspension hereunder in accordance with Appendix 2, section 16 of this GIA.

#### 11.6 Construction Reports:

Each of Project Developer and Transmission Owner shall issue reports to each other on a monthly basis, and at such other times as reasonably requested, regarding the status of the construction and installation of the Interconnection Facilities and Transmission Owner Upgrades. Each of Project Developer and Transmission Owner shall promptly identify, and shall notify each other of, any event that the party reasonably expects may delay completion, or may significantly increase the cost, of the Interconnection Facilities and Transmission Owner Upgrades. Should either Project Developer or Transmission Owner report such an event, Transmission Provider shall, within 15 days of such notification, convene a technical meeting with Project Developer and Transmission Owner to evaluate schedule alternatives.

#### 11.7 Inspection and Testing of Completed Facilities

##### 11.7.1 Coordination:

Project Developer and the Transmission Owner shall coordinate the timing and schedule of all inspection and testing of the Interconnection Facilities and Transmission Owner Upgrades.

##### 11.7.2 Inspection and Testing:

Each of Project Developer and Transmission Owner shall cause inspection and testing of the Interconnection Facilities and Transmission Owner Upgrades that it constructs in accordance with the provisions of this section. Project Developer and Transmission Owner acknowledge and agree that inspection and testing of facilities may be undertaken as facilities are completed and need not await completion of all of the facilities that a party is building.

##### 11.7.2.1 Of Project Developer-Built Facilities:

Upon the completion of the construction and installation, but prior to energization, of any Interconnection Facilities and Transmission Owner Upgrades constructed by the Project Developer and related portions of the Generating Facility or Merchant Transmission Facility, the Project Developer shall have the same inspected and/or tested by an authorized electric inspection agency or qualified third party reasonably acceptable to the Transmission Owner to assess whether the facilities substantially comply with Applicable Standards. Said inspection and testing shall be

held on a mutually agreed-upon date, and the Transmission Owner and Transmission Provider shall have the right to attend and observe, and to obtain the written results of, such testing.

#### 11.7.2.2 Of Transmission Owner-Built Facilities:

Upon the completion of the construction and installation, but prior to energization, of any Interconnection Facilities and Transmission Owner Upgrades constructed by the Transmission Owner, the Transmission Owner shall have the same inspected and/or tested by qualified personnel or a qualified contractor to assess whether the facilities substantially comply with Applicable Standards. Subject to Applicable Laws and Regulations, said inspection and testing shall be held on a mutually agreed-upon date, and the Project Developer and Transmission Provider shall have the right to attend and observe, and to obtain the written results of, such testing.

#### 11.7.3 Review of Inspection and Testing by Transmission Owner:

In the event that the written report, or the observation of either of Project Developer and Transmission Owner or Transmission Provider, of the inspection and/or testing pursuant to section 11.7.2 of this Schedule L reasonably leads the Transmission Provider or Transmission Owner to believe that the inspection and/or testing of some or all of the Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer was inadequate or otherwise deficient, the Transmission Owner may, within 20 days after its receipt of the results of inspection or testing and upon reasonable notice to the Project Developer, perform its own inspection and/or testing of such Interconnection Facilities and Stand Alone Network Upgrades to determine whether the facilities are acceptable for energization, which determination shall not be unreasonably delayed, withheld or conditioned.

#### 11.7.4 Notification and Correction of Defects

11.7.4.1 If the Transmission Owner, based on inspection or testing pursuant to section 11.7.2 or 11.7.3 of this Schedule L, identifies any defects or failures to comply with Applicable Standards in the Interconnection Facilities and Stand Alone Network Upgrades constructed by the Project Developer, the Transmission Owner shall notify the Project Developer and Transmission Provider of any identified defects or failures within 20 days after the Transmission Owner's receipt of the results of such inspection or testing. The Project Developer shall take appropriate actions to correct any such defects or failure at its sole cost and expense, and shall obtain the Transmission Owner's acceptance of the corrections, which acceptance shall not be unreasonably delayed, withheld or conditioned. Such acceptance does not modify and shall not limit the



Project Developer's indemnification obligations set forth in section 11.2.3.2(e) of this Schedule L.

11.7.4.2 In the event that inspection and/or testing of any Transmission Owner Interconnection Facilities and Transmission Owner Upgrades built by the Transmission Owner identifies any defects or failures to comply with Applicable Standards in such facilities, Transmission Owner shall take appropriate action to correct any such defects or failures within 20 days after it learns thereof. In the event that such a defect or failure cannot reasonably be corrected within such 20-day period, Transmission Owner shall commence the necessary correction within that time and shall thereafter diligently pursue it to completion.

#### 11.7.5 Notification of Results:

Within 10 days after satisfactory inspection and/or testing of Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer (including, if applicable, inspection and/or testing after correction of defects or failures), the Transmission Owner shall confirm in writing to the Project Developer and Transmission Provider that the successfully inspected and tested facilities are acceptable for energization.

#### 11.8 Energization of Completed Facilities

(A) Unless otherwise provided in the Schedule of Work, energization of the Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Generation Project Developer and, when applicable as determined by Transmission Provider, of the Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Transmission Project Developer, shall occur in two stages. Stage One energization shall consist of energization of the Project Developer Interconnection Facilities and of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades and will occur prior to initial energization of the Generating Facility. Stage Two energization shall consist of (1) initial synchronization to the Transmission System of any completed generator(s) at the Generating Facility of a Generation Project Developer, or of applicable facilities, as determined by the Transmission Provider, associated with Merchant Transmission Facilities of a Transmission Project Developer, and (2) energization of the remainder of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. Stage Two energization shall be completed prior to Initial Operation of the Generating Facility or Merchant Transmission Facility.

(B) In the case of Interconnection Facilities and Transmission Owner Upgrades related to interconnection of a Transmission Project Developer for which the Transmission Provider determines that two-stage energization is inapplicable, energization shall occur in a single stage, consisting of energization of the Interconnection Facilities and Transmission Owner Upgrades and the Generating Facility

or Merchant Transmission Facility. Such a single-stage energization shall be regarded as Stage Two energization for the purposes of the remaining provisions of this section 11.8.

11.8.1 Stage One energization of the Interconnection Facilities and Transmission Owner Upgrades may not occur prior to the satisfaction of the following additional conditions:

(a) The Project Developer shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Transmission Owner Interconnection Facilities that Project Developer has constructed; and

(b) The Project Developer shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Transmission Owner Interconnection Facilities and Stand Alone that Project Developer has constructed.

11.8.2 As soon as practicable after the satisfaction of the conditions for Stage One energization specified in sections 11.7 and 11.8.1 of this Schedule L, the Transmission Owner and the Project Developer shall coordinate and undertake the Stage One energization of facilities.

11.8.3 Stage Two energization of the Interconnection Facilities and Transmission Owner Upgrades may not occur prior to the satisfaction of the following additional conditions:

(a) The Project Developer shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer has constructed and operational control of which it has not previously transferred pursuant to section 11.8.1 of this Schedule L;

(b) The Project Developer shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades that Project Developer has constructed and which were not included in the Stage One energization, but are included in the Stage Two energization; and

(c) Telemetry systems shall be operational and shall be providing Transmission Provider and the Transmission Owner with telemetered data as specified pursuant to section 8.5.2 of Appendix 2 to this GIA.

11.8.4 As soon as practicable after the satisfaction of the conditions for Stage Two energization specified in sections 11.7 and 11.9.3 of this Schedule L, the

Transmission Owner and the Project Developer shall coordinate and undertake the Stage Two energization of facilities.

11.8.5 To the extent defects in any Interconnection Facilities and Transmission Owner Upgrades are identified during the energization process, the energization will not be deemed successful. In that event, the Constructing Entity shall take action to correct such defects in any Interconnection Facilities and Transmission Owner Upgrades that it built as promptly as practical after the defects are identified. The affected Constructing Entity shall so notify the other Construction Parties when it has corrected any such defects, and the Constructing Entities shall recommence efforts, within 10 days thereafter, to energize the appropriate Interconnection Facilities and Transmission Owner Upgrades in accordance with section 11.9; provided that the Transmission Owner may, in the reasonable exercise of its discretion and with the approval of Transmission Provider, require that further inspection and testing be performed in accordance with section 11.7 of this Schedule L.

11.9 Transmission Owner's Acceptance of Facilities Constructed by Project Developer:

Within five days after determining that Interconnection Facilities and Transmission Owner Upgrades have been successfully energized, the Transmission Owner shall issue a written notice to the Project Developer accepting the Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer that were successfully energized. Such acceptance shall not be construed as confirming, endorsing or providing a warranty by the Transmission Owner as to the design, installation, construction, fitness, safety, durability or reliability of any Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer, or their compliance with Applicable Standards.

11.10 Addendum of Non-Standard Terms and Conditions for Construction Service. In the event of any conflict between a provision of Schedule F of this GIA that FERC has accepted and any provision of the standard terms and conditions set forth in this Schedule L and Appendix 2 of this GIA that relates to the same subject matter, the pertinent provision of Schedule F of this GIA shall control.

**SCHEDULE L, APPENDIX 1**  
**NEGOTIATED CONTRACT OPTION TERMS**

**Tariff, Part IX, Subpart D**

**FORM OF  
ENGINEERING AND PROCUREMENT AGREEMENT**

(Project Identifier #\_\_\_)

**ENGINEERING AND PROCUREMENT  
AGREEMENT**

**By and Among  
PJM INTERCONNECTION, L.L.C.**

**And**

---

**And**

---

**ENGINEERING AND PROCUREMENT  
AGREEMENT**

**By and Among  
PJM Interconnection, L.L.C.  
And**

\_\_\_\_\_  
**And**

\_\_\_\_\_  
**(Project Identifier #\_\_\_)**

- 1.0 This Engineering and Procurement Agreement (“E&P Agreement”), including the Specifications attached hereto and incorporated herein, is entered into by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), [\_\_\_\_\_] (“Project Developer” [OPTIONAL: or [“short name”]]), and [\_\_\_\_\_] (“Transmission Owner” [OPTIONAL: or [“short name”]]). Transmission Provider, Project Developer and Transmission Owner are individually, a “Party” and together, the “Parties” and collectively are “Parties”. [Use as/when applicable: This E&P Agreement supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, such as whether it is an E&P Agreement or Generation Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.
- 2.0 The location and a description of the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect to the Transmission Provider’s Transmission System is attached hereto. In the event that Project Developer will not own the facilities, Project Developer represents and warrants that it is authorized by the owners of such facilities to enter into this E&P Agreement and to represent such control.
- 3.0 In order to advance the completion of its interconnection under the PJM Open Access Transmission Tariff (“Tariff”), Project Developer has requested an E&P Agreement and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this E&P Agreement. This E&P Agreement is not intended to be used for the actual construction of any Interconnection Facilities or Transmission Upgrades.
- 4.0 (a) In accord with the GIP, Project Developer shall provide Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to Transmission Provider in the amount of \$ \_\_\_\_\_, which amount equals the estimated costs, determined in accordance with the GIP, of the engineering and procurement activities described in section 2.0 of the Attached Specifications. Should Project Developer fail to provide such

security in the amount or form required, this E&P Agreement shall be terminated. Project Developer acknowledges (1) that it will be responsible for the actual costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section, and (2) that the payment security under this section does not include any additional amounts that it will owe in the event that it executes a final Generator Interconnection Agreement, as described in section 7.0(a) below.

(b) Project Developer acknowledges (1) that the purpose of this E&P Agreement is to expedite, at Project Developer's request, the engineering and procurement of certain long-lead items, as described in the Specifications, necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request; and (2) that Transmission Provider's Interconnection Studies related to such facilities have not been completed, but that the [identify completed System Impact or other study(ies)], dated [\_\_\_\_\_], that included Project Developer's project sufficiently demonstrated, in Project Developer's sole opinion, the necessity of facilities additions to the Transmission System to accommodate Project Developer's project to warrant, in Project Developer's sole judgment, its request that the Transmission Owner provide engineering and procurement for the equipment indicated in the Specifications for use in interconnecting Project Developer's project with the Transmission System.

5.0 This E&P Agreement shall be effective on the date it is executed by all Interconnection Parties and shall terminate upon the execution and delivery by Project Developer and Transmission Provider of the final Generator Interconnection Agreement described in section 7.0(a) below, or on such other date as mutually agreed upon by the parties, unless earlier terminated in accordance with the Tariff.

6.0 In addition to the milestones stated in the GIP, during the term of this E&P Agreement, Project Developer shall ensure that its generation project meets each of the following development milestones:

[SPECIFY MILESTONES]

OR

[NOT APPLICABLE FOR THIS E&P AGREEMENT]

OR

[MILESTONE REQUIREMENTS WILL BE SPECIFIED IN THE FURTHER GENERATOR INTERCONNECTION AGREEMENT DESCRIBED IN SECTION 7.0(a)]

7.0 (a) Transmission Provider and the Transmission Owner agree to provide for the engineering and procurement of the facilities identified, and to the extent described, in section 2.0 of the Specifications in accordance with the GIP, as amended from time to time, and this E&P Agreement. The parties agree that (1) this E&P Agreement shall not



provide for or authorize Interconnection Service or rights associated therewith for the Project Developer, and (2) Interconnection Service will commence only after Project Developer has entered into a final Generator Interconnection Agreement with Transmission Provider and the Transmission Owner (or, alternatively, the Project Developer, Transmission Owner or Transmission Provider has exercised its right to initiate dispute resolution or to have the final Generator Interconnection Agreement filed with the FERC unexecuted) after completion of the System Impact Studies related to Project Developer's Interconnection Request and otherwise in accordance with the Tariff. The final Generator Interconnection Agreement may further provide for construction of, and payment for, transmission facilities additional to those identified in the attached Specifications. Should Project Developer fail to enter into such final Generator Interconnection Agreement (or, alternatively, to initiate dispute resolution or request in writing that the agreement be filed with the FERC unexecuted) within the time prescribed by the Tariff, Transmission Provider shall have the right, upon providing written notice to Project Developer, to terminate this E&P Agreement.

(b) In the event that Project Developer decides not to interconnect its proposed facilities, as described in section 1.0 of the Specifications to the Transmission System, it shall immediately give Transmission Provider written notice of its determination. Project Developer shall be responsible for the Costs incurred pursuant to this E&P Agreement by Transmission Provider and/or by the Transmission Owner (1) on or before the date of such notice, and (2) after the date of such notice, if the costs could not reasonably be avoided despite, or were incurred by reason of, Project Developer's determination not to interconnect. Project Developer's liability under the preceding sentence shall include all Cancellation Costs in connection with the engineering and procurement of the facilities described in section 2.0 of the Specifications. In the event the Transmission Owner incurs Cancellation Costs, it shall provide the Transmission Provider, with a copy to the Project Developer, with a written demand for payment and with reasonable documentation of such Cancellation Costs. Within 60 days after the date of Project Developer's notice, Transmission Provider shall provide an accounting of, and the appropriate party shall make any payment to the other that is necessary to resolve, any difference between (i) Project Developer's cost responsibility under this E&P Agreement and the Tariff for Costs, including Cancellation Costs, of the facilities described in section 2.0 of the Specifications and (ii) Project Developer's previous payments under this E&P Agreement. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment that the preceding sentence requires it to make unless and until the Transmission Owner has returned to it the portion of Project Developer's previous payments that Transmission Provider must pay under that sentence. This E&P Agreement shall be deemed to be terminated upon completion of all payments required under this paragraph (b).

(c) Disposition of the facilities related to this E&P Agreement after receipt of Project Developer's notice of its determination not to interconnect shall be decided in accordance with the GIP.

8.0 Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures

concerning the dispatch of generation set forth in the Operating Agreement and the PJM Manuals.

- 9.0 In analyzing and preparing the System Impact Study, and in designing and constructing the Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades described in the Specifications attached to this E&P Agreement, Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE FACILITIES STUDY OR THE SYSTEM IMPACT STUDY IF NO FACILITIES STUDY IS REQUIRED OR OF THE TRANSMISSION OWNER INTERCONNECTION FACILITIES, DISTRIBUTION UPGRADES AND/OR NETWORK UPGRADES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.
- 10.0 Within 120 days after the Transmission Owner completes the engineering and procurement of the facilities described in section 2.0 of the Specifications, Transmission Provider shall provide Project Developer with an accounting of, and the appropriate party shall make any payment to the other that is necessary to resolve, any difference between (a) Project Developer's responsibility under this E&P Agreement and the Tariff for the actual cost of such equipment, and (b) Project Developer's previous aggregate payments to Transmission Provider and the Transmission Owner hereunder. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment that the preceding sentence requires it to make unless and until the Transmission Owner has returned to it the portion of Project Developer's previous payments that Transmission Provider must pay under that sentence.
- 11.0 No third party beneficiary rights are created under this E&P Agreement, provided, however, that payment obligations imposed on Project Developer hereunder are agreed and acknowledged to be for the benefit of the Transmission Owner actually performing the services associated with the interconnection of the Generating Facilities and any associated upgrades of other facilities.
- 12.0 No waiver by either party of one or more defaults by the other in performance of any of the provisions of this E&P Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.

- 13.0 This E&P Agreement or any part thereof, may not be amended, modified, assigned, or waived other than by a writing signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 14.0 This E&P Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
- 15.0 This E&P Agreement shall not be construed as an application for service under Part II or Part III of the Tariff.
- 16.0 Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Project Developer**

[CONTACT NAME/ADDRESS]

**Transmission Owner**

[CONTACT NAME/ADDRESS]

- 17.0 All portions of the Tariff and the Operating Agreement pertinent to the subject of this E&P Agreement are incorporated herein and made a part hereof.
- 18.0 This E&P Agreement is entered into pursuant to the GIP.
- 19.0 Neither party shall be liable for consequential, incidental, special, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise with respect to any claim, controversy or dispute arising under this E&P Agreement.
- 20.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section

20.1, Schedule A to this E&P Agreement shall set forth the Project Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

## 20.1 Tax Liability

### 20.1.1 Safe Harbor Provisions:

This section 20.1.1 is applicable only to Generation Project Developers. Provided that Project Developer agrees to conform to all requirements of the Internal Revenue Service ("IRS") (e.g., the "safe harbor" provisions of IRS Notices 2001-82 and 88-129) that would confer nontaxable status on some or all of the transfer of property, including money, by Project Developer to the Transmission Owner for payment of the Costs of construction of the Transmission Owner Interconnection Facilities, the Transmission Owner, based on such agreement and on current law, shall treat such transfer of property to it as nontaxable income and, except as provided in section 20.1.2 below, shall not include income taxes in the Costs of Transmission Owner Interconnection Facilities that are payable by Project Developer under the E&P Agreement, the Generator Interconnection Agreement or the Interconnection Construction Service Agreement. Project Developer shall document its agreement to conform to IRS requirements for such non-taxable status in the E&P Agreement, Generator Interconnection Agreement, and/or the Interconnection Construction Service Agreement.

### 20.1.2 Tax Indemnity:

Project Developer shall indemnify the Transmission Owner for any costs that Transmission Owner incurs in the event that the IRS and/or a state department of revenue (State) determines that the property, including money, transferred by Project Developer to the Transmission Owner with respect to the construction of the Transmission Owner Interconnection Facilities is taxable income to the Transmission Owner. Project Developer shall pay to the Transmission Owner, on demand, the amount of any income taxes that the IRS or a State assesses to the Transmission Owner in connection with such transfer of property and/or money, plus any applicable interest and/or penalty charged to the Transmission Owner. In the event that the Transmission Owner chooses to contest such assessment, either at the request of Project Developer or on its own behalf, and prevails in reducing or eliminating the tax, interest and/or penalty assessed against it, the Transmission Owner shall refund to Project Developer the excess of its demand payment made to the Transmission Owner over the amount of the tax, interest and penalty for which the Transmission Owner is finally determined to be liable. Project Developer's tax indemnification obligation under this section shall survive any termination of the E&P Agreement, the GIA or the Interconnection Construction Service Agreement.

### 20.1.3 Taxes Other Than Income Taxes:

Upon the timely request by Project Developer, and at Project Developer's sole expense, the Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the Transmission Owner for which Project Developer may be required to reimburse Transmission Provider under the terms of this

E&P Agreement or the GIP. Project Developer shall pay to the Transmission Owner on a periodic basis, as invoiced by the Transmission Owner, the Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Project Developer and the Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Project Developer to the Transmission Owner for such contested taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Project Developer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Transmission Owner.

#### 20.1.4 Income Tax Gross-Up

##### 20.1.4.1 Additional Security:

In the event that Project Developer does not provide the safe harbor documentation required under section 20.1.1 prior to execution of this E&P, within 15 days after such execution, Transmission Provider shall notify Project Developer in writing of the amount of additional Security that Project Developer must provide. The amount of Security that a Transmission Project Developer must provide initially pursuant to this E&P Agreement shall include any amounts described as additional Security under this section 20.1.4 regarding income tax gross-up.

##### 20.1.4.2 Amount:

The required additional Security shall be in an amount equal to the amount necessary to gross up fully for currently applicable federal and state income taxes the estimated Costs of Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades for which Project Developer previously provided Security. Accordingly, the additional Security shall equal the amount necessary to increase the total Security provided to the amount that would be sufficient to permit the Transmission Owner to receive and retain, after the payment of all applicable income taxes ("Current Taxes") and taking into account the present value of future tax deductions for depreciation that would be available as a result of the anticipated payments or property transfers (the "Present Value Depreciation Amount"), an amount equal to the estimated Costs of Transmission Owner Interconnection Facilities, Distribution Upgrades and/or Network Upgrades for which Project Developer is responsible under the Generator Interconnection Agreement. For this purpose, Current Taxes shall be computed based on the composite federal and state income tax rates applicable to the Transmission Owner at the time the additional Security is received, determined using the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Transmission Owner's anticipated tax depreciation deductions associated with such payments or property transfers by its current weighted average cost of capital.

##### 20.1.4.3 Time for Payment:

Project Developer must provide the additional Security, in a form and with terms as required by the GIP, within 15 days after its receipt of Transmission Provider's notice under this

section. The requirement for additional Security under this section shall be treated as a milestone included in the Generator Interconnection Agreement pursuant to the GIP.

#### 20.1.5 Tax Status:

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this E&P Agreement or the Tariff is intended to adversely affect any Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

### 21 Breach, Cure and Default

#### 21.1 Breach:

A Breach of this E&P Agreement shall include:

- (a) The failure to pay any amount when due;
- (b) The failure to comply with any material term or condition of this E&P Agreement, including but not limited to any material breach of a representation, warranty or covenant;
- (c) Assignment of the E&P Agreement in a manner inconsistent with its terms; or
- (d) Failure of a Party to provide information or data required to be determined under to another Party for such other Party to satisfy its obligations under this E&P Agreement.

#### 21.2 Notice of Breach:

A Party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Project Developer, Transmission Provider or the Transmission Owner agree to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies).

#### 21.3 Cure and Default:

A Party that commits a Breach and does not take steps to cure the Breach pursuant to this section 21.3 is automatically in Default of this E&P Agreement, and its project and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

#### 21.4.1 Cure of Breach:

21.4.1.1 Except for the event of Breach set forth in section 21.1(a) above, the Breaching Party (a) may cure the Breach within 30 days of the time the Non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within 30 days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such 30 day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the Parties. Such agreement shall not be unreasonably withheld.

21.4.1.2 In an event of Breach set forth in section 21.1(a), the Breaching Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Party is the Project Developer, and the Project Developer fails to pay an amount due within five days from the receipt of notice of the Breach, Transmission Provider may use Security to cure such Breach. If Transmission Provider uses Security to cure such Breach, Project Developer shall be in automatic Default and its project and this Agreement shall be deemed terminated and withdrawn.

#### 21.5 Right to Compel Performance:

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting Party shall be entitled to exercise such other rights and remedies as it may have in equity or at law. No remedy conferred by any provision of this E&P Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies

22.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

23.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this E&P Agreement to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_



**SPECIFICATIONS FOR  
ENGINEERING AND PROCUREMENT  
AGREEMENT  
BY AND AMONG  
PJM INTERCONNECTION, L.L.C.  
AND**

\_\_\_\_\_  
**AND**

\_\_\_\_\_  
**(Project Identifier #\_\_\_)**

1.0 Description of Generating Facility or Merchant Transmission Facility to be interconnected with the Transmission System in the PJM Region:

a. Name of Generating Facility or Merchant Transmission Facility:

\_\_\_\_\_  
\_\_\_\_\_

b. Location of Generating Facility or Merchant Transmission Facility:

\_\_\_\_\_  
\_\_\_\_\_

2.0.A Facilities to be designed or procured by the Transmission Owner under this E&P Agreement: **[List or state None]**

2.0.B Facilities to be designed or procured by the Project Developer under this E&P Agreement: **[List or state None]**

3.0 Project Developer shall be subject to the charges detailed below:

3.1 Transmission Owner Interconnection Facilities Charge:

3.2 Distribution Upgrades Charge:

3.3 Network Upgrades Charge:

3.4 Cost Breakdown:

\$ Direct Labor  
\$ Direct Material  
\$ Indirect Labor  
\$ Indirect Material

\$ Total

SCHEDULES: {Note: Schedules A through B are required, others are optional; add if applicable and desirable for clarity.}

SCHEDULE A –PROJECT DEVELOPER’S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS

SCHEDULE B – ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS

SCHEDULE \_\_ – GENERATING FACILITY LOCATION/SITE PLAN

SCHEDULE \_\_ – SINGLE-LINE DIAGRAM

## SCHEDULE A

### **PROJECT DEVELOPER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

{Include the appropriate language from the alternatives below: }

{Include the following language if not required:}  
Not Required.

[OR]

{Include the following language if applicable to Project Developer: }

As provided in section 20.1 of this E&P Agreement and subject to the requirements thereof, Project Developer represents that it meets all qualifications and requirements as set forth in section 118(a) and 118(b) of the Internal Revenue Code of 1986, as amended and interpreted by Notice 2016-36, 2016-25 I.R.B. (6/20/2016) (the "IRS Notice"). Project Developer agrees to conform with all requirements of the safe harbor provisions specified in the IRS Notice, as they may be amended, as required to confer non-taxable status on some or all of the transfer of property, including money, by Project Developer to Transmission Owner with respect to the payment of the Costs of engineering and procurement the Transmission Owner Interconnection Facilities specified in this E&P Agreement.

Nothing in Project Developer's agreement pursuant to this Schedule A shall change Project Developer's indemnification obligations under section 20.1 of this E&P Agreement.

## **SCHEDULE B**

### **ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS**

The following provisions shall apply with respect to charges for the Costs of the Transmission Owner for which the Project Developer is responsible.

Transmission Provider shall invoice Project Developer on behalf of the Transmission Owner, for the Transmission Owner's expected Costs during the next three months. Upon receipt of each of Project Developer's payments of such invoices, Transmission Provider shall reimburse the Transmission Owner. Project Developer shall pay each invoice received from Transmission Provider within 20 days after receipt thereof. Interest on any unpaid, delinquent amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. section 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment. If Project Developer fails to pay any invoice when and as due, Transmission Provider or Transmission Owner can provide notice of such failure to Project Developer and the other party, and Project Developer shall pay the amounts due within five days from the receipt of such notice. Subject to obtaining any necessary authorizations from FERC, if Project Developer fails to make payment within five days from the receipt of such notice, Transmission Provider and Transmission Owner shall each have the right to suspend performance hereunder. If Project Developer fails to make payment within 15 days from the receipt of such notice, Transmission Provider and Transmission Owner shall each have the right to terminate this Agreement, or exercise such other rights and remedies, as each may have in equity or at law.

(Request #\_\_\_)

**UPGRADE CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Upgrade Customer]**

**And**

**[Name of Transmission Owner]**

**UPGRADE CONSTRUCTION SERVICE AGREEMENT**

**By and Among**  
**PJM Interconnection, L.L.C.**  
**And**  
**[Upgrade Customer]**  
**And**  
**[Name of Transmission Owner]**

(Request #\_\_\_)

This Upgrade Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, “Upgrade CSA”) is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Upgrade Customer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). Transmission Provider, Upgrade Customer and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.”

**WITNESSETH**

WHEREAS, Upgrade Customer has requested (1) Incremental Auction Revenue Rights pursuant to section 7.8 of Schedule 1 of the Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”) and Generation Interconnection Procedures (“GIP”) set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part [instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]; or (2) installation of one or more Merchant Network Upgrades pursuant to the GIP;

WHEREAS, pursuant to Upgrade Customer’s Upgrade Request proposing Merchant Network Upgrades only and in accordance with the PJM Tariff, Transmission Provider has conducted the required studies to determine whether such requests can be accommodated, and if so, under what terms and conditions, including the identification of any Customer-Funded Upgrades that must be constructed in order to provide the service or rights requested by Upgrade Customer;

WHEREAS, Transmission Provider’s studies have identified the Customer-Funded Upgrades described in Appendix I of this Upgrade CSA as necessary to provide Upgrade Customer the service or rights it has requested; and

WHEREAS, Upgrade Customer: (i) desires that Transmission Owner construct the required Customer-Funded Upgrades; and (ii) agrees to assume cost responsibility for the design, engineering, procurement and construction of such Customer-Funded Upgrades in accordance with the PJM Tariff.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions and Other Documents**

### **1.0 Defined Terms.**

All capitalized terms used in this Upgrade CSA shall have the meanings ascribed to them in the GIP or in definitions either in the body of this Upgrade CSA or its attached appendices. In the event of any conflict between defined terms set forth in the PJM Tariff or defined terms in this Upgrade CSA, such conflict will be resolved in favor of the terms as defined in this Upgrade CSA. Any provision of the PJM Tariff relating to this Upgrade CSA that uses any such defined term shall be construed using the definition given to such defined term in this Upgrade CSA.

### **1.1 Incorporation of Other Documents.**

Subject to the provisions of section 1.0 above, all portions of the PJM Tariff and the Operating Agreement as of the date of this Upgrade CSA, and as pertinent to the subject of this Upgrade CSA, are hereby incorporated herein and made a part hereof.

## **Article 2 – Responsibility for Customer-Funded Upgrades**

### **2.0 Upgrade Customer Financial Responsibilities.**

Upgrade Customer shall pay all Costs for the design, engineering, procurement and construction of the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA. An estimate of such Costs is provided in Appendix I to this Upgrade CSA.

### **2.1 Obligation to Provide Security.**

Upgrade Customer shall provide Security to collateralize Upgrade Customer's obligation to pay the Costs incurred by Transmission Owner to construct the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, less any Costs already paid by Upgrade Customer, in accordance with the GIP. Upgrade Customer shall deliver such Security to Transmission Provider prior to the Effective Date of this Upgrade CSA, as described in Appendix III. Unless otherwise specified by the Transmission Provider, such Security shall take the form of a letter of credit, in the amount of \$\_\_\_\_\_ naming the Transmission Provider and Transmission Owner as beneficiaries.

### **2.2 Failure to Provide Security.**

If the Upgrade Customer fails to provide Security in the amount, in the time or in the form required by section 2.1, then this Upgrade CSA shall terminate immediately and the Upgrade Customer's Upgrade Request shall be deemed terminated and withdrawn.



### **2.3 Costs.**

In accordance with the GIP, the Upgrade Customer shall pay for the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA based upon the Costs of the Customer-Funded Upgrades described in Appendix I.

### **2.4 Charges.**

In accordance with sections 9, 24, and 25 of Appendix III to this Upgrade CSA, the Upgrade Customer shall pay to the Transmission Provider the charges applicable after Initial Operation of the Merchant Network Upgrades, as set forth in SCHEDULE B to this Upgrade CSA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.

### **2.5 Transmission Owner Responsibilities.**

If the Upgrade Customer satisfies all requirements of this Article 2 and applicable requirements set forth in the PJM Tariff, Transmission Owner shall use Reasonable Efforts to construct or cause to be constructed the Customer-Funded Upgrades, identified in Appendix I to this Upgrade CSA, on its transmission system. Transmission Owner shall own the Customer-Funded Upgrades it has, or has arranged to have, constructed and shall have ongoing responsibility to maintain such Customer-Funded Upgrades consistent with the Operating Agreement and the Transmission Owner's Agreement.

## **Article 3 – Rights to Transmission Service**

### **3.0 No Transmission Service.**

This Upgrade CSA does not entitle the Upgrade Customer to take Transmission Service under the PJM Tariff.

## **Article 4 – Early Termination**

### **4.0 Termination by Upgrade Customer.**

Subject to the terms of section 14 of Appendix III, Upgrade Customer may terminate this Upgrade CSA at any time by providing written notice of termination to Transmission Provider and Transmission Owner. Upgrade Customer's notice of termination shall become effective sixty calendar days after either the Transmission Provider or Transmission Owner receives such notice.

## **Article 5 – Rights**

### **5.0 Rights.**

Transmission Provider shall make available to Upgrade Customer the rights attributable to the Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA. The rights, allocation and assignment procedures, duration and all other terms and procedures set forth in the GIP and applicable PJM Manuals referenced therein regarding an Upgrade Customer assuming responsibility for Customer-Funded Upgrades to accommodate an Upgrade Request shall apply under this Agreement for the benefit of Upgrade Customer.

### **5.1 Amount of Rights Granted.**

Upgrade Customer shall receive the following rights, subject to section 5.2 below and the applicable terms of the PJM Tariff:

Incremental Auction Revenue Rights. Pursuant to the GIP, Upgrade Customer shall have Incremental Auction Revenue Rights in the following quantities between the indicated source(s) and sink(s):

Incremental Capacity Transfer Rights. Pursuant to the GIP, Upgrade Customer shall have Incremental Capacity Transfer Rights in the following quantities into the indicated Locational Deliverability Area:

### **5.2 Availability of Rights Granted.**

Upgrade Customer's rights as described in section 5.1 shall become effective upon the completion of (i) the Customer-Funded Upgrades identified in this Upgrade CSA, and, if applicable, (ii) the transmission upgrade projects noted as contingencies in Appendix I of this Upgrade CSA.

## **Article 6 – Miscellaneous**

### **6.0 Notices.**

Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

#### **Transmission Provider:**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403

interconnectionagreementnotices@pjm.com

**Upgrade Customer:**

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**Transmission Owner:**

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**6.1 Waiver.**

No waiver by any Party of one or more Defaults by another in performance of any of the provisions of this Upgrade CSA shall operate or be construed as a waiver of any other or further Default or Defaults, whether of a like or different character.

**6.2 Amendment.**

This Upgrade CSA or any part thereof, may not be amended, modified or waived other than by a writing signed by all Parties

Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution or obligations contained therein.

**6.3 No Partnership.**

Notwithstanding any provision of this Upgrade CSA, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

**6.4 Counterparts.**

This Upgrade CSA may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Upgrade CSA to be executed by their respective authorized officials.

(Request # \_\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Upgrade Customer: [Name of Upgrade Customer]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**NEGOTIATED CONTRACT OPTIONS**

[List or state "None."]

**SCHEDULE B**

**OPERATION AND MAINTENANCE CHARGES FOR  
MERCHANT NETWORK UPGRADES**

[List or state "None."]

**SCHEDULE C**

**NETWORK UPGRADES TO BE BUILT BY TRANSMISSION OWNER**

**[Specify Facilities to Be Constructed or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Developer Party has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Service Agreement is required.

(Network Upgrade #\_\_\_\_)

**NETWORK UPGRADE COST RESPONSIBILITY AGREEMENT**  
**By and Among**  
**PJM INTERCONNECTION, L.L.C.**

**And**

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**And**

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**And**

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**NETWORK UPGRADE COST RESPONSIBILITY AGREEMENT**

**By and Among**  
**PJM Interconnection, L.L.C.**  
**And**  
**[Name of Project Developer]**  
**And**  
**[Name of Project Developer]**

(Network Upgrade #\_\_\_)

- 1.0 Parties. This Network Upgrade Cost Responsibility Agreement (“NUCRA”) including the Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) and the following Project Developers:

Project Developer (includes Eligible Customer and Affected System Customer):

[full name], Project Identifier #\_\_\_ [OPTIONAL: (also referred to as “[short name”])]\_\_\_\_\_

Name and location of Generating Facility or Merchant Transmission Facility

Project Developer:

[full name] and Project Identifier #\_\_\_ [OPTIONAL: (also referred to as “[short name”])]\_\_\_\_\_

Name and location of Generating Facility or Merchant Transmission Facility

{instructions – for the above, also provide Service Agreement No. or other identifying information if known}

All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in the GIP. [Use as/when applicable: This NUCRA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.

- 2.0 Authority. This NUCRA is entered into pursuant to [{use Part VII if this is a transition period CSA subject to Tariff, Part VII} {use Part VIII if this is a new rules NUCRA subject to Part VIII}] of the Tariff. The standard terms and conditions set forth in Appendix 2 to this NUCRA are hereby specifically incorporated as provisions of this NUCRA.
- 3.0 Effective Date and Term.
- 3.1 Effective Date. This NUCRA shall become effective on the later of (i) the date the agreement has been executed by all parties to this NUCRA, or (ii) the date that all Project Developers have delivered Security to the Transmission Provider, provided, however, that if the NUCRA is filed with the FERC unexecuted, the Effective Date shall be the date specified by the FERC.
- 3.2 Term. This NUCRA shall continue in full force and effect from the Effective Date until the termination thereof pursuant to section 7 of Appendix 2 to this NUCRA.
- 4.0 Common Use Upgrades Construction and Scope. Common Use Upgrades subject to this NUCRA shall be described in the attached Schedule A. Construction of the Common Use Upgrades and changes to the scope of work shall be as set forth in the applicable agreements or projects as identified in section 1.0 above.
- 5.0 Schedule of Work. The Schedule of Work for construction of the Common Use Upgrades shall be as set forth in the applicable agreements or projects as identified in section 1.0 above.
- 6.0 Common Use Upgrade Cost Responsibility. The cost responsibility of each Project Developer for each Common Use Upgrade described in the attached Schedule A shall be described in the attached Schedule B. Cost responsibility shall be described as a percentage of the total estimated cost of each Common Use Upgrade.
- 7.0 Security. Security associated with this NUCRA shall be the Security provided by each Project Developer as set forth in the Project Developer's GIA, section 5, or the Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party.
- 8.0 Notices. Any notice or request made to or by any party regarding this NUCRA shall be made in accordance with the standard terms and conditions for construction set forth in Appendix 2 to this NUCRA to the representatives of the other parties, as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

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Project Developer:

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- 9.0 Waiver. No waiver by any party of one or more defaults by another in performance of any of the provisions of this NUCRA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 10.0 Amendment. Except as set forth in Appendix 2, sections 4 and 13.3 of this NUCRA, this NUCRA or any part thereof, may not be amended, modified, assigned, or waived other than by a writing signed by all parties. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and initialed by the parties, without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 11.0 Incorporation of Other Documents. All portions of the agreements identified in section 1.0 above, and the Tariff and the Operating Agreement pertinent to the subject of this NUCRA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof. To the extent there is a conflict between the NUCRA and other documents, the terms of this NUCRA shall control.
- 12.0 Addendum of Non-Standard Terms and Conditions. Subject to FERC acceptance, the parties agree that the terms and conditions set forth in the attached Schedule C are hereby incorporated by reference into, and made a part of, this NUCRA. In the event of any conflict between a provision of the attached Schedule C that FERC has accepted and any provision of the standard terms and conditions set forth in Appendix 2 to this NUCRA that relates to the same subject matter, the pertinent provision of the attached Schedule C shall control.
- 13.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal laws and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, the parties have caused this Network Upgrade Cost Responsibility Agreement to be executed by their respective authorized officials.

(Network Identifier #\_\_\_\_)

Transmission Provider: PJM Interconnection, L.L.C.

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: [Name of Party]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

The signature below of the authorized officer of the Transmission Owner is for the limited purpose of acknowledging that an authorized officer of said Transmission Owner has read this Agreement as of this \_\_ day of 20\_\_.

Transmission Owner: [Name of Transmission Owner]

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Tariff, Part IX, Subpart I**

**FORM OF**

**SURPLUS INTERCONNECTION STUDY AGREEMENT**

**Form of  
Surplus Interconnection Study Agreement**

**RECITALS**

1. This Surplus Interconnection Study Agreement (the “Agreement”), dated as of \_\_\_\_\_, is entered into, by and between \_\_\_\_\_ (“Surplus Project Developer”) and PJM Interconnection, L.L.C. (“Transmission Provider”) (individually referred to as a “Party,” or collectively referred to as the “Parties”) pursuant to the Generation Interconnection Procedures (“GIP”) set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part [instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]. Capitalized terms used in this agreement, unless otherwise indicated, shall have the meanings ascribed to them in the Tariff.
2. By submitting this Agreement and complying with the GIP, the Surplus Project Developer has submitted a Surplus Interconnection Request. In accordance with Tariff, Part VIII, Subpart E, section 414, the Surplus Project Developer has also submitted with this Agreement the applicable required deposit to the Transmission Provider.
3. By submitting this Agreement to the Transmission Provider, the Surplus Project Developer requests to utilize Surplus Interconnection Service on the Transmission System of an existing Generating Facility with the following specifications:
  - a. Identification of the specific, existing Generating Facility already interconnected to the PJM Transmission System providing Surplus Interconnection Service, including whether the Surplus Project Developer requesting Surplus Interconnection Service is the owner or affiliate of the existing Generating Facility, and details regarding the existing Generating Facility’s current Generator Interconnection Agreement or Interconnection Service Agreement (“Service Agreement”).

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If the Surplus Project Developer is an unaffiliated third party, the Surplus Project Developer must submit with this Agreement the following information and documentation acceptable to the Transmission Provider:

- i. Name and address of the current owner of the existing Generating Facility, including details specific to the existing Generating Facility’s most current Service Agreement, including the Service Agreement Number:
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ii. Written evidence from the owner of the existing Generating Facility granting Surplus Project Developer permission to utilize the existing Generating Facility's unused portion of Interconnection Service established in the existing Generating Facility's Service Agreement; and

iii. Written documentation stating that the owner of the surplus generating unit and the owner of the existing Generating Facility will have entered into, prior to the owner of the existing Generating Facility executing a revised Generator Interconnection Agreement, a shared facilities agreement between the owner of the existing Generating Facility and the owner of the surplus generating unit detailing their respective roles and responsibilities relative to the Surplus Interconnection Service.

b. Evidence of ownership interest in, or right to acquire or control, the surplus generating unit for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider. Include both a written description of the evidence to be relied upon and attach a Word or PDF version copy thereof.

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c. Location of proposed surplus generating unit site or existing surplus generating unit (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the surplus generating unit site):

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d. The megawatt size of the proposed surplus generating unit or the amount of increase in megawatt capability of an existing surplus generating unit.

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e. Identify the fuel type of the surplus generating unit or upgrade thereto:

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f. A PDF format attachment of the site plan/single line diagram together with a description of the equipment configuration, including a set of preliminary electrical design specifications, and if the surplus generating unit is a wind generation facility, then also submit a set of preliminary electrical design specifications depicting the wind generation facility as a single equivalent generator:

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g. Planned date the new surplus generating unit (or increase in megawatt capability of an existing surplus generating unit) will be in service:

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h. Other related information, including for example, but not limited to, identifying: all of Surplus Project Developer's prior Interconnection Requests or Surplus Interconnection Requests; and stating whether the Surplus Project Developer has submitted a previous Surplus Interconnection Request for this particular project:

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i. Describe the circumstances under which Surplus Interconnection Service will be available at the existing Point of Interconnection:

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j. If any Energy Storage Resource, the primary frequency response operating range for a surplus generating unit:

Minimum State of Charge: \_\_\_\_\_; and

Maximum State of Charge: \_\_\_\_\_.

**PURPOSE OF THE SURPLUS INTERCONNECTION STUDY**

4. Consistent with the GIP, the Transmission Provider shall conduct a Surplus Interconnection Study to provide the Surplus Project Developer with a determination of whether the surplus generating unit is eligible for Surplus Interconnection Service. In the event that the Transmission Provider is unable to complete the Surplus Interconnection



Study within the timeframe prescribed in the GIP, the Transmission Provider shall notify the Surplus Project Developer and explain the reasons for the delay.

5. The Surplus Interconnection Study conducted hereunder will provide only a sensitivity analysis based on the data specified by the Surplus Project Developer in its Surplus Interconnection Request. The Surplus Interconnection Study necessarily will employ various assumptions regarding the Surplus Interconnection Request, other pending New Service Requests and PJM's Regional Transmission Expansion Plan at the time of the study. The Surplus Interconnection Study will not obligate the Transmission Provider or the Transmission Owner(s) to interconnect with the Surplus Project Developer or construct any facilities or upgrades.

### **CONFIDENTIALITY**

6. The Surplus Project Developer agrees to provide all information requested by the Transmission Provider necessary to complete the Surplus Interconnection Study. Subject to Paragraph 7 of this Agreement and to the extent required by the GIP, information provided pursuant to this Paragraph 6 shall be and remain confidential.
7. Until completion of the Surplus Interconnection Study, the Transmission Provider shall keep confidential all information provided to it by the Surplus Project Developer. Upon completion of the Surplus Interconnection Study and, to the extent required by Commission regulations, will be made publicly available upon request, except that the identity of the Surplus Project Developer shall remain confidential.
8. Surplus Project Developer acknowledges that, consistent with the Tariff, the Transmission Provider may contract with consultants, including the Transmission Owners, to provide services or expertise in the Surplus Interconnection Study process and that the Transmission Provider may disseminate information to the Transmission Owners.

### **COST RESPONSIBILITY**

9. The Surplus Project Developer shall reimburse the Transmission Provider for the actual cost of the Surplus Interconnection Study. The deposit paid by the Surplus Project Developer described in Paragraph 2 of this Agreement shall be applied toward the Surplus Project Developer's Surplus Interconnection Study cost responsibility. The Surplus Project Developer shall be responsible for and must pay all actual study costs. If at any time the Transmission Provider notifies the Surplus Project Developer of estimated additional study costs, the Surplus Project Developer must pay such estimated additional study costs within 20 Business Days of Transmission Provider sending the Surplus Project Developer notification of such estimated additional study costs. If the Surplus Project Developer fails to pay such estimated additional study costs within 20 Business Days of Transmission Provider sending the Surplus Project Developer notification of such estimated additional study costs, then the Surplus Interconnection Request shall be deemed to be terminated and withdrawn.

## **DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

10. In analyzing and preparing the Surplus Interconnection Study, the Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by the Transmission Provider shall have to rely on information provided by the Surplus Project Developer and possibly by third parties, including the owner of the existing Generating Facility, and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY THE TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SURPLUS INTERCONNECTION STUDY. The Surplus Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the Surplus Interconnection Study prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by the Transmission Provider or the Transmission Owner(s) to provide any transmission or interconnection service to or on behalf of the Surplus Project Developer either at this point in time or in the future.
11. In no event will the Transmission Provider, Transmission Owner(s) or other subcontractors employed by the Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether under this Agreement or otherwise, even if the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider have been advised of the possibility of such a loss. Nor shall the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of the Transmission Provider's obligations under this Surplus Interconnection Study Agreement.

Without limitation of the foregoing, the Surplus Project Developer further agrees that Transmission Owner(s) and other subcontractors employed by the Transmission Provider to prepare or assist in the preparation of any Surplus Interconnection Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty, Limitation of Liability."

**MISCELLANEOUS**

- 12. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Surplus Project Developer**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 13. No waiver by either Party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 14. This Agreement or any part thereof, may not be amended, modified, or waived other than by a writing signed by all Parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution or obligations contained therein.
- 15. This Agreement shall be binding upon the Parties hereto, their heirs, executors, administrators, successors, and assigns.
- 16. Neither this Agreement nor the Surplus Interconnection Study performed hereunder shall be construed as an application for service under Tariff, Part II or Tariff, Part III.
- 17. The provisions of the GIP that relate to Surplus Interconnection Service are incorporated herein and made a part hereof.
- 18. **Governing Law, Regulatory Authority, and Rules**

This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another

jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

19. **No Third-Party Beneficiaries**

Except as stated in Paragraph 11 of this Agreement, this Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

20. **Multiple Counterparts**

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all of which constitute one and the same instrument.

21. **No Partnership**

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

22. **Severability**

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

23. **Reservation of Rights**

The Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission (“FERC”) to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC’s rules and regulations thereunder, and the Surplus Project Developer Surplus Project Developer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC’s rules and regulations; provided that each Party shall have the right to protest any such

filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered.

### **CERTIFICATION**

**By initialing the line next to each of the following required elements, Surplus Project Developer hereby certifies that it has submitted with this executed Agreement each of the required elements (if this Surplus Interconnection Request is being submitted electronically, each of the required elements must be submitted electronically as individual PDF files, together with an electronic PDF copy of this signed Agreement):**

\_\_\_\_\_ **Specification of the location of the proposed surplus generating unit site or existing surplus generating unit (including both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the surplus generating unit site)**

\_\_\_\_\_ **If the Surplus Project Developer is an unaffiliated third party, the information and evidence set forth in Paragraph 3(a)(i) – (iii) of this Agreement**

**Evidence of an ownership interest in, or right to acquire or control the surplus generating unit site**

\_\_\_\_\_ **The megawatt size of the proposed surplus generating unit or the amount of increase in megawatt capability of an existing surplus generating unit**

\_\_\_\_\_ **Identification of the fuel type of the proposed surplus generating unit**

\_\_\_\_\_ **Description of the equipment configuration and a set of preliminary electrical design specifications, and, if the surplus generating unit is a wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator**

\_\_\_\_\_ **The planned date that the proposed surplus generating unit (or increase in megawatt capability of an existing surplus generating unit) will be in service**

\_\_\_\_\_ **All additional information prescribed by the Transmission Provider in the PJM Manuals**

\_\_\_\_\_ **The full amount of the required deposit**

IN WITNESS WHEREOF, the Transmission Provider and the Surplus Project Developer have caused this Agreement to be executed by their respective authorized officials.

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

**Surplus Project Developer: [Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

Service Agreement No. [ ]

(Project Identifier #\_\_\_\_)

**CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer, Eligible Customer, or Affected System Customer]**

**And**

**[Name of Transmission Owner]**

**CONSTRUCTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer, Eligible Customer, or Affected System Customer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_\_\_)

This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, “CSA”) is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Developer Party” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). Transmission Provider, Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select Project Developer, Eligible Customer or Affected System Customer} as defined in in this GIP. For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.

**WITNESSETH**

WHEREAS, Developer Party (1) has requested Long-Term Firm Point-To-Point Transmission Service or Network Integration Transmission Service (“Transmission Service”) from Transmission Provider pursuant to Transmission Provider’s Open Access Transmission Tariff (the “PJM Tariff”); (2) is an Affected System Customer that requires Network Upgrades; or (3) is a Project Developer that requires Network Upgrades to the system of a Transmission Owner with which its Generation Facility or Merchant Transmission Facility does not directly interconnect;

WHEREAS, pursuant to Developer Party’s Completed Application, Affected System Customers Facility Study or Interconnection Request, Transmission Provider has conducted the required studies to determine whether such requests can be accommodated, and if so, under what terms and conditions, including the identification of any Network Upgrades that must be constructed in order to provide the service or rights requested by Developer Party;

WHEREAS, Transmission Provider’s studies have identified the Network Upgrades described in Appendix I of this CSA as necessary to provide Developer Party the service or rights it has requested; and



WHEREAS, Developer Party: (i) desires that Transmission Owner construct the required Network Upgrades; and (ii) agrees to assume cost responsibility for the design, engineering, procurement and construction of such Network Upgrades in accordance with the PJM Tariff.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions and Other Documents**

### **1.0 Defined Terms.**

All capitalized terms used in this CSA shall have the meanings ascribed to them in the GIP or in definitions either in the body of this CSA or its attached appendices. In the event of any conflict between defined terms set forth in the PJM Tariff or defined terms in this CSA, such conflict will be resolved in favor of the terms as defined in this CSA. Any provision of the PJM Tariff relating to this CSA that uses any such defined term shall be construed using the definition given to such defined term in this CSA.

### **1.1 Incorporation of Other Documents.**

Subject to the provisions of section 1.0 above, all portions of the PJM Tariff and the Operating Agreement as of the date of this CSA, and as pertinent to the subject of this CSA, are hereby incorporated herein and made a part hereof.

## **Article 2 – Responsibility for Network Upgrades**

### **2.0 Developer Party Financial Responsibilities.**

Developer Party shall pay all Costs for the design, engineering, procurement and construction of the Network Upgrades identified in Appendix I to this CSA. An estimate of such Costs is provided in Appendix I to this CSA.

### **2.1 Obligation to Provide Security.**

Unless Security is provided pursuant to a Generation Interconnection Agreement Developer Party shall provide Security to collateralize Developer Party's obligation to pay the Costs incurred by Transmission Owner to construct the Network Upgrades identified in Appendix I to this CSA, less any Costs already paid by Developer Party, in accordance with the GIP. Developer Party shall deliver such Security to Transmission Provider prior to the Effective Date of this CSA, as described in Appendix III. Unless otherwise specified by the Transmission Provider, such Security shall take the form of a letter of credit, in the amount of \$\_\_\_\_\_ naming the Transmission Provider and Transmission Owner as beneficiaries.

### **2.2 Failure to Provide Security.**

If the Developer Party fails to provide Security in the amount, in the time or in the form required by section 2.1, then this CSA shall terminate immediately and the Developer Party's Completed Application or Interconnection Request shall be deemed terminated and withdrawn.

### **2.3 Costs.**

In accordance with the GIP, the Developer Party shall pay for the Network Upgrades identified in Appendix I to this CSA based upon the Costs of the Network Upgrades described in Appendix I. The Developer Party's obligation to pay the Costs for the Network Upgrades identified in Appendix I to this CSA, whether greater or lesser than the amount of the Security specified in section 2.1, will continue regardless of whether the Developer Party takes Transmission Service pursuant to the terms of the Transmission Service Agreement as defined in section 3.0 of this CSA, if applicable.

### **2.4 Transmission Owner Responsibilities.**

If the Developer Party satisfies all requirements of this Article 2 and applicable requirements set forth in the PJM Tariff, Transmission Owner shall use Reasonable Efforts to construct or cause to be constructed the Network Upgrades, identified in Appendix I to this CSA, on its transmission system. Transmission Owner shall own the Network Upgrades it has, or has arranged to have, constructed and shall have ongoing responsibility to maintain such Network Upgrades consistent with the Operating Agreement and the Transmission Owner's Agreement.

## **Article 3 – Rights to Transmission Service**

### **3.0 No Transmission Service.**

This CSA does not entitle the Developer Party to take Transmission Service under the PJM Tariff. Transmission Provider shall provide Transmission Service to Developer Party pursuant to a separate service agreement by and between Developer Party and Transmission Provider dated as of the same effective date as this CSA (the "Transmission Service Agreement"), if applicable.

## **Article 4 – Early Termination**

### **4.0 Termination by Developer Party.**

Subject to the terms of section 14 of Appendix III, Developer Party may terminate this CSA at any time by providing written notice of termination to Transmission Provider and Transmission Owner. Developer Party's notice of termination shall become effective sixty calendar days after either the Transmission Provider or Transmission Owner receives such notice.

**Article 5 – Miscellaneous**

**5.0 Notices.**

Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider:**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Developer Party:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Transmission Owner:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**5.1 Waiver.**

No waiver by any Party of one or more Defaults by another in performance of any of the provisions of this CSA shall operate or be construed as a waiver of any other or further Default or Defaults, whether of a like or different character.

**5.2 Amendment.**

This CSA or any part thereof, may not be amended, modified or waived other than by a writing signed by all Parties.

**5.3 No Partnership.**

Notwithstanding any provision of this CSA, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

#### **5.4 Counterparts.**

This CSA may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

#### **5.5 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status.**

To the extent required, in accordance with section 4.0 to Appendix III to this CSA, Schedule E to this CSA shall set forth the Interconnection Customer's agreement to conform with the IRS safe harbor provisions for non-taxable status.

#### **5.6 Addendum of Non-Standard Terms and Conditions for Construction Service.**

Subject to FERC approval, the parties agree that the terms and conditions set forth in the attached Schedule F are hereby incorporated by reference, and made a part of, this CSA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of the standard terms and conditions set forth in Appendix III to this CSA that relates to the same subject matter, the pertinent provision of Schedule F shall control.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this CSA to be executed by their respective authorized officials.

(Project Identifier # \_\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Developer Party: [Name of Developer Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**NEGOTIATED CONTRACT OPTIONS**

None.

**SCHEDULE B**

**OPERATION AND MAINTENANCE CHARGES FOR  
NETWORK UPGRADES**

None.

**SCHEDULE C**  
**SCOPE OF WORK**

**A. Transmission Owner Upgrades to be Built by Transmission Owner**

**[Specify Facilities To Be Constructed or state “None”]**

[Use the following if facilities are to be constructed or owned]

- i. Facilities for which the Developer Party has sole cost responsibility
- ii. Facilities for which a Network Upgrade Cost Responsibility Service Agreement is required.

**B. Project Developer.**

In the event Developer Party has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in this CSA, the following Stand Alone Network Upgrades:

**[Specify Facilities to Be Constructed or state “None”]**



**SCHEDULE D**

**APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**

{Include the following language if not required:}

Not Required.

{Otherwise, include the following language:}

The following technical requirements and standards shall apply. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this CSA, the Tariff and/or this CSA shall control.

*{Instructions: If the relevant TO Applicable Technical Requirements and Standards **are** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.

*{Instructions. If the relevant TO Applicable Technical Requirements and Standards **are not** posted on the PJM website, use the following language, subject to modifications as appropriate:}*

[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply.

**SCHEDULE E**

**DEVELOPER PARTY’S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

{Include the appropriate language from the alternatives below:}

{Include the following language if not required:}

Not Required.

[OR]

{Include the following language if applicable to Project Developer:}

As provided in section 4.0 of Appendix III to this CSA and subject to the requirements thereof, Developer Party represents that it meets all qualifications and requirements as set forth in section 118(a) and 118(b) of the Internal Revenue Code of 1986, as amended and interpreted by Notice 2016-36, 2016-25 I.R.B. (6/20/2016) (the “IRS Notice”). Developer Party agrees to conform with all requirements of the safe harbor provisions specified in the IRS Notice, as they may be amended, as required to confer non-taxable status on some or all of the transfer of property, including money, by Developer Party to Transmission Owner with respect to the payment of the Costs of construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades specified in this GIA.

Nothing in Developer Party’s agreement pursuant to this Schedule E shall change Developer Party’s indemnification obligations under section 4.2 of Appendix III to this CSA.

**SCHEDULE F**

**SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**

**Tariff, Part IX, Subpart L**

**FORM OF  
AFFECTED SYSTEM CUSTOMER FACILITIES STUDY  
APPLICATION AND AGREEMENT**

**Affected System Customer Facilities Study  
Application and Agreement**  
(Project Identifier #\_\_\_\_)

**RECITALS**

1. This Affected System Customer Facilities Study Application and Agreement ("Agreement"), dated as of \_\_\_\_\_, is entered into by and between \_\_\_\_\_ ("Affected System Customer") and PJM Interconnection, L.L.C. ("Transmission Provider"), pursuant to the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("Tariff").
2. Pursuant to Tariff, Part VII, Subpart G (Affected System rules) or Tariff, Part VIII, Subpart G (Affected System rules), as applicable, Affected System Customer is responsible for an Affected System Facility that requires, or Affected System Facilities that require, Network Upgrades to Transmission Provider's Transmission System, and Transmission Provider has notified Affected System Customer of the need to enter this Agreement.
3. Transmission Provider has informed Affected System Customer that it will use Reasonable Efforts to complete this Affected System Customer Facilities Study by {date}.
4. Affected System Customer desires that Transmission Provider commence an Affected System Customer Facilities Study in connection with the following interconnection request: {instruction – list adjacent region transmission provide and interconnection request number} ("Affected System interconnection request").

**PREVIOUS SUBMISSIONS**

5. Previous submissions: {instructions – complete the following section if there was an earlier Affected System Customer Facilities Study Agreement or other agreement between PJM and the Affected System Customer, otherwise replace the following language with "Not Applicable"}. Except as otherwise specifically set forth in an attachment to this Agreement, Affected System Customer represents and warrants that the information provided in {list applicable agreement} dated \_\_\_\_\_, is accurate and complete as of the date of execution of this Agreement.

**MILESTONES**

6. Affected System Customer must meet the following milestone dates relating to the development of its generation or merchant transmission project(s) or interconnection request:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand]

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**PURPOSE AND SCOPE OF THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY**

7. Transmission Provider, in consultation with the affected Transmission Owner(s), shall commence an Affected System Customer Facilities Study pursuant to this Agreement to evaluate the Network Upgrades to the Transmission Provider's Transmission System necessary to accommodate Affected System Customer's Affected System interconnection request.
- A. **Scope of Affected System Customer Facilities Study:** The purpose of the Affected System Customer Facilities Study is to provide, commensurate with any mutually agreed parameters regarding the scope and degree of specificity described in Schedule A attached to this agreement, an assessment of project related system reliability issues and conceptual engineering and, as appropriate, detailed design, plus cost estimates and project schedules, to implement the conclusions of the Facilities Study regarding the Network Upgrades necessary to accommodate the Affected System interconnection request. The nature and scope of the materials that Transmission Provider shall deliver to the Affected System Customer upon completion of the Affected System Customer Facilities Study shall be described in the PJM Manuals.
- B. **Affected System Customer Facilities Study Time Estimate:** Transmission Provider's estimates of the date for completion of the Affected System Customer Facilities Study is stated in section 3 of this Agreement. In the event that Transmission Provider determines that it will be unable to complete the Affected System Customer Facilities Study by the estimated completion date stated in section 3 of this Agreement, it shall notify Affected System Customer and will explain the reasons for the delay.
- C. **Issuance of Affected System Customer Facility Study Report and Obligation to Construction Service Agreement:** Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement and, if applicable Network Upgrade Cost Responsibility Agreement (forms of which are set forth in Tariff, Part IX) for the construction of the upgrades with each

Transmission Owner responsible for constructing such upgrades. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement and, if applicable a Network Upgrade Cost Responsibility Agreement.

8. The Affected System Customer Facilities Study necessarily will employ various assumptions including assumptions regarding Affected System Customer's Affected System interconnection request, other pending Interconnection Request(s), and PJM's Regional Transmission Expansion Plan at the time of the study. **IN NO EVENT SHALL THIS AGREEMENT OR THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY IN ANY WAY BE DEEMED TO OBLIGATE TRANSMISSION PROVIDER OR THE TRANSMISSION OWNERS TO CONSTRUCT ANY FACILITIES OR UPGRADES OR TO PROVIDE ANY TRANSMISSION OR INTERCONNECTION SERVICE TO OR ON BEHALF OF NEW SERVICE CUSTOMER EITHER AT THIS POINT IN TIME OR IN THE FUTURE.**

### **CONFIDENTIALITY**

9. Affected System Customer agrees to provide all information requested by Transmission Provider necessary to complete the Affected System Customer Facilities Study. Subject to section 10 of this Agreement and to the extent required by Tariff, Part VII, Subpart E, section 327, or Tariff, Part VIII, Subpart E, section 425, information provided pursuant to this section 9 shall be and remain confidential.
10. Until completion of the Affected System Customer Facilities Study, Transmission Provider shall keep confidential all information provided to it by the Affected System Customer. Upon completion of the Affected System Customer Facilities Study, the Affected System Customer Facilities Study results will be publicly available on Transmission Provider's website; Affected System Customers must obtain the results from Transmission Provider's website. Transmission Provider shall provide a copy of the study to Affected System Customer, along with (to the extent consistent with Transmission Provider's confidentiality obligations in section 18.17 of the Operating Agreement) all related work papers. Affected System Customer acknowledges and consents to such other, additional disclosures of information as may be required under the PJM Tariff or the FERC's rules and regulations.
11. Affected System Customer acknowledges the affected Transmission Owner(s) may participate in the Affected System Customer Facilities Study process and that Transmission Provider may disseminate information to the affected Transmission Owner(s) and may consult with them regarding part or all of the Affected System Customer Facilities Study.

### **COST RESPONSIBILITY**

12. Concurrent with execution of this Agreement, Affected System Customer shall provide a study deposit of \$100,000 ("Study Deposit"), through electronic wire transfer, which must in cash. Transmission Provider shall apply Affected System Customer's Study

Deposit in payment of the invoices for the costs of the Affected System Customer Facilities Study. Actual study costs may exceed the Study Deposit. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement. Notwithstanding the amount of the Study Deposit, Affected System Customer shall reimburse Transmission Provider for all of the actual cost of the Affected System Customer Facilities Study. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs. If Affected System Customer fails to pay such amounts, then Transmission Provider shall deem this Agreement to be terminated and withdrawn.

### **DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY**

13. In analyzing and preparing the Affected System Customer Facilities Study, Transmission Provider, the Transmission Owners, and any other subcontractors employed by Transmission Provider shall have to rely on information provided by Affected System Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNERS, NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE AFFECTED SYSTEM CUSTOMER FACILITIES STUDY. Affected System Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the Facilities Studies prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by Transmission Provider or Transmission Owner(s) to provide Interconnection Service or transmission service to or on behalf of Applicant either at this time or in the future.
14. In no event will Transmission Provider, the Transmission Owners or other subcontractors employed by Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, arising under or in connection with this Agreement or the Affected System Customer Facilities Study, even if Transmission Provider, the Transmission Owners, or other subcontractors employed by Transmission Provider have been advised of the possibility of such a loss. Nor shall Transmission Provider, the Transmission Owners, or other subcontractors employed by Transmission Provider be liable for any delay in delivery, or for the non-performance or delay in performance, of Transmission Provider's obligations under this Agreement.



Without limitation of the foregoing, Affected System Customer further agrees that the Transmission Owners and other subcontractors employed by Transmission Provider to prepare or assist in the preparation of any Affected System Customer Facilities Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty/Limitation of Liability."

**MISCELLANEOUS**

- 15. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below.

**Transmission Provider**

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

**Affected System Customer**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 16. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 17. This Agreement or any part thereof, may not be amended, modified, assigned or waived other than by a writing signed by all parties hereto.
- 18. This Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
- 19. Neither this Agreement nor the Affected System Customer Facilities Study performed hereunder shall be construed as an application for service under Part II or Part III of the PJM Tariff.
- 20. The provisions of Tariff, Part VII or Tariff, Part VIII, as applicable are incorporated herein and made a part hereof.
- 21. Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to them in the PJM Tariff.

22. This Agreement shall become effective on the date it is executed by all parties and shall remain in effect until the earlier of (a) the date on which the Transmission Provider tenders the completed Affected System Customer Facilities Study and, as applicable, a proposed Upgrade Construction Service Agreement to Affected System Customer, or (b) termination and withdrawal of the Affected System interconnection request(s).

23. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the parties, and the obligations herein assumed are solely for the use and benefit of the parties, their successors in interest and where permitted, their assigns.

24. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

25. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

26. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

27. Governing Law, Regulatory Authority, and Rules

This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

28. Reservation of Rights

Transmission Provider shall have the right to make a unilateral filing with the Federal Energy Regulatory Commission (“FERC”) to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC’s rules and regulations thereunder; and Applicant shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC’s rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC’s rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, Transmission Provider and the Affected System Customer have caused this Agreement to be executed by their respective authorized officials.

(Project Identifier #\_\_\_\_)

**Transmission Provider: PJM Interconnection, L.L.C.**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

**Affected System Customer: [Name of Party]**

By: \_\_\_\_\_  
Name Title Date

\_\_\_\_\_  
Printed Name

**Schedule A**  
**Details of Design and Cost Estimates/Quality**  
**For the Affected System Customer Facilities Study**

[insert details regarding degree of accuracy of cost estimates and associated scope of design as mutually agreed by Transmission Provider and Affected System Customer]

## **ATTACHMENT Q**

### **CREDIT RISK MANAGEMENT POLICY**

#### **I. INTRODUCTION**

It is the policy of PJM that prior to an entity participating in any PJM Markets or in order to take Transmission Service, the entity must demonstrate its ability to meet the requirements in this Attachment Q. This Attachment Q also sets forth PJM's authority to deny, reject, or terminate a Participant's right to participate in any PJM Markets in order to protect the PJM Markets and PJM Members from unreasonable credit risk from any Participant's activities. Given the interconnectedness and overlapping of their responsibilities, PJM Interconnection, L.L.C. and PJM Settlement, Inc. are referred to both individually and collectively herein as "PJM."

#### **PURPOSE**

PJMSettlement is the counterparty to transactions in the PJM Markets. As a consequence, if a Participant defaults on its obligations under this Attachment Q, or PJM determines a Participant represents unreasonable credit risk to the PJM Markets, and the Participant does not post Collateral, additional Collateral or Restricted Collateral in response to a Collateral Call, the result is that the Participant represents unsecured credit risk to the PJM Markets. For this reason, PJM must have the authority to monitor and manage credit risk on an ongoing basis, and to act promptly to mitigate or reduce any unsecured credit risk, in order to protect the PJM Markets and PJM Members from losses.

This Attachment Q describes requirements for: (1) eligibility to be a Market Participant, (2) establishment and maintenance of credit by Market Participants, and (3) collateral requirements and forms of credit support that will be deemed as acceptable to mitigate risk to any PJM Markets.

This Attachment Q also sets forth (1) PJM's authority to monitor and manage credit risk that a Participant may represent to the PJM Markets and/or PJM membership in general, (2) the basis for establishing limits that will be imposed on a Market Participant in order to minimize risk, and (3) various obligations and requirements the violation of which will result in an Event of Default pursuant to this Attachment Q and the Agreements.

Attachment Q describes the types of data and information PJM will review in order to determine whether an Applicant or Market Participant presents an unreasonable risk to any PJM Markets and/or PJM membership in general, and the steps PJM may take in order to address that risk.

#### **APPLICABILITY**

This Attachment Q applies to all Applicants and Market Participants who take Transmission Service under this Tariff, or participate in any PJM Markets or market activities under the Agreements. Notwithstanding anything to the contrary in this Attachment Q, simply taking

transmission service or procuring Ancillary Services via market-based rates does not imply market participation for purposes of applicability of this Attachment Q.

## **II. RISK EVALUATION PROCESS**

PJM will conduct a risk evaluation to determine eligibility to become and/or remain a Market Participant or Guarantor that: (1) assesses the entity's financial strength, risk profile, creditworthiness, and other relevant factors; (2) determines an Unsecured Credit Allowance, if appropriate; (3) determines appropriate levels of Collateral; and (4) evaluates any Credit Support, including Guaranties or Letters of Credit.

### **A. Initial Risk Evaluation**

PJM will perform an initial risk evaluation of each Applicant and/or its Guarantor. As part of the initial risk evaluation, PJM will consider certain Minimum Participation Requirements, assign an Internal Risk Score, establish an Unsecured Credit Allowance if appropriate, and make a determination regarding required levels of Collateral, creditworthiness, credit support, Restricted Collateral and other assurances for participation in certain PJM Markets.

Each Applicant and/or its Guarantor must provide the information set forth below at the time of its initial application pursuant to this Attachment Q and on an ongoing basis in order to remain eligible to participate in any PJM Markets. The same quantitative and qualitative factors will be used to evaluate Participants whether or not they have rated debt.

#### **1. Rating Agency Reports**

PJM will review Rating Agency reports from Standard & Poor's, Moody's Investors Service, Fitch Ratings, or other Nationally Recognized Statistical Rating Organization for each Applicant and/or Guarantor. The review will focus on the Applicant's or its Guarantor's senior unsecured debt ratings. If senior unsecured debt ratings are not available, PJM may consider other ratings, including issuer ratings, corporate ratings and/or an implied rating based on an internally derived Internal Credit Score pursuant to section II.A.3 below.

#### **2. Financial Statements and Related Information**

Each Applicant and/or its Guarantor must submit, or cause to be submitted, audited financial statements, except as otherwise indicated below, prepared in accordance with United States Generally Accepted Accounting Principles ("US GAAP") or any other format acceptable to PJM for the three (3) fiscal years most recently ended, or the period of existence of the Applicant and/or its Guarantor, if shorter. Applicants and/or their Guarantors must submit, or cause to be submitted, financial statements, which may be unaudited, for each completed fiscal quarter of the current fiscal year. All audited financial statements provided by the Applicant and/or its Guarantor must be audited by an Independent Auditor.

The information should include, but not be limited to, the following:

- (a) If the Applicant and/or its Guarantor has publicly traded securities:
- (i) Annual reports on Form 10-K, together with any amendments thereto;
  - (ii) Quarterly reports on Form 10-Q, together with any amendments thereto;
  - (iii) Form 8-K reports, if any, that have been filed since the most recent Form 10-K;
  - (iv) A summary provided by the Principal responsible, or to be responsible, for PJM Market activity of: (1) the Participant's primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or "hedging or mitigating commercial risks," as such phrase has meaning in the CFTC's regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant's intended participation in the PJM Markets.
  - (v) All audited financial statements provided by an Applicant with publicly traded securities and/or its Guarantor with publicly traded securities must be audited by an Independent Auditor that satisfies the requirements set forth in the Sarbanes-Oxley Act of 2002.
- (b) If the Applicant and/or its Guarantor does not have publicly-traded securities:
- (i) Annual Audited Financial Statements or equivalent independently audited financials, and quarterly financial statements, generally found on:
    - Balance Sheets
    - Income Statements
    - Statements of Cash Flows
    - Statements of Stockholder's or Member's Equity or Net Worth;
  - (ii) Notes to Annual Audited Financial Statements, and notes to quarterly financial statements if any, including disclosures of any material changes from the last report;
  - (iii) Disclosure equivalent to a Management's Discussion & Analysis, including an executive overview of operating results and outlook, and compliance with debt covenants and indentures, and off balance sheet arrangements, if any;
  - (iv) Auditor's Report with an unqualified opinion or written letter from auditor containing the opinion whether the annual audited financial statements comply with the US GAAP or any other format acceptable to PJM; and



- (v) A summary provided by the Principal responsible or to be responsible for PJM Market activity of: (1) the Participant’s primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or “hedging or mitigating commercial risks,” as such phrase has meaning in the CFTC’s regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant’s intended participation in the PJM Markets.
- (c) If Applicant and/or Guarantor is newly formed, does not yet have three (3) years of audited financials, or does not routinely prepare audited financial statements, PJM may specify other information to allow it to assess the entity’s creditworthiness, including but not limited to:
  - (i) Equivalent financial information traditionally found in:
    - Balance Sheets
    - Income Statements
    - Statements of Cash Flows
  - (ii) Disclosure equivalent to a Management’s Discussion & Analysis, including an executive overview of operating results and outlook, and compliance with debt covenants and indentures, and off balance sheet arrangements, if any; and
  - (iii) A summary provided by the Principal responsible or to be responsible for PJM Market activity of: (1) the Participant’s primary purpose(s) of activity or anticipated activity in the PJM Markets (investment, trading or “hedging or mitigating commercial risks,” as such phrase has meaning in the CFTC’s regulations regarding the end-user exception to clearing); (2) the experience of the Participant (and its Principals) in managing risks in similar markets, including other organized RTO/ISO markets or on regulated commodity exchanges; and (3) a high level overview of the Participant’s intended participation in the PJM Markets.
- (d) During a two year transition period from June 1, 2020 to May 31, 2022, the Applicant or Guarantor may provide a combination of audited financial statements and/or equivalent financial information.

If any of the above information in this section II.A.2 is available on the internet, the Applicant and/or its Guarantor may provide a letter stating where such statements can be located and retrieved by PJM. If an Applicant and/or its Guarantor files Form 10-K, Form 10-Q, or Form 8-K with the SEC, then the Applicant and/or its Guarantor will be deemed to have satisfied the requirement by indicating to PJM where the information in this section II.A.2 can be located on the internet.

If the Applicant and/or its Guarantor fails, for any reason, to provide the information required above in this section II.A.2, PJM has the right to (1) request Collateral and/or Restricted Collateral to cover the amount of risk reasonably associated with the Applicant and/or its Guarantor's expected activity in any PJM Markets, and/or (2) restrict the Applicant from participating in certain PJM Markets, including but not limited to restricting the positions the Applicant (once it becomes a Market Participant) takes in the market.

For certain Applicants and/or their Guarantors, some of the above submittals may not be applicable and alternate requirements for compliant submittals may be specified by PJM. In the credit evaluation of Municipalities and Cooperatives, PJM may also request additional information as part of the initial and ongoing review process and will consider other qualitative factors in determining financial strength and creditworthiness.

### **3. Credit Rating and Internal Credit Score**

PJM will use credit risk scoring methodologies as a tool in determining an Unsecured Credit Allowance for each Applicant and/or its Guarantor. As its source for calculating the Unsecured Credit Allowance, PJM will rely on the ratings from a Rating Agency, if any, on the Applicant's or Guarantor's senior unsecured debt or their issuer ratings or corporate ratings if senior unsecured debt ratings are not available. If there is a split rating between the Rating Agencies, the lower of the ratings shall apply. If no external credit rating is available PJM will utilize its Internal Credit Score in order to calculate the Unsecured Credit Allowance.

The model used to develop the Internal Credit Score will be quantitative, based on financial data found in the income statement, balance sheet, and cash flow statement, and it will be qualitative based on relevant factors that may be internal or external to a particular Applicant and/or its Guarantor.

PJM will employ a framework, as outlined in Tables 1-5 below, based on metrics internal to the Applicant and/or its Guarantor, including capital and leverage, cash flow coverage of fixed obligations, liquidity, profitability, and other qualitative factors. The particular metrics and scoring rules differ according to the Applicant's or Guarantor's line of business and the PJM Markets in which it anticipates participating, in order to account for varying sources and degrees of risk to the PJM Markets and PJM members.

The formulation of each metric will be consistently applied to all Applicants and Guarantors across industries with slight variations based on identifiable differences in entity type, anticipated market activity, and risks to the PJM Markets and PJM members. In instances where the external credit rating is used to calculate the unsecured credit allowance, PJM may also use the Internal Credit Score as an input into determining the overall risk profile of an Applicant and/or its Guarantor.

<b>Table 1.</b> <b>Quantitative Metrics by Line of Business: Leverage and Capital Structure</b>	<b>Investor-Owned Utilities</b>	<b>Municipal Utilities</b>	<b>Co-Operative Utilities</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
Debt / Total Capitalization (%)										
FFO / Debt (%)										
Debt / EBITDA (x)										
Debt / Property, Plant & Equipment (%)										
Retained Earnings / Total Assets (%)										
Debt / Avg Daily Production or Kwh (\$)										
Tangible Net Worth (\$)										
Core Capital / Total Assets (%)										
Risk-Based Capital / RWA (%)										
Tier 1 Capital / RWA (%)										
Equity / Investments (%)										
Debt / Investments (%)										

**primary metric** **secondary metric** FFO = Funds From Operations RWA = Risk-Weighted Assets

<b>Table 2.</b> <b>Quantitative Metrics by Line of Business: Fixed Charge Coverage and Funding</b>	<b>Investor-Owned Utilities</b>	<b>Municipal Utilities</b>	<b>Co-Operative Utilities</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
EBIT / Interest Expense (x)										
EBITDA / Interest Expense (x)										
EBITDA / [Interest Exp + CPLTD] (x)										
[FFO + Interest Exp] / Interest Exp (x)										
Loans / Total Deposits (%)										
NPL / Gross Loans (%)										
NPL / [Net Worth + LLR] (%)										
Market Funding / Tangible Bank Assets (%)										

**primary metric** **secondary metric** CPLTD = Current Portion of Long-Term Debt EBIT = Earnings Before Interest and Taxes EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization LLR = Loan Loss Reserves NPL = Non-Performing Loans

<b>Table 3.</b> <b>Quantitative Metrics by Line of Business: Liquidity</b>	<b>Investor-Owned</b>	<b>Municipal Utilities</b>	<b>Co-Operative</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
CFFO / Total Debt (x)										
Current Assets / Current Liabilities (x)										
Liquid Assets / Tangible Bank Assets (%)										
Sources / Uses of Funds (x)										
Weighted Avg Maturity of Debt (yrs)										
Floating Rate Debt / Total Debt (%)										

primary metric secondary metric

CFFO = Cash Flow From Operations

<b>Table 4.</b> <b>Quantitative Metrics by Line of Business: Profitability</b>	<b>Investor-Owned</b>	<b>Municipal Utilities</b>	<b>Co-Operative</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>
Return on Assets (%)										
Return on Equity (%)										
Profit Volatility (%)										
Return on Revenue (%)										
Net Income / Tangible Assets (%)										
Net Profit (\$)										
Net Income / Dividends (x)										

primary metric secondary metric

<b>Table 5.</b> <b>Qualitative Factors: Industry Level</b>	<b>Sample Reference Metrics</b>	<b>Investor-Owned Utilities</b>	<b>Municipal Utilities</b>	<b>Co-Operative Utilities</b>	<b>Power Transmission</b>	<b>Merchant Power</b>	<b>Project Developers</b>	<b>Exploration &amp; Production</b>	<b>Financial Institutions</b>	<b>Commodity Trading</b>	<b>Private Equity</b>

Need for PJM Markets to Achieve Business Goals	Rating Agency criteria or other industry analysis	High	High	High	High	Med	Low	Med	Low	Low	N/A
Ability to Grow/Enter Markets other than PJM	Rating Agency criteria or other industry analysis	Very Low	Very Low	Very Low	Very Low	High	High	Med	Med	High	N/A
Other Participants' Ability to Serve Customers	Rating Agency criteria or other industry analysis	Low	Low	Low	Low	Low	Med	Low	Low	High	N/A
Regulation of Participant's Business	RRA regulatory climate scores, S&P BICRA	PUCS	Govt	N/A	FERC PUCS	N/A	N/A	N/A	N/A	N/A	N/A
Primary Purpose of PJM Activity	Investment ("Inv.)/ Trading ("Trade")/ Hedging or Mitigating Commercial Risk of Operations ("CRH")	CRH	CRH	CRH	CRH/Trade	CRH/Trade	CRH/Trade	CRH/Trade	Inv./Trade	Inv./Trade	Inv./Trade

*RRA = Regulatory Research Associates, a division of S&P Global, Inc. BICRA = Bank Industry Country Risk Assessment*

The scores developed will range from 1-6, with the following mappings:

- 1 = Very Low Risk (S&P/Fitch: AAA to AA-; Moody's: Aaa to Aa3)
- 2 = Low Risk (S&P/Fitch: A+ to BBB+; Moody's: A1 to Baa1)
- 3 = Low to Medium Risk (S&P/Fitch: BBB; Moody's: Baa2)
- 4 = Medium Risk (S&P/Fitch: BBB-; Moody's: Baa3)
- 5 = Medium to High Risk (S&P/Fitch: BB+ to BB; Moody's Ba1 to Ba2)
- 6 = High Risk (S&P/Fitch: BB- and below; Moody's: Ba3 and below)

#### 4. Trade References

If deemed necessary by PJM, whether because the Applicant is newly or recently formed or for any other reason, each Applicant and/or its Guarantor shall provide at least one (1) bank reference and three (3) Trade References to provide PJM with evidence of Applicant's understanding of the markets in which the Applicant is seeking to participate and the Applicant's experience and ability to manage risk. PJM may contact the bank references and Trade References provided by the Applicant to verify their business experience with the Applicant.

## **5. Litigation and Contingencies**

Unless prohibited by law, each Applicant and Guarantor is also required to disclose and provide information as to the occurrence of, within the five (5) years prior to the submission of the information to PJM (i) any litigation, arbitration, investigation (formal inquiry initiated by a governmental or regulatory entity), or proceeding, pending or, to the knowledge of the involving, Applicant or its Guarantor or any of their Principals that would likely have a material adverse impact on its financial condition and/or would likely materially affect the risk of non-payment by the Applicant or Guarantor, or (ii) any finding of material defalcation, market manipulation or fraud by or involving the Applicant, Guarantor, or any of their Principals, predecessors, subsidiaries, or Credit Affiliates that participate in any United States power markets based upon a final adjudication of regulatory and/or legal proceedings, (iii) any bankruptcy declarations or petitions by or against an Applicant and/or Guarantor, or (iv) any violation by any of the foregoing of any federal or state regulations or laws regarding energy commodities, U.S. Commodity Futures Trading Commission ("CFTC") or FERC requirements, the rules of any exchange monitored by the National Futures Association, any self-regulatory organization or any other governing, regulatory, or standards body responsible for regulating activity in North American markets for electricity, natural gas or electricity-related commodity products. Each Applicant and Guarantor shall take reasonable measures to obtain permission to disclose information related to a non-public investigation. These disclosures shall be made by Applicant and Guarantor upon application, and within ten (10) Business Days of any material change with respect to any of the above matters.

## **6. History of Defaults in Energy Projects**

Each Applicant and Guarantor shall disclose their current default status and default history for any energy related generation or transmission project (e.g. generation, solar, development), and within any wholesale or retail energy market, including but not limited to within PJM, any Independent System Operator or Regional Transmission Organization, and exchange that has not been cured within the past five (5) years. Defaults of a non-recourse project financed entity may not be included in the default history.

## **7. Other Disclosures and Additional Information**

Each Applicant and Guarantor is required to disclose any Credit Affiliates that are currently Members of PJM, applying for membership with PJM, Transmission Customers, Participants, applying to become Market Participants, or that participate directly or indirectly in any PJM Markets or any other North American markets for electricity, natural gas or electricity-related commodity products. Each Applicant and Guarantor shall also provide a copy of its limited

liability company agreement or equivalent agreement, certification of formation, articles of incorporation or other similar organization document, offering memo or equivalent, the names of its five (5) most senior Principals, and information pertaining to any non-compliance with debt covenants and indentures.

Applicants shall provide PJM the credit application referenced in section III.A and any other information or documentation reasonably required for PJM to perform the initial risk evaluation of Applicant's or Guarantor's creditworthiness and ability to comply with the requirements contained in the Agreements related to settlements, billing, credit requirements, and other financial matters.

## **B. Supplemental Risk Evaluation Process**

As described in section VI below, PJM will conduct a supplemental risk evaluation process for Applicants, Participants, and Guarantors applying to conduct virtual and export transactions or participate in any PJM Markets.

## **C. Unsecured Credit Allowance**

A Market Participant may request that PJM consider it for an Unsecured Credit Allowance pursuant to the provisions herein. Notwithstanding the foregoing, an FTR Participant shall not be considered for an Unsecured Credit Allowance for participation in the FTR markets.

### **1. Unsecured Credit Allowance Evaluation**

PJM will perform a credit evaluation on each Participant that has requested an Unsecured Credit Allowance, both initially and at least annually thereafter. PJM shall determine the amount of Unsecured Credit Allowance, if any, that can be provided to the Market Participant in accordance with the creditworthiness and other requirements set forth in this Attachment Q. In completing the credit evaluation, PJM will consider:

#### **(a) Rating Agency Reports**

PJM will review Rating Agency reports as for each Market Participant on the same basis as described in section II.A.1 above and section II.E.1 below.

#### **(b) Financial Statements and Related Information**

All financial statements and related information considered for an Unsecured Credit Allowance must satisfy all of the same requirements described in section II.A.2 above and section II.E.2 below.

### **2. Material Adverse Changes**

Each Market Participant is responsible for informing PJM, in writing, of any Material Adverse Change in its financial condition (or the financial condition of its Guarantor) since the date of the Market Participant or Guarantor's most recent annual financial statements provided to PJM, pursuant to the requirements reflected in section II.A.2 above and section II.E.3 below.

In the event that PJM determines that a Material Adverse Change in the financial condition of a Market Participant warrants a requirement to provide Collateral, additional Collateral or Restricted Collateral, PJM shall comply with the process and requirements described in section II.A above and section II.E below.

### **3. Other Disclosures**

Each Market Participant desiring an Unsecured Credit Allowance is required to make the disclosures and upon the same requirements reflected in section II.A.7 above and section II.E.7 below.

#### **D. Determination of Unreasonable Credit Risk**

Unreasonable credit risk shall be determined by the likelihood that an Applicant will default on a financial obligation arising from its participation in any PJM Markets. Indicators of potentially unreasonable credit risk include, but are not limited to, a history of market manipulation based upon a final adjudication of regulatory and/or legal proceedings, a history of financial defaults, a history of bankruptcy or insolvency within the past five (5) years, or a combination of current market and financial risk factors such as low capitalization, a reasonably likely future material financial liability, a low Internal Credit Score (derived pursuant to section II.A.3 above) and/or a low externally derived credit score. PJM's determination will be based on, but not limited to, information and material provided to PJM during its initial risk evaluation process, information and material provided to PJM in the Officer's Certification, and/or information gleaned by PJM from public and non-public sources.

If PJM determines that an Applicant poses an unreasonable credit risk to the PJM Markets, PJM may require Collateral, additional Collateral, or Restricted Collateral commensurate with the Applicant's risk of financial default, reject an application, and/or limit or deny Applicant's participation in the PJM Markets, to the extent and for the time period it determines is necessary to mitigate the unreasonable credit risk to the PJM Markets. PJM will reject an application if it determines that Collateral, additional Collateral, or Restricted Collateral cannot address the risk.

PJM will communicate its concerns regarding whether the Applicant presents an unreasonable credit risk, if any, in writing to the Applicant and attempt to better understand the circumstances surrounding that Applicant's financial and credit position before making its determination. In the event PJM determines that an Applicant presents an unreasonable credit risk that warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Applicant with a written explanation of why such determination was made.

#### **E. Ongoing Risk Evaluation**

In addition to the initial risk evaluation set forth in sections II.A through II.D above and the annual certification requirements set forth in section III.A below, each Market Participant and/or its Guarantor has an ongoing obligation to provide PJM with the information required in section IV.A described in more detail below. PJM may also review public information regarding a



Market Participant and/or its Guarantor as part of its ongoing risk evaluation. If appropriate, PJM will revise the Market Participant's Unsecured Credit Allowance and/or change its determination of creditworthiness, credit support, Restricted Collateral, required Collateral or other assurances pursuant to PJM's ongoing risk evaluation process.

Each Market Participant and/or its Guarantor must provide the information set forth below on an ongoing basis in order to remain eligible to participate in any PJM Markets. The same quantitative and qualitative factors will be used to evaluate Market Participants whether or not they have rated debt.

### **1. Rating Agency Reports**

PJM will review Rating Agency reports for each Market Participant and/or Guarantor on the same basis as described in section II.A.1 above.

### **2. Financial Statements and Related Information**

On an ongoing basis, Market Participants and/or their Guarantors shall provide the information they are required to provide as described in section II.A.2 above, pursuant to the schedule reflected below, with one exception. With regard to the summary that is required to be provided by the Principal responsible for PJM Market activity, with respect to experience of the Participant or its Principals in managing risks in similar markets, the Principal only needs to provide that information for a new Principal that was not serving in the position when the prior summary was provided. PJM will review financial statements and related information for each Market Participant and/or Guarantor on the same basis as described in section II.A.2 above.

Each Market Participant and/or its Guarantor must submit, or cause to be submitted, annual audited financial statements, except as otherwise indicated below, prepared in accordance with US GAAP or any other format acceptable to PJM for the fiscal year most recently ended within ten (10) calendar days of the financial statements becoming available and no later than one hundred twenty (120) calendar days after its fiscal year end. Market Participants and/or their Guarantors must submit, or cause to be submitted, financial statements, which may be unaudited, for each completed fiscal quarter of the current fiscal year, promptly upon their issuance, but no later than sixty (60) calendar days after the end of each fiscal quarter. All audited financial statements provided by the Market Participant and/or its Guarantor must be audited by an Independent Auditor.

Notwithstanding the foregoing, PJM may upon request, grant a Market Participant or Guarantor an extension of time, if the financials are not available within the time frame stated above.

### **3. Material Adverse Changes**

Each Market Participant and each Guarantor is responsible for informing PJM, in writing, of any Material Adverse Change in its or its Guarantor's financial condition within five (5) Business Days of any Principal becoming aware of the occurrence of a Material Adverse Change since the date of the Market Participant or Guarantor's most recent annual financial statements provided to

PJM. However, PJM may also independently establish from available information that a Participant and/or its Guarantor has experienced a Material Adverse Change in its financial condition without regard to whether such Market Participant or Guarantor has informed PJM of the same.

For the purposes of this Attachment Q, a Material Adverse Change in financial condition may include, but is not be limited to, any of the following:

- (a) a bankruptcy filing;
- (b) insolvency;
- (c) a significant decrease in market capitalization;
- (d) restatement of prior financial statements unless required due to regulatory changes;
- (e) the resignation or removal of a Principal unless there is a new Principal appointed or expected to be appointed, a transition plan in place pending the appointment of a new Principal, or a planned restructuring of such roles;
- (f) the filing of a lawsuit or initiation of an arbitration, investigation, or other proceeding that would likely have a material adverse effect on any current or future financial results or financial condition or increase the likelihood of non-payment;
- (g) a material financial default in any other organized energy, ancillary service, financial transmission rights and/or capacity markets including but not limited to those of another Regional Transmission Organization or Independent System Operator, or on any commodity exchange, futures exchange or clearing house, that has not been cured or remedied after any required notice has been given and any cure period has elapsed;
- (h) a revocation of a license or other authority by any Federal or State regulatory agency; where such license or authority is necessary or important to the Participant's continued business, for example, FERC market-based rate authority, or State license to serve retail load;
- (i) a significant change in credit default swap spreads, market capitalization, or other market-based risk measurement criteria, such as a recent increase in Moody's KMV Expected Default Frequency (EDF<sup>tm</sup>) that is materially greater than the increase in its peers' EDF<sup>tm</sup> rates, or a collateral default swap (CDS) premium normally associated with an entity rated lower than investment grade;
- (j) a confirmed, undisputed material financial default in a bilateral arrangement with another Participant or counterparty that has not been cured or remedied after any required notice has been given and any cure period has elapsed;
- (k) the sale by a Participant of all or substantially all of its bilateral position(s) in the PJM Markets;
- (l) any adverse changes in financial condition which, individually, or in the aggregate, are material; and,
- (m) any adverse changes, events or occurrences which, individually or in the aggregate, could affect the ability of the entity to pay its debts as they become due or could reasonably be expected to have a material adverse effect on any current or future financial results or financial condition.

Upon identification of a Material Adverse Change, PJM shall evaluate the financial strength and risk profile of the Market Participant and/or its Guarantor at that time and may do so on a more frequent basis going forward. If the result of such evaluation identifies unreasonable credit risk to any PJM Market as further described in section II.E.8 below, PJM will take steps to mitigate the financial exposure to the PJM Markets. These steps include, but are not limited to requiring the Market Participant and/or each Guarantor to provide Collateral, additional Collateral or additional Restricted Collateral that is commensurate with the amount of risk in which the Market Participant wants to engage, and/or limiting the Market Participant's ability to participate in any PJM Market to the extent, and for the time-period necessary to mitigate the unreasonable credit risk. In the event PJM determines that a Material Adverse Change in the financial condition or risk profile of a Market Participant and/or Guarantor, warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Market Participant and/or Guarantor, a written explanation of why such determination was made. Conversely, in the event PJM determines there has been an improvement in the financial condition or risk profile of a Market Participant and/or Guarantor such that the amount of Collateral needed for that Market Participant and/or Guarantor can be reduced, PJM shall provide a written explanation why such determination was made, including the amount of the Collateral reduction and indicating when and how the reduction will be made.

#### **4. Litigation and Contingencies**

Each Market Participant and/or Guarantor is required to disclose and provide information regarding litigation and contingencies as outlined in section II.A.5 above.

#### **5. History of Defaults in Energy Projects**

Each Market Participant and/or Guarantor is required to disclose current default status and default history as outlined in section II.A.6 above.

#### **6. Internal Credit Score**

As part of its ongoing risk evaluation, PJM will use credit risk scoring methodologies as a tool in determining an Internal Credit Score for each Market Participant and/or Guarantor, utilizing the same model and framework outlined in section II.A.3 above.

#### **7. Other Disclosures and Additional Information**

Each Market Participant and/or Guarantor is required to make other disclosures and provide additional information outlined in section II.A.7 above.

PJM will monitor each Market Participant's use of services and associated financial obligations on a regular basis to determine their total potential financial exposure and for credit monitoring purposes, and may require the Market Participant and/or Guarantor to provide additional information, pursuant to the terms and provisions described herein.

Market Participants shall provide PJM, upon request, any information or documentation reasonably required for PJM to monitor and evaluate a Market Participant's creditworthiness and compliance with the Agreements related to settlements, billing, credit requirements, and other financial matters.

## **8. Unreasonable Credit Risk**

If PJM has reasonable grounds to believe that a Market Participant and/or its Guarantor poses an unreasonable credit risk to any PJM Markets, PJM may immediately notify the Market Participant of such unreasonable credit risk and (1) issue a Collateral Call to demand Collateral, additional Collateral, or Restricted Collateral or other assurances commensurate with the Market Participant's and/or its Guarantor's risk of financial default or other risk posed by the Market Participant's or Guarantor's financial condition or risk profile to the PJM Markets and PJM members, or (2) limit or suspend the Market Participant's participation in any PJM Markets, to the extent and for such time period PJM determines is necessary to mitigate the unreasonable credit risk to any PJM Markets. PJM will only limit or suspend a Market Participant's market participation if Collateral, additional Collateral or Restricted Collateral cannot address the unreasonable credit risk.

PJM's determination will be based on, but not limited to, information and material provided to PJM during its ongoing risk evaluation process or in the Officer's Certification, and/or information gleaned by PJM from public and non-public sources. PJM will communicate its concerns, if any, in writing to the Market Participant and attempt to better understand the circumstances surrounding the Market Participant's financial and credit position before making its determination. At PJM's request or upon its own initiative, the Market Participant or its Guarantor may provide supplemental information to PJM that would allow PJM to consider reducing the additional Collateral requested or reducing the severity of limitations or other restrictions designed to mitigate the Market Participant's credit risk. Such information shall include, but not be limited to: (i) the Market Participant's estimated exposure, (ii) explanations for any recent change in the Market Participant's market activity, (iii) any relevant new load or unit outage information; or (iv) any default or supply contract expiration, termination or suspension.

The Market Participant shall have five (5) Business Days to respond to PJM's request for supplemental information. If the requested information is provided in full to PJM's satisfaction during said period, the additional Collateral requirement shall reflect the Market Participant's anticipated exposure based on the information provided. Notwithstanding the foregoing, any additional Collateral requested by PJM in a Collateral Call must be provided by the Market Participant within the applicable cure period.

In the event PJM determines that an Market Participant and/or its Guarantor presents an unreasonable credit risk, as described above, that warrants a requirement to provide Collateral of any type, or some action to mitigate risk, PJM shall provide the Market Participant with a written explanation of why such final determination was made.

PJM has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current or anticipated market activity as set forth in Tariff, Attachment Q, sections II.A.2 and II.C.1.b. Failure to remit the required amount of additional Collateral within the applicable cure period shall constitute an Event of Default.

#### **F. Collateral and Credit Restrictions**

PJM may establish certain restrictions on available credit by requiring that some amounts of credit, i.e. Restricted Collateral, may not be available to satisfy credit requirements. Such designations shall be construed to be applicable to the calculation of credit requirements only, and shall not restrict PJM's ability to apply such designated credit to any obligation(s) in case of a default. Any such Restricted Collateral will be held by PJM, as applicable. Such Restricted Collateral will not be returned to the Participant until PJM has determined that the risk for which such Restricted Collateral is being held has subsided or been resolved.

PJM may post on PJM's web site, and may reference on OASIS, a supplementary document which contains additional business practices (such as algorithms for credit scoring) that are not included in this Attachment Q. Changes to the supplementary document will be subject to stakeholder review and comment prior to implementation. PJM may specify a required compliance date, not less than fifteen (15) calendar days from notification, by which time all Participants and their Guarantors must comply with provisions that have been revised in the supplementary document.

PJM will regularly post each Participant's and/or its Guarantor's credit requirements and credit provisions on the PJM web site in a secure, password-protected location. Each Participant and/or its Guarantor is responsible for monitoring such information, and maintaining sufficient credit to satisfy the credit requirements described herein. Failure to maintain credit sufficient to satisfy the credit requirements of the Attachment Q shall constitute a Credit Breach, and the Participant will be subject to the remedies established herein and in any of the Agreements.

#### **G. Unsecured Credit Allowance Calculation**

The external rating from a Rating Agency will be used as the source for calculating the Unsecured Credit Allowance, unless no external credit rating is available in which case PJM will utilize its Internal Credit Score for such purposes. If there is a split rating between the Rating Agencies, the lower of the ratings shall apply.

Where two or more entities, including Participants, are considered Credit Affiliates, Unsecured Credit Allowances will be established for each individual Participant, subject to an aggregate maximum amount for all Credit Affiliates as provided for in Attachment Q, section II.G.3.

In its credit evaluation of Municipalities and Cooperatives, PJM may request additional information as part of the ongoing risk evaluation process and will also consider qualitative factors in determining financial strength and creditworthiness.

## 1. Credit Rating and Internal Credit Score

As previously described in section II.A.3 above, PJM will determine the Internal Credit Score for an Applicant, Market Participant and/or its Guarantor using the credit risk scoring methodologies contained therein. Internal Credit Scores, ranging from 1-6, for each Applicant, Market Participant and/or its Guarantor, will be determined with the following mappings:

- 1 = Very Low Risk (S&P/Fitch: AAA to AA-; Moody's: Aaa to Aa3)
- 2 = Low Risk (S&P/Fitch: A+ to BBB+; Moody's: A1 to Baa1)
- 3 = Low to Medium Risk (S&P/Fitch: BBB; Moody's: Baa2)
- 4 = Medium Risk (S&P/Fitch: BBB-; Moody's: Baa3)
- 5 = Medium to High Risk (S&P/Fitch: BB+ to BB; Moody's Ba1 to Ba2)
- 6 = High Risk (S&P/Fitch: BB- and below; Moody's: Ba3 and below)

In instances where the external credit rating is used to calculate the unsecured credit allowance, PJM may also use the Internal Credit Score as an input into its determination of the overall risk profile of an Applicant and/or its Guarantor

## 2. Unsecured Credit Allowance

PJM will determine a Participant's Unsecured Credit Allowance based on its external rating or its Internal Credit Score, as applicable, and the parameters in the table below. The maximum Unsecured Credit Allowance is the lower of:

- (a) A percentage of the Participant's Tangible Net Worth, as stated in the table below, with the percentage based on the Participant's external rating or Internal Credit Score, as applicable; and
- (b) A dollar cap based on the external rating or Internal Credit Score, as applicable, as stated in the table below:

Internal Credit Score	Risk Ranking	Tangible Net Worth Factor	Maximum Unsecured Credit Allowance (\$ Million)
1.00 – 1.99	1 – Very Low (AAA to AA-)	Up to 10.00%	\$50
2.00 – 2.99	2 – Low (A+ to BBB+)	Up to 8.00%	\$42
3.00 – 3.49	3 – Low to Medium (BBB)	Up to 6.00%	\$33
3.50 – 4.49	4 – Medium (BBB-)	Up to 5.00%	\$7
4.50 – 5.49	5 – Medium to High (BB+ to BB)	0%	\$0
> 5.49	6 – High (BB- and below)	0%	\$0

If a Corporate Guaranty is utilized to establish an Unsecured Credit Allowance for a Participant, the value of a Corporate Guaranty will be the lesser of:

- (a) The limit imposed in the Corporate Guaranty;
- (b) The Unsecured Credit Allowance calculated for the Guarantor; and
- (c) A portion of the Unsecured Credit Allowance calculated for the Guarantor in the case of Credit Affiliates.

PJM has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current market activity. Failure to remit the required amount of additional Collateral within the applicable cure period shall be deemed an Event of Default.

PJM will maintain a posting of each Participant's Unsecured Credit Allowance, along with certain other credit related parameters, on the PJM website in a secure, password-protected location. Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

### **3. Unsecured Credit Limits For Credit Affiliates**

If two or more Participants are Credit Affiliates and have requested an Unsecured Credit Allowance, PJM will consider the overall creditworthiness of the Credit Affiliates when determining the Unsecured Credit Allowances in order not to establish more Unsecured Credit for the Credit Affiliates collectively than the overall corporate family could support.

**Example:** Participants A and B each have a \$10.0 million Corporate Guaranty from their common parent, a holding company with an Unsecured Credit Allowance calculation of \$12.0 million. PJM may limit the Unsecured Credit Allowance for each Participant to \$6.0 million, so the total Unsecured Credit Allowance does not exceed the corporate family total of \$12.0 million.

PJM will work with the Credit Affiliates to allocate the total Unsecured Credit Allowance among the Credit Affiliates while assuring that no individual Participant, nor common guarantor, exceeds the Unsecured Credit Allowance appropriate for its credit strength. The aggregate Unsecured Credit for a Participant, including Unsecured Credit Allowance granted based on its own creditworthiness and risk profile, and any Unsecured Credit Allowance conveyed through a Guaranty shall not exceed \$50 million. The aggregate Unsecured Credit for a Credit Affiliates corporate family shall not exceed \$50 million. A Credit Affiliate corporate family subject to this cap shall request PJM to allocate the maximum Unsecured Credit amongst the corporate family, assuring that no individual Participant or common guarantor, shall exceed the Unsecured Credit level appropriate for its credit strength and activity.

### **H. Contesting an Unsecured Credit Evaluation**

PJM will provide to a Participant, upon request, a written explanation for any determination of or change in Unsecured Credit or credit requirement within ten (10) Business Days of receiving such request.

If a Participant believes that either its level of Unsecured Credit or its credit requirement has been incorrectly determined, according to this Attachment Q, then the Participant may send a request for reconsideration in writing to PJM. Such a request should include:

- (1) A citation to the applicable section(s) of this Attachment Q along with an explanation of how the respective provisions of this Attachment Q were not carried out in the determination as made; and
- (2) A calculation of what the Participant believes should be the appropriate Unsecured Credit or Collateral requirement, according to terms of this Attachment Q.

PJM will provide a written response as promptly as practical, but no more than ten (10) Business Days after receipt of the request. If the Participant still feels that the determination is incorrect, then the Participant may contest that determination. Such contest should be in written form, addressed to PJM, and should contain:

- (1) A complete copy of the Participant's earlier request for reconsideration, including citations and calculations;
- (2) A copy of PJM's written response to its request for reconsideration; and
- (3) An explanation of why it believes that the determination still does not comply with this Attachment Q.

PJM will investigate and will respond to the Participant with a final determination on the matter as promptly as practical, but no more than twenty (20) Business Days after receipt of the request.

Neither requesting reconsideration nor contesting the determination following such request shall relieve or delay Participant's responsibility to comply with all provisions of this Attachment Q, including without limitation posting Collateral, additional Collateral or Restricted Collateral in response to a Collateral Call.

If a Corporate Guaranty is being utilized to establish credit for a Participant, the Guarantor will be evaluated and the Unsecured Credit Allowance granted, if any, based on the financial strength and creditworthiness, and risk profile of the Guarantor. Any utilization of a Corporate Guaranty will only be applicable to non-FTR credit requirements, and will not be applicable to cover FTR credit requirements.

PJM will identify any necessary Collateral requirements and establish a Working Credit Limit for each Participant. Any Unsecured Credit Allowance will only be applicable to non-FTR credit requirements, for positions in PJM Markets other than the FTR market, because all FTR credit requirements must be satisfied by posting Collateral.



### **III. MINIMUM PARTICIPATION REQUIREMENTS**

A Participant seeking to participate in any PJM Markets shall submit to PJM any information or documentation reasonably required for PJM to evaluate its experience and resources. If PJM determines, based on its review of the relevant information and after consultation with the Participant, that the Participant's participation in any PJM Markets presents an unreasonable credit risk, PJM may reject the Participant's application to become a Market Participant, notwithstanding applicant's ability to meet other minimum participation criteria, registration requirements and creditworthiness requirements.

#### **A. Annual Certification**

Before they are eligible to transact in any PJM Market, all Applicants shall provide to PJM (i) an executed copy of a credit application and (ii) a copy of the annual certification set forth in Attachment Q, Appendix 1. As a condition to continued eligibility to transact in any PJM Market, Market Participants shall provide to PJM the annual certification set forth in Attachment Q, Appendix 1.

After the initial submission, the annual certification must be submitted each calendar year by all Market Participants between January 1 and April 30. PJM will accept such certifications as a matter of course and the Market Participants will not need further notice from PJM before commencing or maintaining their eligibility to participate in any PJM Markets.

A Market Participant that fails to provide its annual certification by April 30 shall be ineligible to transact in any PJM Markets and PJM will disable the Market Participant's access to any PJM Markets until such time as PJM receives the certification. In addition, failure to provide an executed annual certification in a form acceptable to PJM and by the specified deadlines may result in a default under the Tariff.

Market Participants acknowledge and understand that the annual certification constitutes a representation upon which PJM will rely. Such representation is additionally made under the Tariff, filed with and accepted by FERC, and any false, misleading or incomplete statement knowingly made by the Market Participant and that is material to the Market Participant's ability to perform may be considered a violation of the Tariff and subject the Market Participant to action by FERC. Failure to comply with any of the criteria or requirements listed herein or in the certification may result in suspension or limitation of a Market Participant's transaction rights in any PJM Markets.

Applicants and Market Participants shall submit to PJM, upon request, any information or documentation reasonably and/or legally required to confirm Applicant's or Market Participant's compliance with the Agreements and the annual certification.

#### **B. PJM Market Participation Eligibility Requirements**

PJM may conduct periodic verification to confirm that Applicants and Market Participants can demonstrate that they meet the definition of “appropriate person” to further ensure minimum criteria are in place. Such demonstration will consist of the submission of evidence and an executed Annual Officer Certification form as set forth in Attachment Q, Appendix 1 in a form acceptable to PJM. If an Applicant or Market Participant does not provide sufficient evidence for verification to PJM within five (5) Business Days of written request, then such Applicant or Market Participant may result in a default under this Tariff. Demonstration of “appropriate person” status and support of other certifications on the annual certification is one part of the Minimum Participation Requirements for any PJM Markets and does not obviate the need to meet the other Minimum Participation Requirements such as those for minimum capitalization and risk profile as set forth in this Attachment Q.

To be eligible to transact in any PJM Markets, an Applicant or Participant must demonstrate in accordance with the Risk Management and Verification processes set forth below that it qualifies in one of the following ways:

1. an “appropriate person,” as that term is defined under Commodity Exchange Act, section 4(c)(3), or successor provision, or;
2. an “eligible contract participant,” as that term is defined in Commodity Exchange Act, section 1a(18), or successor provision, or;
3. a business entity or person who is in the business of: (1) generating, transmitting, or distributing electric energy, or (2) providing electric energy services that are necessary to support the reliable operation of the transmission system, or;
4. an Applicant or Market Participant seeking eligibility as an “appropriate person” providing an unlimited Corporate Guaranty in a form acceptable to PJM as described in section V below from a Guarantor that has demonstrated it is an “appropriate person,” and has at least \$1 million of total net worth or \$5 million of total assets per Applicant and Market Participant for which the Guarantor has issued an unlimited Corporate Guaranty, or;
5. an Applicant or Market Participant providing a Letter of Credit of at least \$5 million to PJM in a form acceptable to PJM as described in section V below, that the Applicant or Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJM, or;
6. an Applicant or Market Participant providing a surety bond of at least \$5 million to PJM in a form acceptable to PJM as described in section V below, that the Applicant or Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJM.

If, at any time, a Market Participant cannot meet the eligibility requirements set forth above, it shall immediately notify PJM and immediately cease conducting transactions in any PJM Markets. PJM may terminate a Market Participant’s transaction rights in any PJM Markets if, at

any time, it becomes aware that the Market Participant does not meet the minimum eligibility requirements set forth above.

In the event that a Market Participant is no longer able to demonstrate it meets the minimum eligibility requirements set forth above, and possesses, obtains or has rights to possess or obtain, any open or forward positions in any PJM Markets, PJM may take any such action it deems necessary with respect to such open or forward positions, including, but not limited to, liquidation, transfer, assignment, sale or allowing position(s) to go to settlement; provided, however, that the Market Participant will, notwithstanding its ineligibility to participate in any PJM Markets, be entitled to any positive market value of those positions, net of any obligations due and owing to PJM.

### **C. Risk Management and Verification**

All Market Participants must maintain current written risk management policies, procedures, or controls to address how market and credit risk is managed, and are required to submit to PJM (at the time they make their annual certification) a copy of their current governing risk control policies, procedures and controls applicable to their market activities. PJM will review such documentation to verify that it appears generally to conform to prudent risk management practices for entities participating in any PJM Markets.

All Market Participants subject to this provision shall make a one-time payment of \$1,500.00 to PJM to cover administrative costs. Thereafter, if such Participant's risk policies, procedures and controls applicable to its market activities change substantively, it shall submit such modified documentation, with applicable administrative charge determined by PJM, to PJM for review and verification at the time it makes its annual certification. All Market Participant's continued eligibility to participate in any PJM Markets is conditioned on PJM notifying a Participant that its annual certification, including the submission of its risk policies, procedures and controls, has been accepted by PJM. PJM may retain outside expertise to perform the review and verification function described in this section, however, in all circumstances, PJM and any third-party it may retain will treat as confidential the documentation provided by a Participant under this section, consistent with the applicable provisions of the Operating Agreement.

Participants must demonstrate that they have implemented prudent risk management policies and procedures in order to be eligible to participate in any PJM Markets. Participants must demonstrate on at least an annual basis that they have implemented and maintained prudent risk management policies and procedures in order to continue to participate in any PJM Markets. Upon written request, the Participant will have fourteen (14) calendar days to provide to PJM current governing risk management policies, procedures, or controls applicable to Participant's activities in any PJM Markets.

### **D. Capitalization**

In advance of certification, Applicants shall meet the minimum capitalization requirements below. In addition to the annual certification requirements in Attachment Q, Appendix 1, a Market Participant shall satisfy the minimum capitalization requirements on an annual basis

thereafter. A Participant must demonstrate that it meets the minimum financial requirements appropriate for the PJM Markets in which it transacts by satisfying either the minimum capitalization or the provision of Collateral requirements listed below:

## **1. Minimum Capitalization**

Minimum capitalization may be met by demonstrating minimum levels of Tangible Net Worth or tangible assets. FTR Participants must demonstrate a Tangible Net Worth in excess of \$1 million or tangible assets in excess of \$10 million. Other Market Participants must demonstrate a Tangible Net Worth in excess of \$500,000 or tangible assets in excess of \$5 million.

(a) Consideration of tangible assets and Tangible Net Worth shall exclude assets which PJM reasonably believes to be restricted, highly risky, or potentially unavailable to settle a claim in the event of default. Examples include, but are not limited to, restricted assets, derivative assets, goodwill, and other intangible assets.

(b) Demonstration of “tangible” assets and Tangible Net Worth may be satisfied through presentation of an acceptable Corporate Guaranty, provided that both:

- (i) the Guarantor is a Credit Affiliate company that satisfies the Tangible Net Worth or tangible assets requirements herein, and;
- (ii) the Corporate Guaranty is either unlimited or at least \$500,000.

If the Corporate Guaranty presented by the Participant to satisfy these capitalization requirements is limited in value, then the Participant’s resulting Unsecured Credit Allowance shall be the lesser of:

- (1) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or,
- (2) the face value of the Corporate Guaranty, reduced by \$500,000 and further reduced by 10%. (For example, a \$10.5 million Corporate Guaranty would be reduced first by \$500,000 to \$10 million and then further reduced 10% more to \$9 million. The resulting \$9 million would be the Participant’s Unsecured Credit Allowance available through the Corporate Guaranty).

In the event that a Participant provides Collateral in addition to a limited Corporate Guaranty to increase its available credit, the value of such Collateral shall be reduced by 10%. This reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.

(c) Demonstrations of minimum capitalization (minimum Tangible Net Worth or tangible assets) must be presented in the form of audited financial statements for the Participant's most recent fiscal year during the initial risk evaluation process and ongoing risk evaluation process.

## **2. Provision of Collateral**

If a Participant does not demonstrate compliance with its applicable minimum capitalization requirements above, it may still qualify to participate in any PJM Markets by posting Collateral, additional Collateral, and/or Restricted Collateral, subject to the terms and conditions set forth herein.

Any Collateral provided by a Participant unable to satisfy the minimum capitalization requirements above will also be restricted in the following manner:

- (a) Collateral provided by Market Participants that engage in FTR transactions shall be reduced by an amount of the current risk plus any future risk to any PJM Markets and PJM membership in general, and may coincide with limitations on market participation. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.
- (b) Collateral provided by other Participants that engage in Virtual Transactions or Export Transactions shall be reduced by \$200,000 and then further reduced by 10%. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.
- (c) Collateral provided by other Participants that do not engage in Virtual Transactions or Export Transactions shall be reduced by 10%. The amount of this Restricted Collateral shall not be available to cover any credit requirements from market activity. The remaining value shall be considered the amount available to satisfy requirements of this Attachment Q.

In the event a Participant that satisfies the minimum capital requirement through provision of Collateral also provides a Corporate Guaranty to increase its available credit, then the Participant's resulting Unsecured Credit Allowance conveyed through such Corporate Guaranty shall be the lesser of:

- (a) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q; or
- (b) the face value of the Corporate Guaranty, reduced commensurate with the amount of the current risk plus any anticipated future risk to any PJM Markets and PJM membership in general, and may coincide with limitations on market participation.

## **IV. ONGOING COVENANTS**

### **A. Ongoing Obligation to Provide Information to PJM**

So long as a Participant is eligible to participate, or participates or holds positions, in any PJM Markets, it shall deliver to PJM, in form and detail satisfactory to PJM:

- (1) All financial statements and other financial disclosures as required by section II.E.2 by the deadline set forth therein;
- (2) Notice, within five (5) Business Days, of any Principal becoming aware that the Participant does not meet the Minimum Participation Requirements set forth in section III;
- (3) Notice when any Principal becomes aware of any matter that has resulted or would reasonably be expected to result in a Material Adverse Change in the financial condition of the Participant or its Guarantor, if any, a description of such Material Adverse Change in detail reasonable to allow PJM to determine its potential effect on, or any change in, the Participant's risk profile as a participant in any PJM Markets, by the deadline set forth in section II.E.3 above;
- (4) Notice, within the deadline set forth therein, of any Principal becoming aware of a litigation or contingency event described in section II.E.4, or of a Material Adverse Change in any such litigation or contingency event previously disclosed to PJM, information in detail reasonable to allow PJM to determine its potential effect on, or any change in, the Market Participant's risk profile as a participant in any PJM Markets by the deadline set forth therein;
- (5) Notice, within two (2) Business Days after any Principal becomes aware of a Credit Breach, Financial Default, or Credit Support Default, that includes a description of such default or event and the Participant's proposals for addressing the default or event;
- (6) As soon as available but not later than April 30<sup>th</sup> of any calendar year, the annual Certification described in section III.A in a form set forth in Attachment Q, Appendix 1;
- (7) Concurrently with submission of the annual certification, demonstration that the Participant meets the minimum capitalization requirements set forth in section III.D;
- (8) Concurrently with submission of the annual certification and within the applicable deadline of any substantive change, or within the applicable deadline of a request from PJM, a copy of the Participant's written risk management policies, procedures or controls addressing how the Participant manages market and credit risk in the PJM Markets in which it participates, as well as a high level summary by the chief risk officer or other Principal regarding any material violations, breaches, or compliance or disciplinary actions related to the risk management policies, by the Participant under the policies, procedures or controls within the prior 12 months, as set forth in section VI.B below;
- (9) Within five (5) Business Days of request by PJM, evidence demonstrating the Participant meets the definition of "appropriate person" or "eligible contract participant," as those terms are defined in the Commodity Exchange Act and the CFTC regulations promulgated thereunder, or of any other certification in the annual Certification; or

- (10) Within a reasonable time after PJM requests, any other information or documentation reasonably and/or legally required by PJM to confirm Participant's compliance with the Tariff and its eligibility to participate in any PJM Markets.

Participants acknowledge and understand that the deliveries constitute representations upon which PJM will rely in allowing the Participant to continue to participate in its markets, with the Internal Credit Score and Unsecured Credit Allowance, if any, previously determined by PJM.

#### **B. Risk Management Review**

PJM shall also conduct a periodic compliance verification process to review and verify, as applicable, Participants' risk management policies, practices, and procedures pertaining to the Participant's activities in any PJM Markets. PJM shall review such documentation to verify that it appears generally to conform to prudent risk management practices for entities trading in any PJM Markets. Participant shall also provide a high level summary by the chief risk officer or other Principal regarding any material violations, breaches, or compliance or disciplinary actions in connection with such risk management policies, practices and procedures within the prior twelve (12) months.

If a third-party industry association publishes or modifies principles or best practices relating to risk management in North American markets for electricity, natural gas or electricity-related commodity products, PJM may, following stakeholder discussion and with no less than six (6) months prior notice to stakeholders, consider such principles or best practices in evaluating the Participant's risk controls.

PJM will prioritize the verification of risk management policies based on a number of criteria, including but not limited to how long the entity has been in business, the Participant's and its Principals' history of participation in any PJM Markets, and any other information obtained in determining the risk profile of the Participant.

Each Participant's continued eligibility to participate in any PJM Markets is conditioned upon PJM notifying the Participant of successful completion of PJM's verification of the Participant's risk management policies, practices and procedures, as discussed herein. However, if PJM notifies the Participant in writing that it could not successfully complete the verification process, PJM shall allow such Participant fourteen (14) calendar days to provide sufficient evidence for verification prior to declaring the Participant as ineligible to continue to participate in any PJM Markets, which declaration shall be in writing with an explanation of why PJM could not complete the verification. If the Participant does not provide sufficient evidence for verification to PJM within the required cure period, such Participant will be considered in default under this Tariff. PJM may retain outside expertise to perform the review and verification function described in this paragraph. PJM and any third party it may retain will treat as confidential the documentation provided by a Participant under this paragraph, consistent with the applicable provisions of the Agreements. If PJM retains such outside expertise, a Participant may direct in writing that PJM perform the risk management review and verification for such Participant instead of utilizing a third party, provided however, that employees and contract employees of PJM shall not be considered to be such outside expertise or third parties.

Participants are solely responsible for the positions they take and the obligations they assume in any PJM Markets. PJM hereby disclaims any and all responsibility to any Participant or PJM

Member associated with Participant's submitting or failure to submit its annual certification or PJM's review and verification of a Participant's risk policies, procedures and controls. Such review and verification is limited to demonstrating basic compliance by a Participant showing the existence of written policies, procedures and controls to limit its risk in any PJM Markets and does not constitute an endorsement of the efficacy of such policies, procedures or controls.

## **V. FORMS OF CREDIT SUPPORT**

In order to satisfy their PJM credit requirements Participants may provide credit support in a PJM-approved form and amount pursuant to the guidelines herein, provided that, notwithstanding anything to the contrary in this section, a Market Participant in PJM's FTR markets shall meet its credit support requirements related to those FTR markets with either cash or Letters of Credit.

Unless otherwise restricted by PJM, credit support provided may be used by PJM to secure the payment of Participant's financial obligations under the Agreements.

Collateral which may no longer be required to be maintained under provisions of the Agreements, shall be returned at the request of a Participant, no later than two (2) Business Days following determination by PJM within a commercially reasonable period of time that such Collateral is not required.

Except when an Event of Default has occurred, a Participant may substitute an approved PJM form of Collateral for another PJM approved form of Collateral of equal value.

### **A. Cash Deposit**

A Participant's delivery of a cash deposit to PJM as Collateral shall constitute the grant of a first-priority security interest in the cash in favor of PJM and PJM shall be authorized by such delivery to hold the cash as security and to apply it to the Participant's financial obligations under the Tariff or other Agreements. Cash provided by a Participant as Collateral will be held in a depository account by PJM. Interest on a cash deposit shall accrue to the benefit of the Participant, provided that PJM may require Participants to provide appropriate tax and other information in order to accrue such interest credits. A Participant who delivers cash to PJM hereunder agrees that the Tariff and any other agreements incorporating the terms of the Tariff shall for all purposes constitute a security agreement.

Cash Collateral may not be pledged or in any way encumbered or restricted from full and timely use by PJM in accordance with terms of the Agreements.

PJM has the right to liquidate all or a portion of the Collateral account balance at its discretion to satisfy a Participant's Total Net Obligation to PJM in the Event of Default under this Attachment Q or one or more of the Agreements.

### **B. Letter of Credit**



An unconditional, irrevocable standby Letter of Credit can be utilized to meet the Collateral requirement. As stated below, the form, substance, and provider of the Letter of Credit must all be acceptable to PJM.

- (1) The Letter of Credit will only be accepted from U.S.-based financial institutions or U.S. branches of foreign financial institutions (“financial institutions”) that have a minimum corporate debt rating of “A” by Standard & Poor’s or Fitch Ratings, or “A2” from Moody’s Investors Service, or an equivalent short term rating from one of these agencies. PJM will consider the lowest applicable rating to be the rating of the financial institution. If the rating of a financial institution providing a Letter of Credit is lowered below A/A2 by any Rating Agency, then PJM may require the Participant to provide a Letter of Credit from another financial institution that is rated A/A2 or better, or to provide a cash deposit. If a Letter of Credit is provided from a U.S. branch of a foreign institution, the U.S. branch must itself comply with the terms of this Attachment Q, including having its own acceptable credit rating.
- (2) The Letter of Credit shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) calendar days prior written notice from the issuing financial institution. If PJM or PJM receives notice from the issuing financial institution that the current Letter of Credit is being cancelled or expiring, the Participant will be required to provide evidence, acceptable to PJM, that such Letter of Credit will be replaced with appropriate Collateral, effective as of the cancellation date of the Letter of Credit, no later than thirty (30) calendar days before the cancellation date of the Letter of Credit, and no later than ninety (90) calendar days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one or more of the Agreements.
- (3) PJM will post on its web site an acceptable standard form of a Letter of Credit that should be utilized by a Participant choosing to submit a Letter of Credit to establish credit at PJM. If the Letter of Credit varies in any way from the standard format, it must first be reviewed and approved by PJM. All costs associated with obtaining and maintaining a Letter of Credit and meeting the Attachment Q provisions are the responsibility of the Participant.
- (4) PJM may accept a Letter of Credit from a financial institution that does not meet the credit standards of this Attachment Q provided that the Letter of Credit has third-party support, in a form acceptable to PJM, from a financial institution that does meet the credit standards of this Attachment Q.

### **C. Corporate Guaranty**

An irrevocable and unconditional Corporate Guaranty may be utilized to establish an Unsecured Credit Allowance for a Participant. Such credit will be considered a transfer of Unsecured Credit from the Guarantor to the Participant, and will not be considered a form of Collateral.

PJM will post on its web site an acceptable form that should be utilized by a Participant choosing to establish its credit with a Corporate Guaranty. If the Corporate Guaranty varies in any way from the PJM format, it must first be reviewed and approved by PJM before it may be applied to satisfy the Participant's credit requirements.

The Corporate Guaranty must be signed by an officer of the Guarantor, and must demonstrate that it is duly authorized in a manner acceptable to PJM. Such demonstration may include either a corporate seal on the Corporate Guaranty itself, or an accompanying executed and sealed secretary's certificate from the Guarantor's corporate secretary noting that the Guarantor was duly authorized to provide such Corporate Guaranty and that the person signing the Corporate Guaranty is duly authorized, or other manner acceptable to PJM.

PJM will evaluate the creditworthiness of a Guarantor and will establish any Unsecured Credit granted through a Corporate Guaranty using the methodology and requirements established for Participants requesting an Unsecured Credit Allowance as described herein. Foreign Guaranties and Canadian Guaranties shall be subject to additional requirements as established herein.

If PJM determines at any time that a Material Adverse Change in the financial condition of the Guarantor has occurred, or if the Corporate Guaranty comes within thirty (30) calendar days of expiring without renewal, PJM may reduce or eliminate any Unsecured Credit afforded to the Participant through the guaranty. Such reduction or elimination may require the Participant to provide Collateral within the applicable cure period. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

All costs associated with obtaining and maintaining a Corporate Guaranty and meeting the Attachment Q provisions are the responsibility of the Participant.

## **1. Foreign Guaranties**

A Foreign Guaranty is a Corporate Guaranty that is provided by a Credit Affiliate entity that is domiciled in a country other than the United States or Canada. The entity providing a Foreign Guaranty on behalf of a Participant is a Foreign Guarantor. A Participant may provide a Foreign Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJM provided that all of the following conditions are met:

PJM reserves the right to deny, reject, or terminate acceptance of any Foreign Guaranty at any time, including for material adverse circumstances or occurrences.

- (a) A Foreign Guaranty:
  - (i) Must contain provisions equivalent to those contained in PJM's standard form of Foreign Guaranty with any modifications subject to review and approval by PJM counsel.
  - (ii) Must be denominated in US currency.
  - (iii) Must be written and executed solely in English, including any duplicate originals.
  - (iv) Will not be accepted towards a Participant's Unsecured Credit Allowance for more than the following limits, depending on the Foreign Guarantor's credit rating:

Rating of Foreign Guarantor	Maximum Accepted Guaranty if Country Rating is AAA	Maximum Accepted Guaranty if Country Rating is AA+
A- and above	USD50,000,000	USD30,000,000
BBB+	USD30,000,000	USD20,000,000
BBB	USD10,000,000	USD10,000,000
BBB- or below	USD 0	USD 0

- (v) May not exceed 50% of the Participant's total credit, if the Foreign Grantor is rated less than BBB+.
- (b) A Foreign Guarantor:
- (i) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
  - (ii) Must be a Credit Affiliate of the Participant.
  - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
  - (iv) Must be rated by at least one Rating Agency acceptable to PJM; the credit strength of a Foreign Guarantor may not be determined based on an evaluation of its audited financial statements without an actual credit rating as well.
  - (v) Must have a senior unsecured (or equivalent, in PJM's sole discretion) rating of BBB (one notch above BBB-) or greater by any and all agencies that provide rating coverage of the entity.
  - (vi) Must provide audited financial statements, in US GAAP format or any other format acceptable to PJM, with clear representation of net worth, intangible assets, and any other information PJM may require in order to determine the entity's Unsecured Credit Allowance.
  - (vii) Must provide a Secretary's Certificate from the Participant's corporate secretary certifying the adoption of Corporate Resolutions:
    1. Authorizing and approving the Guaranty; and
    2. Authorizing the Officers to execute and deliver the Guaranty on behalf of the Guarantor.
  - (viii) Must be domiciled in a country with a minimum long-term sovereign (or equivalent) rating of AA+/Aa1, with the following conditions:
    1. Sovereign ratings must be available from at least two rating agencies acceptable to PJM (e.g. S&P, Moody's, Fitch, DBRS).
    2. Each agency's sovereign rating for the domicile will be considered to be the lowest of: country ceiling, senior unsecured government debt, long-term foreign currency sovereign rating, long-term local currency sovereign rating, or other equivalent measures, at PJM's sole discretion.
    3. Whether ratings are available from two or three agencies, the lowest of the two or three will be used.
  - (ix) Must be domiciled in a country that recognizes and enforces judgments of US courts.
  - (x) Must demonstrate financial commitment to activity in the United States as evidenced by one of the following:

1. American Depository Receipts (ADR) are traded on the New York Stock Exchange, American Stock Exchange, or NASDAQ.
  2. Equity ownership worth over USD 100,000,000 in the wholly-owned or majority owned subsidiaries in the United States.
- (xi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.
  - (xii) Must pay for all expenses incurred by PJM related to reviewing and accepting a foreign guaranty beyond nominal in-house credit and legal review.
  - (xiii) Must, at its own cost, provide PJM with independent legal opinion from an attorney/solicitor of PJM's choosing and licensed to practice law in the United States and/or Guarantor's domicile, in form and substance acceptable to PJM in its sole discretion, confirming the enforceability of the Foreign Guaranty, the Guarantor's legal authorization to grant the Guaranty, the conformance of the Guaranty, Guarantor, and Guarantor's domicile to all of these requirements, and such other matters as PJM may require in its sole discretion.

## **2. Canadian Guaranties**

The entity providing a Canadian Guaranty on behalf of a Participant is a Canadian Guarantor. A Participant may provide a Canadian Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJM provided that all of the following conditions are met.

PJM reserves the right to deny, reject, or terminate acceptance of any Canadian Guaranty at any time for reasonable cause, including material adverse circumstances or occurrences.

- (a) A Canadian Guaranty:
  - (i) Must contain provisions equivalent to those contained in PJM's standard form of Foreign Guaranty with any modifications subject to review and approval by PJM counsel.
  - (ii) Must be denominated in US currency.
  - (iii) Must be written and executed solely in English, including any duplicate originals.
- (b) A Canadian Guarantor:
  - (i) Must be a Credit Affiliate of the Participant.
  - (ii) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
  - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
  - (iv) Must be rated by at least one Rating Agency acceptable to PJM; the credit strength of a Canadian Guarantor may not be determined based on an evaluation of its audited financial statements without an actual credit rating as well.
  - (v) Must provide audited financial statements, in US GAAP format or any other format acceptable to PJM with clear representation of net worth, intangible assets, and any other information PJM may require in order to determine the entity's Unsecured Credit Allowance.

- (vi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.

#### **D. Surety Bond**

An unconditional, irrevocable surety bond can be utilized to meet the Collateral requirement for Participants. As stated below, the form, substance, and provider of the surety bond must all be acceptable to PJM.

- (i) An acceptable surety bond must be payable immediately upon demand without prior demonstration of the validity of the demand. The surety bond will only be accepted from a U.S. Treasury-listed approved surety that has either (i) a minimum corporate debt rating of “A” by Standard & Poor’s or Fitch Ratings, or “A2” from Moody’s Investors Service, or an equivalent short term rating from one of these agencies, or (ii) a minimum insurer rating of “A” by A.M. Best. PJMSettlement will consider the lowest applicable rating to be the rating of the surety. If the rating of a surety providing a surety bond is lowered below A/A2 by any rating agency, then PJMSettlement may require the Participant to provide a surety bond from another surety that is rated A/A2 or better, or to provide another form of Collateral.
- (ii) The surety bond shall have an initial period of at least one year, and shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) days prior written notice from the issuing surety. If PJM receives notice from the issuing surety that the current surety bond is being cancelled, the Participant will be required to provide evidence, acceptable to PJM, that such surety bond will be replaced with appropriate Collateral, effective as of the cancellation date of the surety bond, no later than thirty (30) days before the cancellation date of the surety bond, and no later than ninety (90) days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one of more of the Agreements enabling PJM to immediately demand payment of the full value of the surety bond.
- (iii) PJM will post on its web site an acceptable standard form of a surety bond that should be utilized by a Participant choosing to submit a surety bond to establish credit at PJM. The acceptable standard form of surety bond will include non-negotiable provisions, including but not be limited to, a payment on demand feature, requirement that the bond be construed pursuant to Pennsylvania law, making the surety’s obligation to pay out on the bond absolute and unconditional irrespective of the principal’s (Market Participant’s) bankruptcy, terms of any other agreements, investigation of the Market Participant by any entity or governmental authority, or PJM first attempting to collect payment from the Market Participant, and will require, among other things, that (a) the surety waive **all** rights that would be available to a principal or surety under the law, including but not limited to any right to investigate or verify any matter related to a demand for payment, rights to set-off amounts due by PJM to the Market Participant, and

all counterclaims, (b) the surety expressly waive *all* of its and the principal's defenses, including illegality, fraud in the inducement, reliance on statements or representations of PJM and every other typically available defense; (c) the language of the bond that is determinative of the surety's obligation, and not the underlying agreement or arrangement between the principal and the obligee; (d) the bond shall not be conditioned on PJM first resorting to any other means of security or collateral, or pursuing any other remedies it may have; and (e) the surety acknowledge the continuing nature of its obligations in the event of termination or nonrenewal of the surety bond to make clear the surety remains liable for any obligations that arose before the effective date of its notice of cancellation of the surety bond. If the surety bond varies in any way from the standard format, it must first be reviewed and approved by PJM. PJM shall not accept any surety bond that varies in any material way from the standard format.

- (iv) All costs associated with obtaining and maintaining a surety bond and meeting the Attachment Q provisions are the responsibility of the Participant.
- (v) PJM shall not accept surety bonds with an aggregate value greater than \$10 million dollars (\$10,000,000) issued by any individual surety on behalf of any individual Participant.
- (vi) PJM shall not accept surety bonds with an aggregate value greater than \$50 million dollars (\$50,000,000) issued by any individual surety.

#### **E. PJM Administrative Charges**

Collateral or credit support held by PJM shall also secure obligations to PJM for PJM administrative charges, and may be liquidated to satisfy all such obligations in an Event of Default.

#### **F. Collateral and Credit Support Held by PJM**

Collateral or credit support submitted by Participants and held by PJM shall be held by PJM for the benefit of PJM.

### **VI. SUPPLEMENTAL CREDIT REQUIREMENTS FOR SCREENED TRANSACTIONS**

#### **A. Virtual and Export Transaction Screening**

##### **1. Credit for Virtual and Export Transactions**

Export Transactions and Virtual Transactions both utilize Credit Available for Virtual Transactions to support their credit requirements.

PJM does not require a Market Participant to establish separate or additional credit for submitting Virtual or Export Transactions; however, once transactions are submitted and accepted by PJM, PJM may require credit supporting those transactions to be held until the transactions are completed and their financial impact incorporated into the Market Participant's Obligations. If a Market Participant chooses to establish additional Collateral and/or Unsecured Credit Allowance in order to increase its Credit Available for Virtual Transactions, the Market Participant's Working Credit Limit for Virtual Transactions shall be increased in accordance with the definition thereof. The Collateral and/or Unsecured Credit Allowance available to increase a Market Participant's Credit Available for Virtual Transactions shall be the amount of Collateral and/or Unsecured Credit Allowance available after subtracting any credit required for Minimum Participation Requirements, FTR, RPM or other credit requirement determinants defined in this Attachment Q, as applicable.

If a Market Participant chooses to provide additional Collateral in order to increase its Credit Available for Virtual Transactions PJM may establish a reasonable timeframe, not to exceed three months, for which such Collateral must be maintained. PJM will not impose such restriction on a deposit unless a Market Participant is notified prior to making the deposit. Such restriction, if applied, shall be applied to all future deposits by all Market Participants engaging in Virtual Transactions.

A Market Participant may increase its Credit Available for Virtual Transactions by providing additional Collateral to PJM. PJM will make a good faith effort to make new Collateral available as Credit Available for Virtual Transactions as soon as practicable after confirmation of receipt. In any event, however, Collateral received and confirmed by noon on a Business Day will be applied (as provided under this Attachment Q) to Credit Available for Virtual Transactions no later than 10:00 am on the following Business Day. Receipt and acceptance of wired funds for cash deposit shall mean actual receipt by PJM's bank, deposit into PJM's customer deposit account, confirmation by PJM that such wire has been received and deposited, and entry into PJM's credit system. Receipt and acceptance of letters of credit or surety bonds shall mean receipt of the original Letter of Credit or surety bond, or amendment thereto, confirmation from PJM's credit and legal staffs that such Letter of Credit or surety bond, or amendment thereto conforms to PJM's requirements, which confirmation shall be made in a reasonable and practicable timeframe, and entry into PJM's credit system. To facilitate this process, bidders submitting additional Collateral for the purpose of increasing their Credit Available for Virtual Transactions are advised to submit such Collateral well in advance of the desired time, and to specifically notify PJM of such submission.

A Market Participant wishing to submit Virtual or Export Transactions must allocate within PJM's credit system the appropriate amount of Credit Available for Virtual Transactions to the virtual and export allocation sections within each customer account in which it wishes to submit such transactions.

## **2. Virtual Transaction Screening**

All Virtual Transactions submitted to PJM shall be subject to a credit screen prior to acceptance in the Day-ahead Energy Market. The credit screen is applied separately for each of a Market

Participant's customer accounts. The credit screen process will automatically reject Virtual Transactions submitted by the Market Participant in a customer account if the Market Participant's Credit Available for Virtual Transactions, allocated on a customer account basis, is exceeded by the Virtual Credit Exposure that is calculated based on the Market Participant's Virtual Transactions submitted, as described below.

A Market Participant's Virtual Credit Exposure will be calculated separately for each customer account on a daily basis for all Virtual Transactions submitted by the Market Participant for the next Operating Day using the following equation:

Virtual Credit Exposure = INC and DEC Exposure + Up-to Congestion Exposure

Where:

(a) INC and DEC Exposure for each customer account is calculated as:

(i) ((the total MWh bid or offered, whichever is greater, hourly at each node) x the Nodal Reference Price x 1 day) summed over all nodes and all hours; plus (ii) ((the difference between the total bid MWh cleared and total offered MWh cleared hourly at each node) x Nodal Reference Price) summed over all nodes and all hours for the previous cleared Day-ahead Energy Market.

(b) Up-to Congestion Exposure for each customer account is calculated as:

(i) Total MWh bid hourly for each Up-to Congestion Transaction x (price bid – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours; plus (ii) Total MWh cleared hourly for each Up-to Congestion Transaction x (cleared price – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours for the previous cleared Day-ahead Energy Market, provided that hours for which the calculation for an Up-to Congestion Transaction is negative, it shall be deemed to have a zero contribution to the sum.

### **3. Export Transaction Screening**

Export Transactions in the Real-time Energy Market shall be subject to Export Transaction Screening. Export Transaction Screening may be performed either for the duration of the entire Export Transaction, or separately for each time interval comprising an Export Transaction. PJM will deny or curtail all or a portion (based on the relevant time interval) of an Export Transaction if that Export Transaction, or portion thereof, would otherwise cause the Market Participant's Export Credit Exposure to exceed its Credit Available for Export Transactions. Export Transaction Screening shall be applied separately for each Operating Day and shall also be applied to each Export Transaction one or more times prior to the market clearing process for each relevant time interval. Export Transaction Screening shall not apply to transactions established directly by and between PJM and a neighboring Balancing Authority for the purpose of maintaining reliability.



A Market Participant's credit exposure for an individual Export Transaction shall be the MWh volume of the Export Transaction for each relevant time interval multiplied by each relevant Export Transaction Price Factor and summed over all relevant time intervals of the Export Transaction.

**B. RPM Auction and Price Responsive Demand Credit Requirements**

Settlement during any Delivery Year of cleared positions resulting or expected to result from any RPM Auction shall be included as appropriate in Peak Market Activity, and the provisions of this Attachment Q shall apply to any such activity and obligations arising therefrom. In addition, the provisions of this section shall apply to any entity seeking to participate in any RPM Auction, to address credit risks unique to such auctions. The provisions of this section also shall apply under certain circumstances to PRD Providers that seek to commit Price Responsive Demand pursuant to the provisions of the Reliability Assurance Agreement.

Credit requirements described herein for RPM Auctions and RPM bilateral transactions are applied separately for each customer account of a Market Participant. Market Participants wishing to participate in an RPM Auction or enter into RPM bilateral transactions must designate the appropriate amount of credit to each account in which their offers are submitted.

## **1. Applicability**

A Market Participant seeking to submit a Sell Offer in any RPM Auction based on any Capacity Resource for which there is a materially increased risk of nonperformance must satisfy the credit requirement specified herein before submitting such Sell Offer. A PRD Provider seeking to commit Price Responsive Demand for which there is a materially increased risk of non-performance must satisfy the credit requirement specified herein before it may commit the Price Responsive Demand. Credit must be maintained until such risk of non-performance is substantially eliminated, but may be reduced commensurate with the reduction in such risk, as set forth in section VI.B.3 below.

For purposes of this provision, a resource for which there is a materially increased risk of nonperformance shall mean: (i) a Planned Generation Capacity Resource; (ii) a Planned Demand Resource or an Energy Efficiency Resource; (iii) a Qualifying Transmission Upgrade; (iv) an existing or Planned Generation Capacity Resource located outside the PJM Region that at the time it is submitted in a Sell Offer has not secured firm transmission service to the border of the PJM Region sufficient to satisfy the deliverability requirements of the Reliability Assurance Agreement; or (v) Price Responsive Demand to the extent the responsible PRD Provider has not registered PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

## **2. Reliability Pricing Model Auction and Price Responsive Demand Credit Requirement**

Except as provided for Credit-Limited Offers below, for any resource specified in section VI.B.1 above, other than Price Responsive Demand, the credit requirement shall be the RPM Auction Credit Rate, as provided in section VI.B.4 below, times the megawatts to be offered for sale from such resource in an RPM Auction. For Qualified Transmission Upgrades, the credit requirements shall be based on the Locational Deliverability Area in which such upgrade was to increase the Capacity Emergency Transfer Limit. The RPM Auction Credit Requirement for each Market Participant shall be determined on a customer account basis, separately for each customer account of a Market Participant, and shall be the sum of the credit requirements for all such resources to be offered by such Market Participant in the auction or, as applicable, cleared by such Market Participant in the relevant auctions. For Price Responsive Demand, the credit requirement shall be based on the Nominal PRD Value (stated in Unforced Capacity terms) times the Price Responsive Demand Credit Rate as set forth in section VI.B.5 below. Except for Credit-Limited Offers, the RPM Auction Credit requirement for a Market Participant will be reduced for any Delivery Year to the extent less than all of such Market Participant's offers clear in the Base Residual Auction or any Incremental Auction for such Delivery Year. Such reduction shall be proportional to the quantity, in megawatts, that failed to clear in such Delivery Year.

A Sell Offer based on a Planned Generation Capacity Resource, Planned Demand Resource, or Energy Efficiency Resource may be submitted as a Credit-Limited Offer. A Market Participant electing this option shall specify a maximum amount of Unforced Capacity, in megawatts, and a maximum credit requirement, in dollars, applicable to the Sell Offer. A Credit-Limited Offer shall clear the RPM Auction in which it is submitted (to the extent it otherwise would clear based

on the other offer parameters and the system's need for the offered capacity) only to the extent of the lesser of: (i) the quantity of Unforced Capacity that is the quotient of the division of the specified maximum credit requirement by the Auction Credit Rate resulting from section VI.B.4.b. below; and (ii) the maximum amount of Unforced Capacity specified in the Sell Offer. For a Market Participant electing this alternative, the RPM Auction Credit requirement applicable prior to the posting of results of the auction shall be the maximum credit requirement specified in its Credit-Limited Offer, and the RPM Auction Credit requirement subsequent to posting of the results will be the Auction Credit Rate, as provided in section VI.B.4.b, c. or d. of this Attachment Q, as applicable, times the amount of Unforced Capacity from such Sell Offer that cleared in the auction. The availability and operational details of Credit-Limited Offers shall be as described in the PJM Manuals.

As set forth in section VI.B.4 below, a Market Participant's Auction Credit requirement shall be determined separately for each Delivery Year.

### **3. Reduction in Credit Requirement**

As specified below, the RPM Auction Credit Rate may be reduced under certain circumstances after the auction has closed.

The Price Responsive Demand credit requirement shall be reduced as and to the extent the PRD Provider registers PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

In addition, the RPM Auction Credit requirement for a Market Participant for any given Delivery Year shall be reduced periodically, after the Market Participant has provided PJM a written request for each reduction, accompanied by documentation sufficient for PJM to verify attainment of required milestones or satisfaction of other requirements, and PJM has verified that the Market Participant has successfully met progress milestones for its Capacity Resource that reduce the risk of non-performance, as follows:

(a) For Planned Demand Resources and Energy Efficiency Resources, the RPM Auction Credit requirement will be reduced in direct proportion to the megawatts of such Demand Resource that the Resource Provider qualifies as a Capacity Resource, in accordance with the procedures established under the Reliability Assurance Agreement.

(b) For Existing Generation Capacity Resources located outside the PJM Region that have not secured sufficient firm transmission to the border of the PJM Region prior to the auction in which such resource is first offered, the RPM Auction Credit requirement shall be reduced in direct proportion to the megawatts of firm transmission service secured by the Market Participant that qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

(c) For Planned Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit requirement</b>
Effective Date of Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

For externally financed projects, the Market Participant must submit with its request for reduction a sworn, notarized certification of a duly authorized independent engineer for the Financial Close, Full Notice to Proceed and Commencement of Construction, and Main Power Generating Equipment Delivered milestones.

For internally financed projects, the Market Participant must submit with its request for reduction a sworn, notarized certification of a duly authorized officer of the Market Participant for the Financial Close milestone and either a duly authorized independent engineer or Professional Engineer for the Full Notice to Proceed and Commencement of Construction and the Main Power Generating Equipment Delivered milestones.

The required certifications must be in a form acceptable to PJM, certifying that the engineer or officer, as applicable, has personal knowledge, or has engaged in a diligent inquiry to determine, that the milestone has been achieved and that, based on its review of the relevant project information, the engineer or officer, as applicable, is not aware of any information that could reasonably cause it to believe that the Capacity Resource will not be in-service by the beginning of the applicable Delivery Year. The Market Participant shall, if requested by PJM, supply to PJM on a confidential basis all records and documents relating to the engineer's and/or officer's certifications.

(d) For Planned External Generation Capacity Resources, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement shall be no greater than the quotient of (i) the MWs of firm transmission service that the Market Participant has secured for the complete transmission path divided by (ii) the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

<b>Credit Reduction Milestones for Planned External Generation Capacity Resources</b>
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<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit requirement</b>
Effective Date of the equivalent of an Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Market Participant must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(e) For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section VI.B.2 above beginning as of the effective date of the latest associated Interconnection Service Agreement or Generation Interconnection Agreement (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service.

#### **4. RPM Auction Credit Rate**

As set forth in the PJM Manuals, a separate Auction Credit Rate shall be calculated for each Delivery Year prior to each RPM Auction for such Delivery Year, as follows:

- (a) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Auction Credit Rate shall be:
- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year; and
  - (ii) For Capacity Performance Resources, the greater of ((A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year.
  - (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(b) Subsequent to the posting of the results from a Base Residual Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of calendar days in such Delivery Year; and
- (ii) For Capacity Performance Resources, the (greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of calendar days in such Delivery Year).
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(c) For any resource not previously committed for a Delivery Year that seeks to participate in an Incremental Auction, the Auction Credit Rate shall be:

(i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) 0.24 times the Capacity Resource Clearing Price in the Base Residual Auction for such Delivery Year for the Locational Deliverability Area within which the resource is located or (C) \$20 per MW-day) times the number of calendar days in such Delivery Year; and

(ii) For Capacity Performance Resources, the (greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA or (B) \$20/MW-day) times the number of calendar days in such Delivery Year.

(d) Subsequent to the posting of the results of an Incremental Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For Base Capacity Resources: (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of calendar days in such Delivery Year, but no greater than the Auction Credit Rate previously established for such resource's participation in such Incremental Auction pursuant to subsection (c) above) times the number of calendar days in such Delivery Year;

- (ii) For Capacity Performance Resources, the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of calendar days in such Delivery Year); and
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of calendar days in the relevant season.

(e) For the purposes of this section VI.B.4 and section VI.B.5 below, “Relevant LDA” means the Locational Deliverability Area in which the Capacity Performance Resource is located if a separate Variable Resource Requirement Curve has been established for that Locational Deliverability Area for the Base Residual Auction for such Delivery Year.

## **5. Price Responsive Demand Credit Rate**

- (a) For the 2018/2019 through 2022/2023 Delivery Years:
  - (i) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year;
  - (ii) Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive Demand committed in such auction shall be (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand load is located, in \$/MW-day) times the number of calendar days in such Delivery Year times a final price uncertainty factor of 1.05;
  - (iii) For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be the same as the rate for Price Responsive Demand that had cleared in the Base Residual Auction; and
  - (iv) Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for

all Price Responsive Demand, shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Final Zonal Capacity Price for the Locational Deliverability Area within which the Price Responsive Demand is located) times the number of calendar days in such Delivery Year, but no greater than the Price Responsive Demand Credit Rate previously established under subsections (a)(i), (a)(ii), or (a)(iii) of this section for such Delivery Year.

- (b) For the 2022/2023 Delivery Year and Subsequent Delivery Years:
- (i) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (B) \$20 per MW-day) times the number of calendar days in such Delivery Year;
  - (ii) Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive Demand committed in such auction shall be (the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located, in \$/MW-day or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located)] times the number of calendar days in such Delivery Year;
  - (iii) For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be (the greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (B) \$20/MW-day) times the number of calendar days in such Delivery Year; and
  - (iv) Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for all Price Responsive Demand committed in such auction shall be the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the Price Responsive Demand is located or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Performance Resource Clearing Price in such Incremental Auction for the Locational Deliverability Areas within which the Price



Responsive Demand is located)] times the number of calendar days in such Delivery Year.

## **6. RPM Seller Credit - Additional Form of Unsecured Credit for RPM**

In addition to the forms of credit specified elsewhere in this Attachment Q, RPM Seller Credit shall be available to Market Participants, but solely for purposes of satisfying RPM Auction Credit requirements. If a supplier has a history of being a net seller into PJM Markets, on average, over the past 12 months, then PJM will count as available Unsecured Credit twice the average of that Market Participant's total net monthly PJM bills over the past 12 months. This RPM Seller Credit shall be subject to the cap on available Unsecured Credit as established in section II.G.3 above.

RPM Seller Credit is calculated as a single value for each Market Participant, not separately by account, and must be designated to specific customer accounts in order to be available to satisfy RPM Auction Credit requirements that are calculated in each such customer account.

## **7. Credit Responsibility for Traded Planned RPM Capacity Resources**

PJM may require that credit and financial responsibility for planned Capacity Resources that are traded remain with the original party (which for these purposes, means the party bearing credit responsibility for the planned Capacity Resource immediately prior to trade) unless the receiving party independently establishes consistent with this Attachment Q, that it has sufficient credit with PJM and agrees by providing written notice to PJM that it will fully assume the credit responsibility associated with the traded planned Capacity Resource.

## **C. Financial Transmission Right Auctions**

Credit requirements described herein for FTR activity are applied separately for each customer account of a Market Participant, unless specified otherwise in this section C. FTR Participants must designate the appropriate amount of credit to each separate customer account in which any activity occurs or will occur.

### **1. FTR Credit Limit.**

Participants must maintain their FTR Credit Limit at a level equal to or greater than their FTR Credit Requirement for each applicable account. FTR Credit Limits will be established only by a Participant providing Collateral and designating the available credit to specific accounts.

### **2. FTR Credit Requirement.**

For each Market Participant with FTR activity, PJM shall calculate an FTR Credit Requirement. The FTR Credit Requirement shall be calculated on a portfolio basis for each Market Participant based on (a) initial margin, (b) Auction Revenue Right Credits, (c) Mark-to-Auction Value, (d) application of a 10¢ per MWh minimum value adjustment, and (e) realized gains and/or losses, as set forth in subsections (a)-(e) of this subsection, employing the formula:

Max { Max ( IM – ARR – MTA, Ten Cent per Mwh Minimum) – Realized Gains and/or Losses, 0 }

Where IM is the initial margin, ARR is Auction Revenue Rights Credits and MTA is the Mark-to-Auction Value. The FTR Credit Requirement may be increased to reflect any change in the value of a Market Participant's portfolio requiring an increase in Collateral as further described below.

(a) Initial Margin

Initial margin shall be calculated in accordance with the following formula:

$$\text{IM} = \text{FTR Obligations IM} + \text{FTR Options IM}$$

The model will employ a confidence interval of 99 percent.

(i) FTR Obligations IM

Initial margin values for Financial Transmission Right Obligations shall be determined utilizing a historical simulation value-at-risk methodology that calculates the size and value at risk of the applicable FTR portfolio based on a defined confidence interval and subject to a weighted aggregation method that is represented by a straight sum for long term positions and a combination of straight sum (20%) and weighted root sum of squares (80%) for balance of planning period positions.

(ii) FTR Options IM

The initial margin for Financial Transmission Right Options shall be calculated as the FTR cost minus the FTR Historical Values. FTR Historical Values shall be calculated separately for weekend on-peak, weekday on-peak, off-peak, and 24-hour FTRs for each month of the year. FTR Historical Values shall be adjusted by plus or minus ten percent for cleared counter flow or prevailing flow FTRs, respectively, in order to mitigate exposure due to uncertainty and fluctuations in actual FTR value. Historical values used in the calculation of FTR Historical Values shall be adjusted when the network simulation model utilized in PJM's economic planning process indicates that transmission congestion will decrease due to certain transmission upgrades that are in effect or planned to go into effect for the following Planning Period. The transmission upgrades to be modeled for this purpose shall only include those upgrades that, individually, or together, have 10% or more impact on the transmission congestion on an individual constraint or constraints with congestion of \$5 million or more affecting a common congestion path. The adjustments to historical values shall be the dollar amount of the adjustment shown in the network simulation model.

(b) Auction Revenue Rights Credits

For a given month for which initial margin is calculated, the prorated value of any Auction Revenue Rights Credits held by a Market Participant with Financial Transmission Right Obligations shall be subtracted from the initial margin for that month. In accordance with subsection 3 below, PJM may recalculate Auction Revenue Rights Credits at any time, but shall do so no less frequently than subsequent to each annual FTR auction. If a reduction in such ARR credits at any time increases an FTR Participant's FTR Credit Requirements beyond its credit available for FTR activity, the FTR Participant must increase its Collateral or the FTR Credit Limit.

(c) Mark-to-Auction Value

A Mark-to-Auction Value shall be calculated for each Market Participant in accordance with subsection 7 below.

(d) Ten Cent (10¢) per MWh Minimum Value Adjustment

If the FTR Credit Requirement as calculated pursuant to subsections (a)-(c) above, results in a value that is less than ten cents (10¢) per MWh, the FTR Credit Requirement shall be increased to ten cents (10¢) per MWh. When calculating the portfolio MWh for this comparison, for cleared "Sell" FTRs, the MWh shall be subtracted from the portfolio total; prior to clearing, the MWh for "Sell" FTRs shall not be included in the portfolio total.

(e) Realized Gains and/or Losses

Any realized gains and/or losses resulting from the settlement of Financial Transmission Right Obligations that have not been paid out will be subtracted from the FTR Credit Requirement. A realized gain will decrease the FTR Credit Requirement (but not below \$0.00), whereas a realized loss will increase the FTR Credit Requirement.

### **3. Rejection of FTR Bids.**

Bids submitted into an auction will be rejected if the Market Participant's FTR Credit Requirement including such submitted bids would exceed the Market Participant's FTR Credit Limit, or if the Market Participant fails to provide additional Collateral as required pursuant to provisions related to mark-to-auction.

#### **4. FTR Credit Collateral Returns.**

A Market Participant may request from PJM the return of any Collateral no longer required for the FTR markets. PJM is permitted to limit the frequency of such requested Collateral returns, provided that Collateral returns shall be made by PJM at least once per calendar quarter, if requested by a Market Participant.

#### **5. Credit Responsibility for Bilateral Transfers of FTRs.**

PJM may require that credit responsibility associated with an FTR bilaterally transferred to a new Market Participant remain with the original party (which for these purposes, means the party bearing credit responsibility for the FTR immediately prior to bilateral transfer) unless and until the receiving party independently establishes, consistent with this Attachment Q, sufficient credit with PJM and agrees through confirmation of the bilateral transfer in PJM's FTR reporting tool that it will meet in full the credit requirements associated with the transferred FTR.

#### **6. FTR Administrative Charge Credit Requirement**

In addition to any other credit requirements, PJM may apply a credit requirement to cover the maximum administrative fees that may be charged to a Market Participant for its bids and offers.

#### **7. Mark-to-Auction**

A Mark-to-Auction Value shall be calculated separately for each customer account of a Market Participant. For each such customer account, the Mark-to-Auction Value shall be a single number equal to the sum, over all months remaining in the applicable FTR period and for all cleared FTRs in the customer account, of the most recently available cleared auction price applicable to the FTR minus the original transaction price of the FTR, multiplied by the transacted quantity.

The FTR Credit Requirement, as otherwise described above, shall be increased when the Mark-to-Auction Value is negative and decreased when the Mark-to-Auction Value is positive. The increase shall equal the absolute value of the negative Mark-to-Auction Value less the value of ARR credits that are held in the customer account and have not been used to reduce the FTR Credit Requirement prior to application of the Mark-to-Auction Value. PJM shall recalculate ARR credits held by each Market Participant after each annual FTR auction and may also recalculate such ARR credits at any other additional time intervals it deems appropriate. Application of the Mark-to-Auction Value, including the effect from ARR application, shall not decrease the FTR Credit Requirement below the Ten Cent (10¢) per MWh Minimum.

For Market Participant customer accounts for which FTR bids have been submitted into the current FTR auction, if the Market Participant's FTR Credit Requirement exceeds its credit available for the Market Participant's portfolio of FTRs in the tentative cleared solution for an FTR auction (or auction round), PJM shall issue a Collateral Call to the Market Participant, and the Market Participant must fulfill such demand before 4:00 p.m. Eastern Prevailing Time on the following Business Day. If a Market Participant does not timely satisfy such Collateral Call,

PJM shall, in coordination with PJM, cause the removal of all of that Market Participant's bids in that FTR auction (or auction round), submitted from such Market Participant's customer account, and a new cleared solution shall be calculated for the FTR auction (or auction round).

If necessary, PJM shall repeat the auction clearing calculation. PJM shall repeat these mark-to-auction calculations subsequent to any secondary clearing calculation, and PJM shall require affected Market Participants to establish additional credit.

Subsequent to final clearing of an FTR auction or an annual FTR auction round, PJM shall recalculate the FTR Credit Requirement for all FTR portfolios, and, as applicable, issue to each Market Participant a request for Collateral for the total amount by which the FTR Credit Requirement exceeds the credit allocated in any of the Market Participant's accounts. The Market Participant must fulfill such demand by 4:00 p.m. Eastern Prevailing Time on the following Business Day.

If the request for Collateral is not satisfied within the applicable cure period referenced in Operating Agreement, section 15, then such Market Participant shall be restricted in all of its credit-screened transactions. Specifically, such Market Participant may not engage in any Virtual Transactions or Export Transactions, or participate in RPM Auctions or other RPM activity. Such Market Participant may engage only in the selling of open FTR positions, either in FTR auctions or bilaterally, provided such sales would reduce the Market Participant's FTR Credit Requirements. PJM shall not return any Collateral to such Market Participant, and no payment shall be due or payable to such Market Participant, until its credit shortfall is remedied. Market Participant shall allocate any excess or unallocated Collateral to any of its account in which there is a credit shortfall. Market Participants may remedy their credit shortfall at any time through provision of sufficient Collateral.

If a Market Participant fails to satisfy a request for Collateral for two consecutive auctions of overlapping periods, e.g. two balance of Planning Period auctions, an annual FTR auction and a balance of Planning Period auction, or two long term FTR auctions, (for this purpose the four rounds of an annual FTR auction shall be considered a single auction), the Market Participant shall be declared in default of this Attachment Q.

## **VII. PEAK MARKET ACTIVITY AND WORKING CREDIT LIMIT**

### **A. Peak Market Activity Credit Requirement**

PJM shall calculate a Peak Market Activity credit requirement for each Participant. Each Participant must maintain sufficient Unsecured Credit Allowance and/or Collateral, as applicable, and subject to the provisions herein, to satisfy its Peak Market Activity credit requirement.

Peak Market Activity for Participants will be determined weekly, utilizing an initial Peak Market Activity, as explained in this section VII.A below. Peak Market Activity shall be the greater of the initial Peak Market Activity, or the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in the rolling past one, two, three or four-week period.

However, Peak Market Activity shall not exceed the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two or three-week period in the prior 52 weeks.

Peak Market Activity shall exclude FTR Net Activity, Virtual Transactions Net Activity, and Export Transactions Net Activity.

Peak Market Activity = min [max [initial Peak Market Activity, max [greatest amount invoiced for transaction activity for the rolling past one, two, three, or four-week period]], max [greatest amount invoiced for transaction activity for any rolling one, two or three-week period in the prior 52 weeks]

When calculating Peak Market Activity, PJM may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

The initial Peak Market Activity for Applicants will be determined by PJM based on a review of an estimate of their transactional activity for all PJM Markets and services over the next 52 weeks, which the Applicant shall provide to PJM.

The initial Peak Market Activity for Market Participants and Transmission Customers, calculated weekly upon issuance of the weekly invoice, shall be the three-week average of all non-zero invoice totals over the previous 52 weeks.

Prepayments shall not affect Peak Market Activity unless otherwise agreed to in writing pursuant to this Attachment Q.

Peak Market Activity calculations shall take into account reductions of invoice values effectuated by early payments which are applied to reduce a Participant's Peak Market Activity as contemplated by other terms of this Attachment Q; provided that the initial Peak Market Activity shall not be less than the average value calculated using the weeks for which no early payment was made.

A Participant may reduce its Collateral requirement by agreeing in writing (in a form acceptable to PJM) to make additional payments, including prepayments, as and when necessary to ensure that such Participant's Total Net Obligation at no time exceeds such reduced Collateral requirement.

In the event that the Peak Market Activity Shortfall exceeds or equals the Minimum Exposure, the prior week's Peak Market Activity credit requirement will be increased by an amount equal to  $n * \text{the Minimum Transfer Amount}$ , with  $n$  being the integer that will cause the current week's Peak Market Activity credit requirement to be greater than or equal to the Participant's current Peak Market Activity but less than the Participant's current Peak Market Activity plus the Minimum Transfer Amount. For the avoidance of doubt, if the Peak Market Activity Shortfall is less than the Minimum Exposure, the current week's Peak Market Activity credit requirement will remain the same as the prior week's Peak Market Activity credit requirement.

In the event that the Peak Market Activity Surplus exceeds or equals the Minimum Transfer Amount, the prior week's Peak Market Activity credit requirement will be decreased by an amount equal to  $n * \text{the Minimum Transfer Amount}$ , with  $n$  being the integer that will cause the current week's Peak Market Activity credit requirement to be greater than or equal to the Participant's current Peak Market Activity but less than the Participant's current Peak Market Activity plus the Minimum Transfer Amount. For the avoidance of doubt, if the Peak Market Activity Surplus is less than the Minimum Transfer Amount, the current week's Peak Market Activity credit requirement will remain the same as the prior week's Peak Market Activity credit requirement.

In the event that there is neither a Peak Market Activity Shortfall nor a Peak Market Activity Surplus, then the current week's Peak Market Activity credit requirement is the same as the prior week's Peak Market Activity credit requirement.

PJM may, at its discretion, adjust a Participant's Peak Market Activity credit requirement if PJM determines that the Peak Market Activity is not representative of such Participant's expected activity, as a consequence of known, measurable, and sustained changes. Such changes may include, but shall not be limited to when a Participant makes PJM aware of federal, state or local law that could affect the allocation of charges or credits from a Participant to another party, the loss (without replacement) of short-term load contracts, when such contracts had terms of three months or more and were acquired through state-sponsored retail load programs, but shall not include short-term buying and selling activities.

PJM may waive the credit requirements for a Participant that has no outstanding transactions and agrees in writing that it shall not, after the date of such agreement, incur obligations under any of the Agreements. Such entity's access to all electronic transaction systems administered by PJM shall be terminated.

A Participant receiving unsecured credit may make early payments up to thirteen (13) times in a rolling 52-week period in order to reduce its Peak Market Activity for credit requirement purposes. Imputed Peak Market Activity reductions for credit purposes will be applied to the billing period for which the payment was received. Payments used as the basis for such reductions must be received prior to issuance or posting of the invoice for the relevant billing period. The imputed Peak Market Activity reduction attributed to any payment may not exceed the amount of Unsecured Credit for which the Participant is eligible.

## **B. Working Credit Limit**

PJM will establish a Working Credit Limit for each Participant against which its Total Net Obligation will be monitored.

If a Participant's Total Net Obligation approaches its Working Credit Limit, PJM may require the Participant to make an advance payment or increase its Collateral in order to maintain its Total Net Obligation below its Working Credit Limit. Except as explicitly provided herein, advance payments shall not serve to reduce the Participant's Peak Market Activity for the purpose of calculating credit requirements.

Example: After ten (10) calendar days, and with five (5) calendar days remaining before the bill is due to be paid, a Participant approaches its \$4.0 million Working Credit Limit. PJM may require a prepayment of \$2.0 million in order that the Total Net Obligation will not exceed the Working Credit Limit.

If a Participant exceeds its Working Credit Limit or is required to make advance payments more than ten times during a 52-week period, PJM may require Collateral in an amount as may be deemed reasonably necessary to support its Total Net Obligation.

When calculating Total Net Obligation, PJM may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

## **VIII. SUSPENSION OR LIMITATION ON MARKET PARTICIPATION**

If PJM determines that a Participant presents an unreasonable credit risk as determined pursuant to initial or ongoing risk evaluations, as described in section II above, or in the case of any other event which, after notice, lapse of time, or both, would result in an Event of Default, PJM will take steps to mitigate the exposure of any PJM Markets, which may include, but is not limited to, requiring Collateral, additional Collateral or Restricted Collateral or suspending or limiting the Market Participant's ability to participate in the PJM Markets commensurate to the risk to any PJM Markets.

If a Participant fails to reduce or eliminate any unreasonable credit risks to PJM's satisfaction within the applicable cure period including without limitation by posting Collateral, additional Collateral or Restricted Collateral, PJM may treat such failure as an Event of Default.

Notwithstanding the foregoing, a Participant that transacts in FTRs will be eligible to request that PJM exempt or exclude FTR transactions of such Participant from the effect of any such limitations on market activity established by PJM, and PJM may but shall not be required to so exempt or exclude, any FTR transactions that the Participant reasonably demonstrates to PJM it has entered into to "hedge or mitigate commercial risk" arising from its transactions in the PJM Interchange Energy Market that are intended to result in the actual flow of physical energy or ancillary services in the PJM Region, as the phrase "hedge or mitigate commercial risks" is defined under the CFTC's regulations defining the end-user exception to clearing set forth in 17 C.F.R. §50.50(c).

## **IX. REMEDIES FOR CREDIT BREACH, FINANCIAL DEFAULT OR CREDIT SUPPORT DEFAULT; REMEDIES FOR EVENTS OF DEFAULT; GENERAL BANKRUPTCY PROVISIONS**

If PJM determines that a Market Participant is in Credit Breach, or that a Financial Default or Credit Support Default exists, PJM may issue to the Market Participant a breach notice and/or a Collateral Call or demand for additional documentation or assurances. At such time, PJM may also suspend payments of any amounts due to the Participant and limit, restrict or rescind the Market Participant's privileges to participate in any or all PJM Markets under the Agreements during any such cure period. Failure to remedy the Credit Breach, Financial Default or to satisfy a Collateral Call or demand for additional documentation or assurances within the applicable cure period described in Operating Agreement, section 15.1.5, shall constitute an Event of



Default. If a Participant fails to meet the requirements of this Attachment Q, but then remedies the Credit Breach, Financial Default or Credit Support Default, or satisfies a Collateral Call or demand for additional documentation or assurances within the applicable cure period, then the Participant shall be deemed to again be in compliance with this Attachment Q, so long as no other Credit Breach, Financial Default, Credit Support Default or Collateral Call or demand for additional documentation or assurances has occurred and is continuing.

Only one cure period shall apply to a single event giving rise to a Credit Breach, Financial Default or Credit Support Default. Application of Collateral towards a Financial Default, Credit Breach or Credit Support Breach shall not be considered a cure of such Credit Breach, Financial Default or Credit Support Default unless the Participant is determined by PJM to be in full compliance with all requirements of this Attachment Q after such application.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may take such actions as may be required or permitted under the Agreements to protect the PJM Markets and the PJM Members, including but not limited to (a) suspension and/or termination of the Participant's ongoing Transmission Service, (b) limitation, suspension and/or termination of participation in any PJM Markets, (c) taking all necessary steps to address the Market Participant's market portfolio in accordance with the provisions of the Operating Agreement and PJM Tariff, including, but not limited to, allowing such portfolio's positions to go to settlement, liquidating or otherwise resolving such portfolio positions, exercising judgment in the manner in which this is achieved in any PJM Markets. PJM may permit a defaulting Market Participant to continue to participate in PJM Markets: (a) in support of grid reliability, (b) when such Market Participant is a net market seller, (c) when such Market Participant has the ability to post collateral, or (d) to enable certain customers to continue to receive service prior to PJM receiving regulatory or legal approval to terminate.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM also has the immediate right to liquidate all or a portion of a Participant's Collateral at its discretion to satisfy Total Net Obligations to PJM under this Attachment Q or one or more of the Agreements. No remedy for an Event of Default is or shall be deemed to be exclusive of any other available remedy or remedies by contract or under applicable laws and regulations. Each such remedy shall be distinct, separate and cumulative, shall not be deemed inconsistent with or in exclusion of any other available remedy, and shall be in addition to and separate and distinct from every other remedy.

When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may continue to retain all payments due to a Participant as a cash security for all such Participant's obligations under the Agreements (regardless of any restrictions placed on such Participant's use of Collateral for any account, market activity or capitalization purpose); provided, however, that an Event of Default will not be deemed cured or no longer continuing because PJM is retaining amounts due the Participant, or because PJM has not yet applied Collateral or credit support to any amounts due PJM, unless PJM determines that the Participant has again satisfied all the Collateral requirements and application requirements as a new Applicant for participation in the PJM Markets, and consistent with the requirements and limitations of Operating Agreement, section 15.

In Event of Default by a Participant, PJM may exercise any remedy or action allowed or prescribed by this Attachment Q immediately or following investigation and determination of an orderly exercise of such remedy or action. Delay in exercising any allowed remedy or action shall not preclude PJM from exercising such remedy or action at a later time.

PJM may hold a defaulting Participant's Collateral for as long as such party's positions exist and consistent with this Attachment Q, in order to protect the PJM Markets and PJM's membership, and minimize or mitigate the impacts or potential impacts or risks associated with such Event of Default when an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing.

PJM may apply towards an ongoing Event of Default any amounts that are held or later become available or due to the defaulting Participant through PJM's markets and systems.

In order to cover the Participant's Obligations, PJM may hold a Participant's Collateral indefinitely and specifically through the end of the billing period which includes the 90th day following the last day a Participant had activity, open positions, or accruing obligations (other than reconciliations and true-ups), until such Participant has satisfactorily paid any obligations invoiced through such period and until PJM determines that the Participant's positions represent no risk exposure to the PJM Markets or the PJM Members. Obligations incurred or accrued through such period shall survive any withdrawal from PJM. When an Event of Default under this Attachment Q or one or more of the Agreements has occurred and is continuing, PJM may apply any Collateral to such Participant's Obligations, even if Participant had previously announced and effected its withdrawal from PJM.

To protect PJM Members and PJM Markets from loss and harm due to uncertainty and delay which may be created upon a Participant's bankruptcy, in the event a Participant becomes a debtor under the United States Bankruptcy Code, 11 U.S.C. §§ 101-1532 (the "Bankruptcy Code"), whether voluntarily or involuntarily, the Participant should upon the commencement of the bankruptcy case immediately seek through a "first day" motion or motions, to the extent appropriate under the circumstances to provide PJM with prompt clarity as to its rights and treatment, the entry of an order of the bankruptcy court: (i) authorizing and directing the Participant to (a) make prompt and full payment of all pre-petition Obligations to PJM; and (b) fulfill all obligations under the Tariff and other Agreements in the ordinary course of business, including but not limited to deposit of additional Collateral post-petition; (ii) authorizing PJM to (x) require, hold and apply Collateral in accordance with this Attachment Q and (y) exercise setoff and recoupment to the fullest extent provided under the Tariff and other Agreements, and applicable nonbankruptcy law; and (iii) confirming the status of Agreements as a "forward contract", "swap agreement", or "master netting agreement" under the Bankruptcy Code, as applicable.

In the event that a debtor Participant fails to file such a "first day" motion within one (1) Business Day of the commencement of the bankruptcy case, or the bankruptcy court does not enter an order granting the relief requested in such "first day" motion within seven (7) days thereof, PJM may file a motion for relief from the automatic stay under section 362(d) of the

Bankruptcy Code, citing the lack of prompt clarity as “cause” thereunder, to the extent necessary to permit PJM to exercise any rights and remedies under the Tariff and other Agreements.

## **X. FTR TRANSACTIONS AS FORWARD CONTRACTS AND/OR SWAP AGREEMENTS UNDER THE BANKRUPTCY CODE**

Under the terms of the Tariff, PJM Settlement is the counterparty to all transactions in PJM Markets, including but not limited to all FTR transactions, other than (i) any bilateral transactions between Participants, or (ii) with respect to self-supplied or self-scheduled transactions reported to the Office of the Interconnection. Pursuant to the “Final Order in Response to a Petition From Certain Independent System Operators and Regional Transmission Organizations To Exempt Specified Transactions Authorized by a Tariff or Protocol Approved by the Federal Energy Regulatory Commission or the Public Utility Commission of Texas From Certain Provisions of the Commodity Exchange Act Pursuant to the Authority Provided in the Act” 78 Fed. Reg. 19880 (April 2, 2013) (the “CFTC RTO/ISO Order”), the Commodity Futures Trading Commission (the “CFTC”) exempts transactions offered or entered into in a market administered by PJM pursuant to the Tariff, including but not limited to FTR transactions, from the provisions of the Commodity Exchange Act and the CFTC’s rules applicable to “swaps,” with the exception of the CFTC’s general anti-fraud and anti-manipulation authority and scienter-based prohibitions.

Notwithstanding the CFTC RTO/ISO Order, all FTR transactions constitute “forward contracts” and/or “swap agreements” within the meaning of the Bankruptcy Code, and PJM shall be deemed to be a “forward contract merchant” and/or a “swap participant” within the meaning of the Bankruptcy Code for purposes of FTR transactions.

Pursuant to this Attachment Q and other provisions of the Agreements, PJM already has, and shall continue to have, the following rights (among other rights) with respect to a Market Participant’s Event of Default under those documents: (a) the right to terminate, liquidate or otherwise resolve any FTR transaction or position held by that Market Participant, including by allowing such position to go to settlement; (b) the right to immediately proceed against any Collateral and additional financial assurance provided by that Market Participant; (c) the right to set off or recoup any obligations due and owing to that Market Participant pursuant to any forward contract, swap agreement, or similar agreement against any amounts due and owing by that Market Participant pursuant to any forward contract, swap agreement, or similar agreement, such arrangement to constitute a “master netting agreement” within the meaning of the Bankruptcy Code; and (d) the right to suspend or limit that Market Participant from entering into further FTR transactions.

For the avoidance of doubt, upon the commencement of a voluntary or involuntary proceeding for a Market Participant under the Bankruptcy Code, and without limiting any other rights of PJM or obligations of any Market Participant under the Tariff (including this Attachment Q) or other Agreements, PJM may exercise any of its rights against such Market Participant, including, without limitation (1) the right to terminate, liquidate or otherwise resolve any FTR transaction or position held by that Market Participant, including by allowing such position to go to settlement, (2) the right to immediately proceed against any Collateral and additional financial

assurance provided by that Market Participant, (3) the right to set off or recoup any obligations due and owing to that Market Participant pursuant to any forward contract, swap agreement and/or master netting agreement against any amounts due and owing by that Market Participant with respect to an FTR transaction including as a result of the actions taken by PJM pursuant to (1) above, and (4) the right to suspend or limit that Market Participant from entering into future FTR transactions.

For purposes of the Bankruptcy Code, all transactions, including but not limited to FTR transactions, between PJM, on the one hand, and a Market Participant, on the other hand, are intended to be, and are, part of a single integrated agreement, and together with the Agreements constitute a “master netting agreement.”

**Attachment Q**  
**Appendix 1**

**PJM MINIMUM PARTICIPATION CRITERIA**  
ANNUAL OFFICER CERTIFICATION FORM

<b>Participant Name:</b> _____ ( <b>"Participant"</b> )
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I, \_\_\_\_\_, a duly authorized officer of Participant, understanding that PJM Interconnection, L.L.C. and PJMSettlement, Inc. ("PJMSettlement") are relying on this certification as evidence that Participant meets the minimum requirements set forth in the PJM Open Access Transmission Tariff ("PJM Tariff"), Attachment Q hereby certify that I have full authority to represent on behalf of Participant and further represent as follows, as evidenced by my initialing each representation in the space provided below:

1. All employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Amended and Restated Operating Agreement ("PJM Operating Agreement") on behalf of the Participant have received appropriate training and are authorized to transact on behalf of Participant. As used in this representation, the term "appropriate" as used with respect to training means training that is (i) comparable to generally accepted practices in the energy trading industry, and (ii) commensurate and proportional in sophistication, scope and frequency to the volume of transactions and the nature and extent of the risk taken by the participant. \_\_\_\_\_
  
2. Participant has written risk management policies, procedures, and controls, approved by Participant's independent risk management function and applicable to transactions in any PJM Markets in which it participates and for which employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Operating Agreement have been trained, that provide an appropriate, comprehensive risk management framework that, at a minimum, clearly identifies and documents the range of risks to which Participant is exposed, including, but not limited to credit risks, liquidity risks and market risks. As used in this representation, a Participant's "independent risk management function" can include appropriate corporate persons or bodies that are independent of the Participant's trading functions, such as a risk management committee, a risk officer, a Participant's board or board committee, or a board or committee of the Participant's parent company.
  - a. Participant is providing to PJM or PJMSettlement, in accordance with Tariff, Attachment Q, section III, with this Annual Officer Certification Form, a copy of its current governing risk management policies, procedures and controls applicable to its activities in any PJM Markets pursuant to Attachment Q or because there have been substantive changes made to such policies, procedures and controls applicable to its market activities since they were last provided to PJM. \_\_\_\_\_
  
  - b. If the risk management policies, procedures and controls applicable to Participant's market activities submitted to PJM or PJMSettlement were submitted prior to the current certification, Participant certifies that no substantive changes have

been made to such policies, procedures and controls applicable to its market activities since such submission. \_\_\_\_\_

3. An FTR Participant must make either the following 3.a. or 3.b. additional representations, evidenced by the undersigned officer initialing either the one 3.a. representation or the four 3.b. representations in the spaces provided below:

- a. Participant transacts in PJM's FTR markets with the sole intent to hedge congestion risk in connection with either obligations Participant has to serve load or rights Participant has to generate electricity in the PJM Region ("physical transactions") and monitors all of the Participant's FTR market activity to endeavor to ensure that its FTR positions, considering both the size and pathways of the positions, are either generally proportionate to or generally do not exceed the Participant's physical transactions, and remain generally consistent with the Participant's intention to hedge its physical transactions. \_\_\_\_\_

- b. On no less than a weekly basis, Participant values its FTR positions and engages in a probabilistic assessment of the hypothetical risk of such positions using analytically based methodologies, predicated on the use of industry accepted valuation methodologies. \_\_\_\_\_

Such valuation and risk assessment functions are performed either by persons within Participant's organization independent from those trading in PJM's FTR markets or by an outside firm qualified and with expertise in this area of risk management. \_\_\_\_\_

Having valued its FTR positions and quantified their hypothetical risks, Participant applies its written policies, procedures and controls to limit its risks using industry recognized practices, such as value-at-risk limitations, concentration limits, or other controls designed to prevent Participant from purposefully or unintentionally taking on risk that is not commensurate or proportional to Participant's financial capability to manage such risk. \_\_\_\_\_

Exceptions to Participant's written risk policies, procedures and controls applicable to Participant's FTR positions are documented and explain a reasoned basis for the granting of any exception. \_\_\_\_\_

4. Participant has appropriate personnel resources, operating procedures and technical abilities to promptly and effectively respond to all PJM and PJMSettlement communications and directions. \_\_\_\_\_
5. Participant has demonstrated compliance with the Minimum Capitalization criteria set forth in Tariff, Attachment Q that are applicable to any PJM Markets in which Participant transacts, and is not aware of any change having occurred or being imminent that would invalidate such compliance. \_\_\_\_\_

6. All Participants must certify and initial in at least one of the five sections below:
- a. I certify that Participant qualifies as an “appropriate person” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act or an “eligible contract participant” as that term is defined under section 1a(18), or successor provision, of the Commodity Exchange Act. I certify that Participant will cease transacting in any PJM Markets and notify PJM and PJMSettlement immediately if Participant no longer qualifies as an “appropriate person” or “eligible contract participant.” \_\_\_\_\_

If providing audited financial statements, which shall be in US GAAP format or any other format acceptable to PJM, to support Participant’s certification of qualification as an “appropriate person:”

I certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of Participant as of the date of those audited financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$5 million total asset levels reflected in these audited financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

If not providing audited financial statements to support Participant’s certification of qualification as an “appropriate person,” Participant certifies that they qualify as an “appropriate person” under one of the entities defined in section 4(c)(3)(A)-(J) of the Commodities Exchange Act. \_\_\_\_\_

If providing audited financial statements, which shall be in US GAAP format or any other format acceptable to PJM, to support Participant’s certification of qualification as an “eligible contract participant:”

I certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of Participant as of the date of those audited financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$10 million total asset levels reflected in these audited financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

If not providing audited financial statements to support Participant’s certification of qualification as an “eligible contract participant,” Participant certifies that they



qualify as an “eligible contract participant” under one of the entities defined in section 1a(18)(A) of the Commodities Exchange Act. \_\_\_\_\_

- b. I certify that Participant has provided an unlimited Corporate Guaranty in a form acceptable to PJM as described in Tariff, Attachment Q, section III.D from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I also certify, to the best of my knowledge and belief, that the audited financial statements provided to PJM and/or PJMSettlement present fairly, pursuant to such disclosures in such audited financial statements, the financial position of the issuer as of the date of those audited financial statements. Further, I certify that Participant will cease transacting PJM’s Markets and notify PJM and PJMSettlement immediately if issuer of the unlimited Corporate Guaranty for Participant no longer has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. \_\_\_\_\_

I certify that the issuer of the unlimited Corporate Guaranty to Participant continues to have at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I acknowledge that PJM and PJMSettlement are relying upon my certifications to maintain compliance with federal regulatory requirements. \_\_\_\_\_

- c. I certify that Participant fulfills the eligibility requirements of the Commodity Futures Trading Commission exemption order (78 F.R. 19880 – April 2, 2013) by being in the business of at least one of the following in the PJM Region as indicated below (initial those applicable):

1. Generating electric energy, including Participants that resell physical energy acquired from an entity generating electric energy: \_\_\_\_\_
2. Transmitting electric energy: \_\_\_\_\_
3. Distributing electric energy delivered under Point-to-Point or Network Integration Transmission Service, including scheduled import, export and wheel through transactions: \_\_\_\_\_
4. Other electric energy services that are necessary to support the reliable operation of the transmission system: \_\_\_\_\_

Description only if c(4) is initialed:

\_\_\_\_\_

Further, I certify that Participant will cease transacting in any PJM Markets and notify PJM and PJMSettlement immediately if Participant no longer performs at least one of the functions noted above in the PJM Region. I acknowledge that PJM and

PJMSettlement are relying on my certification to maintain compliance with federal energy regulatory requirements. \_\_\_\_\_

d. I certify that Participant has provided a Letter of Credit of \$5 million or more to PJM or PJMSettlement in a form acceptable to PJM and/or PJMSettlement as described in Tariff, Attachment Q, section V.B that the Participant acknowledges cannot be utilized to meet its credit requirements to PJM and PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this letter of credit and my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

e. I certify that Participant has provided a surety bond of \$5 million or more to PJM or PJMSettlement in a form acceptable to PJM and/or PJMSettlement as described in Tariff, Attachment Q, section V.D. that the Participant acknowledges cannot be utilized to meet its credit requirements to PJM and PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this surety bond and my certification to maintain compliance with federal regulatory requirements. \_\_\_\_\_

7. I acknowledge that I have read and understood the provisions of Tariff, Attachment Q applicable to Participant's business in any PJM Markets, including those provisions describing PJM's Minimum Participation Requirements and the enforcement actions available to PJM and PJMSettlement of a Participant not satisfying those requirements. I acknowledge that the information provided herein is true and accurate to the best of my belief and knowledge after due investigation. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this Certification. \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Participant (Signature)

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

## Definitions G - H

### **Generating Market Buyer:**

“Generating Market Buyer” shall mean an Internal Market Buyer that is a Load Serving Entity that owns or has contractual rights to the output of generation resources capable of serving the Market Buyer’s load in the PJM Region, or of selling energy or related services in the PJM Interchange Energy Market or elsewhere.

### **Generation Capacity Resource:**

“Generation Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

### **Generation Owner:**

“Generation Owner” shall mean a Member that owns or leases, with right equivalent to ownership, or otherwise controls and operates one or more operating generation resources located in the PJM Region. The foregoing notwithstanding, for a planned generation resource to qualify a Member as a Generation Owner, such resource shall have cleared an RPM auction, and for Energy Resources, the resource shall have a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM. Purchasing all or a portion of the output of a generation resource shall not be sufficient to qualify a Member as a Generation Owner. For purposes of Members Committee sector classification a Member that is primarily a retail end-user of electricity that owns generation may qualify as a Generation Owner if: (1) the generation resource is the subject of a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM; (2) the average physical unforced capacity owned by the Member and its affiliates over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average PJM capacity obligation of the Member and its affiliates over the same time period; and (3) the average energy produced by the Member and its affiliates within PJM over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average energy consumed by the Member and its affiliates within PJM over the same time period.

### **Generation Resource Maximum Output:**

“Generation Resource Maximum Output” shall mean, for Customer Facilities or Generating Facilities, as applicable, identified in an Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output for a generating unit shall equal the unit’s pro rata share of the Maximum Facility Output, determined by the Economic Maximum values for the available units at the Customer Facility. For generating units not identified in an Interconnection Service Agreement, Generation Interconnection Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output shall equal the generating unit’s Economic Maximum.

**Generator Forced Outage:**

“Generator Forced Outage” shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

**Generator Maintenance Outage:**

“Generator Maintenance Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform necessary repairs on specific components of the facility, if removal of the facility meets the guidelines specified in the PJM Manuals.

**Generator Planned Outage:**

“Generator Planned Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit for inspection, maintenance or repair with the approval of the Office of the Interconnection in accordance with the PJM Manuals.

**Good Utility Practice:**

“Good Utility Practice” shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act Section 215(a)(4).

**Hot Weather Alert:**

“Hot Weather Alert” shall mean the notice provided by PJM to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for extreme hot and/or humid weather conditions which may cause capacity requirements and/or unit unavailability to be substantially higher than forecast are expected to persist for an extended period.

**Hybrid Resource:**

“Hybrid Resource” shall mean an Energy Resource or a Generation Capacity Resource composed of more than one component behind the same Point of Interconnection operating in the capacity, energy, and/or ancillary services market(s) as a single integrated resource, whereby

each component is a separate generation and/or storage technology type. A Hybrid Resource forms all or part of a Mixed Technology Facility.

## **1.7 General.**

### **1.7.1 Market Sellers.**

Only Market Sellers shall be eligible to submit offers to the Office of the Interconnection for the sale of electric energy or related services in the PJM Interchange Energy Market. Market Sellers shall comply with the prices, terms, and operating characteristics of all Offer Data submitted to and accepted by the PJM Interchange Energy Market.

### **1.7.2 Market Buyers.**

Only Market Buyers and Energy Storage Resources shall be eligible to purchase energy or related services in the PJM Interchange Energy Market. Market Buyers shall comply with all requirements for making purchases from the PJM Interchange Energy Market.

#### **1.7.2A Economic Load Response Participants.**

Only Economic Load Response Participants shall be eligible to participate in the Real-time Energy Market and the Day-ahead Energy Market by submitting offers to the Office of the Interconnection to reduce demand.

#### **1.7.2B Energy Storage Resources.**

Energy that an Energy Storage Resource purchases from the PJM Interchange Energy Market must be Direct Charging Energy. Energy Storage Resources shall comply with all requirements for making purchases from the PJM Interchange Energy Market.

### **1.7.3 Agents.**

A Market Participant may participate in the PJM Interchange Energy Market through an agent, provided that the Market Participant informs the Office of the Interconnection in advance in writing of the appointment of such agent. A Market Participant participating in the PJM Interchange Energy Market through an agent shall be bound by all of the acts or representations of such agent with respect to transactions in the PJM Interchange Energy Market, and shall ensure that any such agent complies with the requirements of this Agreement.

### **1.7.4 General Obligations of the Market Participants.**

(a) In performing its obligations to the Office of the Interconnection hereunder, each Market Participant shall at all times (i) follow Good Utility Practice, (ii) comply with all applicable laws and regulations, (iii) comply with the applicable principles, guidelines, standards and requirements of FERC, NERC and each Applicable Regional Entity, (iv) comply with the procedures established for operation of the PJM Interchange Energy Market and PJM Region and (v) cooperate with the Office of the Interconnection as necessary for the operation of the PJM Region in a safe, reliable manner consistent with Good Utility Practice.

(b) Market Participants shall undertake all operations in or affecting the PJM Interchange Energy Market and the PJM Region including but not limited to compliance with all Emergency procedures, in accordance with the power and authority of the Office of the Interconnection with respect to the operation of the PJM Interchange Energy Market and the PJM Region as established in this Agreement, and as specified in the Schedules to this Agreement and the PJM Manuals. Failure to comply with the foregoing operational requirements shall subject a Market Participant to such reasonable charges or other remedies or sanctions for non-compliance as may be established by the PJM Board, including legal or regulatory proceedings as authorized by the PJM Board to enforce the obligations of this Agreement.

(c) The Office of the Interconnection may establish such committees with a representative of each Market Participant, and the Market Participants agree to provide appropriately qualified personnel for such committees, as may be necessary for the Office of the Interconnection and PJMSettlement to perform its obligations hereunder.

(d) All Market Participants shall provide to the Office of the Interconnection the scheduling and other information specified in the Schedules to this Agreement, and such other information as the Office of the Interconnection may reasonably require for the reliable and efficient operation of the PJM Region and PJM Interchange Energy Market, and for compliance with applicable regulatory requirements for posting market and related information. Such information shall be provided as much in advance as possible, but in no event later than the deadlines established by the Schedules to this Agreement, or by the Office of the Interconnection in conformance with such Schedules. Such information shall include, but not be limited to, maintenance and other anticipated outages of generation or transmission facilities, scheduling and related information on bilateral transactions and self-scheduled resources, and implementation of interruption of load, Price Responsive Demand, Economic Load Response Participant resources, and other load reduction measures. The Office of the Interconnection shall abide by appropriate requirements for the non-disclosure and protection of any confidential or proprietary information given to the Office of the Interconnection by a Market Participant. Each Market Participant shall maintain or cause to be maintained compatible information and communications systems, as specified by the Office of the Interconnection, required to transmit scheduling, dispatch, or other time-sensitive information to the Office of the Interconnection in a timely manner. Market Participants that request additional information or communications system access or connections beyond those which are required by the Office of the Interconnection for reliability in the operation of the LLC or the Office of the Interconnection, including but not limited to PJMnet or Internet SCADA connections, shall be solely responsible for the cost of such additional access and connections and for purchasing, leasing, installing and maintaining any associated facilities and equipment, which shall remain the property of the Market Participant.

(e) Subject to the requirements for Economic Load Response Participants in section 1.5A above, each Market Participant shall install and operate, or shall otherwise arrange for, metering and related equipment capable of recording and transmitting all voice and data communications reasonably necessary for the Office of the Interconnection and PJMSettlement to perform the services specified in this Agreement. A Market Participant that elects to be separately billed for its PJM Interchange shall, to the extent necessary, be individually metered in accordance with

Operating Agreement, section 14, or shall agree upon an allocation of PJM Interchange between it and the Market Participant through whose meters the unmetered Market Participant's PJM Interchange is delivered. The Office of the Interconnection shall be notified of the allocation by the foregoing Market Participants.

(f) Each Market Participant shall operate, or shall cause to be operated, any generating resources owned or controlled by such Market Participant that are within the PJM Region or otherwise supplying energy to or through the PJM Region in a manner that is consistent with the standards, requirements or directions of the Office of the Interconnection and that will permit the Office of the Interconnection to perform its obligations under this Agreement; provided, however, no Market Participant shall be required to take any action that is inconsistent with Good Utility Practice or applicable law.

(g) Each Market Participant shall follow the directions of the Office of the Interconnection to take actions to prevent, manage, alleviate or end an Emergency in a manner consistent with this Agreement and the procedures of the PJM Region as specified in the PJM Manuals.

(h) Each Market Participant shall obtain and maintain all permits, licenses or approvals required for the Market Participant to participate in the PJM Interchange Energy Market in the manner contemplated by this Agreement.

(i) Consistent with Tariff, section 36.1.1, to the extent its generating facility is dispatchable, a Market Participant shall submit an Economic Minimum in the Real-time Energy Market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights, as that term is defined in the PJM Tariff, associated with such generating facility under its Interconnection Service Agreement under Attachment O of the PJM Tariff, Generation Interconnection Agreement under Part IX of the PJM Tariff, or Wholesale Market Participation Agreement under Part IX of the PJM Tariff, or functionally equivalent agreement.

### **1.7.5 Market Operations Center.**

Each Market Participant shall maintain a Market Operations Center, or shall make appropriate arrangements for the performance of such services on its behalf. A Market Operations Center shall meet the performance, equipment, communications, staffing and training standards and requirements specified in this Agreement, and as may be further described in the PJM Manuals, for the scheduling and completion of transactions in the PJM Interchange Energy Market and the maintenance of the reliable operation of the PJM Region, and shall be sufficient to enable (i) a Market Seller or an Economic Load Response Participant to perform all terms and conditions of its offers to the PJM Interchange Energy Market, and (ii) a Market Buyer or an Economic Load Response Participant to conform to the requirements for purchasing from the PJM Interchange Energy Market.

### **1.7.6 Scheduling and Dispatching.**

(a) The Office of the Interconnection shall schedule and dispatch in real-time generation resources and/or Economic Load Response Participant resources economically on the basis of



least-cost, security-constrained dispatch and the prices and operating characteristics offered by Market Sellers, continuing until sufficient generation resources and/or Economic Load Response Participant resources are dispatched to serve the PJM Interchange Energy Market energy purchase requirements under normal system conditions of the Market Buyers (taking into account any reductions to such requirements in accordance with PRD Curves properly submitted by PRD Providers), as well as the requirements of the PJM Region for ancillary services provided by generation resources and/or Economic Load Response Participant resources, in accordance with this Agreement. Such scheduling and dispatch shall recognize transmission constraints on coordinated flowgates external to the Transmission System in accordance with Appendix A to the Joint Operating Agreement between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38), the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 45), and on other such flowgates that are coordinated in accordance with agreements between the LLC and other entities. Scheduling and dispatch shall be conducted in accordance with this Agreement.

(b) The Office of the Interconnection shall undertake to identify any conflict or incompatibility between the scheduling or other deadlines or specifications applicable to the PJM Interchange Energy Market, and any relevant procedures of another Control Area, or any tariff (including the PJM Tariff). Upon determining that any such conflict or incompatibility exists, the Office of the Interconnection shall propose tariff or procedural changes, and undertake such other efforts as may be appropriate, to resolve any such conflict or incompatibility.

(c) To protect its generation or distribution facilities, or local Transmission Facilities not under the monitoring responsibility and dispatch control of the Office of the Interconnection, an entity may request that the Office of the Interconnection schedule and dispatch generation or reductions in demand to meet a limit on Transmission Facilities different from that which the Office of the Interconnection has determined to be required for reliable operation of the Transmission System. To the extent consistent with its other obligations under this Agreement, the Office of the Interconnection shall schedule and dispatch generation and reductions in demand in accordance with such request. An entity that makes a request pursuant to this section 1.7.6(c) shall be responsible for all generation and other costs resulting from its request that would not have been incurred by operating the Transmission System and scheduling and dispatching generation in the manner that the Office of the Interconnection otherwise has determined to be required for reliable operation of the Transmission System.

### **1.7.7 Pricing.**

The price paid for energy bought and sold in the PJM Interchange Energy Market and for demand reductions will reflect the applicable interval Locational Marginal Price at each load and generation bus, determined by the Office of the Interconnection in accordance with this Agreement. Transmission Congestion Charges and Transmission Loss Charges, which shall be determined by differences in Congestion Prices and Loss Prices in the applicable interval, shall be calculated by the Office of the Interconnection, and collected by PJMSettlement, and the revenues from there shall be disbursed by PJMSettlement in accordance with this Schedule.

### **1.7.8 Generating Market Buyer Resources.**

A Generating Market Buyer may elect to self-schedule its generation resources up to that Generating Market Buyer's Equivalent Load, in accordance with and subject to the procedures specified in this Schedule, and the accounting and billing requirements specified in Operating Agreement, Schedule 1, section 3. PJMSettlement shall not be a contracting party with respect to such self-scheduled or self-supplied transactions.

### **1.7.9 Delivery to an External Market Buyer.**

A purchase of Spot Market Energy by an External Market Buyer shall be delivered to a bus or buses at the electrical boundaries of the PJM Region specified by the Office of the Interconnection, or to load in such area that is not served by Network Transmission Service, using Point-to-Point Transmission Service paid for by the External Market Buyer. Further delivery of such energy shall be the responsibility of the External Market Buyer.

### **1.7.10 Other Transactions.**

#### **(a) Bilateral Transactions.**

- (i) In addition to transactions in the PJM Interchange Energy Market, Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity, subject to the obligations of Market Participants to make Generation Capacity Resources available for dispatch by the Office of the Interconnection. Such bilateral contracts shall be for the physical transfer of energy to or from a Market Participant and shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule and pursuant to the LLC's rules relating to its InSchedule and ExSchedule tools.
- (ii) For purposes of clarity, with respect to all bilateral contracts for the physical transfer of energy to a Market Participant inside the PJM Region, title to the energy that is the subject of the bilateral contract shall pass to the buyer at the source specified for the bilateral contract, and the further transmission of the energy or further sale of the energy into the PJM Interchange Energy Market shall be transacted by the buyer under the bilateral contract. With respect to all bilateral contracts for the physical transfer of energy to an entity outside the PJM Region, title to the energy shall pass to the buyer at the border of the PJM Region and shall be delivered to the border using transmission service. In no event shall the purchase and sale of energy between Market Participants under a bilateral contract constitute a transaction in the PJM Interchange Energy Market or be construed to define PJMSettlement as a contracting party to any bilateral transactions between Market Participants.

- (iii) Market Participants that are parties to bilateral contracts for the purchase and sale and physical transfer of energy reported to and coordinated with the Office of the Interconnection under this Schedule shall use all reasonable efforts, consistent with Good Utility Practice, to limit the megawatt hours of such reported transactions to amounts reflecting the expected load and other physical delivery obligations of the buyer under the bilateral contract.
- (iv) All payments and related charges for the energy associated with a bilateral contract shall be arranged between the parties to the bilateral contract and shall not be billed or settled by the Office of the Interconnection or PJMSettlement. The LLC, PJMSettlement, and the Members will not assume financial responsibility for the failure of a party to perform obligations owed to the other party under a bilateral contract reported and coordinated with the Office of the Interconnection under this Schedule.
- (v) A buyer under a bilateral contract shall guarantee and indemnify the LLC, PJMSettlement, and the Members for the costs of any Spot Market Backup used to meet the bilateral contract seller's obligation to deliver energy under the bilateral contract and for which payment is not made to PJMSettlement by the seller under the bilateral contract, as determined by the Office of the Interconnection. Upon any default in obligations to the LLC or PJMSettlement by a Market Participant, the Office of the Interconnection shall (i) not accept any new InSchedule or ExSchedule reporting by the Market Participant and (ii) terminate all of the Market Participant's InSchedules and ExSchedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the InSchedules and ExSchedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection. PJMSettlement shall assign its claims against a seller with respect to a seller's nonpayment for Spot Market Backup to a buyer to the extent that the buyer has made an indemnification payment to PJMSettlement with respect to the seller's nonpayment.
- (vi) Bilateral contracts that do not contemplate the physical transfer of energy to or from a Market Participant are not subject to this Schedule, shall not be reported to and coordinated with the Office of the Interconnection, and shall not in any way constitute a transaction in the PJM Interchange Energy Market.

(b) Market Participants shall have Spot Market Backup with respect to all bilateral transactions that contemplate the physical transfer of energy to or from a Market Participant, that

are not Dynamic Transfers pursuant to Operating Agreement, Schedule 1, section 1.12 and that are curtailed or interrupted for any reason (except for curtailments or interruptions through Load Management for load located within the PJM Region).

(c) To the extent the Office of the Interconnection dispatches a Generating Market Buyer's generation resources, such Generating Market Buyer may elect to net the output of such resources against its hourly Equivalent Load. Such a Generating Market Buyer shall be deemed a buyer from the PJM Interchange Energy Market to the extent of its PJM Interchange Imports, and shall be deemed a seller to the PJM Interchange Energy Market to the extent of its PJM Interchange Exports.

(d) A Market Seller may self-supply Station Power for its generation facility in accordance with the following provisions:

- (i) A Market Seller may self-supply Station Power for its generation facility during any month (1) when the net output of such facility is positive, or (2) when the net output of such facility is negative and the Market Seller during the same month has available at other of its generation facilities positive net output in an amount at least sufficient to offset fully such negative net output. For purposes of this subsection (d), "net output" of a generation facility during any month means the facility's gross energy output, less the Station Power requirements of such facility, during that month. The determination of a generation facility's or a Market Seller's monthly net output under this subsection (d) will apply only to determine whether the Market Seller self-supplied Station Power during the month and will not affect the price of energy sold or consumed by the Market Seller at any bus during any Real-time Settlement Interval during the month. For each Real-time Settlement Interval when a Market Seller has positive net output and delivers energy into the Transmission System, it will be paid the LMP at its bus for that Real-time Settlement Interval for all of the energy delivered. Conversely, for each Real-time Settlement Interval when a Market Seller has negative net output and has received Station Power from the Transmission System, it will pay the LMP at its bus for that Real-time Settlement Interval for all of the energy consumed.
- (ii) Transmission Provider will determine the extent to which each affected Market Seller during the month self-supplied its Station Power requirements or obtained Station Power from third-party providers (including affiliates) and will incorporate that determination in its accounting and billing for the month. In the event that a Market Seller self-supplies Station Power during any month in the manner described in subsection (1) of subsection (d)(i) above, Market Seller will not use, and will not incur any charges for, transmission service. In the event, and to the extent, that a Market Seller self-supplies Station Power during any month in the manner described in subsection (2) of subsection (d)(i) above (hereafter referred to as "remote self-supply of Station Power"), Market

Seller shall use and pay for transmission service for the transmission of energy in an amount equal to the facility's negative net output from Market Seller's generation facility(ies) having positive net output. Unless the Market Seller makes other arrangements with Transmission Provider in advance, such transmission service shall be provided under Tariff, Part II and shall be charged the hourly rate under Tariff, Schedule 8 for Non-Firm Point-to-Point Transmission Service with an election to pay congestion charges, provided, however, that no reservation shall be necessary for such transmission service and the terms and charges under Tariff, Schedule 1; Tariff, Schedule 1A; Tariff, Schedule 2; Tariff, Schedule 3; Tariff, Schedule 4; Tariff, Schedule 5; Tariff, Schedule 6; Tariff, Schedule 9; and Tariff, Schedule 10 shall not apply to such service. The amount of energy that a Market Seller transmits in conjunction with remote self-supply of Station Power will not be affected by any other sales, purchases, or transmission of capacity or energy by or for such Market Seller under any other provisions of the PJM Tariff.

- (iii) A Market Seller may self-supply Station Power from its generation facilities located outside of the PJM Region during any month only if such generation facilities in fact run during such month and Market Seller separately has reserved transmission service and scheduled delivery of the energy from such resource in advance into the PJM Region.
- (iv) The Office of the Interconnection is not responsible for determining Relevant Electric Retail Regulatory Authority-jurisdictional retail rates, and the monthly netting provision in section 1.7.10(d)(i) above does not determine whether a retail sale of station power has occurred in a month. Furthermore, notwithstanding any provision of subsection (d)(i) or (d)(ii) to the contrary, any net output determined for a Market Seller for Station Power purposes shall, as more fully set forth in the PJM manuals, take account of MWh values submitted to the Office of the Interconnection via its metering reporting systems by the Market Seller or the applicable Electric Distribution Company designated to make such submission, that reflect the Market Seller's purchase of energy at retail to meet its Station Power needs.

### **1.7.11 Emergencies.**

(a) The Office of the Interconnection, with the assistance of the Members' dispatchers as it may request, shall be responsible for monitoring the operation of the PJM Region, for declaring the existence of an Emergency, and for directing the operations of Market Participants as necessary to manage, alleviate or end an Emergency. The standards, policies and procedures of the Office of the Interconnection for declaring the existence of an Emergency, including but not limited to a Minimum Generation Emergency, and for managing, alleviating or ending an Emergency, shall apply to all Members on a non-discriminatory basis. Actions by the Office of the Interconnection and the Market Participants shall be carried out in accordance with this

Agreement, the NERC Operating Policies, Applicable Regional Entity reliability principles and standards, Good Utility Practice, and the PJM Manuals. A declaration that an Emergency exists or is likely to exist by the Office of the Interconnection shall be binding on all Market Participants until the Office of the Interconnection announces that the actual or threatened Emergency no longer exists. Consistent with existing contracts, all Market Participants shall comply with all directions from the Office of the Interconnection for the purpose of managing, alleviating or ending an Emergency. The Market Participants shall authorize the Office of the Interconnection and PJMSettlement to purchase or sell energy on their behalf to meet an Emergency, and otherwise to implement agreements with other Control Areas interconnected with the PJM Region for the mutual provision of service to meet an Emergency, in accordance with this Agreement.

(b) To the extent load must be shed to alleviate an Emergency in a Control Zone, the Office of the Interconnection shall, to the maximum extent practicable, direct the shedding of load within such Control Zone. The Office of the Interconnection may shed load in one Control Zone to alleviate an Emergency in another Control Zone under its control only as necessary after having first shed load to the maximum extent practicable in the Control Zone experiencing the Emergency and only to the extent that PJM supports other control areas (not under its control) in those situations where load shedding would be necessary, such as to prevent isolation of facilities within the Eastern Interconnection, to prevent voltage collapse, or to restore system frequency following a system collapse; provided, however, that the Office of the Interconnection may not order a manual load dump in a Control Zone solely to address capacity deficiencies in another Control Zone. This subsection shall be implemented consistent with the North American Electric Reliability Council and applicable reliability council standards.

#### **1.7.12 Fees and Charges.**

Each Market Participant, except for Special Members, shall pay all fees and charges of the Office of the Interconnection for operation of the PJM Interchange Energy Market as determined by and allocated to the Market Participant by the Office of the Interconnection, and for additional services they request from the LLC, PJMSettlement or the Office of the Interconnection that are not required for the operation of the LLC or the Office of the Interconnection, in accordance with Schedule 3.

#### **1.7.13 Relationship to the PJM Region.**

The PJM Interchange Energy Market operates within and subject to the requirements for the operation of the PJM Region.

#### **1.7.14 PJM Manuals.**

The Office of the Interconnection shall be responsible for maintaining, updating, and promulgating the PJM Manuals as they relate to the operation of the PJM Interchange Energy Market. The PJM Manuals, as they relate to the operation of the PJM Interchange Energy Market, shall conform and comply with this Agreement, NERC operating policies, and Applicable Regional Entity reliability principles, guidelines and standards, and shall be designed

to facilitate administration of an efficient energy market within industry reliability standards and the physical capabilities of the PJM Region.

#### **1.7.15 Corrective Action.**

Consistent with Good Utility Practice, the Office of the Interconnection shall be authorized to direct or coordinate corrective action, whether or not specified in the PJM Manuals, as necessary to alleviate unusual conditions that threaten the integrity or reliability of the PJM Region, or the regional power system.

#### **1.7.16 Recording.**

Subject to the requirements of applicable State or federal law, all voice communications with the Office of the Interconnection Control Center may be recorded by the Office of the Interconnection and any Market Participant communicating with the Office of the Interconnection Control Center, and each Market Participant hereby consents to such recording.

#### **1.7.17 [Reserved.]**

#### **1.7.18 Regulation.**

(a) Regulation to meet the Regulation objective of each Regulation Zone shall be supplied from generation resources and/or Economic Load Response Participant resources located within the metered electrical boundaries of such Regulation Zone. Generating Market Buyers, and Market Sellers offering Regulation, shall comply with applicable standards and requirements for Regulation capability and dispatch specified in the PJM Manuals.

(b) The Office of the Interconnection shall obtain and maintain for each Regulation Zone an amount of Regulation equal to the Regulation objective for such Regulation Zone as specified in the PJM Manuals.

(c) The Regulation range of a generation unit or Economic Load Response Participant resource shall be at least twice the amount of Regulation assigned as described in the PJM Manuals.

(d) A resource capable of automatic energy dispatch that is also providing Regulation shall have its energy dispatch range reduced by at least twice the amount of the Regulation provided with consideration of the Regulation limits of that resource, as specified in the PJM Manuals.

(e) Qualified Regulation must satisfy the measurement and verification tests described in the PJM Manuals.

#### **1.7.19 Ramping.**

A generator dispatched by the Office of the Interconnection pursuant to a control signal appropriate to increase or decrease the generator's megawatt output level shall be able to change

output at the ramping rate specified in the Offer Data submitted to the Office of the Interconnection for that generator. Market Sellers must specify a ramping rate in the Offer Data that is an accurate representation of the resource's capabilities given the confines of the PJM software.

#### **1.7.19A Synchronized Reserve.**

(a) Synchronized Reserve can be supplied from generation resources and/or Economic Load Response Participant resources located within the metered boundaries of the PJM Region. A resource is not eligible to provide Synchronized Reserve if its entire output has been designated as emergency energy or if the resource is a nuclear, wind, or solar unit, unless the Market Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Synchronized Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. Generating Market Buyers, and Market Sellers offering Synchronized Reserve shall comply with applicable standards and requirements for Synchronized Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone an amount of Primary and Synchronized Reserve equal to the respective Primary Reserve Requirement and Synchronized Reserve Requirement objectives for such Reserve Zone and Reserve Sub-zone, as specified in the PJM Manuals. The Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the required amount of reserves in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Synchronized Reserve capability of a generation resource and Economic Load Response Participant resource shall be the increase in energy output or load reduction achievable by the generation resource and Economic Load Response Participant resource within a continuous 10-minute period.

#### **1.7.19A.01 Non-Synchronized Reserve.**



(a) Non-Synchronized Reserve shall be supplied from generation resources located within the metered boundaries of the PJM Region. A resource is not eligible to provide Non-Synchronized Reserve if (i) its entire output has been designated as emergency energy, (ii) it is not available to provide energy, or (iii) it is a nuclear, wind, or solar unit, unless the Market Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Non-Synchronized Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. All other non-emergency generation capacity resources available to provide energy shall also be available to provide Non-Synchronized Reserve, as applicable to the capacity resource's capability to provide these services. Generating Market Buyers and Market Sellers offering Non-Synchronized Reserve shall comply with applicable standards and requirements for Non-Synchronized Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone an amount of Non-Synchronized Reserve such that the sum of the Synchronized Reserve and Non-Synchronized Reserve meets the Primary Reserve Requirement for such Reserve Zone and Reserve Sub-zone, as specified in the PJM Manuals. The Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the required amount of reserves in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Non-Synchronized Reserve capability of a generation resource shall be the increase in energy output achievable by the generation resource within a continuous 10-minute period provided that the resource is not synchronized to the system at the initiation of the response.

#### **1.7.19A.02 Secondary Reserve.**

(a) Secondary Reserve can be supplied from synchronized and non-synchronized generation resources and/or Economic Load Response Participant resources located within the metered boundaries of the PJM Region, as specified in the PJM Manuals. A resource is not eligible to provide Secondary Reserve if (i) its entire output has been designated as emergency energy, (ii) it is not available to provide energy, or (iii) it is a nuclear, wind, or solar unit, unless the Market

Seller of such a resource has obtained written approval from the Office of the Interconnection to provide Secondary Reserves. To obtain such approval, the Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written request for exemption and provide documentation to support the resource's ability to follow dispatch at the direction of the Office of the Interconnection, such as historical operating data showing voluntary response to reserve events and/or technical information about the physical operation of the resource. The Office of the Interconnection and the Market Monitoring Unit shall review, in an open and transparent manner as between the Market Seller, the Market Monitoring Unit, and the Office of the Interconnection, the information and documentation in support of the request for approval to provide reserves. No later than 30 Business Days from the date of data submittal supporting the request, the Office of the Interconnection shall determine, with the advice and input of the Marketing Monitoring Unit, whether the resource will be permitted to provide reserves and provide written notification to the Market Seller of such determination. If the request is denied, the Office of the Interconnection shall include in the notice a written explanation for the denial. Generating Market Buyers and Market Sellers offering Secondary Reserve shall comply with applicable standards and requirements for Secondary Reserve capability and dispatch specified in the PJM Manuals, the Operating Agreement and the PJM Tariff.

(b) The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone, as applicable, an amount of Secondary Reserve such that the sum of the Synchronized Reserve, Non-Synchronized Reserve and Secondary Reserve meets the respective 30-minute Reserve Requirement for each such Reserve Zone and Reserve Sub-zone, as applicable, and as specified in the PJM Manuals. In accordance with the PJM Manuals, the Office of the Interconnection shall create additional Reserve Zones or Reserve Sub-zones to maintain the 30-minute Reserve Requirement in a specific geographic area of the PJM Region as needed for system reliability. Such needs may arise due to planned and unplanned system events that limit the Office of the Interconnection's ability to deliver reserves to specific geographic area of the PJM Region where reserves are required.

(c) The Secondary Reserve capability of a generation resource and Economic Load Response Participant resource shall be the increase in energy output or load reduction achievable by the generation resource and Economic Load Response Participant resource within a continuous 30-minute period, minus the increase in energy output or load reduction achievable within a continuous 10-minute period.

#### **1.7.19B Bilateral Transactions Regarding Regulation, Synchronized Reserve, Non-Synchronized Reserve, and Secondary Reserve.**

(a) In addition to transactions in the Regulation market, Synchronized Reserve market, Non-Synchronized Reserve market and Secondary Reserve market, Market Participants may enter into bilateral contracts for the purchase or sale of Regulation, Synchronized Reserve, Non-Synchronized Reserve or Secondary Reserve to or from each other or any other entity. Such bilateral contracts shall be for the physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve to or from a Market Participant and shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule and pursuant to the LLC's rules relating to its Markets Gateway tools.

(b) For purposes of clarity, with respect to all bilateral contracts for the physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve to a Market Participant in the PJM Region, title to the product that is the subject of the bilateral contract shall pass to the buyer at the source specified for the bilateral contract, and any further transactions associated with such products or further sale of such Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve in the markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, respectively, shall be transacted by the buyer under the bilateral contract. In no event shall the purchase and sale of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve between Market Participants under a bilateral contract constitute a transaction in PJM's markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, or otherwise be construed to define PJMSettlement as a contracting party to any bilateral transactions between Market Participants.

(c) Market Participants that are parties to bilateral contracts for the purchase and sale and physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve reported to and coordinated with the Office of the Interconnection under this Schedule shall use all reasonable efforts, consistent with Good Utility Practice, to limit the amounts of such reported transactions to amounts reflecting the expected requirements for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve of the buyer pursuant to such bilateral contracts.

(d) All payments and related charges for the Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve associated with a bilateral contract shall be arranged between the parties to the bilateral contract and shall not be billed or settled by the Office of the Interconnection. The LLC, PJMSettlement, and the Members will not assume financial responsibility for the failure of a party to perform obligations owed to the other party under a bilateral contract reported and coordinated with the Office of the Interconnection under this Schedule.

(e) A buyer under a bilateral contract shall guarantee and indemnify the LLC, PJMSettlement, and the Members for the costs of any purchases by the seller under the bilateral contract in the markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve used to meet the bilateral contract seller's obligation to deliver Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve under the bilateral contract and for which payment is not made to PJMSettlement by the seller under the bilateral contract, as determined by the Office of the Interconnection. Upon any default in obligations to the LLC or PJMSettlement by a Market Participant, the Office of the Interconnection shall (i) not accept any new Markets Gateway reporting by the Market Participant and (ii) terminate all of the Market Participant's reporting of Markets Gateway schedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the reported Markets Gateway

schedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection.

(f) Market Participants shall purchase Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve from PJM's markets for Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve, in quantities sufficient to complete the delivery or receipt obligations of a bilateral contract that has been curtailed or interrupted for any reason, with respect to all bilateral transactions that contemplate the physical transfer of Regulation, Synchronized Reserve, Non-Synchronized Reserve, or Secondary Reserve to or from a Market Participant.

#### **1.7.20 Communication and Operating Requirements.**

(a) Market Participants. Each Market Participant shall have, or shall arrange to have, its transactions in the PJM Interchange Energy Market subject to control by a Market Operations Center, with staffing and communications systems capable of real-time communication with the Office of the Interconnection during normal and Emergency conditions and of control of the Market Participant's relevant load or facilities sufficient to meet the requirements of the Market Participant's transactions with the PJM Interchange Energy Market, including but not limited to the following requirements as applicable, and as may be further described in the PJM Manuals.

(b) Market Sellers selling from generation resources and/or Economic Load Response Participant resources within the PJM Region shall: report to the Office of the Interconnection sources of energy and Economic Load Response Participant resources available for operation; supply to the Office of the Interconnection all applicable Offer Data; report to the Office of the Interconnection generation resources and Economic Load Response Participant resources that are self-scheduled; with respect to generation resources, report to the Office of the Interconnection bilateral sales transactions to buyers not within the PJM Region; confirm to the Office of the Interconnection bilateral sales to Market Buyers within the PJM Region; respond to the Office of the Interconnection's directives to start, shutdown or change output levels of generation units, or change scheduled voltages or reactive output levels of generation units, or reduce load from Economic Load Response Participant resources; continuously maintain all Offer Data concurrent with on-line operating information; and ensure that, where so equipped, generating equipment and Economic Load Response Participant resources are operated with control equipment functioning as specified in the PJM Manuals.

(c) Market Sellers selling from generation resources outside the PJM Region shall: provide to the Office of the Interconnection all applicable Offer Data, including offers specifying amounts of energy available, hours of availability and prices of energy and other services; respond to Office of the Interconnection directives to schedule delivery or change delivery schedules; and communicate delivery schedules to the Market Seller's Control Area.

(d) Market Participants that are Load Serving Entities or purchasing on behalf of Load Serving Entities shall: respond to Office of the Interconnection directives for load management steps; report to the Office of the Interconnection Generation Capacity Resources to satisfy capacity obligations that are available for pool operation; report to the Office of the

Interconnection all bilateral purchase transactions; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(e) Market Participants that are not Load Serving Entities or purchasing on behalf of Load Serving Entities shall: provide to the Office of the Interconnection requests to purchase specified amounts of energy for each hour of the Operating Day during which it intends to purchase from the PJM Interchange Energy Market, along with Dispatch Rate levels above which it does not desire to purchase; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(f) Economic Load Response Participants are responsible for maintaining demand reduction information, including the amount and price at which demand may be reduced. The Economic Load Response Participant shall provide this information to the Office of the Interconnection by posting it on the Load Response Program Registration link of the PJM website as required by the PJM Manuals. The Economic Load Response Participant shall notify the Office of the Interconnection of a demand reduction concurrent with, or prior to, the beginning of such demand reduction in accordance with the PJM Manuals. In the event that an Economic Load Response Participant chooses to measure load reductions using a Customer Baseline Load, the Economic Load Response Participant shall inform the Office of the Interconnection of a change in its operations or the operations of the end-use customer that would affect a relevant Customer Baseline Load as required by the PJM Manuals.

(g) PRD Providers shall be responsible for automation and supervisory control equipment that satisfy the criteria set forth in the RAA to ensure automated reductions to their Price Responsive Demand in response to price in accordance with their PRD Curves submitted to the Office of the Interconnection.

(h) Market Participants engaging in Coordinated External Transactions shall provide to the Office of the Interconnection the information required to be specified in a CTS Interface Bid, in accordance with the procedures of Tariff, Attachment K-Appendix, section 1.13 and the parallel provisions of Operating Agreement, Schedule 1, section 1.13.

## **1.5 Procedure for Development of the Regional Transmission Expansion Plan.**

### **1.5.1 Commencement of the Process.**

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b), constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to the Operating Agreement, Schedule 1, section 7.8. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

### **1.5.2 Development of Scope, Assumptions and Procedures.**

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

### **1.5.3 Scope of Studies.**

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs. The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to the Operating Agreement, Schedule 1, section 7.8.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7.4.2(b). Enhancements and expansions related to stage 1A

Auction Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Operating Agreement, Schedule 6, section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to the Operating Agreement, Schedule 6, section 1.5.6(m) and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

#### **1.5.4 Supply of Data.**

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current local planning information, including all criteria, assumptions and models used by the Transmission Owners, such as those used to develop Supplemental Projects. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's local planning information, including all criteria, assumptions and models



used by the Transmission Owners in their internal planning processes, including the development of Supplemental Projects (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in the Operating Agreement, section 18.17; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in the Operating Agreement, section 18.17 and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

### **1.5.5 Coordination of the Regional Transmission Expansion Plan.**

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements:

- Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at Schedule 6-B and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at Operating Agreement, Schedule 6-A ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at Tariff, Schedule 12-B;
- Joint Reliability Coordination Agreement Between PJM Interconnection, L.L.C., Tennessee Valley Authority, and Louisville Gas and Electric Company and Kentucky Utilities.

(i) Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(ii) An entity, including existing Transmission Owners and Nonincumbent Developers, may submit potential Interregional Transmission Projects pursuant to the Operating Agreement, Schedule 6, section 1.5.8.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

#### **1.5.6 Development of the Recommended Regional Transmission Expansion Plan.**

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Requirements identified by the states for consideration in the Office of the Interconnection's transmission planning analyses; (iii) Public Policy Objectives identified by stakeholders for consideration in the Office of the Interconnection's transmission planning analyses; (iv) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (v) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (v) of this subsection. Following the assumptions meeting and prior to performing the evaluation and analyses of transmission needs, the Office of the Interconnection shall determine the range of assumptions to be used in the studies and

scenario analyses, based on the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees and, through the Independent State Agencies, the statement of Public Policy Requirements provided individually by the states and any state member's assessment or prioritization of Public Policy Objectives proposed by other stakeholders. The Office of the Interconnection shall document and publicly post its determination for review. Such posting shall include an explanation of those Public Policy Requirements and Public Policy Objectives adopted at the assumptions stage to be used in performing the evaluation and analysis of transmission needs. Following identification of transmission needs and prior to evaluating potential enhancements and expansions to the Transmission System the Office of the Interconnection shall publicly post all transmission need information identified as described further in the Operating Agreement, Schedule 6, section 1.5.8(b) herein to support the role of the Subregional RTEP Committees in the development of the Local Plan and support the role of Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection shall also post an explanation of why other Public Policy Requirements and Public Policy Objectives introduced by stakeholders at the assumptions stage were not adopted.

(c) The Subregional RTEP Committees shall also schedule and facilitate meetings related to Supplemental Projects, as described in the Tariff, Attachment M-3.

(d) After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in the Operating Agreement, Schedule 6, sections 1.3(b) and 1.3(c)) to review, evaluate and offer comments and alternatives to the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

(e) In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the

current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in section (b), above.

(f) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in the Operating Agreement, Schedule 6, section 1.5.8(b) to afford entities an opportunity to submit proposed enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in the Operating Agreement, Schedule 6, section 1.5.8(c). Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c); (ii) consider proposals submitted during the proposal windows consistent with the Operating Agreement, Schedule 6, section 1.5.8(d) and develop a recommended plan. Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to the Operating Agreement, Schedule 6, section 1.5.3, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.

(g) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(h) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(i) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in

accordance with the procedures, criteria and analyses described in the Operating Agreement, Schedule 6, sections 1.5.7 and 1.5.8.

(j) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to the Operating Agreement, Schedule 6, section 1.5.9.

(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Operating Agreement, Schedule 6, 1.5.6, or Tariff Parts VII or VIII, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI, or Tariff, Parts VII or VIII, as applicable; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI, , or Tariff, Parts VII or VIII, as applicable with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARR, to facilitate Incremental ARR pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, or Tariff, Parts VII or VIII, as applicable and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(m) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to this Agreement or the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff or this Agreement, (2) in the event and to the extent that no provision of the PJM Tariff or this Agreement assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through

charges established pursuant to the Tariff, Schedule 12, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to the Tariff, Schedule 12 that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under the Operating Agreement, Schedule 6, sections 1.5.6(i) and 1.5.7, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to the Operating Agreement, Schedule 1, section 7 shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under the Tariff, Schedule 12, section (b) for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in the Tariff, Attachment DD, section 15 shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(n) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection.

These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

#### **1.5.7 Development of Economic-based Enhancements or Expansions.**

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Operating Agreement, Schedule 6, section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ration of Stage 1B ARR requests as described in the Operating Agreement, Schedule 1, section 7.4.2(c); or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items in the Operating Agreement, Schedule 6, section 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan,

which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional Economic-based Enhancements or Expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c), any market participant may submit to the Office of the Interconnection a proposal to construct an additional Economic-based Enhancement or Expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed Economic-based Enhancements or Expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new Economic-based Enhancements or Expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new Economic-based Enhancements or Expansions for inclusion in the Regional Transmission Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional Economic-based Enhancements or Expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional Economic-based Enhancements or Expansions pursuant to the Operating Agreement, Schedule 6, section 1.5.6(m). In the event the entity or entities designated as responsible for construction, owning or financing a designated new Economic-based Enhancement or Expansion declines to construct, own or finance the new Economic-based Enhancement or Expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with the Operating Agreement, Schedule 6, sections 1.6 and 1.7. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional Economic-based Enhancements or Expansions and whether such Economic-based Enhancements or Expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional Economic-based Enhancements or Expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this Operating Agreement, Schedule 6, section 1.5.7(d). An Economic-based Enhancement or Expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the Economic-based Enhancement or Expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.



The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for the 15 year period starting with the RTEP Year (defined as current year plus five) minus benefits for years when the project is not yet in-service] ÷ [Present value of the Total Enhancement Cost for the same 15 year period]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Energy Market Benefit is as follows:

Energy Market Benefit = [.50] \* [Change in Total Energy Production Cost] + [.50] \* [Change in Load Energy Payment]

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Energy Market Benefit is as follows:

Energy Market Benefit = [1] \* [Change in Load Energy Payment]  
and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the Economic-based Enhancement or Expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the Economic-based Enhancement or Expansion]. The change in costs for purchases from outside of the PJM Region and sales to outside the PJM Region will be captured, if appropriate. Purchases will be valued at the Load Weighted LMP and sales will be valued at the Generation Weighted LMP.

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly

estimated zonal Locational Marginal Price for each Zone without the Economic-based Enhancement or Expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) \* (the hourly estimated zonal Locational Marginal Price for each Zone with the Economic-based Enhancement or Expansion)] – [the change in value of transmission rights for each Zone with the Economic-based Enhancement or Expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion)]. The Change in the Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in the Load Energy Payment.

And

For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(i) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [.50] * [\text{Change in Total System Capacity Cost}] + [.50] * [\text{Change in Load Capacity Payment}]$$

and

For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to the Tariff, Schedule 12, section (b)(v) the Reliability Pricing Benefit is as follows:

$$\text{Reliability Pricing Benefit} = [1] * [\text{Change in Load Capacity Payment}]$$

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under the Tariff, Attachment DD) \* (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD without the Economic-based Enhancement or Expansion) \* (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) \* (the estimated Final Zonal Capacity Prices under the Tariff, Attachment DD with the Economic-based Enhancement or Expansion) \* (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion. The Change in the Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in the Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the Economic-based Enhancement or Expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new Economic-based Enhancement or Expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new Economic-based Enhancement or Expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new Economic-based Enhancements or Expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new Economic-based Enhancements or Expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the Economic-based Enhancement or Expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of the Operating Agreement, Schedule 6, section 1.5.7(i). The Office of the Interconnection will not be required to review annually the costs and benefits of constructing Economic-based Enhancements or Expansions with capital costs less than \$20 million if, based on updated cost estimates and the original benefits, the Benefit/Cost Ratio remains at or above 1.25. The Office of the Interconnection shall no longer be required to review costs and benefits of constructing Economic-based Enhancements and Expansions once: (i) a certificate of public convenience and necessity or its equivalent is granted by the state or relevant regulatory authority in which such enhancements or expansions will be located; or (ii) if a certificate of public convenience and necessity or its equivalent is not required by the state or relevant regulatory authority in which an economic-based enhancement or expansion will be located, once construction activities commence at the project site.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new Economic-based Enhancements or Expansions is consistent with the new Economic-based Enhancements or Expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to the Tariff, Parts IV and VI that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, the Tariff, Part VI, Subpart B, section 216, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, that are committed to the PJM Region as a result of any Reliability Pricing

Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.

- (ii) Availability of Generation Capacity Resources, as defined by the RAA, section 1.33, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iii) Availability of Demand Resources that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to the Tariff, Attachment DD or any FRR Capacity Plan pursuant to the RAA, Schedule 8.1.
- (iv) Addition of Customer Facilities or Generating Facilities, as applicable, pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed, or Generating Facilities pursuant to an executed Generation Interconnection Agreement or executed Engineering and Procurement Agreement for which Generation Interconnection Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement, or that have an approved Decision Point II submission, under Tariff Part VII or VIII, as applicable, may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues or Cycles as applicable and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities or Generating Facilities pursuant to an

executed Facilities Study Agreement approved Decision Point II submission under Tariff Part VII or VIII, or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues or Cycles as applicable to determine the likelihood of a Customer Facility or Generating Facility, pursuant to an executed Facilities Study Agreement approved Decision Point II submission under Tariff Part VII or VIII, or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities or Generating Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues or Cycles as applicable and, if necessary, add transmission enhancements to address congestion that arises from such modeling.

- (viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an Economic-based Enhancement or Expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the Economic-based Enhancement or Expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to Economic-based Enhancements or Expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with the Operating Agreement, Schedule 6, section 1.5.3 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

### **1.5.8 Development of Long-lead Projects, Short-term Projects, Immediate-need Reliability Projects, and Economic-based Enhancements or Expansions.**

- (a) **Pre-Qualification Process.**

(a)(1) On September 1 of each year, the Office of the Interconnection shall open a thirty-day pre-qualification window for entities, including existing Transmission Owners and Nonincumbent Developers, to submit to the Office of the Interconnection: (i) applications to pre-qualify as eligible to be a Designated Entity; or (ii) updated information as described in the Operating Agreement, Schedule 6, section 1.5.8(a)(3). Pre-qualification applications shall contain the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's, or parent company's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities; (ix) a description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Operating Agreement, Schedule 6, section 1.5.8(a).

(a)(2) No later than October 31, the Office of the Interconnection shall notify the entities that submitted pre-qualification applications or updated information during the annual thirty-day pre-qualification window, whether they are, or will continue to be, pre-qualified as eligible to be a Designated Entity. In the event the Office of the Interconnection determines that an entity (i) is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, or (ii) provided insufficient information to determine pre-qualification, the Office of the Interconnection shall inform that the entity it is not pre-qualified and include in the notification the basis for its determination. The entity then may submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is, or will continue to be, pre-qualified as eligible to be a Designated Entity. If the entity submits additional information by November 30, the Office of the Interconnection shall notify the entity of the results of its re-evaluation no later than December 15. If the entity submits additional information after November 30, the Office of the Interconnection shall use reasonable efforts to re-evaluate the application, with the additional information, and notify the entity of its determination as soon as practicable. No later than December 31, the Office of the Interconnection shall post on the PJM website the list of entities that are pre-qualified as eligible to be Designated Entities. If an entity is notified by the Office of the Interconnection that it does not pre-qualify or will not continue to be pre-qualified as eligible to be a Designated Entity, such entity may request dispute resolution pursuant to the Operating Agreement, Schedule 5.

(a)(3) In order to continue to pre-qualify as eligible to be a Designated Entity, such entity must confirm its information with the Office of the Interconnection no later than three years following its last submission or sooner if necessary as required below. In the event the information on which the entity's pre-qualification is based changes with respect to the upcoming year, such entity must submit to the Office of the Interconnection all updated information during the annual thirty-day pre-qualification window and the timeframes for notification in the Operating Agreement, Schedule 6, section 1.5.8(a)(2) shall apply. In the event the information on which the entity's pre-qualification is based changes with respect to the current year, such entity must submit to the Office of the Interconnection all updated information at the time the information changes and the Office of the Interconnection shall use reasonable efforts to evaluate the updated information and notify the entity of its determination as soon as practicable.

(a)(4) As determined by the Office of the Interconnection, an entity may submit a pre-qualification application outside the annual thirty-day pre-qualification window for good cause shown. For a pre-qualification application received outside of the annual thirty-day pre-qualification window, the Office of the Interconnection shall use reasonable efforts to process the application and notify the entity as to whether it pre-qualifies as eligible to be a Designated Entity as soon as practicable.

(a)(5) To be designated as a Designated Entity for any project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8, existing Transmission Owners and Nonincumbent Developers must be pre-qualified as eligible to be a Designated Entity pursuant to this Operating Agreement, Schedule 6, section 1.5.8(a). This Operating Agreement, Schedule 6, section 1.5.8(a) shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Following identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Operating Agreement, Schedule 6 and the PJM Manuals, and after consideration of non-transmission solutions, and prior to evaluating potential enhancements and expansions to the Transmission System, the Office of the Interconnection shall publicly post on the PJM website all transmission need information, including violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in the Operating Agreement, Schedule 6, section 1.5.9, as applicable. Such posting shall support the role of the Subregional RTEP Committees in the development of the Local Plans and support the role of the Transmission Expansion Advisory Committee in the development of the Regional Transmission Expansion Plan. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.



(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 60-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects and Economic-based Enhancements or Expansions. The specifics regarding whether or not the following types of violations or projects are subject to a proposal window are detailed in the Operating Agreement, Schedule 6, section 1.5.8(m) for Immediate-need Reliability Projects; Operating Agreement, Schedule 6, section 1.5.8(n) for reliability violations on transmission facilities below 200 kV; and Operating Agreement, Schedule 6, section 1.5.8(p) for violations on transmission substation equipment. The Office of Interconnection may shorten a proposal window should an identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions, or extend a proposal window as needed to accommodate updated information regarding system conditions. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on one or more of the following criteria: (1) complexity of the violation or system condition; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. The Office of the Interconnection may lengthen a proposal window that already is opened based on or more of the following criteria: (i) changes in assumptions or conditions relating to the underlying need for the project, such as load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change in the proposal window period. During these windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) All proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(1)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Transmission Provider to evaluate the submitted project proposal. To the extent the Transmission Provider incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Transmission Provider shall invoice equal shares of the non-severable costs among the project proposals that cause such non-

severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(1)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Transmission Provider as a result of the evaluation of a submitted project proposal.

(c)(1)(iii) Following the close of a proposal window but before the Transmission Provider incurs any third-party consultant work costs to evaluate a submitted project proposal, the Transmission Provider will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Transmission Provider may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the Transmission Provider receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(1)(iv) At the completion of the evaluation activities associated with a project proposal, the Transmission Provider will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(1)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Transmission Provider sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Transmission Provider. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Transmission Provider in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Transmission Provider as a result of the evaluation of the proposing entity's project proposal(s).

(c)(2) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a

financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost containment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. PJM may not alter the requirements for proposal submission to require the submission of a binding cost containment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.

(c)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.8(e) and 1.5.8(f). If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c)(3) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(c)(5) Within 30 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with the Operating Agreement, Schedule 6, section 1.5.9. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.8(e) and 1.5.8(f). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Operating Agreement, Schedule 6.

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to the Operating Agreement, Schedule 6, section 1.5.3, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to the Operating Agreement, Schedule 6, section 1.5.7(d); (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) the ability to timely complete the project, and project development feasibility; and (v) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each project finalist's proposal, including any Transmission Owner Upgrades, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each

finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the TEAC for review and comment. In evaluating any cost, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates from the Commission. PJM may modify the technical specifications of a proposal, as outlined in the PJM Manuals, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board. Neither PJM, the Designated Entity nor any stakeholders are waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

**(f) Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project, Long-lead Project or Economic-based Enhancement or Expansion recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Operating Agreement, Schedule 6, section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

**(g) Procedures if No Long-lead Project or Economic-based Enhancement or Expansion Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, or system condition, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, or system conditions pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office

of the Interconnection shall propose a project to solve the posted violation, or system condition for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall develop and post on the PJM website a transmission solution construction timeline for input and review by the Transmission Expansion Advisory Committee that will include factors such as, but not limited to: (i) deadlines for obtaining regulatory approvals, (ii) dates by which long lead equipment should be acquired, (iii) the time necessary to complete a proposed solution to meet the required in-service date, and (iv) other time-based factors impacting the feasibility of achieving the required in-service date. Based on input from the Transmission Expansion Advisory Committee and the time frames set forth in the construction timeline, the Office of the Interconnection shall determine whether there is sufficient time to conduct a re-evaluation and re-post and timely address the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion. To the extent that an economic constraint remains unaddressed, the economic constraint will be re-evaluated and re-posted.

(h) **Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) **Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

(j) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause shown, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as

required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. In the alternative, the Designated Entity may request dispute resolution pursuant to the Operating Agreement, Schedule 5, or request that the Designated Entity Agreement be filed unexecuted with the Commission.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to comply with one or more of the requirements of the Operating Agreement, Schedule 6, section 1.5.8(j); or fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Operating Agreement, Schedule 6, section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a project proposed pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law,

regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

**(m) Immediate-need Reliability Projects:**

(m)(1) Pursuant to the expansion planning process set forth in Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify immediate reliability needs that must be addressed within three years or less. For those immediate reliability needs for which PJM determines a proposal window may not be feasible, PJM shall identify and post such immediate need reliability criteria violations and system conditions for review and comment by the Transmission Expansion Advisory Committee and other stakeholders. Following review and comment, the Office of the Interconnection shall develop Immediate-need Reliability Projects for which a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2) is infeasible. The Office of the Interconnection shall consider the following factors in determining the infeasibility of such a proposal window: (i) nature of the reliability criteria violation; (ii) nature and type of potential solution required; and (iii) projected construction time for a potential solution to the type of reliability criteria violation to be addressed. The Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the Immediate-need Reliability Projects for which a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2) is infeasible. Stakeholders shall be afforded no less than ten days to review Immediate-need Reliability Project materials prior to providing comments at stakeholder meetings. However, PJM may review Immediate-need Reliability Project materials with stakeholders without the requisite ten-day notice so long as: (i) stakeholders do not object to reviewing the materials or (ii) PJM identifies in its posting to the meeting materials extenuating circumstances identified by PJM that require review of the materials at the stakeholder meeting. The descriptions shall include an explanation of the decision to designate the Transmission Owner as the Designated Entity for the Immediate-need Reliability Project rather than conducting a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(m)(2), including an explanation of the time-sensitive need for the Immediate-need Reliability Project, other transmission and non-transmission options that were considered but concluded would not sufficiently address the immediate reliability need, the circumstances that generated the immediate reliability need, and why the immediate reliability need was not identified earlier. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments to the Office of the Interconnection. All comments received by the Office of the Interconnection shall be publicly available on the PJM website. Based on the comments received from stakeholders and the review by Transmission Expansion Advisory Committee, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. In January of each year, the Office of the Interconnection shall post on the PJM website and file with the Commission for informational purposes a list of the Immediate-need Reliability Projects for which an existing Transmission Owner was designated in the prior year as the Designated Entity in accordance with this Operating Agreement, Schedule 6, section 1.5.8(m)(1). The list



shall include the need-by date of Immediate-need Reliability Project and the date the Transmission Owner actually energized the Immediate-need Reliability Project.

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals, including an explanation of the time-sensitive need for an Immediate-need Reliability Project and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in the Operating Agreement, Schedule 6, section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with the Operating Agreement, Schedule 6, section 1.5.8(i), shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with the Operating Agreement, Schedule 6, section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with the Operating Agreement, Schedule 6, section 1.5.8(m)(1).

(n) **Reliability Violations on Transmission Facilities Below 200 kV.** Pursuant to the expansion planning process set forth in the Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify reliability violations on facilities below 200 kV. The Office of the Interconnection shall not post such a violation pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b) for inclusion in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) unless the identified violation(s) satisfies one of the following exceptions: (i) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV that are impacted by a common contingent element, such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or (ii) the reliability violations are thermal overload violations identified on multiple transmission lines and/or transformers rated below 200 kV and the Office of the Interconnection determines that given the location and electrical features of the violations one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating the multiple reliability violations. If the reliability violation is identified on multiple facilities rated below

200 kV that are determined by the Office of the Interconnection to meet one of the two exceptions stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). If the Office of the Interconnection determines that the identified reliability violations do not satisfy either of the two exceptions stated above, the Office of the Interconnection shall develop a solution to address the reliability violation on below 200 kV Transmission Facilities that will not be included in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). The Office of Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the below 200 kV reliability violations that will not be included in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the below 200 kV reliability violation(s) in Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, a description of the facility on which the violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such below 200 kV reliability violation will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. With the exception of Immediate-need Reliability Projects under the Operating Agreement, Schedule 6, section 1.5.8(m), PJM will not select an above 200 kV solution for inclusion in the recommended plan that would address a reliability violation on a below 200 kV transmission facility without posting the violation for inclusion in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

(o) **[Reserved]**

(p) **Thermal Reliability Violations on Transmission Substation Equipment.** Pursuant to the regional transmission expansion planning process set forth in the Operating Agreement, Schedule 6, sections 1.5.1 through 1.5.6, the Office of the Interconnection shall identify thermal reliability violations on existing transmission substation equipment. The Office of the Interconnection shall not post such thermal reliability violations pursuant to the Operating Agreement, Schedule 6, section 1.5.8(b) for inclusion in a proposal window pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c) if the Office of the Interconnection determines that the reliability violations would be more efficiently addressed by an upgrade to replace in kind transmission substation equipment with higher rated equipment, excluding power transmission transformers, but including station service transformers and instrument transformers. If the Office of the Interconnection determines that the reliability violation does not meet the exemption stated above, the Office of the Interconnection shall post on the PJM website the reliability violations to be included in a proposal window consistent with the Operating Agreement, Schedule 6, section 1.5.8(c). If the Office of the Interconnection determines that the identified thermal reliability violations satisfy the above exemption to the proposal window process, the Office of the Interconnection shall post on the PJM website for review and comment by the Transmission Expansion Advisory Committee and other stakeholders descriptions of the transmission substation equipment thermal reliability violations that will not be included in a proposal window pursuant to Operating Agreement, Schedule 6, section 1.5.8(c). The descriptions shall include an explanation of the decision to not include the

transmission substation equipment thermal reliability violation(s) in Operating Agreement, Schedule 6, section 1.5.8(c) proposal window, a description of the facility on which the thermal violation(s) is found, the Zone in which the facility is located, and notice that such construction responsibility for and ownership of the project that resolves such transmission substation equipment thermal violations will be designated to the incumbent Transmission Owner. After the descriptions are posted on the PJM website, stakeholders shall have reasonable opportunity to provide comments for consideration by the Office of the Interconnection. All written comments received by the Office of the Interconnection shall be publicly available on the PJM website.

### **1.5.9 State Agreement Approach.**

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. As determined by the authorized state governmental entities, such transmission enhancements or expansions may be included in the recommended plan, either as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in the Operating Agreement, Schedule 6, section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with the Operating Agreement, Schedule 6, section 1.5.9(a) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a).

### **1.5.10 Multi-Driver Project.**

(a) When a proposal submitted by an existing Transmission Owner or Nonincumbent Developer pursuant to Operating Agreement, Schedule 6, section 1.5.8(c) meets the definition of a Multi-Driver Project and is designated to be included in the Regional Transmission Expansion Plan for purposes of cost allocation, the Office of the Interconnection shall designate the Designated Entity for the project as follows: (i) if the Multi-Driver Project does not contain a state Public Policy Requirement component, the Office of the Interconnection shall designate the Designated Entity pursuant to the criteria in the Operating Agreement, Schedule 6, section 1.5.8; or (ii) if the Multi-Driver Project contains a state Public Policy Requirement component, the

Office of the Interconnection shall evaluate potential Designated Entity candidates based on the criteria in the Operating Agreement, Schedule 6, section 1.5.8, and provide its evaluation to and elicit feedback from the sponsoring state governmental entities responsible for allocation of all costs of the proposed state Public Policy Requirement component (“state governmental entity(ies)”) regarding its evaluation. Based on its evaluation of the Operating Agreement, Schedule 6, section 1.5.8 criteria and consideration of the feedback from the sponsoring state governmental entity(ies), the Office of the Interconnection shall designate the Designated Entity for the Multi-Driver Project and notify such entity consistent with the Operating Agreement, Schedule 6, section 1.5.8(i). A Multi-Driver Project may be based on proposals that consist of (1) newly proposed transmission enhancements or expansions; (2) additions to, or modifications of, transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan; and/or (3) one or more transmission enhancements or expansions already selected for inclusion in the Regional Transmission Expansion Plan.

(b) A Multi-Driver Project may contain an enhancement or expansion that addresses a state Public Policy Requirement component only if it meets the requirements set forth in the Operating Agreement, Schedule 6, section 1.5.9(a) and its cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(c) If a state governmental entity(ies) desires to include a Public Policy Requirement component after an enhancement or expansion has been included in the Regional Transmission Expansion Plan, the Office of the Interconnection may re-evaluate the relevant reliability-based enhancement or expansion, Economic-based Enhancement or Expansion, or Multi-Driver Project to determine whether adding the state-sponsored Public Policy Requirement component would create a more cost effective or efficient solution to system conditions. If the Office of the Interconnection determines that adding the state-sponsored Public Policy Requirement component to an enhancement or expansion already included in the Regional Transmission Expansion Plan would result in a more cost effective or efficient solution, the state-sponsored Public Policy Requirement component may be included in the relevant enhancement or expansion, provided all of the requirements of the Operating Agreement, Schedule 6, section 1.5.10(b) are met, and cost allocations are established consistent with the Tariff, Schedule 12, section (b)(xii)(B).

(d) If, subsequent to the inclusion in the Regional Transmission Expansion Plan of a Multi-Driver Project that contains a state Public Policy Requirement component, a state governmental entity(ies) withdraws its support of the Public Policy Requirement component of a Multi-Driver Project, then: (i) the Office of the Interconnection shall re-evaluate the need for the remaining components of the Multi-Driver Project without the state Public Policy Requirement component, remove the Multi-Driver Project from the Regional Transmission Expansion Plan, or replace the Multi-Driver Project with an enhancement or expansion that addresses remaining reliability or economic system needs; (ii) if the Multi-Driver Project is retained in the Regional Transmission Expansion Plan without the state Public Policy Requirement component, the costs of the remaining components will be allocated in accordance with the Tariff, Schedule 12; (iii) if more than one state is responsible for the costs apportioned to the state Public Policy Requirement component of the Multi-Driver Project, the remaining state governmental entity(ies) shall have the option to continue supporting the state Public Policy component of the

Multi-Driver Project and if the remaining state governmental entity(ies) choose this option, the apportionment of the state Public Policy Requirement component will remain in place and the remaining state governmental entity(ies) shall agree upon their respective apportionments; (iv) if a Multi-Driver Project must be retained in the Regional Transmission Expansion Plan and completed with the State Public Policy component, the state Public Policy Requirement apportionment will remain in place and the withdrawing state governmental entity(ies) shall continue to be responsible for its/their share of the FERC-accepted cost allocations as filed pursuant to the Tariff, Schedule 12, section (b)(xii)(B).

(e) The actual costs of a Multi-Driver Project shall be apportioned to the different components (reliability-based enhancement or expansion, Economic-based Enhancement or Expansion and/or Public Policy Requirement) based on the initial estimated costs of the Multi-Driver Project in accordance with the methodology set forth in the Tariff, Schedule 12.

(f) The benefit metric calculation used for evaluating the market efficiency component of a Multi-Driver Project will be based on the final voltage of the Multi-Driver Project using the Benefit/Cost Ratio calculation set forth in the Operating Agreement, Schedule 6, section 1.5.7(d) where the Cost component of the calculation is the present value of the estimated cost of the enhancement apportioned to the market efficiency component of the Multi-Driver Project for each of the first 15 years of the life of the enhancement or expansion.

(g) Except as provided to the contrary in this Operating Agreement, Schedule 6, section 1.5.10 and Operating Agreement, Schedule 6, section 1.5.8 applies to Multi-Driver Projects.

(h) The Office of the Interconnection shall determine whether a proposal(s) meets the definition of a Multi-Driver Project by identifying a more efficient or cost effective solution that uses one of the following methods: (i) combining separate solutions that address reliability, economics and/or public policy into a single transmission enhancement or expansion that incorporates separate drivers into one Multi-Driver Project (“Proportional Multi-Driver Method”); or (ii) expanding or enhancing a proposed single driver solution to include one or more additional component(s) to address a combination of reliability, economic and/or public policy drivers (“Incremental Multi-Driver Method”).

(i) In determining whether a Multi-Driver Project may be designated to more than one entity, PJM shall consider whether: (i) the project consists of separable transmission elements, which are physically discrete transmission components, such as, but not limited to, a transformer, static var compensator or definable linear segment of a transmission line, that can be designated individually to a Designated Entity to construct and own and/or finance; and (ii) each entity satisfies the criteria set forth in the Operating Agreement, Schedule 6, section 1.5.8(f). Separable transmission elements that qualify as Transmission Owner Upgrades shall be designated to the Transmission Owner in the Zone in which the facility will be located.

## ARTICLE 1 – DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used herein shall have the respective meanings assigned herein or in the Schedules hereto, or in the PJM Tariff or PJM Operating Agreement if not otherwise defined in this Agreement, for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Articles, Sections or Schedules, are to Articles, Sections or Schedules of this Agreement. As used in this Agreement:

### **Accredited UCAP:**

“Accredited UCAP” shall mean the quantity of Unforced Capacity, as denominated in Effective UCAP, that an ELCC Resource is capable of providing in a given Delivery Year.

### **Accredited UCAP Factor:**

“Accredited UCAP Factor” shall mean, through the 2024/2025 Delivery Year, one minus EFORD, and for 2025/2026 Delivery Year and subsequent Delivery Years, the ratio of the Capacity Resource’s Accredited UCAP to the Capacity Resource’s installed capacity.

### **Agreement:**

“Agreement” shall mean this Reliability Assurance Agreement, together with all Schedules hereto, as amended from time to time.

### **Annual Demand Resource:**

“Annual Demand Resource” shall mean a resource that is placed under the direction of the Office of the Interconnection during the Delivery Year, and will be available for an unlimited number of interruptions during such Delivery Year by the Office of the Interconnection, and will be capable of maintaining each such interruption between the hours of 10:00AM to 10:00PM Eastern Prevailing Time for the months of June through October and the following May, and 6:00AM through 9:00PM Eastern Prevailing Time for the months of November through April unless there is an Office of the Interconnection approved maintenance outage during October through April. The Annual Demand Resource must be available in the corresponding Delivery year to be offered for sale or Self-Supplied in an RPM Auction, or included as an Annual Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

### **Annual Energy Efficiency Resource:**

“Annual Energy Efficiency Resource” shall mean a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of Reliability Assurance Agreement, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the summer and winter periods described in such Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast

prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall have the same meaning as in the PJM Tariff.

**Base Capacity Demand Resource:**

“Base Capacity Demand Resource” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a resource that is placed under the direction of the Office of the Interconnection and that will be available June through September of a Delivery Year, and will be available to the Office of the Interconnection for an unlimited number of interruptions during such months, and will be capable of maintaining each such interruption for at least a 10-hour duration between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Base Capacity Demand Resource must be available June through September in the corresponding Delivery Year to be offered for sale or self-supplied in an RPM Auction, or included as a Base Capacity Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Base Capacity Energy Efficiency Resource:**

“Base Capacity Energy Efficiency Resource” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of RAA, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the summer peak periods as described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Base Capacity Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Base Capacity Resource:**

“Base Capacity Resource” shall have the same meaning as in Tariff, Attachment DD.

**Base Residual Auction:**

“Base Residual Auction” shall have the same meaning as in Tariff, Attachment DD.

**Behind The Meter Generation:**

“Behind The Meter Generation” shall refer to a generating unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities consented to such use of the distribution facilities and such

consent has been demonstrated to the satisfaction of the Office of the Interconnection; provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit's capacity that is designated as a Capacity Resource or (ii) in any hour, any portion of the output of such generating unit that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

**Black Start Capability:**

“Black Start Capability” shall mean the ability of a generating unit or station to go from a shutdown condition to an operating condition and start delivering power without assistance from the power system.

**Capacity Emergency Transfer Objective (CETO):**

“Capacity Emergency Transfer Objective” or “CETO” shall mean, through the 2024/2025 Delivery Year, the amount of electric energy that a given area must be able to import in order to remain within a loss of load expectation of one event in 25 years when the area is experiencing a localized capacity emergency, as determined in accordance with the PJM Manuals. Without limiting the foregoing, CETO shall be, for Delivery Years through 2024/2025, calculated based in part on EFORD determined in accordance with Reliability Assurance Agreement, Schedule 5, Paragraph C. Beginning with the 2025/2026 Delivery Year, CETO shall mean the amount of electric energy that a given area must be able to import in order to satisfy a normalized expected unserved energy for the area that is equal to forty percent of the normalized expected unserved energy for the RTO when at the annual reliability criteria, where normalized expected unserved energy is the expected unserved energy (for the area or RTO, as appropriate) divided by the forecasted annual energy (for the area or RTO, as appropriate), when the area is experiencing a localized capacity emergency, as determined in accordance with the PJM Manuals.

**Capacity Emergency Transfer Limit (CETL):**

Capacity Emergency Transfer Limit” or “CETL” shall mean the capability of the transmission system to support deliveries of electric energy to a given area experiencing a localized capacity emergency as determined in accordance with the PJM Manuals.

**Capacity Import Limit:**

For any Delivery Year up to and including the 2019/2020 Delivery Year, “Capacity Import Limit” shall mean, (a) for the PJM Region, (1) the maximum megawatt quantity of external Generation Capacity Resources that PJM determines for each Delivery Year, through appropriate modeling and the application of engineering judgment, the transmission system can receive, in aggregate at the interface of the PJM Region with all external balancing authority areas and deliver to load in the PJM Region under capacity emergency conditions without violating applicable reliability criteria on any bulk electric system facility of 100kV or greater, internal or external to the PJM Region, that has an electrically significant response to transfers on such interface, minus (2) the then-applicable Capacity Benefit Margin; and (b) for certain source zones identified in the PJM manuals as groupings of one or more balancing authority areas, (1)



the maximum megawatt quantity of external Generation Capacity Resources that PJM determines the transmission system can receive at the interface of the PJM Region with each such source zone and deliver to load in the PJM Region under capacity emergency conditions without violating applicable reliability criteria on any bulk electric system facility of 100kV or greater, internal or external to the PJM Region, that has an electrically significant response to transfers on such interface, minus the then-applicable Capacity Benefit Margin times (2) the ratio of the maximum import quantity from each such source zone divided by the PJM total maximum import quantity. As more fully set forth in the PJM Manuals, PJM shall make such determination based on the latest peak load forecast for the studied period, the same computer simulation model of loads, generation and transmission topography employed in the determination of Capacity Emergency Transfer Limit for such Delivery Year, including external facilities from an industry standard model of the loads, generation, and transmission topography of the Eastern Interconnection under peak conditions. PJM shall specify in the PJM Manuals the areas and minimum distribution factors for identifying monitored bulk electric system facilities that have an electrically significant response to such transfers on the PJM interface. Employing such tools, PJM shall model increased power transfers from external areas into PJM to determine the transfer level at which one or more reliability criteria is violated on any monitored bulk electric system facilities that have an electrically significant response to such transfers. For the PJM Region Capacity Import Limit, PJM shall optimize transfers from other source areas not experiencing any reliability criteria violations as appropriate to increase the Capacity Import Limit. The aggregate megawatt quantity of transfers into PJM at the point where any increase in transfers on the interface would violate reliability criteria will establish the Capacity Import Limit. Notwithstanding the foregoing, a Capacity Resource located outside the PJM Region shall not be subject to the Capacity Import Limit if the Capacity Market Seller seeks an exception thereto by demonstrating to PJM, by no later than five (5) business days prior to the commencement of the offer period for the relevant RPM Auction, that such resource meets all of the following requirements:

(i) it has, at the time such exception is requested, met all applicable requirements to be pseudo-tied into the PJM Region, or the Capacity Market Seller has committed in writing that it will meet such requirements, unless prevented from doing so by circumstances beyond the control of the Capacity Market Seller, prior to the relevant Delivery Year;

(ii) at the time such exception is requested, it has long-term firm transmission service confirmed on the complete transmission path from such resource into PJM; and

(iii) it is, by written commitment of the Capacity Market Seller, subject to the same obligations imposed on Generation Capacity Resources located in the PJM Region by Tariff, Attachment DD, section 6.6 to offer their capacity into RPM Auctions; provided, however, that (a) the total megawatt quantity of all exceptions granted hereunder for a Delivery Year, plus the Capacity Import Limit for the applicable interface determined for such Delivery Year, may not exceed the total megawatt quantity of Network External Designated Transmission Service on such interface that PJM has confirmed for such Delivery Year; and (b) if granting a qualified exception would result in a violation of the rule in clause (a), PJM shall grant the requested exception but reduce the Capacity Import Limit by the quantity necessary to ensure that the total quantity of Network External Designated Transmission Service is not exceeded.

**Capacity Only Option:**

“Capacity Only Option” shall mean participation in Emergency Load Response Program or Pre-Emergency Program which allows, pursuant to Tariff, Attachment DD and as applicable, a capacity payment for the ability to reduce load during a pre-emergency or emergency event.

**Capacity Performance Resource:**

“Capacity Performance Resource” shall have the same meaning as in Tariff, Attachment DD.

**Capacity Resources:**

“Capacity Resources” shall mean megawatts of (i) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources meeting the requirements of the Reliability Assurance Agreement, Schedules 9 and Reliability Assurance Agreement, Schedule 10 that are or will be owned by or contracted to a Party and that are or will be committed to satisfy that Party's obligations under the Reliability Assurance Agreement, or to satisfy the reliability requirements of the PJM Region, for a Delivery Year; (ii) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources not owned or contracted for by a Party which are accredited to the PJM Region pursuant to the procedures set forth in such Schedules 9 and 10; or (iii) load reduction capability provided by Demand Resources or Energy Efficiency Resources that are accredited to the PJM Region pursuant to the procedures set forth in the Reliability Assurance Agreement, Schedule 6.

**Capacity Storage Resource Class:**

“Capacity Storage Resource Class” shall mean the ELCC Classes specified in Schedules 9.1 and 9.2, section B of this Agreement, each of which is composed of Capacity Storage Resources with the same specified characteristic duration of 4, 6, 8, and 10 hours. The characteristic duration of an Energy Storage Resource Class is the ratio of the modeled MWh energy storage capability of members of the class to the modeled MW power capability of members of the class.

**Capacity Transfer Right:**

“Capacity Transfer Right” shall have the meaning specified in Tariff, Attachment DD.

**Coal Class:**

“Coal Class” shall mean an ELCC Class consisting of Unlimited Resources primarily fueled by coal.

**Combination Resource:**

“Combination Resource” shall mean a Generation Capacity Resource that has a component that has the characteristics of a Limited Duration Resource combined with (i) a component that has

the characteristics of an Unlimited Resource or (ii) a component that has the characteristics of a Variable Resource.

**Compliance Aggregation Area (CAA):**

“Compliance Aggregation Area” or “CAA” shall have the same meaning as in the Tariff.

**Complex Hybrid Class:**

“Complex Hybrid Class” shall mean an ELCC Class composed of Combination Resources that combine three or more components, whereby one component is a class of Limited Duration Resource, and the other components are different Variable Resource classes, and such Combination Resources cannot be included in any other Combination Resource class. A resource that is a member of a Complex Hybrid Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean that certain Consolidated Transmission Owners Agreement, dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common generation control scheme is applied in order to:

- (a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (b) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and each Applicable Regional Entity;
- (d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and

(e) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Daily Unforced Capacity Obligation:**

“Daily Unforced Capacity Obligation” shall mean the capacity obligation of a Load Serving Entity during the Delivery Year, determined in accordance with the Reliability Assurance Agreement, Schedule 8 or, as to an FRR Entity, in the Reliability Assurance Agreement, Schedule 8.1.

**Delivery Year:**

“Delivery Year” shall mean a Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Tariff, Attachment DD or pursuant to an FRR Capacity Plan under RAA, Schedule 8.1.

**Demand Resource (DR):**

“Demand Resource” or “DR” shall mean a Limited Demand Resource, Extended Summer Demand Resource, Annual Demand Resource, Base Capacity Demand Resource or Summer-Period Demand Resource with a demonstrated capability to provide a reduction in demand or otherwise control load in accordance with the requirements of RAA, Schedule 6 that offers and that clears load reduction capability in a Base Residual Auction or Incremental Auction or that is committed through an FRR Capacity Plan.

**Demand Resource Factor or DR Factor:**

“Demand Resource Factor” or “DR Factor” shall mean, for Delivery Years through May 31, 2018, that factor approved from time to time by the PJM Board used to determine the unforced capacity value of a Demand Resource in accordance with Reliability Assurance Agreement, Schedule 6

**Demand Resource Officer Certification Form:**

“Demand Resource Officer Certification Form” shall mean a certification as to an intended Demand Resource Sell Offer, in accordance with Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1 and the PJM Manuals.

**Demand Resource Registration:**

“Demand Resource Registration” shall mean a registration in the Full Program Option or Capacity Only Option of the Emergency or Pre-Emergency Load Resource Program in accordance with Tariff, Attachment K-Appendix, section 8.

**Demand Resource Sell Offer Plan:**

“Demand Resource Sell Offer Plan” shall mean the plan required by Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1 in support of an intended offer of Demand Resources in an RPM Auction, or an intended inclusion of Demand Resources in an FRR Capacity Plan.

**Diesel Utility Class:**

"Diesel Utility Class" shall mean an ELCC Class consisting of Unlimited Resources of the diesel technology type that is not primarily fueled by landfill gas.

**Effective Nameplate Capacity:**

“Effective Nameplate Capacity” shall mean (i) for each Variable Resource and Combination Resource, the resource’s Maximum Facility Output (or, for a Co-Located Resource, the applicable share of the Mixed Technology Facility’s Maximum Facility Output); (ii) for each Limited Duration Resource, the sustained level of output that the unit can provide and maintain over a continuous period, whereby the duration of that continuous period matches the characteristic duration of the corresponding ELCC Class, with consideration given to ambient conditions expected to exist at the time of PJM system peak load, to the extent that such conditions impact such resource’s capability, not to exceed the Maximum Facility Output (or, for a Co-Located Resource, the applicable share of the Mixed Technology Facility’s Maximum Facility Output). For the 2025/2026 Delivery Year and subsequent Delivery Years, the Effective Nameplate Capacity of each Limited Duration Resource shall not exceed the greater of the Capacity Interconnection Rights of such Limited Duration Resource, or the transitional system capability as limited by the transitional resource MW ceiling as defined in the PJM Manuals, awarded for the applicable Delivery Year.

**Effective UCAP:**

“Effective UCAP” shall mean a unit of measure that represents the capacity product transacted in the Reliability Pricing Model and included in FRR Capacity Plans. One megawatt of Effective UCAP has the same capacity value of one megawatt of Unforced Capacity.

**ELCC Class:**

“ELCC Class” shall mean a defined group of ELCC Resources that share a common set of operational characteristics and for which effective load carrying capability analysis, as set forth in RAA, Schedules 9.1 and 9.2, will establish a unique ELCC Class UCAP and corresponding ELCC Class Rating(s). ELCC Classes shall be defined in the Schedules 9.1 and 9.2, section B of this Agreement. Members of an ELCC Class shall share a common method of calculating the ELCC Resource Performance Adjustment, provided that the individual ELCC Resource Performance Adjustment values will generally differ among ELCC Resources.

**ELCC Class Rating:**

“ELCC Class Rating” shall mean the rating factor, based on effective load carrying capability analysis, that applies to ELCC Resources that are members of an ELCC Class as part of the calculation of their Accredited UCAP.

**ELCC Class UCAP:**

“ELCC Class UCAP” shall mean the aggregate Effective UCAP all modeled ELCC Resources in a given ELCC Class are capable of providing in a given Delivery Year.

**ELCC Portfolio UCAP:**

“ELCC Portfolio UCAP” shall mean the aggregate Effective UCAP that all modeled ELCC Resources are capable of providing in a given Delivery Year.

**ELCC Resource:**

“ELCC Resource” shall mean, through the 2024/2025 Delivery Year, a Generation Capacity Resource that is a Variable Resource, a Limited Duration Resource, or a Combination Resource, and beginning with the 2025/2026 Delivery Year, a Generation Capacity Resource or a Demand Resource.

**ELCC Resource Performance Adjustment:**

“ELCC Resource Performance Adjustment” shall mean the performance of a specific ELCC Resource relative to the aggregate performance of the ELCC Class to which it belongs as further described in RAA, Schedule 9.1, section F and RAA, Schedule 9.2, section D.

**Electric Cooperative:**

“Electric Cooperative” shall mean an entity owned in cooperative form by its customers that is engaged in the generation, transmission, and/or distribution of electric energy.

**Electric Distributor:**

“Electric Distributor” shall mean a Member that 1) owns or leases with rights equivalent to ownership of electric distribution facilities that are used to provide electric distribution service to electric load within the PJM Region; or 2) is a generation and transmission cooperative or a joint municipal agency that has a member that owns electric distribution facilities used to provide electric distribution service to electric load within the PJM Region.

**Emergency:**

“Emergency” shall mean (i) an abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or (ii) a fuel shortage requiring departure from normal operating procedures

in order to minimize the use of such scarce fuel; or (iii) a condition that requires implementation of emergency procedures as defined in the PJM Manuals.

**End-Use Customer:**

“End-Use Customer” shall mean a Member that is a retail end-user of electricity within the PJM Region. For purposes of Members Committee sector classification, a Member that is a retail end-user that owns generation may qualify as an End-Use customer if: (1) the average physical unforced capacity owned by the Member and its affiliates in the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average PJM capacity obligation for the Member and its affiliates over the same time period; or (2) the average energy produced by the Member and its affiliates within the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average energy consumed by that Member and its affiliates within the PJM region over the same time period. The foregoing notwithstanding, taking retail service may not be sufficient to qualify a Member as an End-Use Customer.

**Energy Efficiency Resource:**

“Energy Efficiency Resource” shall mean a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of RAA, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the periods described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention. Annual Energy Efficiency Resources, Base Capacity Energy Efficiency Resources and Summer-Period Energy Efficiency Resources are types of Energy Efficiency Resources.

**Exigent Water Storage:**

“Exigent Water Storage” shall mean water stored in the pondage or reservoir of a hydropower resource which is not typically available during normal operating conditions (as those conditions are described in the relevant FERC hydropower license), but which can be drawn upon during emergency conditions (as described in the FERC hydropower license), including in order to avoid a load shed. In an effective load carrying capability analysis, exigent storage capability from an upstream hydro facility can be considered relative to a downstream hydro facility by assessing cascading storage and flows.

**Existing Demand Resource:**

“Existing Demand Resource” shall mean a Demand Resource for which the Demand Resource Provider has identified existing end-use customer sites that are registered for the current Delivery

Year with PJM (even if not registered by such Demand Resource Provider) and that the Demand Resource Provider reasonably expects to have under a contract to reduce load based on PJM dispatch instructions by the start of the Delivery Year for which such resource is offered.

**Existing Generation Capacity Resource:**

“Existing Generation Capacity Resource” shall mean, for purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource that, as of the date on which bidding commences for such auction: (a) is in service; or (b) is not yet in service, but has cleared any RPM Auction for any prior Delivery Year. A Generation Capacity Resource shall be deemed to be in service if interconnection service has ever commenced (for resources located in the PJM Region), or if it is physically and electrically interconnected to an external Control Area and is in full commercial operation (for resources not located in the PJM Region). The additional megawatts of a Generation Capacity Resource that is being, or has been, modified to increase the number of megawatts of available installed capacity thereof shall not be deemed to be an Existing Generation Capacity Resource until such time as those megawatts (a) are in service; or (b) are not yet in service, but have cleared any RPM Auction for any prior Delivery Year.

**Extended Summer Demand Resource:**

“Extended Summer Demand Resource” shall mean, for Delivery Years through May 31, 2018, and for FRR Capacity Plans Delivery Years through May 31, 2019, a resource that is placed under the direction of the Office of the Interconnection and that will be available June through October and the following May, and will be available for an unlimited number of interruptions during such months by the Office of the Interconnection, and will be capable of maintaining each such interruption for at least a 10-hour duration between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Extended Summer Demand Resource must be available June through October and the following May in the corresponding Delivery Year to be offered for sale or Self-Supplied in an RPM Auction, or included as an Extended Summer Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Facilities Study Agreement:**

“Facilities Study Agreement” shall have the same meaning as in Tariff, Part VI, section 206.

**FERC or Commission:**

“FERC” or “Commission” shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

**Firm Point-To-Point Transmission Service:**

“Firm Point-To-Point Transmission Service” shall have the meaning specified in the Tariff.



**Firm Service Level:**

“Firm Service Level” or “FSL” of Price Responsive Demand for the 2022/2023 Delivery Year and subsequent Delivery Years shall mean the level, determined at a PRD Substation level, to which Price Responsive Demand shall be reduced during the Delivery Year when an Emergency Action that triggers a Performance Assessment Interval is declared and the Locational Marginal Price exceeds the price associated with such Price Responsive Demand identified by the PRD Provider in its PRD Plan. “Firm Service Level” or “FSL” of Demand Resource shall mean the pre-determined level for which an end-use customer’s load shall be reduced, upon notification from the Curtailment Service Provider’s market operations center or its agent.

**Firm Transmission Service:**

“Firm Transmission Service” shall mean transmission service that is intended to be available at all times to the maximum extent practicable, subject to an Emergency, an unanticipated failure of a facility, or other event beyond the control of the owner or operator of the facility or the Office of the Interconnection.

**Fixed Resource Requirement Alternative or FRR Alternative:**

“Fixed Resource Requirement Alternative” or “FRR Alternative” shall mean an alternative method for a Party to satisfy its obligation to provide Unforced Capacity hereunder, as set forth in the Reliability Assurance Agreement, Schedule 8.1.

**Fixed-Tilt Solar Class:**

“Fixed-Tilt Solar Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with solar panels that are primarily mounted in a fixed orientation.

**Forecast Pool Requirement:**

“Forecast Pool Requirement” or “FPR” shall mean the amount equal to one plus the unforced reserve margin (stated as a decimal number) for the PJM Region required pursuant to this Reliability Assurance Agreement, as approved by the PJM Board pursuant to Reliability Assurance Agreement, Schedule 4.1.

**FRR Capacity Plan or FRR Plan:**

“FRR Capacity Plan” or “FRR Plan” shall mean a long-term plan for the commitment of Capacity Resources and Price Responsive Demand to satisfy the capacity obligations of a Party that has elected the FRR Alternative, as more fully set forth in the Reliability Assurance Agreement, Schedule 8.1.

**FRR Entity:**

“FRR Entity” shall mean, for the duration of such election, a Party that has elected the FRR Alternative hereunder.

**FRR Service Area:**

“FRR Service Area” shall mean (a) the service territory of an IOU as recognized by state law, rule or order; (b) the service area of a Public Power Entity or Electric Cooperative as recognized by franchise or other state law, rule, or order; or (c) a separately identifiable geographic area that is: (i) bounded by wholesale metering, or similar appropriate multi-site aggregate metering, that is visible to, and regularly reported to, the Office of the Interconnection, or that is visible to, and regularly reported to an Electric Distributor and such Electric Distributor agrees to aggregate the load data from such meters for such FRR Service Area and regularly report such aggregated information, by FRR Service Area, to the Office of the Interconnection; and (ii) for which the FRR Entity has or assumes the obligation to provide capacity for all load (including load growth) within such area. In the event that the service obligations of an Electric Cooperative or Public Power Entity are not defined by geographic boundaries but by physical connections to a defined set of customers, the FRR Service Area in such circumstances shall be defined as all customers physically connected to transmission or distribution facilities of such Electric Cooperative or Public Power Entity within an area bounded by appropriate wholesale aggregate metering as described above.

**Full Program Option:**

“Full Program Option” shall mean participation in Emergency Load Response Program or Pre-Emergency Program which allows, pursuant to Tariff, Attachment DD and as applicable, (i) an energy payment for load reductions during a pre-emergency or emergency event, and (ii) a capacity payment for the ability to reduce load during a pre-emergency or emergency event.

**Full Requirements Service:**

“Full Requirements Service” shall mean wholesale service to supply all of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

**Gas Combined Cycle Class:**

“Gas Combined Cycle Class” shall mean an ELCC Class consisting of Unlimited Resources of the combined cycle technology type that is primarily fueled by natural gas, but does not meet the requirements to be included in the Gas Combined Cycle Dual Fuel Class.

**Gas Combined Cycle Dual Fuel Class:**

“Gas Combined Cycle Dual Fuel Class” shall mean an ELCC Class consisting of Unlimited Resources of the combined cycle technology type that is primarily fueled by natural gas, and that attests that it has the capability to start independently using onsite sources and operate independently on alternate onsite fuel source(s) up to its maximum capacity level during the

winter season of the applicable Delivery Year in which it is providing capacity, and capable of operating on the alternate fuel for two 16-hour periods over two consecutive days at its maximum capacity level.

**Gas Combustion Turbine Class:**

“Gas Combustion Turbine Class” shall mean an ELCC Class consisting of Unlimited Resources of the combustion turbine technology type that is primarily fueled by natural gas, but does not meet the requirements to be included in the Gas Combustion Turbine Dual Fuel Class.

**Gas Combustion Turbine Dual Fuel Class:**

“Gas Combustion Turbine Dual Fuel Class” shall mean an ELCC Class consisting of Unlimited Resources of the combustion turbine technology type that is primarily fueled by natural gas, and attests that it has the capability to start independently using onsite sources and operate independently on alternate onsite fuel source(s) up to its maximum capacity level during the winter season of the applicable Delivery Year in which it is providing capacity, and capable of operating on the alternate fuel for two 16-hour periods over two consecutive days at its maximum capacity level.

**Generation Capacity Resource:**

“Generation Capacity Resource” shall mean a Generating Facility, or the contractual right to capacity from a specified Generating Facility, that meets the requirements of RAA, Schedule 9 and RAA, Schedule 10, and, for Generating Facilities that are committed to an FRR Capacity Plan, that meets the requirements of RAA, Schedule 8.1. A Generation Capacity Resource may be an Existing Generation Capacity Resource or a Planned Generation Capacity Resource.

**Generation Capacity Resource Provider:**

“Generation Capacity Resource Provider” shall mean a Member that owns, or has the contractual authority to control the output of, a Generation Capacity Resource, that has not transferred such authority to another entity.

**Generation Owner:**

“Generation Owner” shall mean a Member that owns or leases with rights equivalent to ownership, or otherwise controls and operates one or more operating generation resources located in the PJM Region. The foregoing notwithstanding, for a planned generation resource to qualify a Member as a Generation Owner, such resource shall have cleared an RPM auction, and for Energy Resources, the resource shall have a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM. Purchasing all or a portion of the output of a generation resource shall not be sufficient to qualify a Member as a Generation Owner. For purposes of Members Committee sector classification, a Member that is primarily a retail end-user of electricity that owns generation may qualify as a Generation Owner if: (1) the generation resource is the subject of a FERC-jurisdictional interconnection agreement or

wholesale market participation agreement within PJM; (2) the average physical unforced capacity owned by the Member and its affiliates over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average PJM capacity obligation of the Member and its affiliates over the same time period; and (3) the average energy produced by the Member and its affiliates within PJM over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average energy consumed by the Member and its affiliates within PJM over the same time period.

**Generator Forced Outage:**

“Generator Forced Outage” shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

**Generator Maintenance Outage:**

“Generator Maintenance Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform repairs on specific components of the facility, if removal of the facility qualifies as a maintenance outage pursuant to the PJM Manuals.

**Generator Planned Outage:**

“Generator Planned Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit for inspection, maintenance or repair with the approval of the Office of the Interconnection in accordance with the PJM Manuals.

**Good Utility Practice:**

“Good Utility Practice” shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act Section 215(a)(4).

**Hybrid Resource Class:**

“Hybrid Resource Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 Section B. Each Hybrid Resource Class has a specified combination of two components, whereby, absent being part of a Combination Resource, one component would be in a Capacity

Storage Resource Class, and the other component would be in a Variable Resource Class or would be an Unlimited Resource. A resource that is a member of a Hybrid Resource Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Hydropower With Non-Pumped Storage:**

“Hydropower With Non-Pumped Storage” shall mean a hydropower facility that can capture and store incoming stream flow, without use of pumps, in pondage or a reservoir, and the Generation Owner has the ability, within the constraints available in the applicable operating license, to exert material control over the quantity of stored water and output of the facility throughout an Operating Day.

**Hydropower With Non-Pumped Storage Class:**

“Hydropower With Non-Pumped Storage Class” shall mean an ELCC Class consisting of Combination Resources that are Hydropower With Non-Pumped Storage resources.

**Incremental Auction:**

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction, or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction), shall be held for the purposes of:

- (i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORd increase, Accredited UCAP Factor decrease, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and
- (ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

**Intermittent Hydropower Class:**

“Intermittent Hydropower Class” shall mean an ELCC Class consisting of Variable Resources that are run-of-river hydropower generators that must generally pass incoming water and

therefore cannot appreciably store water to later increase the output of the facility. Resources in the Intermittent Hydropower Class are not Hydropower with Non-Pumped Storage resources.

**IOU:**

“IOU” shall mean an investor-owned utility with substantial business interest in owning and/or operating electric facilities in any two or more of the following three asset categories: generation, transmission, distribution.

**Intermittent Landfill Gas Class:**

“Intermittent Landfill Gas Class” shall mean an ELCC Class consisting of Variable Resources fueled by landfill gas that, because of fuel availability patterns, cannot run consistently at installed capacity levels for 24 or more hours.

**Limited Demand Resource:**

“Limited Demand Resource” shall mean, for Delivery Years through May 31, 2018, and for FRR Capacity Plans Delivery Years through May 31, 2019, a resource that is placed under the direction of the Office of the Interconnection and that will, at a minimum, be available for interruption for at least 10 Load Management Events during the summer period of June through September in the Delivery Year, and will be capable of maintaining each such interruption for at least a 6-hour duration. At a minimum, the Limited Demand Resource shall be available for such interruptions on weekdays, other than NERC holidays, from 12:00PM (noon) to 8:00PM Eastern Prevailing Time. The Limited Demand Resource must be available during the summer period of June through September in the corresponding Delivery Year to be offered for sale or Self-Supplied in an RPM Auction, or included as a Limited Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Limited Duration Resource:**

“Limited Duration Resource” shall mean a Generation Capacity Resource that is not a Variable Resource, that is not a Combination Resource, and that is not capable of running continuously at Maximum Facility Output for 24 hours or longer. A Capacity Storage Resource is a Limited Duration Resource.

**Load Serving Entity or LSE:**

“Load Serving Entity” or “LSE” shall mean any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer, (i) serving end-users within the PJM Region, and (ii) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region. Load Serving Entity shall include any end-use customer that qualifies under state rules or a utility retail tariff to manage directly its own supply of electric power and energy and use of transmission and ancillary services.

**Locational Reliability Charge:**

“Locational Reliability Charge” shall mean the charge determined pursuant to RAA, Article 7, section 2.

**Markets and Reliability Committee:**

“Markets and Reliability Committee” shall mean the committee established pursuant to the Operating Agreement as a Standing Committee of the Members Committee.

**Maximum Emergency Service Level:**

“Maximum Emergency Service Level” or “MESL” of Price Responsive Demand for the 2017/2018 through the 2021/2022 Delivery Years shall mean the level, determined at a PRD Substation level, to which Price Responsive Demand shall be reduced during the Delivery Year when a Maximum Generation Emergency is declared and the Locational Marginal Price exceeds the price associated with such Price Responsive Demand identified by the PRD Provider in its PRD Plan.

**Member:**

“Member” shall have the meaning provided in the Operating Agreement.

**Members Committee:**

“Members Committee” shall mean the committee specified in Operating Agreement, section 8 composed of the representatives of all the Members.

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

**Network External Designated Transmission Service:**

“Network External Designated Transmission Service” shall mean the quantity of network transmission service confirmed by PJM for use by a market participant to import power and energy from an identified Generation Capacity Resource located outside the PJM Region, upon demonstration by such market participant that it owns such Generation Capacity Resource, has an executed contract to purchase power and energy from such Generation Capacity Resource, or has a contract to purchase power and energy from such Generation Capacity Resource contingent upon securing firm transmission service from such resource.

**Network Resources:**

“Network Resources” shall have the meaning set forth in the PJM Tariff.

**Network Transmission Service:**

“Network Transmission Service” shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Tariff, Part III or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Nominal PRD Value:**

“Nominal PRD Value” shall mean, as to any PRD Provider, an adjustment, determined in accordance with Reliability Assurance Agreement, Schedule 6.1, to the peak-load forecast used to determine the quantity of capacity sought through an RPM Auction, reflecting the aggregate effect of Price Responsive Demand on peak load resulting from the Price Responsive Demand to be provided by such PRD Provider.

**Nominated Demand Resource Value:**

“Nominated Demand Resource Value” shall have the meaning specified in Tariff, Attachment DD.

**Non-Retail Behind the Meter Generation:**

“Non-Retail Behind the Meter Generation” shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, and electric distribution companies to serve load.

**Nuclear Class:**

“Nuclear Class” shall mean an ELCC Class consisting of Unlimited Resources primarily fueled by nuclear fuel.

**Obligation Peak Load:**

“Obligation Peak Load” shall have the meaning specified in Reliability Assurance Agreement, Schedule 8.

**Office of the Interconnection:**

“Office of the Interconnection” shall mean the employees and agents of PJM Interconnection, L.L.C., subject to the supervision and oversight of the PJM Board, acting pursuant to the Operating Agreement.

**Offshore Wind Class:**

“Offshore Wind Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with offshore wind turbines located in the ocean.



**Onshore Wind Class:**

“Onshore Wind Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy using wind turbines and that are not in the Offshore Wind Class.

**Operating Agreement of the PJM Interconnection, L.L.C., Operating Agreement or PJM Operating Agreement:**

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean that agreement, dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C, on file with the Commission.

**Operating Day:**

“Operating Day” shall have the same meaning as provided in the Operating Agreement.

**Operating Reserve:**

“Operating Reserve” shall mean the amount of generating capacity scheduled to be available for a specified period of an Operating Day to ensure the reliable operation of the PJM Region, as specified in the PJM Manuals.

**Ordinary Water Storage:**

“Ordinary Water Storage” shall mean water stored in the pondage or reservoir of a hydropower resource which is typically available during normal operating conditions pursuant to the FERC license governing the operation of the hydropower resource.

**Other Limited Duration Class:**

“Other Limited Duration Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 section B of this Agreement, each of which has a specified characteristic duration and consists of Limited Duration Resources that are not Capacity Storage Resources. The characteristic duration of an Other Limited Duration Class is the maximum period of time represented in the ELCC model that the resources of the class can run at a stated capability.

**Other Limited Duration Combination Class:**

“Other Limited Duration Combination Class” shall mean the ELCC Classes specified in RAA Schedules 9.1 and 9.2 section B. Each Other Limited Duration Class has a specified combination of two components, whereby, absent being part of a Combination Resource, one component would be in an Other Limited Duration Class, and the other component would be in a Variable Resource Class or would be an Unlimited Resource. A resource that is a member of an Other

Limited Duration Combination Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Other Supplier:**

“Other Supplier” shall mean a Member that: (i) is engaged in buying, selling or transmitting electric energy, capacity, ancillary services, Financial Transmission Rights or other services available under PJM’s governing documents in or through the Interconnection or has a good faith intent to do so, and (ii) is not a Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer.

**Other Unlimited Resource Class:**

“Other Unlimited Resource Class” shall mean an ELCC Class consisting of Unlimited Resources that do not qualify for any other ELCC Class specified in RAA Schedule 9.2, section D.

**Other Variable Resource Class:**

“Other Variable Resource Class” shall mean an ELCC Class consisting of Variable Resources that are not in any other Variable Resource class, including Variable Resources that are composed of multiple components, each of which would be a Variable Resource. A resource composed of both fixed-tilt solar panels and tracking solar panels is not in this class. A resource that is a member of a Other Variable Resource Class has a single Point Of Interconnection, unless the resource is controlled in an integrated fashion, is at a single site, and is approved by PJM to be considered a single resource in accordance with the PJM Manuals.

**Partial Requirements Service:**

“Partial Requirements Service” shall mean wholesale service to supply a specified portion, but not all, of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

**Party:**

“Party” shall mean an entity bound by the terms of the Operating Agreement.

**Peak Shaving Adjustment:**

“Peak Shaving Adjustment” shall mean a load forecast mechanism that allows load reductions by end-use customers to result in a downward adjustment of the summer load forecast for the associated Zone. Any end-use customer identified in an approved peak shaving plan shall not also participate in PJM Markets as Price Responsive Demand, Demand Resource, Base Capacity Demand Resource, Capacity Performance Demand Resource, or Economic Load Response Participant.

**Percentage Internal Resources Required:**

“Percentage Internal Resources Required” shall mean, for purposes of an FRR Capacity Plan, the percentage of the LDA Reliability Requirement for an LDA that must be satisfied with Capacity Resources located in such LDA.

**Performance Assessment Interval:**

“Performance Assessment Interval” shall have the meaning specified in Tariff, Attachment DD.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, acting pursuant to the Operating Agreement, except when such term is being used in Tariff, Attachment M, in which case PJM Board shall mean the Board of Managers of PJM or its designated representative, exclusive of any members of PJM Management.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning and accounting requirements of the PJM Region.

**PJM Region:**

“PJM Region” shall have the same meaning as provided in the Operating Agreement.

**PJM Region Installed Reserve Margin:**

“PJM Region Installed Reserve Margin” shall mean the percent installed reserve margin for the PJM Region required pursuant to Reliability Assurance Agreement, Schedule 4.1, as approved by the PJM Board.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices, or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Planned Demand Resource:**

“Planned Demand Resource” shall mean any Demand Resource that does not currently have the capability to provide a reduction in demand or to otherwise control load, but that is scheduled to be capable of providing such reduction or control on or before the start of the Delivery Year for which such resource is to be committed, as determined in accordance with the requirements of Reliability Assurance Agreement, Schedule 6. As set forth in Reliability Assurance Agreement, Schedule 6 and Reliability Assurance Agreement, Schedule 8.1, a Demand Resource Provider submitting a DR Sell Offer Plan shall identify as Planned Demand Resources in such plan all Demand Resources in excess of those that qualify as Existing Demand Resources.

**Planned External Generation Capacity Resource:**

“Planned External Generation Capacity Resource” shall mean a proposed Generation Capacity Resource, or a proposed increase in the capability of a Generation Capacity Resource, that (a) is to be located outside the PJM Region, (b) participates in the generation interconnection process of a Control Area external to PJM, (c) is scheduled to be physically and electrically interconnected to the transmission facilities of such Control Area on or before the first day of the Delivery Year for which such resource is to be committed to satisfy the reliability requirements of the PJM Region, and (d) is in full commercial operation prior to the first day of such Delivery Year, such that it is sufficient to provide the Installed Capacity set forth in the Sell Offer forming the basis of such resource’s commitment to the PJM Region. Prior to participation in any Base Residual Auction for such Delivery Year, the Capacity Market Seller must demonstrate that it has documentation which is functionally equivalent to an approved Decision Point I submission under the PJM Tariff Part VII or VIII as applicable or, for resources which are greater than 20MWs participating in a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, an agreement or other documentation which is functionally equivalent to an approved Decision Point II submission under the PJM Tariff Part VII or VIII as applicable, with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider. Prior to participating in any Incremental Auction for such Delivery Year, the Capacity Market Seller must demonstrate it has entered into an interconnection agreement, or such other documentation that is functionally equivalent to a Generation Interconnection Agreement under the PJM Tariff, with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider. A Planned External Generation Capacity Resource must provide evidence to PJM that it has been studied as a Network Resource, or such other similar interconnection product in such external Control Area, must provide contractual evidence that it has applied for or purchased transmission service to be deliverable to the PJM border, and must provide contractual evidence that it has applied for transmission service to be deliverable to the bus at which energy is to be delivered, the agreements for which must have been executed prior to participation in any Reliability Pricing Model Auction for such Delivery Year. Any such resource shall cease to be considered a Planned External Generation Capacity Resource as of the earlier of (i) the date that interconnection service commences as to such resource; or (ii) the resource has cleared an RPM Auction, in which case it shall become an Existing Generation Capacity Resource for purposes of the mitigation of offers for any RPM Auction for all subsequent Delivery Years.

**Planned Generation Capacity Resource:**

“Planned Generation Capacity Resource” shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, Part VII or Part VIII, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual Auction, all the requirements for an approved Decision Point I submission have been met under Tariff Part VII or VIII (or, for resources for which a Decision Point I submission is not required, has such other agreement or documentation that is functionally equivalent to an approved Decision Point I submission) prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, all the requirements for an approved Decision Point II submission have been met under Tariff Part VII or VIII (or, for resources for which Decision Point II submission is not required, has such other agreement or documentation that is functionally equivalent to an approved Decision Point II submission) has been executed prior to the Base Residual Auction for such Delivery Year; and (iv) a Generation Interconnection Agreement or Wholesale Market Participation Agreement has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity Resource for any RPM Auction for all subsequent Delivery Years.

**Planning Period:**

“Planning Period” shall mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

**Portfolio Expected Unserved Energy:**

“Portfolio Expected Unserved Energy” shall mean the annual amount of expected unserved energy, in MWh, that is expected for the RTO when at the annual reliability criteria that provides an acceptable level of reliability consistent with the Reliability Principles and Standards.

**PRD Curve:**

“PRD Curve” shall mean a price-consumption curve at a PRD Substation level, if available, and otherwise at a Zonal (or sub-Zonal LDA, if applicable) level, that details the base consumption level of Price Responsive Demand and the decreasing consumption levels at increasing prices.

**PRD Provider:**

“PRD Provider” shall mean a PJM Member that has entered contractual arrangements with end-use customers that satisfy the eligibility criteria for and provides Price Responsive Demand.

**PRD Provider’s Zonal Expected Peak Load Value of PRD:**

“PRD Provider’s Zonal Expected Peak Load Value of PRD” shall mean the expected contribution to Delivery Year peak load of a PRD Provider’s Price Responsive Demand, were such demand not to be reduced in response to price, based on the contribution of the end-use customers comprising such Price Responsive Demand to the most recent prior Delivery Year’s peak demand, escalated to the Delivery Year in question, as determined in a manner consistent with the Office of the Interconnection’s load forecasts used for purposes of the RPM Auctions.

**PRD Reservation Price:**

“PRD Reservation Price” shall mean an RPM Auction clearing price identified in a PRD Plan for Price Responsive Demand load below which the PRD Provider desires not to commit the identified load as Price Responsive Demand.

**PRD Substation:**

“PRD Substation” shall mean an electrical substation that is located in the same Zone or in the same sub-Zonal LDA as the end-use customers identified in a PRD Plan or PRD registration and that, in terms of the electrical topography of the Transmission Facilities comprising the PJM Region, is as close as practicable to such loads.

**Price Responsive Demand:**

“Price Responsive Demand” or “PRD” shall mean end-use customer load registered by a PRD Provider pursuant to Reliability Assurance Agreement, Schedule 6.1 that have, as set forth in more detail in the PJM Manuals, the metering capability to record electricity consumption at an interval of one hour or less, Supervisory Control capable of curtailing such load (consistent with applicable RERRA requirements) at each PRD Substation identified in the relevant PRD Plan or PRD registration in response to a Maximum Generation Emergency declared by the Office of the Interconnection (prior to 2022/2023 Delivery Year) or a Performance Assessment Interval that triggers a PRD performance assessment (effective with 2022/2023 Delivery Year), and a retail rate structure, or equivalent contractual arrangement, capable of changing retail rates as frequently as an hourly basis, that is linked to or based upon changes in real-time Locational Marginal Prices at a PRD Substation level and that results in a predictable automated response to varying wholesale electricity prices.

**Price Responsive Demand Credit:**

“Price Responsive Demand Credit” shall mean a credit, based on committed Price Responsive Demand, as determined under Reliability Assurance Agreement, Schedule 6.1.

**Price Responsive Demand Plan or PRD Plan:**

“Price Responsive Demand Plan” or “PRD Plan” shall mean a plan, submitted by a PRD Provider and received by the Office of the Interconnection in accordance with Reliability Assurance Agreement, Schedule 6.1 and procedures specified in the PJM Manuals, claiming a peak demand limitation due to Price Responsive Demand to support the determination of such PRD Provider’s Nominal PRD Value.

**Public Power Entity:**

“Public Power Entity” shall mean any agency, authority, or instrumentality of a state or of a political subdivision of a state, or any corporation wholly owned by any one or more of the foregoing, that is engaged in the generation, transmission, and/or distribution of electric energy.

**Qualifying Transmission Upgrades:**

“Qualifying Transmission Upgrades” shall have the meaning specified in Tariff, Attachment DD.

**Relevant Electric Retail Regulatory Authority:**

“Relevant Electric Retail Regulatory Authority” or “RERRA” shall have the meaning specified in the PJM Operating Agreement.

**Reliability Principles and Standards:**

“Reliability Principles and Standards” shall mean the principles and standards established by the Office of the Interconnection that define, among other things, an acceptable probabilistic of loss of load criteria due to inadequate generation or transmission capability, as amended from time to time.

**Required Approvals:**

“Required Approvals” shall mean all of the approvals required for the Operating Agreement to be modified or to be terminated, in whole or in part, including the acceptance for filing by FERC and every other regulatory authority with jurisdiction over all or any part of the Operating Agreement.

**Self-Supply:**

“Self-Supply” shall have the meaning provided in Tariff, Attachment DD.

**Small Commercial Customer:**

“Small Commercial Customer” shall have the same meaning as in the PJM Tariff.

**State Consumer Advocate:**

“State Consumer Advocate” shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, inter alia, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

**State Regulatory Structural Change:**

“State Regulatory Structural Change” shall mean as to any Party, a state law, rule, or order that, after September 30, 2006, initiates a program that allows retail electric consumers served by such Party to choose from among alternative suppliers on a competitive basis, terminates such a program, expands such a program to include classes of customers or localities served by such Party that were not previously permitted to participate in such a program, or that modifies retail electric market structure or market design rules in a manner that materially increases the likelihood that a substantial proportion of the customers of such Party that are eligible for retail choice under such a program (a) that have not exercised such choice will exercise such choice; or (b) that have exercised such choice will no longer exercise such choice, including for example, without limitation, mandating divestiture of utility-owned generation or structural changes to such Party’s default service rules that materially affect whether retail choice is economically viable.

**Steam Class:**

“Steam Class” shall mean an ELCC Class consisting of Unlimited Resources of the steam technology type and the primary fuel is not coal or nuclear.

**Summer-Period Demand Resource:**

Summer-Period Demand Resource shall mean, for the 2020/2021 Delivery Year and subsequent Delivery Years, a resource that is placed under the direction of the Office of the Interconnection, and will be available June through October and the following May of the Delivery Year, and will be available for an unlimited number of interruptions during such months by the Office of the Interconnection, and will be capable of maintaining each such interruption between the hours of 10:00AM to 10:00PM Eastern Prevailing Time. The Summer-Period Demand Resource must be available June through October and the following May in the corresponding Delivery Year to be offered for sale in an RPM Auction, or included as a Summer-Period Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

**Summer-Period Energy Efficiency Resource:**

Summer-Period Energy Efficiency Resource shall mean, for the 2020/2021 Delivery Year and subsequent Delivery Years, a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of Reliability Assurance Agreement, Schedule 6 and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during the



summer peak periods as described in Reliability Assurance Agreement, Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Summer-Period Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

**Supervisory Control:**

“Supervisory Control” shall mean the capability to curtail, in accordance with applicable RERRA requirements, load registered as Price Responsive Demand at each PRD Substation identified in the relevant PRD Plan or PRD registration in response to a Maximum Generation Emergency declared by the Office of the Interconnection. Except to the extent automation is not required by the provisions of the Operating Agreement, the curtailment shall be automated, meaning that load shall be reduced automatically in response to control signals sent by the PRD Provider or its designated agent directly to the control equipment where the load is located without the requirement for any action by the end-use customer.

**Threshold Quantity:**

“Threshold Quantity” shall mean, as to any FRR Entity for any Delivery Year, the sum of (a) the Unforced Capacity equivalent (determined using the Pool-Wide Average EFORD through the 2024/2025 Delivery Year, or pool-wide average Accredited UCAP Factor effective with the 2025/2026 Delivery Year) of the Installed Reserve Margin for such Delivery Year multiplied by the Preliminary Forecast Peak Load for which such FRR Entity is responsible under its FRR Capacity Plan for such Delivery Year, plus (b) the lesser of (i) 3% of the Unforced Capacity amount determined in (a) above or (ii) 450 MW. If the FRR Entity is not responsible for all load within a Zone, the Preliminary Forecast Peak Load for such entity shall be the FRR Entity’s Obligation Peak Load last determined prior to the Base Residual Auction for such Delivery Year, times the Base FRR Scaling Factor (as determined in accordance with Reliability Assurance Agreement, Schedule 8.1).

**Tracking Solar Class:**

“Tracking Solar Class” shall mean an ELCC Class consisting of Variable Resources that produce electrical energy with solar panels that are primarily mounted on trackers that align the panels with incoming sunlight over the course of the day.

**Transmission Facilities:**

“Transmission Facilities” shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Unforced Capacity:**

“Unforced Capacity” shall mean installed capacity rated at summer conditions that is not on average experiencing a forced outage or forced derating, calculated for each Capacity Resource on the 12-month period from October to September without regard to the ownership of or the contractual rights to the capacity of the unit.

**Unlimited Resource:**

“Unlimited Resource” shall mean a generating unit having the ability to maintain output at a stated capability continuously on a daily basis without interruption. Through the 2024/2025 Delivery Year, an Unlimited Resource is a Generation Capacity Resource that is not an ELCC Resource.

**Variable Resource:**

“Variable Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power without storage, and landfill gas units without an alternate fuel source. All Intermittent Resources are Variable Resources, with the exception of Hydropower with Non-Pumped Storage.

**Winter Peak Load (or WPL):**

“Winter Peak Load” or “WPL” shall mean the average of the Demand Resource customer’s specific peak hourly load between hours ending 7:00 EPT through 21:00 EPT on the PJM defined 5 coincident peak days from December through February two Delivery Years prior the Delivery Year for which the registration is submitted. Notwithstanding, if the average use between hours ending 7:00 EPT through 21:00 EPT on a winter 5 coincident peak day is below 35% of the average hours ending 7:00 EPT through 21:00 EPT over all five of such peak days, then up to two such days and corresponding peak demand values may be excluded from the calculation. Upon approval by the Office of the Interconnection, a Curtailment Service Provider may provide alternative data to calculate Winter Peak Load, as outlined in the PJM Manuals, when there is insufficient hourly load data for the two Delivery Years prior to the relevant Delivery Year or if more than two days meet the exclusion criteria described above.

**Zonal Capacity Price:**

“Zonal Capacity Price” shall mean the clearing price required in each Zone to meet the demand for Unforced Capacity and satisfy Locational Deliverability Requirements for the LDA or LDAs

associated with such Zone. If the Zone contains multiple LDAs with different Capacity Resource Clearing Prices, the Zonal Capacity Price shall be a weighted average of the Capacity Resource Clearing Prices for such LDAs, weighted by the Unforced Capacity of Capacity Resources cleared in each such LDA.

**Zone or Zonal:**

“Zone” or “Zonal” shall refer to an area within the PJM Region, as set forth in Tariff, Attachment J and RAA, Schedule 15, or as such areas may be (i) combined as a result of mergers or acquisitions or (ii) added as a result of the expansion of the boundaries of the PJM Region. A Zone shall include any Non-Zone Network Load located outside the PJM Region that is served from such Zone under Tariff, Attachment H-A.

**Zonal Winter Weather Adjustment Factor (ZWWAF):**

“Zonal Winter Weather Adjustment Factor” or “ZWWAF” shall mean the PJM zonal winter weather normalized coincident peak divided by PJM zonal average of 5 coincident peak loads in December through February.

# **Attachment C**

GDECS

Chart of Revisions

Attachment A Revisions to the PJM Open Access Transmission Tariff, PJM Operating Agreement and PJM Reliability Assurance Agreement (Marked / Redline Format)

	Governing Document, Agreement, Attachment, Section, Title	Source	Current Language	Proposed Revisions	Rationale/Notes
1.	OATT 300 Definitions N; OATT 400 Definitions N	Vicki Karandrikas	<p>Network Upgrade Cost Responsibility Agreement:</p> <p>“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer Parties and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.</p>	<p>Network Upgrade Cost Responsibility Agreement:</p> <p>“Network Upgrade Cost Responsibility Agreement” shall mean the agreement entered into by the Project Developer <del>Parties</del> and the Transmission Provider pursuant to this GIP, and in the form set forth in Tariff, Part IX, Subpart H, relating to construction of Common Use Upgrades and coordination of the construction and interconnection of associated Generating Facilities. In regard to Common Use Upgrades, a separate Network Upgrade Cost Responsibility Agreement will be executed for each set of Common Use Upgrades on the system of a specific Transmission Owner that is associated with the interconnection of a Generating Facility.</p>	<p>Correction made for clarity and consistency with defined term. While "Project Developer" is a defined term under the Tariff, Parts VII and VIII, "Project Developer Parties" is not.</p>
2.	OATT Part VII.A 302 Site Control; OATT Part VIII.A 402 Applications for Cycle Process, Site Control	Vicki Karandrikas	<p>b. Exclusivity</p> <p>With the exception of Tariff, Part VII, Subpart A, section 302(A)(5)(b), exclusivity is evidenced by written acknowledgement from the land owner provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner’s Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.</p>	<p>b. Exclusivity</p> <p>With the exception of Tariff, Part VII, Subpart A, section 302(A)(5)(b), exclusivity is evidenced by written acknowledgement from the <del>land owner</del> <u>landowner</u> provided to the Transmission Provider by the Project Developer as part of the Site Control that, for the Term, the Project Developer has exclusive use of the Site for the purpose of constructing a Generating Facility, Merchant Transmission Facilities, Interconnection Facilities, and, if applicable, the Transmission Owner’s Interconnection Facilities and/or Network Upgrades, and the landowner cannot make the Site Control identified for the Site available for purchase or lease, to any person or entity other than the Project Developer for any purpose or use that will interfere with the rights granted to Project Developer.</p>	<p>Change from “land owner” to “landowner” (removal of space) made for internal consistency.</p>

3.	OATT Part VII.H 337 Upgrade Requests	Vicki Karandrikas	<p>(G)(2)d.Execution and Filing</p> <p>Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.</p> <p>i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall elect one of the following:</p> <p>(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;</p> <p>(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or</p> <p>(c) to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.</p>	<p>(G)(2)d.Execution and Filing</p> <p>Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.</p> <p>i. Not later than 15 Business Days after receipt of the <del>final-interconnection-related-agreement</del> <u>Upgrade Construction Service Agreement</u>, Upgrade Customer shall elect one of the following:</p> <p>(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;</p> <p>(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or</p> <p>(c) to request in writing that Transmission Provider file with FERC the final <u>Upgrade Construction Service Agreement</u> <del>Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement</del> unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.</p>	<p>Changes made for clarity and reflect the proper agreement type.</p> <p>Upgrade Customers receive an Upgrade Construction Service Agreement, not a Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement.</p>
4.	OATT Part VIII.H 435 Upgrade Requests	Vicki Karandrikas	<p>(G)(2)d. Execution and Filing</p> <p>Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.</p>	<p>(G)(2)d. Execution and Filing</p> <p>Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.</p> <p>i. Not later than 15 Business Days after receipt of the <del>final-interconnection-related-agreement</del> <u>Upgrade Construction Service Agreement</u>, Upgrade Customer shall either:</p>	<p>Changes made for clarity and to reflect the proper agreement type.</p>

			<p>i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall either:</p> <p>(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;</p> <p>(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or</p> <p>(c) request in writing that Transmission Provider file with FERC the final interconnection related service agreement unexecuted, with the final interconnection related service agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.</p>	<p>(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;</p> <p>(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or</p> <p>(c) request in writing that Transmission Provider file with FERC the <del>final interconnection related service agreement Upgrade Construction Service Agreement</del> unexecuted, with the <del>final interconnection related service agreement Upgrade Construction Service Agreement</del> containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.</p>	<p>Upgrade Customers receive an Upgrade Construction Service Agreement, not a Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement.</p>
5.	OATT Part VIII.C 408 Decision Point II	Vicki Karandrikas	<p>(B)(3)b. For Study Deposits:</p> <p>i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.</p> <p>ii. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 408(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase if</p>	<p>(B)(3)b. For Study Deposits:</p> <p>i. At the conclusion of Transmission Provider's deficiency review for Decision Point II, refund to the Project Developer or Eligible Customer up to 90 percent of its Study Deposit submitted with its New Service Request during the Application Phase, less any actual costs.</p> <p>ii. Adverse Study Impact Calculation. Notwithstanding the refund provisions in Tariff, Part VIII, Subpart C, section 408(B)(3)(a) and (b)(i), Transmission Provider shall refund to Project Developer or Eligible Customer the cumulative Readiness Deposit amounts paid by Project Developer or Eligible Customer at the Application Phase and at the Decision Point I Phase, if the Project Developer's Network Upgrade cost from Phase I to Phase II:</p>	<p>Formatting change made for consistency with other sections.</p>

			<p>the Project Developer's Network Upgrade cost from Phase I to Phase II:</p> <p>(a) increases overall by 25 percent or more; and</p> <p>(b) increases by more than \$10,000 per MW.</p> <p>Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.</p>	<p><del>(a)</del>i. increases overall by 25 percent or more; and</p> <p><del>(b)</del>ii. increases by more than \$10,000 per MW.</p> <p>Network Upgrade costs shall include costs identified in Affected System studies in their respective phases.</p>	
6.	OATT Part VIII.A 401 Applications for Cycle Process Intro	Vicki Karandrikas	<p>(D)(2)c. Readiness Deposit refunds will be handled as follows:</p> <p>i. If the project is withdrawn or terminated, the Readiness Deposit refunds for the project will be determined by the study phase at which the project was withdrawn or terminated, and adverse study results tests, as set forth below in Tariff, Part VIII, Subpart C, section 408(B)(3)(b).</p>	<p>D)(2)c. Readiness Deposit refunds will be handled as follows:</p> <p>i. If the project is withdrawn or terminated, the Readiness Deposit refunds for the project will be determined by the study phase at which the project was withdrawn or terminated, and adverse study results tests, as set forth below in Tariff, Part VIII, Subpart C, section 408(B)(3)(bc).</p>	Change made to correct cross-reference.
7.	OATT Part VII.C 305 Introduction, Overview and Eligibility	Vicki Karandrikas	<p>(A)2. To move forward in Transition Cycle #2, each Project Developer or Eligible Customer with valid projects in AG2 through AH1 must submit the Application and System Study Agreement in the form set forth in Tariff, Attachment IX and submit the required Study Deposit amounts and a Readiness Payment, as set forth below in Tariff, Part VII, Subpart C, section 306, Application Rules. The following restrictions apply to the Application and System Study Agreement to be submitted by the Project Developer or Eligible Customer:</p>	<p>(A)2. To move forward in Transition Cycle #2, each Project Developer or Eligible Customer with valid projects in AG2 through AH1 must submit the Application and <del>System Studies</del> Agreement in the form set forth in Tariff, Attachment IX and submit the required Study Deposit amounts and a Readiness Payment, as set forth below in Tariff, Part VII, Subpart C, section 306, Application Rules. The following restrictions apply to the Application and <del>System Studies</del> Agreement to be submitted by the Project Developer or Eligible Customer:</p>	Changes made to correct agreement's name.
8.	OATT Part VII.F 335 WMPA/Non-Jurisdictional Agreements	Vicki Karandrikas	<p>B. Generation Project Developer shall follow the Application Rules of Tariff, Part VII, Subpart C, section 306 that apply to a Generating Facility, and shall complete the Form of Application and System Impact Studies Agreement set forth in Tariff, Part IX, Subpart A (the "Application"). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC</p>	<p>B. Generation Project Developer shall follow the Application Rules of Tariff, Part VII, Subpart C, section 306 that apply to a Generating Facility, and shall complete the <del>Form of</del> Application and <del>System Impact</del> Studies Agreement set forth in Tariff, Part IX, Subpart A (the "Application"). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of</p>	Changes made to correct agreement's name and to replace acronym with the defined term.



			jurisdiction, for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions.	injecting energy at the <del>POI-Point of Interconnection</del> and engaging in FERC-jurisdictional Wholesale Transactions.	
9.	OATT Part VIII.F 433 WMPA/Non-Jurisdictional Agreements	Vicki Karandrikas	B. Generation Project Developer shall follow the Application Rules of Tariff, Part VIII, Subpart C, section 403 that apply to a Generating Facility, and shall complete the Form of Application and System Impact Studies Agreement set forth in Tariff, Part IX, Subpart A (the "Application"). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions.	B. Generation Project Developer shall follow the Application Rules of Tariff, Part VIII, Subpart C, section 403 that apply to a Generating Facility, and shall complete the <del>Form of</del> Application and <del>System Impact</del> Studies Agreement set forth in Tariff, Part IX, Subpart A (the "Application"). In the Application, Generation Project Developer shall indicate its intent to physically connect its Generating Facility to distribution or sub-transmission facilities that currently are not subject to FERC jurisdiction, for the purpose of injecting energy at the <del>Point of Interconnection-POI</del> and engaging in FERC-jurisdictional Wholesale Transactions.	Changes made to correct agreement's name and to replace acronym with the defined term.
10.	OATT 300 Definitions E; OATT 400 Definitions E	Vicki Karandrikas	Energy Storage Resource:  "Energy Storage Resource" shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant.	Energy Storage Resource:  "Energy Storage Resource" shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. <del>Open-Loop Hybrid Resources are not Energy Storage Resources.</del>	Changes made to reflect the definitions accepted in PJM's Docket No. ER22-1420 Hybrid Resources Participation/Mixed Technology Facilities Filing.
11.	OATT 300 Definitions S; OATT 400 Definitions S	Vicki Karandrikas	State of Charge:  "State of Charge" shall mean the operating parameter that represents the quantity of physical energy stored (measured in units of megawatt-hours) in an Energy Storage Resource Model Participant in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.	State of Charge:  "State of Charge" shall mean the <del>operating parameter that represents the</del> quantity of physical energy stored <del>(measured in units of megawatt hours)</del> in an Energy Storage Resource Model Participant <del>or in a storage component of a Hybrid Resource</del> in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.	Changes made to reflect the definitions accepted in PJM's Docket No. ER22-1420 Hybrid Resources Participation/Mixed Technology Facilities Filing; Docket No. ER19-469-006 Order No. 841 Compliance Filing; and Docket No. ER23-2484 Hybrids Phase II Filing.



			<p>Financial Close 15%</p> <p>Full Notice to Proceed and Commencement of Construction (e.g., footers poured) 5%</p> <p>Main Power Generating Equipment Delivered 5%</p> <p>Commencement of Interconnection Service 25%</p>	<p>Interconnection Service Agreement, <u>Generation Interconnection Agreement or Wholesale Market Participation Agreement</u></p> <p>Financial Close 15%</p> <p>Full Notice to Proceed and Commencement of Construction (e.g., footers poured) 5%</p> <p>Main Power Generating Equipment Delivered 5%</p> <p>Commencement of Interconnection Service 25%</p>	<p>Agreement, depending on which form of agreement the Market Participant executed.</p>
			<p>.....</p> <p>(e) For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section IV.B.2 above beginning as of the effective date of the latest associated Interconnection Service Agreement (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service.</p>	<p>.....</p> <p>(e) For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section IV.B.2 above beginning as of the effective date of the latest associated Interconnection Service Agreement <u>or Generation Interconnection Agreement</u> (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service.</p>	
13.	OATT Part VII.D 307 Introduction	Vicki Karandrikas	<p>A. Phase I, Phase II and Phase III System Impact Studies</p> <p>1.Introduction</p> <p>Tariff, Part VII, Subpart D sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part</p>	<p>A. Phase I, Phase II and Phase III System Impact Studies</p> <p>1.Introduction</p> <p>Tariff, Part VII, Subpart D sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VII includes three study Phases and the three Decision Points:</p> <p>a. <del>Phase I:</del> Phase I System Impact Study <u>and</u></p>	<p>Changes to clarify that each Decision Point starts following the end of the associated study phase; a Decision Point is not part of the study phase.</p>

			<p>VII includes three study Phases and the three Decision Points:</p> <p>a. Phase I: Phase I System Impact Study and Decision Point I</p> <p>b. Phase II: Phase II System Impact Study and Decision Point II; and</p> <p>c. Phase III: Phase III System Impact Study and Decision Point III.</p> <p>Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VII, Subpart D, sections 308 through 313.</p>	<p><u>b.</u> Decision Point I</p> <p><del>bc. Phase II:</del> Phase II System Impact Study <del>and</del></p> <p><u>d.</u> Decision Point II; <del>and</del></p> <p><del>ce. Phase III:</del> Phase III System Impact Study <del>and</del></p> <p><u>f.</u> Decision Point III.</p> <p>Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VII, Subpart D, sections 308 through 313.</p>	
14.	OATT Part VIII.C 404 Introduction	Vicki Karandrikas	<p>A. Phase I, Phase II and Phase III System Impact Studies</p> <p>1. Introduction</p> <p>Tariff, Part VIII, Subpart C sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VIII includes three study Phases and the three Decision Points:</p> <p>a. Phase I: Phase I System Impact Study and Decision Point I</p> <p>b. Phase II: Phase II System Impact Study and Decision Point II; and</p> <p>c. Phase III: Phase III System Impact Study and Decision Point III.</p>	<p>A. Phase I, Phase II and Phase III System Impact Studies</p> <p>1. Introduction</p> <p>Tariff, Part VIII, Subpart C sets forth the procedures and other terms governing the Transmission Provider's administration of the studies and procedures required under the Cycle process, and the nature and timing of such studies. The Cycle process set forth in Tariff, Part VIII includes three study Phases and the three Decision Points:</p> <p>a. <del>Phase I:</del> Phase I System Impact Study <del>and</del> <u>b.</u> Decision Point I</p> <p><del>b. c. Phase II:</del> Phase II System Impact Study <del>and</del></p> <p><u>d.</u> Decision Point II; <del>and</del></p> <p><del>e. e. Phase III:</del> Phase III System Impact Study <del>and</del></p> <p><u>f.</u> Decision Point III.</p>	Changes to clarify that each Decision Point starts following the end of the associated study phase; a Decision Point is not part of the study phase.

			Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VIII, Subpart C, sections 405, 407, and 409.	Procedures and other terms relative to the three study Phases are set forth separately below in Tariff, Part VIII, Subpart C, sections 405, 407, and 409.	
15.	OATT Part VII.E 329 Incremental Rights;	Vicki Karandrikas	In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In round three, all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.	In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In round three, all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VII, Subpart E, section 329(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. <u>The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer.</u> For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.	Change made to include language that was mistakenly omitted from the Docket No. ER22-2110 interconnection process reform filing, and is necessary to establish the final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination. Specifically, as part of the process of developing the new Tariff provisions, PJM incorporated provisions from Tariff, Part VI into new Tariff, Parts VII and VIII. Tariff, Part VII, section 329 was intended to incorporate the provisions of Tariff, Part VII, section 231.2; however, the sentence “[t]he final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer” was mistakenly omitted during the drafting process.

16.	OATT Part VIII.E 427 Incremental Rights	Vicki Karandrikas	<p>In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In round three, all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.</p>	<p>In round two, two-thirds of the Incremental Auction Revenue Rights available for each requested point-to-point combination in that round will be assigned in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In round three, all available Incremental Auction Revenue Rights will be assigned for the requested point-to-point combinations in that round in accordance with Tariff, Part VIII, Subpart E, section 427(A)(3). In each round, a requester may request the same point-to-point combination as in the previous rounds or submit a different combination. In rounds one and two, requesters may accept the assignment of Incremental Auction Revenue Rights or refuse them. Acceptance of the assignment in rounds one and two will remove the assigned Incremental Auction Revenue Rights from availability in the next rounds. Refusal of an Incremental Auction Revenue Rights assignment in rounds one and two will result in the Incremental Auction Revenue Rights being available for the next round. The Incremental Auction Revenue Rights assignments made in round three will be final and binding. <u>The final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer.</u> For each round, a request for Incremental Auction Revenue Rights shall specify a single point-to-point combination for which the Transmission Project Developer or Upgrade Customer desires Incremental Auction Revenue Rights and shall be in a form specified by the Office of the Interconnection and in accordance with procedures set forth in the PJM Manuals. The Office of the Interconnection shall specify the deadlines for submission of requests in each round of the allocation process and shall complete the allocation process before the in-service date of the upgrade.</p>	<p>Change made to include language that was mistakenly omitted from the Docket No. ER22-2110 interconnection process reform filing, and is necessary to establish the final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination. Specifically, as part of process of developing the new Tariff provisions, PJM incorporated provisions from Tariff, Part VI into new Tariff, Parts VII and VIII. Tariff, Part VIII, section 427 was intended to incorporate the provisions of Tariff, Part VII, section 231.2; however, the sentence “[t]he final and binding Incremental Auction Revenue Right assignment for a requested point-to-point combination in each round shall in no event be less than one third of 80% and no greater than one-third of 100% of the non-binding estimate of Incremental Auction Revenue Rights for that point-to-point combination that was provided to the Transmission Project Developer or Upgrade Customer” was mistakenly omitted during the drafting process.</p>

17.	OATT Part VIII.A 402 Applications for Cycle Process, Site Control	Vicki Karandrikas	<p>(A)(8)c. Conveyance</p> <p>The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VIII, Subpart A, section 302(A)(2), above.</p>	<p>(A)(8)c. Conveyance</p> <p>The Site Control evidence submitted by the Project Developer must demonstrate that the subject Site is or will be conveyed to the Project Developer, e.g., through a deed or an option to purchase or lease or other form of property rights acceptable to PJM, or that the Project Developer is guaranteed a right to future conveyance at Project Developer's sole discretion, e.g., through a deed or an option to purchase or lease or other forms of property rights acceptable to PJM, consistent with the Site Control Evidentiary Requirements provisions in Tariff, Part VIII, Subpart A, section <del>34</del>02(A)(2), above.</p>	Change made to correct cross-reference.
18.	OATT Part VII.D, 309 Decision Point I	Steve Pincus	<p>(A)(2)(a)(iii)(a) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(c) Interconnection Switchyard, if applicable, Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(A)(3)(c)</p> <p>i. Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p>	<p>(A)(2)(a)(iii)(a) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional <del>three</del> <u>one</u>-year term beginning from last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(b) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a <del>three</del> <u>one</u>-year term beginning from the last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(c) Interconnection Switchyard, if applicable, Site Control evidence for a <del>three</del> <u>one</u>-year term beginning from the last day of the relevant Cycle, Phase I.</p> <p>...</p> <p>(A)(3)(c)</p> <p>i. Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus <u>one</u> <del>three</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through</p>	<p>Change made to correct a drafting error in establishing the duration (term) of the Site Control requirement for projects subject to the acceleration at Decision Point I and align the Tariff Part VII Site Control requirements for projects accelerating at Decision Point I with the Site Control requirements in Tariff Part VIII.</p> <p>The use of a one-year Site Control requirement for projects subject to acceleration is consistent with the generally applicable Site Control requirements under Part VII, section 309. See Tariff, section 309(A)(1)(b)(i). This is also consistent with PJM's intention during the Docket No. ER22-2110 queue reform filing drafting process to the reduce the Part VII Site Control requirements to one-year, rather than the using three years standard set forth in Tariff, Part VIII. See Interconnection Process Reform Task Force (IPRTF) Transition Proposal Packages, slides 18-19 (Feb. 8, 2022); posted at <a href="https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220208/20220208-item-06a-iprtf-transition-proposal-packages-">https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220208/20220208-item-06a-iprtf-transition-proposal-packages-</a></p>

			<p>ii. Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>iii. Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>iv. PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase I through a date that extends three years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity</p>	<p>full execution date of the relevant state level interconnection agreement with the applicable entity, plus <del>one three</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>iii. Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase I that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus <del>one three</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>iv. PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase I through a date that extends <del>one three</del> years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity.</p>	<p><a href="#">presentation.ashx</a>; PJM Transition Period Proposal Update, slides 9 and 10 (Jan. 5, 2022), posted at <a href="https://pjm.com/-/media/committees-groups/task-forces/iprtf/2022/20220105/20220105-item-03a-transition-proposal.ashx">https://pjm.com/-/media/committees-groups/task-forces/iprtf/2022/20220105/20220105-item-03a-transition-proposal.ashx</a>;</p>
19.	OATT Part VII.D, 311 Decision Point II	Steve Pincus	<p>(A)(2)(d)(i)(c)(i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional three-year term beginning from last day of the relevant Cycle, Phase II.</p> <p>...</p> <p>(ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.</p> <p>...</p>	<p>(A)(2)(d)(i)(c)(i) Generating Facility or Merchant Transmission Facility Site Control evidence for an additional <del>three-one</del>-year term beginning from last day of the relevant Cycle, Phase II.</p> <p>...</p> <p>(ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence for a <del>three one</del>-year term beginning from the last day of the relevant Cycle, Phase II.</p> <p>...</p> <p>(iii) If applicable, Interconnection Switchyard Site Control evidence for a <del>three one</del>-year term beginning from the last day of the relevant Cycle, Phase II.</p> <p>...</p>	<p>Change made to correct a drafting error in establishing the duration (term) of the Site Control requirement for projects subject to the acceleration at Decision Point II and align the Tariff Part VII Site Control requirements for projects accelerating at Decision Point II with the Site Control requirements in Tariff Part VIII</p> <p>The use of a one-year Site Control requirement for projects subject to acceleration is consistent with the generally applicable Site Control requirements under Part VII, section 309 and</p>



		<p>(iii) If applicable, Interconnection Switchyard Site Control evidence for a three-year term beginning from the last day of the relevant Cycle, Phase II.</p> <p>...</p> <p>(A)(2)(e)(i)(j)(i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(iii) Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus three years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends three years beyond the full execution date of the relevant</p>	<p>(A)(2)(e)(i)(j)(i) Generating Facility Site Control evidence is required to be maintained for an additional term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus <del>three one</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(ii) Interconnection Facilities (to the Point of Interconnection) Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through the full execution date of the relevant state level interconnection agreement with the applicable entity, plus <del>three one</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(iii) Interconnection Switchyard, if applicable, Site Control evidence is required to be maintained for a term beginning from last day of the relevant Cycle, Phase II that extends through full execution date of the relevant state level interconnection agreement with the applicable entity, plus <del>three one</del> years beyond such full execution date of the relevant state level interconnection agreement with the applicable entity.</p> <p>...</p> <p>(iv) PJM may request evidence of the required Site Control at any point beginning from last day of the relevant Cycle, Phase II through a date that extends <del>three one</del> years beyond the full execution date of the relevant state level interconnection agreement with the applicable entity.</p>	<p>313. See Tariff, section 309(A)(1)(b)(i) and section 313(A)(1)(c). This is also consistent with PJM's intention during the Docket No. ER22-2110 queue reform filing drafting process to reduce the Part VII Site Control requirements to one-year, rather than the using three years standard set forth in Tariff, Part VIII. See Interconnection Process Reform Task Force (IPRTF) Transition Proposal Packages, slides 18-19 (Feb. 8, 2022); posted at <a href="https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220208/20220208-item-06a-iprtf-transition-proposal-packages-presentation.ashx">https://www.pjm.com/-/media/committees-groups/committees/pc/2022/20220208/20220208-item-06a-iprtf-transition-proposal-packages-presentation.ashx</a>; PJM Transition Period Proposal Update, slides 9 and 10 (Jan. 5, 2022), posted at <a href="https://pjm.com/-/media/committees-groups/task-forces/iprtf/2022/20220105/20220105-item-03a-transition-proposal.ashx">https://pjm.com/-/media/committees-groups/task-forces/iprtf/2022/20220105/20220105-item-03a-transition-proposal.ashx</a>;</p>
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			state level interconnection agreement with the applicable entity		
20.	OATT Part IX.B GIA Specs	Vicki Karandrikas	<p>2.2 To the extent that any portion of the Generating Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Generating Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.</p> <p>{Instructions: this version of section 2.1 will be used in lieu of section 2.1 above when a Generating Facility will be an Energy Resource and therefore will not be granted any CIRs:}</p> <p>[2.3 The generating unit(s) described in section 1.0 shall be an Energy Resource. Pursuant to this GIA, the generating unit will be permitted to inject ___ MW (nominal) into the system. PJM reserves the right to limit injections to this quantity in the event reliability would be affected by output greater than such quantity. ]</p> <p>[for Transmission Project Developers]</p> <p>2.4 Transmission Injection Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]</p> <p>Pursuant to the GIP, Project Developer shall have Transmission Injection Rights at each indicated Point of Interconnection in the following quantity(ies):</p> <p>2.5 Transmission Withdrawal Rights: [applicable only to Merchant D.C. Transmission Facilities and/or</p>	<p>2.21a To the extent that any portion of the Generating Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Generating Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.</p> <p>{Instructions: this <u>alternate</u> version of section 2.1 <u>that appears below</u> will be used in lieu of section 2.1 above when a Generating Facility will be an Energy Resource and therefore will not be granted any CIRs:}</p> <p>[2.31 The generating unit(s) described in section 1.0 shall be an Energy Resource. Pursuant to this GIA, the generating unit will be permitted to inject ___ MW (nominal) into the system. PJM reserves the right to limit injections to this quantity in the event reliability would be affected by output greater than such quantity. ]</p> <p>[for Transmission Project Developers]</p> <p>2.41 Transmission Injection Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]</p> <p>Pursuant to the GIP, Project Developer shall have Transmission Injection Rights at each indicated Point of Interconnection in the following quantity(ies):</p> <p>2.52 Transmission Withdrawal Rights: [applicable only to Merchant D.C. Transmission Facilities and/or Controllable A.C.</p>	Changes to clarify instructions and correct cross-references and section numbering.

			<p>Controllable A.C. Merchant Transmission Facilities that interconnect with a control area outside PJM]</p> <p>Pursuant to the GIP, Project Developer shall have Transmission Withdrawal Rights at each indicated Point of Interconnection in the following quantity(ies):</p> <p>[Include section 2.3 only if customer is interconnecting Controllable A.C. Merchant Transmission Facilities]</p> <p>2.6 Project Developer is interconnecting Controllable A.C. Merchant Transmission Facilities as defined in the Part I of the Tariff, and has elected, pursuant to the GIP, to receive Transmission Injection Rights and Transmission Withdrawal Rights in lieu of the other applicable rights for which it may be eligible the GIP. Accordingly, Project Developer hereby agrees that the Transmission Injection Rights and Transmission Withdrawal Rights awarded to it pursuant to the GIP and this GIA are, and throughout the duration of this GIA shall be, conditioned on Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.</p> <p>{Instructions – use for Merchant Transmission Developers as applicable}</p> <p>2.7 Incremental Deliverability Rights:</p> <p>Pursuant to Tariff, Part VIII, Subpart E, section 427(C), Project Developer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies):</p>	<p>Merchant Transmission Facilities that interconnect with a control area outside PJM]</p> <p>Pursuant to the GIP, Project Developer shall have Transmission Withdrawal Rights at each indicated Point of Interconnection in the following quantity(ies):</p> <p>[Include section 2.32A only if customer is interconnecting Controllable A.C. Merchant Transmission Facilities]</p> <p>2.62A Project Developer is interconnecting Controllable A.C. Merchant Transmission Facilities as defined in the Part I of the Tariff, and has elected, pursuant to the GIP, to receive Transmission Injection Rights and Transmission Withdrawal Rights in lieu of the other applicable rights for which it may be eligible the GIP. Accordingly, Project Developer hereby agrees that the Transmission Injection Rights and Transmission Withdrawal Rights awarded to it pursuant to the GIP and this GIA are, and throughout the duration of this GIA shall be, conditioned on Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.</p> <p>{Instructions – use for Merchant Transmission Developers as applicable}</p> <p>2.73 Incremental Deliverability Rights:</p> <p>Pursuant to Tariff, Part VIII, Subpart E, section 427(C), Project Developer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies):</p> <p>2.84 Incremental Auction Revenue Rights:</p>	
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			<p>2.8 Incremental Auction Revenue Rights:</p> <p>Pursuant to Tariff, Part VIII, Subpart E, section 427(A), Project Developer shall have Incremental Auction Revenue Rights in the following quantities:</p> <p>2.9 Incremental Capacity Transfer Rights:</p> <p>Pursuant to Tariff, Part VIII, Subpart E, section 427(B), Project Developer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities:</p>	<p>Pursuant to Tariff, Part VIII, Subpart E, section 427(A), Project Developer shall have Incremental Auction Revenue Rights in the following quantities:</p> <p>2.95 Incremental Capacity Transfer Rights:</p> <p>Pursuant to Tariff, Part VIII, Subpart E, section 427(B), Project Developer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities:</p>	
21.	OATT Part IX.B, GIA – Schedule D	Vicki Karandrikas	<p>The following technical requirements and standards shall apply. <u>To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this GIA, the Tariff and/or this GIA shall control.</u></p> <p><i>{Instructions: If the relevant TO Applicable Technical Requirements and Standards <b>are</b> posted on the PJM website, use the following language, <u>subject to modifications as appropriate.</u>}</i></p> <p>[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.</p> <p><i>{Instructions. If the relevant TO Applicable Technical Requirements and Standards <b>are not</b> posted on the PJM website, use the following language, <u>subject to modifications as appropriate.</u>}</i></p>	<p>The following <u>Applicable Technical Requirements and Standards</u> <del>technical requirements and standards</del> shall apply. <u>To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this GIA, the Tariff and/or this GIA shall control.</u></p> <p><i>{Instructions: If the relevant TO Applicable Technical Requirements and Standards <b>are</b> posted on the PJM website, use the following language, <u>subject to modifications as appropriate.</u>}</i></p> <p>[Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] shall apply. The [Name of TO Standards] [version number (if known and applicable)] dated [insert effective date of the Standards] is available on the PJM website.</p> <p><i>{Instructions. If the relevant TO Applicable Technical Requirements and Standards <b>are not</b> posted on the PJM website, use the following language, <u>subject to modifications as appropriate.</u>}</i></p>	Formatting changes made to remove extraneous underlining.

22.	OATT, Part IX.D – E&P	Vicki Karandrikas	<p>1.0 This Engineering and Procurement Agreement (“E&amp;P Agreement”), including the Specifications attached hereto and incorporated herein, is entered into by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), [_____] (“Project Developer” [OPTIONAL: or [“short name”]]), and [_____] (“Transmission Owner” [OPTIONAL: or [“short name”]]). Transmission Provider, Project Developer and Transmission Owner are individually, a “Party” and together, the “Parties” and collectively are “Parties”. [Use as/when applicable: This E&amp;P Agreement supersedes the _____ {insert details to identify the agreement being superseded, such as whether it is an E&amp;P Agreement or Generator Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	<p>1.0 This Engineering and Procurement Agreement (“E&amp;P Agreement”), including the Specifications attached hereto and incorporated herein, is entered into by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), [_____] (“Project Developer” [OPTIONAL: or [“short name”]]), and [_____] (“Transmission Owner” [OPTIONAL: or [“short name”]]). Transmission Provider, Project Developer and Transmission Owner are individually, a “Party” and together, the “Parties” and collectively are “Parties”. [Use as/when applicable: This E&amp;P Agreement supersedes the _____ {insert details to identify the agreement being superseded, such as whether it is an E&amp;P Agreement or <del>Generator-Generation</del> Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	Changes made to remove extraneous brackets and correct agreement name.
23.	OATT, Part IX.E – UCSA	Vicki Karandrikas	<p>WHEREAS, Upgrade Customer has requested (1) Incremental Auction Revenue Rights pursuant to section 7.8 of Schedule 1 of the Operating Agreement of PJM Interconnection L.L.C. (“Operating Agreement”) and Generation Interconnection Procedures (“GIP”) set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part {[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}}; or (2) installation of one or more Merchant Network Upgrades pursuant to the GIP;</p>	<p>WHEREAS, Upgrade Customer has requested (1) Incremental Auction Revenue Rights pursuant to section 7.8 of Schedule 1 of the Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”) and Generation Interconnection Procedures (“GIP”) set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part {[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}}; or (2) installation of one or more Merchant Network Upgrades pursuant to the GIP;</p>	Change made to remove extraneous bracket.

24.	OATT, Part IX.E – UCSA	Vicki Karandrikas	<p><b><u>SCHEDULE A</u></b></p> <p><b><u>NEGOTIATED CONTRACT OPTIONS</u></b></p> <p>List or state “None.”</p> <p><b><u>SCHEDULE B</u></b></p> <p><b><u>OPERATION AND MAINTENANCE CHARGES FOR MERCHANT NETWORK UPGRADES</u></b></p> <p>List or state “None.”</p>	<p><b><u>SCHEDULE A</u></b></p> <p><b><u>NEGOTIATED CONTRACT OPTIONS</u></b></p> <p>[List or state “None.”]</p> <p><b><u>SCHEDULE B</u></b></p> <p><b><u>OPERATION AND MAINTENANCE CHARGES FOR MERCHANT NETWORK UPGRADES</u></b></p> <p>[List or state “None.”]</p>	Changes made for consistency to add brackets around instruction.
25.	OATT Part IX.H – NUCRA	Vicki Karandrikas	<p>All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in the GIP. [Use as/when applicable: This NUCRA supersedes the _____ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	<p>All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in the GIP. [Use as/when applicable: This NUCRA supersedes the _____ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	Change made to remove extraneous bracket.
26.	OATT Part IX.I – Surplus	Vicki Karandrikas	<p>1. This Surplus Interconnection Study Agreement (the “Agreement”), dated as of _____, is entered into, by and between _____ (“Surplus Project Developer”) and PJM Interconnection,</p>	<p>1. This Surplus Interconnection Study Agreement (the “Agreement”), dated as of _____, is entered into, by and between _____ (“Surplus Project Developer”) and PJM Interconnection, L.L.C. (“Transmission Provider”)</p>	Change made to remove extraneous bracket.

			L.L.C. ("Transmission Provider") (individually referred to as a "Party," or collectively referred to as the "Parties") pursuant to the Generation Interconnection Procedures ("GIP") set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff ("Tariff"), Part {[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]. Capitalized terms used in this agreement, unless otherwise indicated, shall have the meanings ascribed to them in the Tariff.	(individually referred to as a "Party," or collectively referred to as the "Parties") pursuant to the Generation Interconnection Procedures ("GIP") set forth in PJM Interconnection, L.L.C. Open Access Transmission Tariff ("Tariff"), Part {[instruction: {use Part VII if this is a transition period Agreement subject to Tariff, Part VII} {use Part VIII if this a new rules Agreement subject to Part VIII}]. Capitalized terms used in this agreement, unless otherwise indicated, shall have the meanings ascribed to them in the Tariff.	
27.	OATT Part IX.I – Surplus	Vicki Karandrikas	<p>b. Evidence of ownership interest in, or right to acquire or control, the surplus generating unit for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider. Include both a written description of the evidence to be relied upon and attach a Word or PDF version copy thereof.</p> <p><b>Transmission Provider: PJM Interconnection, L.L.C.</b></p> <p>By: _____</p> <p>_____</p> <p>Name Title Date</p> <p>_____</p> <p>Printed Name</p> <p><b>Surplus Project Developer: [Name of Party]</b></p> <p>_____</p>	<p>b. Evidence of ownership interest in, or right to acquire or control, the surplus generating unit -for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider. Include both a written description of the evidence to be relied upon and attach a Word or PDF version copy thereof.</p> <p><b>Transmission Provider: PJM Interconnection, L.L.C.</b></p> <p>By: _____</p> <p>_____</p> <p>Name Date Title</p> <p>_____</p> <p>Printed Name</p> <p><b>Surplus Project Developer: [Name of Party]</b></p> <p>By: _____</p> <p>_____</p> <p>Name Date Title</p>	Change to remove extra space after "generating unit." Formatting change made to signature block for Transmission Provider for consistency with other signature blocks for Surplus Project Developer.

			By: _____ _____ _____ Name Title Date _____ _____ Printed Name	_____ _____ Printed Name	
28.	OATT Part IX.J – CSA	Vicki Karandrikas	This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, “CSA”) is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), _____ (“Developer Party” [OPTIONAL: or “[short name]”]) and _____ (“Transmission Owner” [OPTIONAL: or “[short name]”]). Transmission Provider, Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select [Project Developer, Eligible Customer or Affected System Customer]} as defined in in this GIP. For purposes of this Upgrade CSA, For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.	This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, “CSA”) is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), _____ (“Developer Party” [OPTIONAL: or “[short name]”]) and _____ (“Transmission Owner” [OPTIONAL: or “[short name]”]). Transmission Provider, Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select [Project Developer, Eligible Customer or Affected System Customer]} as defined in in this GIP. For purposes of this Upgrade CSA, For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.	Change made to remove extraneous bracket.
29.	OATT Part IX.L – Affected Systems	Vicki Karandrikas	1.This Affected System Customer Facilities Study Application and Agreement (“Agreement”), dated as of _____, is entered into by and between _____ (“Affected System Customer”) and PJM Interconnection, L.L.C. (“Transmission	1.This Affected System Customer Facilities Study Application and Agreement (“Agreement”), dated as of _____, is entered into by and between _____ (“Affected System Customer”) and PJM Interconnection, L.L.C. (“Transmission	The first change was made to use the short name “Tariff” rather “PJM Tariff” for consistency with other Tariff provisions. A period was also



			<p>Provider"), pursuant to the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("PJM Tariff").</p> <p>5. Previous submissions: {instructions – complete the following section if there was an earlier Affected System Customer Facilities Study Agreement or other agreement between PJM and the Affected System Customer, otherwise replace the following language with “Not Applicable”} Except as otherwise specifically set forth in an attachment to this Agreement, Affected System Customer represents and warrants that the information provided in {list applicable agreement} dated , is accurate and complete as of the date of execution of this Agreement.</p>	<p>Provider"), pursuant to the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("<del>PJM</del> Tariff").</p> <p>5. Previous submissions: {instructions – complete the following section if there was an earlier Affected System Customer Facilities Study Agreement or other agreement between PJM and the Affected System Customer, otherwise replace the following language with “Not Applicable”}. Except as otherwise specifically set forth in an attachment to this Agreement, Affected System Customer represents and warrants that the information provided in {list applicable agreement} dated , is accurate and complete as of the date of execution of this Agreement.</p>	<p>added to the end of the first sentence in paragraph 5 for grammatical purposes.</p>
30.	OATT 300 Definitions P; OATT 400 Definitions P	Vicki Karandrikas		<p><u>“Project Identifier” shall mean, when an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], the assigned Project Identifier to such request as confirmed by Transmission Provider. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification purposes, and does not indicate priority within a Cycle.</u></p>	<p>Definition for “Project Identifier” added to the Tariff. It is a capitalized term but not defined. This language is also based on, and consistent with, the descriptions of Project Identifier contained in Part VII, section 315(A) and Part VIII, section 412(A) of the FERC approved Tariff, which states “[w]hen an Application from a Project Developer or an Eligible Customer results in a valid New Service Request, in accordance with Tariff, Part VII, Subpart C, section 306 [or Part VIII, Subpart B, section 403], Transmission Provider shall confirm the assigned Project Identifier to such request. For Project Developers and Eligible Customers, the Project Identifier will indicate the applicable Cycle, and will denote a number that represents the project within the Cycle. The Project Identifier is strictly for identification</p>

					purposes, and does not indicate priority within a Cycle.”
31.	OATT 300 Definitions R; OATT 400 Definitions R	Vicki Karandrikas		<u>“Request Number” shall mean, when an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], the assigned Request Number to such request as confirmed by Transmission Owner. The Request Number will indicate the serial position and priority.</u>	Definition for “Request Number” added to the Tariff. This is based on, and consistent with the description of Request Number contained in Part VII, section 315(B) and Part VIII, section 412(B) of the FERC approved Tariff, which states “[w]hen an Application from an Upgrade Customer results in a valid Upgrade Request, in accordance with Tariff, Part VII, section 306 [or Part VIII, Subpart H, section 435], Transmission Provider shall confirm the assigned Request Number to such request. The Request Number will indicate the serial position and priority.”
32.	OATT Part IX.E - UCSA	Vicki Karandrikas	<p>(Project Identifier #___) UPGRADE CONSTRUCTION SERVICE AGREEMENT By and Among PJM Interconnection, L.L.C. And [Upgrade Customer] And [Name of Transmission Owner]</p> <p>UPGRADE CONSTRUCTION SERVICE AGREEMENT By and Among PJM Interconnection, L.L.C. And [Upgrade Customer] And [Name of Transmission Owner] (Project Identifier #___)</p> <p>IN WITNESS WHEREOF, the Parties have caused this Upgrade CSA to be executed by their respective authorized officials.</p>	<p>(<del>Project Identifier Request</del> #___) UPGRADE CONSTRUCTION SERVICE AGREEMENT By and Among PJM Interconnection, L.L.C. And [Upgrade Customer] And [Name of Transmission Owner]</p> <p>UPGRADE CONSTRUCTION SERVICE AGREEMENT By and Among PJM Interconnection, L.L.C. And [Upgrade Customer] And [Name of Transmission Owner] (<del>Project Identifier Request</del> #___)</p> <p>IN WITNESS WHEREOF, the Parties have caused this Upgrade CSA to be executed by their respective authorized officials. (<del>Project Identifier Request</del> #___)</p>	Changes made to correct terminology.

			(Project Identifier # _____)		
33.	OATT Part IX.I – SISA	Vicki Karandrikas	Form of Surplus Interconnection Study Agreement  (Project Identifier # _____)	Form of Surplus Interconnection Study Agreement  (Project Identifier # _____)	Change made for consistency with other agreement to initiate study requests.
34.	OATT 300 Definitions S; OATT 400 Definitions S	Vicki Karandrikas		<u>“Surplus Service Request Number” shall mean, when an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, the assigned Surplus Service Request Number to such request as confirmed by Transmission Provider. The Request Number will indicate the serial position and priority.</u>	Definition for “Surplus Service Request Number” added to the Tariff. It is a capitalized term but not defined. This language is based on, and is consistent with the description of Request Number contained in Part VIII, section 412(C) of the FERC approved Tariff, which states: “[w]hen an Application from a Surplus Interconnection Service Customer results in a valid Surplus Interconnection Service Request, in accordance with Tariff, Part VIII, Subpart E, section 414, Transmission Provider shall confirm the assigned Surplus Service Request Number to such request. The Request Number will indicate the serial position and priority.”
35.	OATT Part VII.D 313 Decision Point III; OATT Part VIII.C 410 Decision Point III	Vicki Karandrikas	313(A)(1)(c) iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, then Project Developer or Eligible Customer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer or Eligible Customer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above.  410(A)(1)(c)	313(A)(1)(c) iv. If Project Developer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above, then Project Developer <del>or Eligible Customer</del> must provide evidence acceptable to Transmission Provider demonstrating that Project Developer <del>or Eligible Customer</del> is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VII, Subpart A, section 302, and in accordance with Tariff, Part VII, Subpart D, section 313(A)(1)(c)(i), (ii) and (iii) above.  410(A)(1)(c) iv. If Project Developer <del>or Eligible Customer</del> fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart, section 402, and	Changes made to clarify this provision by removing reference to “Eligible Customer.” An Eligible Customer is not subject to Site Control requirements which only apply to Project Developers as stated in this section and consistent with the definition of Site Control.

			<p>iv. If Project Developer or Eligible Customer fails to produce all required Site Control evidence in accordance with the Site Control rules set forth in Tariff, Part VIII, Subpart, section 402, and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, then Project Developer or Eligible Customer must provide evidence acceptable to Transmission Provider demonstrating that Project Developer or Eligible Customer is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above.</p>	<p>in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above, then Project Developer <del>or Eligible Customer</del> must provide evidence acceptable to Transmission Provider demonstrating that Project Developer <del>or Eligible Customer</del> is in negotiations with appropriate entities to meet the Site Control rules set forth in Tariff, Part VIII, Subpart A, section 402 and in accordance with Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(i), (ii) and (iii) above.</p>	
36.	OATT Part IX.A – ASA	Vicki Karandrikas	<p>1. This Application and Studies Agreement (“Application” or “Agreement”), dated _____, is entered into by and between _____ (Project Developer or Eligible Customer, hereafter “Applicant”) and PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) (individually a “Party” and together the “Parties”) pursuant to PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), Part VIII, Subpart B. Capitalized terms used in this Application, unless otherwise indicated, shall have the meanings ascribed to them in Tariff, Part VIII, Subpart A, section 400.</p> <p>2. Prior to the Application Deadline, Applicant must electronically provide to Transmission Provider through the PJM website or OASIS, as applicable, all applicable information identified below, which is then subject to validation during the Application Phase as set forth in Tariff, Part VIII, Subparts B and C and the PJM Manuals. Only valid New Service Requests will proceed past the Application Phase.</p> <p>b. Generating Facility Site Control:</p>	<p>1. This Application and Studies Agreement (“Application” or “Agreement”), dated _____, is entered into by and between _____ (Project Developer or Eligible Customer, hereafter “Applicant”) and PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”) (individually a “Party” and together the “Parties”) pursuant to PJM Interconnection, L.L.C. Open Access Transmission Tariff (“Tariff”), <u>Part VII, Subpart C or</u> Part VIII, Subpart B. Capitalized terms used in this Application, unless otherwise indicated, shall have the meanings ascribed to them in Tariff, <u>Part VII, Subpart A, section 300 or</u> Part VIII, Subpart A, section 400.</p> <p>2. Prior to the Application Deadline, Applicant must electronically provide to Transmission Provider through the PJM website or OASIS, as applicable, all applicable information identified below, which is then subject to validation during the Application Phase as set forth in <u>Tariff, Part VII, Subpart C or</u> Tariff, Part VIII, Subpart B, and <u>in</u> the PJM Manuals. Only valid New Service Requests will proceed past the Application Phase.</p> <p>b. Generating Facility Site Control:</p>	<p>The Application and Studies Agreement applies to New Service Requests submitted under both Tariff, Part VII and Part VIII. Changes made to add references to Tariff, Part VII that were mistakenly omitted from the Docket No. ER22-2110 interconnection process reform filing.</p>

			<p>In accordance with Tariff, Part VIII, Subpart B, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for the Generating Facility, including the location of the high-voltage side of the Generating Facility's main power transformer(s). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.</p> <p>c. Will the Generating Facility physically connect to distribution or sub-transmission facilities currently not subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC), for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions, as described in Tariff, Part VIII, Subpart F? (Y/N)</p> <p>13. I. For a Behind the Meter Generating Facility, provide the following information (note that all of the provisions in Tariff, Part VIII, Subpart E, section 415 apply):</p> <p>16. SCOPE OF WORK AND STUDY DEPOSIT: PJM will perform a Phase I System Impact Study to determine if the PJM network has sufficient capability to grant Applicant's request for long-term firm transmission service, based on expected system conditions and topology. The required cash Study Deposit for the Phase I System Impact Study, as described in Tariff, Part VIII, Subpart B, section 403(A), is due prior to the Application Deadline.</p>	<p>In accordance with Tariff, <a href="#">Part VII, Subpart A, section 302 or</a> Part VIII, Subpart <a href="#">BA</a>, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for the Generating Facility, including the location of the high-voltage side of the Generating Facility's main power transformer(s). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.</p> <p>c. Will the Generating Facility physically connect to distribution or sub-transmission facilities currently not subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC), for the purpose of injecting energy at the POI and engaging in FERC-jurisdictional Wholesale Transactions, as described in <a href="#">Tariff, Part VII, Subpart F or</a> Tariff, Part VIII, Subpart F? (Y/N)</p> <p>13. I. For a Behind the Meter Generating Facility, provide the following information (note that all of the provisions in <a href="#">Tariff, Part VII, Subpart E, section 317 or</a> Tariff, Part VIII, Subpart E, section 415 apply):</p> <p>16. SCOPE OF WORK AND STUDY DEPOSIT: PJM will perform a Phase I System Impact Study to determine if the PJM network has sufficient capability to grant Applicant's request for long-term firm transmission service, based on expected system conditions and topology. The required cash Study Deposit for the Phase I System Impact Study, as described in <a href="#">Tariff, Part VII, Subpart B, section 306(A) or</a> Tariff, Part VIII, Subpart B, section 403(A), is due prior to the Application Deadline.</p> <p>20. Site Control: In accordance with Tariff, <a href="#">Part VII, Subpart A, section 302 or</a> Part VIII, Subpart A, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from</p>	
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		<p>20. Site Control: In accordance with Tariff, Part VIII, Subpart A, section 402, provide evidence of an ownership interest in, or right to acquire or control through a deed, lease, or option for at least a one-year term beginning from the Application Deadline, 100 percent of the Site for Applicant's major equipment (e.g., converter station). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.</p> <p>22. Consistent with Tariff, Part VIII, Subparts C and D, the Phase I System Impact Study begins at the end of the 90-day Application Review Phase, and runs for 120 days followed by a 30-day Decision Point I period for withdrawal or modification. If no withdrawal, the Phase II System Impact Study begins at the end of the Decision Point I period and runs for 180 days followed by a 30-day Decision Point II period for withdrawal or modification. If no withdrawal, the Phase III System Impact Study begins at the end of the Decision Point II period and runs for 180 days followed by release of the Phase III System Impact Study report and the start of final agreement negotiations. If a phase or period does not end on a Business Day, the phase or period shall be extended to end on the next Business Day.</p> <p>25. Consistent with Tariff, Part VIII, Subpart G, Transmission Provider will coordinate with Affected System Operators the conduct of studies required to determine the impact of a New Service Request on any Affected System, and will include those results in the Phase II System Impact Study if available from the Affected System. Applicant will cooperate with Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the</p>	<p>the Application Deadline, 100 percent of the Site for Applicant's major equipment (e.g., converter station). In addition, provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further at PJM's request, Applicant shall provide copies of landowner attestations or county recordings.</p> <p>22. Consistent with <a href="#">Tariff, Part VII, Subpart C or</a> Tariff, Part VIII, Subparts C and D, the Phase I System Impact Study begins at the end of the 90-day Application Review Phase, and runs for 120 days followed by a 30-day Decision Point I period for withdrawal or modification. If no withdrawal, the Phase II System Impact Study begins at the end of the Decision Point I period and runs for 180 days followed by a 30-day Decision Point II period for withdrawal or modification. If no withdrawal, the Phase III System Impact Study begins at the end of the Decision Point II period and runs for 180 days followed by release of the Phase III System Impact Study report and the start of final agreement negotiations. If a phase or period does not end on a Business Day, the phase or period shall be extended to end on the next Business Day.</p> <p>25. Consistent with <a href="#">Tariff, Part VII, Subpart G or</a> Tariff, Part VIII, Subpart G, Transmission Provider will coordinate with Affected System Operators the conduct of studies required to determine the impact of a New Service Request on any Affected System, and will include those results in the Phase II System Impact Study if available from the Affected System. Applicant will cooperate with Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate Applicant's New Service Request.</p> <p>26. Applicant agrees to provide all information requested by Transmission Provider necessary to complete and review this Application. Subject to this section 6, and to the extent required by <a href="#">Tariff Part VII, Subpart E, section 327 or</a> Tariff, Part VIII, Subpart E,</p>	
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		<p>determination of modifications to Affected Systems needed to accommodate Applicant's New Service Request.</p> <p>26. Applicant agrees to provide all information requested by Transmission Provider necessary to complete and review this Application. Subject to this section 6, and to the extent required by Tariff, Part VIII, Subpart E, section 425, information provided pursuant to this Application shall be and remain confidential.</p> <p>27. Upon completion of each System Impact Study for a New Service Request, the corresponding reports will be listed on Transmission Provider's website and, to the extent required by Tariff, Part VIII, Subpart E, section 425 or Commission regulations, will be made publicly available. Applicant acknowledges and consents to such disclosures as may be required under Tariff, Part VIII, Subpart E, section 425 or Commission regulations.</p> <p>28. Applicant acknowledges that, consistent with the confidentiality provisions of Tariff, Part VIII, Subpart E, section 425, Transmission Provider may contract with consultants, including Transmission Owners, to provide services or expertise in the study process, and Transmission Provider may disseminate information as necessary to those consultants, and rely upon them to conduct part or all of the System Impact Studies.</p> <p>37. This Agreement shall become effective on the date it is executed by both Parties and shall remain in effect until the earlier of (a) the date on which Applicant enters into a final Service Agreement with PJM (and Transmission Owner as applicable) in accordance with Tariff, Part VIII, Subpart D or (b) termination or withdrawal of this Application.</p>	<p>section 425, information provided pursuant to this Application shall be and remain confidential.</p> <p>27. Upon completion of each System Impact Study for a New Service Request, the corresponding reports will be listed on Transmission Provider's website and, to the extent required by <a href="#">Tariff, Part VII, Subpart E, section 327 or</a> Tariff, Part VIII, Subpart E, section 425 or Commission regulations, will be made publicly available. Applicant acknowledges and consents to such disclosures as may be required under Tariff, Part VIII, Subpart E, section 425 or Commission regulations.</p> <p>28. Applicant acknowledges that, consistent with the confidentiality provisions of <a href="#">Tariff, Part VII, Subpart E, section 327 or</a> Tariff, Part VIII, Subpart E, section 425, Transmission Provider may contract with consultants, including Transmission Owners, to provide services or expertise in the study process, and Transmission Provider may disseminate information as necessary to those consultants, and rely upon them to conduct part or all of the System Impact Studies.</p> <p>37. This Agreement shall become effective on the date it is executed by both Parties and shall remain in effect until the earlier of (a) the date on which Applicant enters into a final Service Agreement with PJM (and Transmission Owner as applicable) in accordance with <a href="#">Tariff, Part VII, Subpart D or</a> Tariff, Part VIII, Subpart D or (b) termination or withdrawal of this Application.</p>	
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37.	OATT Part IX.B, GIA Specs	Vicki Karandrikas	<p>4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build, Project Developer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, section 11 of this GIA and Schedule L, section 9.0 {instruction - to be included if there is an additional Transmission Owner that has a separate CSA [and in Appendix 2, section 3.2.3.2 of the Construction Service Agreement with <b>[insert Transmission Owner name].</b>] } {Instruction - to be included if there is a Network Upgrade Cost Responsibility Agreement [and in <b>[insert reference to NUCRA provisions]</b>]}</p> <p>4.1 Transmission Owner Interconnection Facilities Charge: \$_____</p> <p><b>[Optional: Provide Charge and Identify Transmission Owner]</b></p> <p>4.2 Network Upgrades Charge: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities and costs subject to the Network Upgrade Cost Responsibility Agreement]</b></p> <p>4.3 Distribution Upgrades Charge: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]</b></p> <p>4.4 Other Charges: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]</b></p>	<p>4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build, Project Developer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, section 11 of this GIA and Schedule L, section 9.0 {instruction - to be included if there is an additional Transmission Owner that has a separate CSA [and in Appendix 2, section 3.2.3.2 of the Construction Service Agreement with <b>[insert Transmission Owner name].</b>] } {Instruction - to be included if there is a Network Upgrade Cost Responsibility Agreement [and in <b>[insert reference to NUCRA provisions]</b>]}</p> <p>4.1 Transmission Owner Interconnection Facilities Charge: \$_____</p> <p><b>[Optional: Provide Charge and Identify Transmission Owner]</b></p> <p>4.2 Network Upgrades Charge: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities and costs subject to the Network Upgrade Cost Responsibility Agreement]</b></p> <p>4.3 <u>Option to Build Charges \$_____</u></p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]</b></p> <p>4.4 Distribution Upgrades Charge: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]</b></p> <p>4.54 Other Charges: \$_____</p> <p><b>[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]</b></p>	<p>Changes made to clarify cost breakdown and that Option to Build charges are different from "Other Charges." The first set of revisions- adding a line item for Option to Build Charges - does not change the total amount charges under a GIA, but provides a more detailed breakdown of those charges. This change is also consistent with Specifications, section 4.4 of PJM's pro forma Interconnection Service Agreement, which allows for a breakdown of Option of Build charges.</p> <p>The security breakdown was also modified to state that the Estimated Cost Breakdown in former Specifications, section 4.6 (now Specifications, section 4.7) includes Transmission Owner Interconnection Facilities; these costs were mistakenly omitted before. The line numbers in this section were also renumbered to reflect the foregoing changes.</p>
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			<p>4.5 Cost breakdown:</p> <p>\$Direct Labor  \$Direct Material  \$Indirect Labor  \$Indirect Material  <b>[Additional items for breakdown as necessary]</b></p> <p>\$Total</p> <p>4.6 Security Amount Breakdown:</p> <p>\$ Estimated Cost of Network Upgrades, Distribution Upgrades, and Other Charges</p> <p>Plus \$ Option to Build Security for Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (including Cancellation Costs)</p> <p>\$ Sum of Security required for costs listed in Specifications sections 4.1 through 4.4 of this GIA</p> <p>Less \$ Portion of Costs already paid by Project Developer</p> <p>\$ Net Security {Instructions: <b>if the resultant is negative, use:</b> reduction with this GIA; <b>if the resultant is zero or positive use:</b> amount required} {Instructions: this value should be in section 5.0 of this GIA}</p>	<p>4.<del>65</del> Cost breakdown:</p> <p>\$Direct Labor  \$Direct Material  \$Indirect Labor  \$Indirect Material  <b>[Additional items for breakdown as necessary]</b></p> <p>\$Total</p> <p>4.<del>76</del> Security Amount Breakdown:</p> <p>\$ Estimated Cost of Network Upgrades, Distribution Upgrades, <u>Transmission Owner Interconnection Facilities</u>, and Other Charges</p> <p>Plus \$ Option to Build Security for Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades (including Cancellation Costs)</p> <p>\$ Sum of Security required for costs listed in Specifications sections 4.1 through 4.<del>54</del> of this GIA</p> <p>Less \$ Portion of Costs already paid by Project Developer</p> <p>\$ Net Security {Instructions: <b>if the resultant is negative, use:</b> reduction with this GIA; <b>if the resultant is zero or positive use:</b> amount required} {Instructions: this value should be in section 5.0 of this GIA}</p>	
38.	OATT Part IX.D - E&P	Vicki Karandrikas	<p>4.0 (a) In accord with the GIP, Project Developer, on or before the effective date of this E&amp;P Agreement, shall provide Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to Transmission Provider in the amount of \$ _____, which amount equals the estimated costs,</p>	<p>4.0 (a) In accord with the GIP, Project Developer, <del>on or before the effective date of this E&amp;P Agreement,</del> shall provide Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to Transmission Provider in the amount of \$ _____, which amount equals the estimated costs, determined in accordance with the GIP, of the engineering and procurement</p>	<p>Revisions made to clarify date by which Security is due. This information was mistakenly omitted from the pro forma Engineering and Procurement Agreement in the Docket No. ER22-2110 interconnection process reform filing, and the change is</p>

			determined in accordance with the GIP, of the engineering and procurement activities described in section 2.0 of the Attached Specifications. Should Project Developer fail to provide such security in the amount or form required, this E&P Agreement shall be terminated. Project Developer acknowledges (1) that it will be responsible for the actual costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section, and (2) that the payment security under this section does not include any additional amounts that it will owe in the event that it executes a final Generator Interconnection Agreement, as described in section 7.0(a) below.	activities described in section 2.0 of the Attached Specifications. Should Project Developer fail to provide such security in the amount or form required, this E&P Agreement shall be terminated. Project Developer acknowledges (1) that it will be responsible for the actual costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section, and (2) that the payment security under this section does not include any additional amounts that it will owe in the event that it executes a final Generator Interconnection Agreement, as described in section 7.0(a) below.	consistent with section 5.0 of the pro forma GIA.
39.	OA, Schedule 6, section 1.5.6	Vicki Karandrikas	(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Operating Agreement, Schedule 6, section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through	(k) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to the Operating Agreement, Schedule 6, section <u>1.5.6-4.4, or Tariff Parts VII or VIII,</u> provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of the Tariff, Parts IV and VI, <u>or Tariff, Parts VII or VIII, as applicable;</u> (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by the Tariff, Parts IV and VI, <u>or Tariff, Parts VII or VIII, as applicable</u> with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.	Changes to correct cross-reference and clarify that a requested enhancement or expansion, may be subject to Tariff, Parts VII or VIII.

			<p>an undertaking satisfactory to the Office of the Interconnection.</p> <p>(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARR, to facilitate Incremental ARRs pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.</p>	<p>(l) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of the Operating Agreement, Schedule 1, section 7.8, or to facilitate upgrades pursuant to the Tariff, Parts II, III, or VI, <u>or Tariff, Parts VII or VIII, as applicable</u> and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. Any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.</p>	
40.	OATT Part IX.D – E&P	Vicki Karandrikas	<p>(Project Identifier #___)</p> <p><b>ENGINEERING AND PROCUREMENT AGREEMENT</b>  <b>By and Among</b>  <b>PJM INTERCONNECTION, L.L.C.</b>  <b>And</b></p>	<p>(Project Identifier #___)</p> <p><b>ENGINEERING AND PROCUREMENT AGREEMENT</b>  <b>By and Among</b>  <b>PJM INTERCONNECTION, L.L.C.</b>  <b>And</b></p>	Correcting error in title.

			<p>And</p> <p>_____</p> <p>Service Agreement No. [ ]</p> <p><b>ENGINEERING AND PROCUREMENT AGREEMENT</b> By and Among PJM Interconnection, L.L.C.</p> <p>And</p> <p>_____</p> <p>And</p> <p>_____</p> <p>(Project Identifier #__)</p>	<p>And</p> <p>_____</p> <p>Service Agreement No. [ ]</p> <p><b>ENGINEERING AND PROCUREMENT AGREEMENT</b> By and Among PJM Interconnection, L.L.C.</p> <p>And</p> <p>_____</p> <p>And</p> <p>_____</p> <p>(Project Identifier #__)</p>	
41.	OATT 300 Definitions A OATT 400 Definitions A	Vicki Karandrikas	<p><b>Affected System Study Agreement</b></p> <p>“Affected System Study Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart N.</p>	<p><b>Affected System <u>Customer Facilities Study Application and Agreement</u></b></p> <p>“Affected System <u>Customer Facilities Study Application and Agreement</u>” shall mean the agreement set forth in Tariff, Part IX, Subpart <u>N, Affected System Customer Facilities Study Application and Agreement.</u></p>	Correcting agreement name.
42.	OATT Part VII.G 336	Vicki Karandrikas	<p>(B)(1) An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.</p>	<p>(B)(1) An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider’s Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an <del>Affected System Customer Facility Study Agreement</del> <u>Affected System Customer Facilities Study Application and Agreement</u> (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del>, and</p>	Correcting agreement name.

			<p>b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.</p> <p>ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.</p>	<p>concurrently provide the required Study Deposit, by wire transfer, of \$100,000.</p> <p>b. Transmission Provider shall not start the review of the <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del> until such agreement is complete and the required Study Deposit is received by the Transmission Provider.</p> <p>ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del>. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del> to be terminated and withdrawn.</p>	
43.	OATT Part VIII.G 434	Vicki Karandrikas	<p>(B)(1) An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.</p> <p>b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement</p>	<p>(B)(1) An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del> (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign <u>Affected System Customer Facilities Study Application and Agreement</u> <del>Affected System Customer Facility Study Agreement</del>, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.</p>	Correcting agreement name.

			<p>until such agreement is complete and the required Study Deposit is received by the Transmission Provider.</p> <p>(c) ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.</p>	<p>b. Transmission Provider shall not start the review of the <u>Affected System Customer Facilities Study Application and Agreement-Affected System Customer Facility Study Agreement</u> until such agreement is complete and the required Study Deposit is received by the Transmission Provider.</p> <p>(c) ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its <u>Affected System Customer Facilities Study Application and Agreement-Affected System Customer Facility Study Agreement</u>. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the <u>Affected System Customer Facilities Study Application and Agreement-Affected System Customer Facility Study Agreement</u> to be terminated and withdrawn.</p>	
44.	OATT Part IX.I	Vicki Karandrikas	<p><b>Tariff, Part IX, Subpart I</b></p> <p><b>FORM OF SURPLUS INTERCONNECTION SERVICE STUDY AGREEMENT</b></p>	<p><b>Tariff, Part IX, Subpart I</b></p> <p><b>FORM OF SURPLUS INTERCONNECTION <del>SERVICE</del> STUDY AGREEMENT</b></p>	Change to correct name of agreement.
45.	OATT 300 Definitions S OATT 400 Definitions S	Vicki Karandrikas		<p><u>"Surplus Interconnection Study Agreement" shall mean the form of the Surplus Interconnection Study Agreement set forth in Tariff, Part IX, Subpart I.</u></p>	Definition of Surplus Interconnection Study added to reflect the addition of the pro forma Surplus Interconnect Study Agreement that is now part of Tariff, Part IX. This definition simply references the applicable form of agreement under Part IX of the FERC-approved Tariff entitled, "Form of Surplus Interconnection Study Agreement."
46.	OATT Part VII.H, 337 – Upgrade Requests	Vicki Karandrikas	G(1)a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the	G(1)a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the <u>upgrade study process</u>	Change made because under Tariff, Parts VII and VIII, Upgrade Requests are not part of the Cycle process. Upgrades Requests are subject to a separate serial process outlined in

	OATT Part VIII.H 435 – Upgrade Requests		Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.	<del>Cycle</del> , and adjust the Security obligations of other Upgrade Requests based on the withdrawal.	Tariff Part VII section 337 and Part VIII section 435, and thus the use of the word “Cycle” is incorrect.
47.	OATT Part IX.B – GIA	Vicki Karandrikas	1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), _____ (“Project Developer” [OPTIONAL: or “[short name]”]) and _____ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the _____ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA reflects amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]	1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), _____ (“Project Developer” [OPTIONAL: or “[short name]”]) and _____ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the _____ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA <del>reflects</del> -amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]	Change made to delete extraneous word (reflects).
48.	OATT Part IX.B – GIA	Vicki Karandrikas	2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a Generation Interconnection Agreement	2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a <del>GIA Generation Interconnection Agreement</del> under the Tariff, and Transmission Provider has	Change made for internal consistency-GIA is defined as the short form for Generation Interconnection Agreement.

			under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.	determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.	
49.	OATT Part IX.B – GIA	Vicki Karandrikas	6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.	6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including <u>submitting</u> <u>submitted</u> the necessary filings with FERC.	Change made to correct grammatical error.
50.	OA Definitions G-H	Vicki Karandrikas	Generation Resource Maximum Output:  “Generation Resource Maximum Output” shall mean, for Customer Facilities identified in an Interconnection Service Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output for a generating unit shall equal the unit’s pro rata share of the Maximum Facility Output, determined by the Economic Maximum values for the available units at the Customer Facility. For generating units not identified in an Interconnection Service Agreement or Wholesale	Generation Resource Maximum Output:  “Generation Resource Maximum Output” shall mean, for Customer Facilities <u>or Generating Facilities, as applicable,</u> identified in an Interconnection Service Agreement, <u>Generation Interconnection Agreement,</u> or Wholesale Market Participation Agreement, the Generation Resource Maximum Output for a generating unit shall equal the unit’s pro rata share of the Maximum Facility Output, determined by the Economic Maximum values for the available units at the Customer Facility. For generating units not identified in an Interconnection Service Agreement, <u>Generation Interconnection</u>	Changes made to reflect the terminology included in Tariffs, Part VII and VIII. Depending on whether the Interconnection Customer or Project Developer received an interconnection-related service agreement prior to, or on or after, the Transition Date, the subject generating facility will be referred to as the Customer Facility or Generating Facility, and the applicable form of agreement will be an Interconnection Service Agreement,



			Market Participation Agreement, the Generation Resource Maximum Output shall equal the generating unit's Economic Maximum.	<u>Agreement</u> , or Wholesale Market Participation Agreement, the Generation Resource Maximum Output shall equal the generating unit's Economic Maximum.	Generation Interconnection Agreement, or Wholesale Market Participation Agreement.
51.	OA, Schedule 1, 1.7.4(i)	Vicki Karandrikas	(i) Consistent with Tariff, section 36.1.1, to the extent its generating facility is dispatchable, a Market Participant shall submit an Economic Minimum in the Real-time Energy Market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights, as that term is defined in the PJM Tariff, associated with such generating facility under its Interconnection Service Agreement under Attachment O of the PJM Tariff or a wholesale market participation agreement.	(i) Consistent with Tariff, section 36.1.1, to the extent its generating facility is dispatchable, a Market Participant shall submit an Economic Minimum in the Real-time Energy Market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights, as that term is defined in the PJM Tariff, associated with such generating facility under its Interconnection Service Agreement under Attachment O of the PJM Tariff, <u>Generation Interconnection Agreement under Part IX of the PJM Tariff, or a wholesale market participation agreement, Wholesale Market Participation Agreement under Part IX of the PJM Tariff, or functionally equivalent agreement.</u>	Provisions updated to include the forms of interconnection agreements under Tariff, Part IX. Depending on whether the Interconnection Customer or Project Developer received an interconnection-related service agreement prior to, or on or after, the Transition Date, the applicable form of agreement will be an Interconnection Service Agreement under Tariff, Attachment O, or a Generation Interconnection Agreement or Wholesale Market Participation Agreement under Tariff, Part IX.
52.	OA Schedule 6	Vicki Karandrikas	1.5.7(i)(iv) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed. Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.	1.5.7(i)(iv) Addition of Customer Facilities <u>or Generating Facilities, as applicable</u> , pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which Interconnection Service Agreement is expected to be executed, <u>or Generating Facilities pursuant to an executed Generation Interconnection Agreement or executed Engineering and Procurement Agreement for which Generation Interconnection Agreement is expected to be executed.</u> Facilities with an executed Facilities Study Agreement or suspended Interconnection Service Agreement, <u>or that have an approved Decision Point II submission, under Tariff Part VII or VIII, as applicable</u> , may be included by the Office of the Interconnection after review with the Transmission Expansion Advisory Committee.	The first two set of changes were made to include references to the terminology and forms of agreement under Tariff, Parts VII, VIII and IX. Depending on whether the Interconnection Customer or Project Developer received an interconnection-related service agreement prior to, or on or after, the Transition Date, the generating facility will be referred to as the Customer Facility or the Generating Facility, and the applicable form of agreement will be an Interconnection Service Agreement, under Tariff, Attachment O, or an Interim Interconnection Service Agreement, under Tariff Attachment O-1, or a Generation Interconnection Agreement, or Engineering and Procurement Agreement, under Tariff, Part IX.  The last change was made because while Tariff, Part VI uses separate study agreements

					for the different study phases, Tariff, Parts VII and VIII use a single study agreement that is executed at the start of a Cycle, as outlined in Tariff, Part VII, section 306(A)(5)(a) and Tariff, Part VIII, section 403(A)(5)(a). Having an approved Decision Point II submission is the comparable phase of the study process under Tariff Parts, VII and VIII as having an executed Facilities Study Agreement under Part VI.
53.	OA Schedule 6	Vicki Karandrikas	1.5.7(i)(vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues to determine the likelihood of a Customer Facility, pursuant to an executed Facilities Study Agreement or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues and, if necessary, add transmission enhancements to address congestion that arises from such modelin	1.5.7(i)(vii): Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues <u>or Cycles as applicable</u> and Capacity Resource Clearing Prices under the Tariff, Attachment DD. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model Customer Facilities <u>or Generating Facilities</u> pursuant to an executed Facilities Study Agreement, <u>approved Decision Point II submission under Tariff Part VII or VIII,</u> or suspended Interconnection Service Agreement, ranked by their commercial probability. Commercial probability utilizes historical data from the PJM interconnection queues <u>or Cycles as applicable</u> to determine the likelihood of a Customer Facility <u>or Generating Facility</u> , pursuant to an executed Facilities Study Agreement, <u>approved Decision Point II submission under Tariff Part VII or VIII,</u> or suspended Interconnection Service Agreement, reaching commercial operation. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses, following inclusion of the Customer Facilities <u>or Generating Facilities</u> discussed above in this section 1.5.7(i)(vii), then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues <u>or Cycles as applicable</u> and, if necessary, add transmission enhancements to address congestion that arises from such modeling.	Changes were made throughout to include references to the terminology and forms of agreement under Tariff, Parts VII, VIII and IX. Depending on whether the Interconnection Customer or Project Developer received an interconnection-related service agreement prior to, or on or after, the Transition Date, it will be subject to prior interconnection queue process or the Tariff, Parts VII and VIII Cycle process, and the generating facility will be referred as the Customer Facility or the Generating Facility.  Additional changes were made because while Tariff, Part VI uses separate study agreements for the different study phases, Tariff, Parts VII and VIII use a single study agreement that is executed at the start of a Cycle, as outlined in Tariff, Part VII, section 306(A)(5)(a) and Tariff, Part VIII, section 403(A)(5)(a). Having an approved Decision Point II submission is the comparable phase of the study process under Tariff Parts, VII and VIII as having an executed Facilities Study Agreement under Part VI.

54.	RAA, Article 1, Definitions	Vicki Karandrikas	<p>Planned External Generation Capacity Resource:  “Planned External Generation Capacity Resource” shall mean a proposed Generation Capacity Resource, or a proposed increase in the capability of a Generation Capacity Resource, that (a) is to be located outside the PJM Region, (b) participates in the generation interconnection process of a Control Area external to PJM, (c) is scheduled to be physically and electrically interconnected to the transmission facilities of such Control Area on or before the first day of the Delivery Year for which such resource is to be committed to satisfy the reliability requirements of the PJM Region, and (d) is in full commercial operation prior to the first day of such Delivery Year, such that it is sufficient to provide the Installed Capacity set forth in the Sell Offer forming the basis of such resource’s commitment to the PJM Region. Prior to participation in any Base Residual Auction for such Delivery Year, the Capacity Market Seller must demonstrate that it has a fully executed system impact study agreement (or other documentation which is functionally equivalent to a System Impact Study Agreement under the PJM Tariff) or, for resources which are greater than 20MWs participating in a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, an agreement or other documentation which is functionally equivalent to a Facilities Study Agreement under the PJM Tariff), with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider. Prior to participating in any Incremental Auction for such Delivery Year, the Capacity Market Seller must demonstrate it has entered into an interconnection agreement, or such other documentation that is functionally equivalent to an Interconnection Service Agreement under the PJM Tariff, with the transmission owner to whose transmission facilities or distribution facilities the resource is being</p>	<p>“Planned External Generation Capacity Resource” shall mean a proposed Generation Capacity Resource, or a proposed increase in the capability of a Generation Capacity Resource, that (a) is to be located outside the PJM Region, (b) participates in the generation interconnection process of a Control Area external to PJM, (c) is scheduled to be physically and electrically interconnected to the transmission facilities of such Control Area on or before the first day of the Delivery Year for which such resource is to be committed to satisfy the reliability requirements of the PJM Region, and (d) is in full commercial operation prior to the first day of such Delivery Year, such that it is sufficient to provide the Installed Capacity set forth in the Sell Offer forming the basis of such resource’s commitment to the PJM Region.</p> <p>Prior to participation in any Base Residual Auction for such Delivery Year, the Capacity Market Seller must demonstrate that it has <del>a fully executed system impact study agreement (or other documentation which is functionally equivalent to an approved Decision Point I submission System Impact Study agreement</del> under PJM Tariff <u>Part VII or VIII as applicable</u>) or, for resources which are greater than 20 MWs participating in a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, an agreement or other documentation which is functionally equivalent to <u>an approved Decision Point II submission Facilities Study Agreement</u> under the PJM Tariff <u>Part VII or VIII as applicable</u>), with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider.</p> <p>Prior to participating in any Incremental Auction for such Delivery Year, the Capacity Market Seller must demonstrate it has entered into an interconnection agreement, or such other documentation that is functionally equivalent to <del>a</del> <u>Generation Interconnection Service</u>-Agreement under the PJM Tariff, with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and, as applicable, the transmission provider.</p>	<p>Changes made because while Tariff, Part VI uses separate study agreements for the different study phases, Tariff, Parts VII and VIII use a single study agreement that is executed at the start of a Cycle, as outlined in Tariff, Part VII, section 306(A)(5)(a) and Tariff, Part VIII, section 403(A)(5)(a). Having an approved Decision Point II submission is the comparable phase of the study process under Tariff Parts, VII and VIII as having an executed System Impact Study Agreement under Part VI.</p> <p>In addition, the phrase “functionally equivalent to an Interconnection Service Agreement” was replaced with “functionally equivalent to a Generation Interconnection Agreement” to reference the current form of Agreement.</p>
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			<p>directly connected, and, as applicable, the transmission provider. A Planned External Generation Capacity Resource must provide evidence to PJM that it has been studied as a Network Resource, or such other similar interconnection product in such external Control Area, must provide contractual evidence that it has applied for or purchased transmission service to be deliverable to the PJM border, and must provide contractual evidence that it has applied for transmission service to be deliverable to the bus at which energy is to delivered, the agreements for which must have been executed prior to participation in any Reliability Pricing Model Auction for such Delivery Year. Any such resource shall cease to be considered a Planned External Generation Capacity Resource as of the earlier of (i) the date that interconnection service commences as to such resource; or (ii) the resource has cleared an RPM Auction, in which case it shall become an Existing Generation Capacity Resource for purposes of the mitigation of offers for any RPM Auction for all subsequent Delivery Years.</p>	<p>A Planned External Generation Capacity Resource must provide evidence to PJM that it has been studied as a Network Resource, or such other similar interconnection product in such external Control Area, must provide contractual evidence that it has applied for or purchased transmission service to be deliverable to the PJM border, and must provide contractual evidence that it has applied for transmission service to be deliverable to the bus at which energy is to delivered, the agreements for which must have been executed prior to participation in any Reliability Pricing Model Auction for such Delivery Year. Any such resource shall cease to be considered a Planned External Generation Capacity Resource as of the earlier of (i) the date that interconnection service commences as to such resource; or (ii) the resource has cleared an RPM Auction, in which case it shall become an Existing Generation Capacity Resource for purposes of the mitigation of offers for any RPM Auction for all subsequent Delivery Years.</p>	
55.	RAA, Article 1, Definitions	Vicki Karandrikas	<p>Planned Generation Capacity Resource: “Planned Generation Capacity Resource” shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual Auction, a System Impact Study Agreement (or, for resources for which a System Impact Study</p>	<p>Planned Generation Capacity Resource: “Planned Generation Capacity Resource” shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, <u>Part VII or Part VIII</u>, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual Auction, <del>a System Impact Study Agreement</del> <u>all the requirements for an approved Decision Point I submission have been met under Tariff Part VII or VIII</u> (or, for resources for which a <u>Decision Point I submission</u> <del>System Impact Study Agreement</del> is</p>	<p>Changes made for clarity and because while Tariff, Part VI uses separate study agreements for the different study phases Tariff, Parts VII and VIII use a single study agreement that is executed at the start of a Cycle, as outlined in Tariff, Part VII, section 306(A)(5)(a) and Tariff, Part VIII, section 403(A)(5)(a).</p> <p>These revisions reference the study phase under phases under Tariffs Part VII and VIII that are comparable to study agreements under Part VI. An approved Decision Point I submission and Decision Point II submission, under Tariff parts VII and VIII, are comparable to an executed System Impact Study</p>

			<p>Agreement is not required, has such other agreement or documentation that is functionally equivalent to a System Impact Study Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, a Facilities Study Agreement (or, for resources for which a Facilities Study Agreement is not required, has such other agreement or documentation that is functionally equivalent to a Facility Studies Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; and (iv) an Interconnection Service Agreement has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity Resource for any RPM Auction for all subsequent Delivery Years.</p>	<p>not required, has such other agreement or documentation that is functionally equivalent to <u>an approved Decision Point I submission</u> <del>has been executed</del> prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, <del>a Facilities Study Agreement</del> <u>all the requirements for an approved Decision Point II submission have been met under Tariff Part VII or VIII</u> (or, for resources for which a <del>Facilities Study Agreement</del> <u>Decision Point II submission</u> is not required, has such other agreement or documentation that is functionally equivalent to <u>an approved Decision Point II submission</u> <del>Facility Studies Agreement</del>) prior to the Base Residual Auction for such Delivery Year; and (iv) <del>an</del> <u>Generation</u> Interconnection <del>Service</del> <u>Agreement</u> <del>or Wholesale Market Participation Agreement</del> has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity Resource for any RPM Auction for all subsequent Delivery Years.</p>	<p>Agreement and executed Facilities Study Agreement respectively, under Tariff Part VI.</p>
56.	OATT 300, Definitions – I OATT 400, Definitions - I	Vicki Karandrikas	<p>Incidental Expenses: “Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.</p>	<p>Incidental Expenses: “Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, <del>Interconnected</del> Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the <del>Generating Customer</del> Facility and for the Interconnection Facilities.</p>	<p>Changes made to conform to defined terms in Tariff, Parts VII and VIII.</p>

57.	OATT Part IX.B – GIA Appendices and Schedules	Vicki Karandrikas	SCHEDULES:  SCHEDULE A - CUSTOMER FACILITY LOCATION/SITE PLAN	SCHEDULES:  SCHEDULE A - <del>GENERATING FACILITY LOCATION/SITE PLAN</del> <del>CUSTOMER FACILITY LOCATION/SITE PLAN</del>	Changes made to conform to defined terms in Tariff, Parts VII and VIII.
58.	OATT Part IX.B – GIA	Vicki Karandrikas	SCHEDULE A CUSTOMER FACILITY LOCATION/SITE PLAN	SCHEDULE A <del>GENERATING FACILITY LOCATION/SITE PLAN</del> <del>CUSTOMER FACILITY LOCATION/SITE PLAN</del>	Changes made to conform to defined terms in Tariff, Parts VII and VIII.
59.	OATT Part IX.B – GIA	Vicki Karandrikas	<p>12 The existing [wind-powered] [non-synchronous] __ MW portion of the Customer Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.</p> <p>The increase of __ MW to the [wind-powered] [non-synchronous] Customer Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.</p> <p>[For Transmission Project Developers]</p> <p>{The following language should be included only for new Merchant Transmission Facilities}</p> <p>Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.</p>	<p>12 The existing [wind-powered] [non-synchronous] __ MW portion of the <del>Generating Customer</del> Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.</p> <p>The increase of __ MW to the [wind-powered] [non-synchronous] <del>Generating Customer</del> Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.</p> <p>[For Transmission Project Developers]</p> <p>{The following language should be included only for new Merchant Transmission Facilities}</p> <p>Transmission Project Developer shall design its Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities, to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when such Generating Facility is operating at any level within its approved operating range.</p>	Changes made to conform to defined terms in Tariff, Parts VII and VIII.

60.	OATT Part IX.D – E&P	Vicki Karandrikas	<p>SCHEDULES: {Note: Schedules A through B are required, others are optional; add if applicable and desirable for clarity.}</p> <p>SCHEDULE A – INTERCONNECTION CUSTOMER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS</p> <p>SCHEDULE B – ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS</p> <p>SCHEDULE __ – CUSTOMER FACILITY LOCATION/SITE PLAN</p> <p>SCHEDULE __ – SINGLE-LINE DIAGRAM</p>	<p>SCHEDULES: {Note: Schedules A through B are required, others are optional; add if applicable and desirable for clarity.}</p> <p>SCHEDULE A – <del>INTERCONNECTION CUSTOMER'S PROJECT DEVELOPER'S</del> AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS</p> <p>SCHEDULE B – ADDITIONAL PROVISIONS FOR BILLINGS AND PAYMENTS</p> <p>SCHEDULE __ – <del>GENERATING FACILITY LOCATION/SITE PLAN-CUSTOMER FACILITY LOCATION/SITE PLAN</del></p> <p>SCHEDULE __ – SINGLE-LINE DIAGRAM</p>	Changes made to correct terminology.
61.	OATT Part IX.D – E&P	Vicki Karandrikas	<p>SCHEDULE A</p> <p>INTERCONNECTION CUSTOMER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS</p>	<p>SCHEDULE A</p> <p><del>INTERCONNECTION CUSTOMER'S PROJECT DEVELOPER'S</del> AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS</p>	Changes made to correct terminology.
62.	OATT Part IX.J, CSA – Schedule E	Vicki Karandrikas	Nothing in Developer Party's agreement pursuant to this Schedule E shall change Developer Party's indemnification obligations under section 4.2 of Appendix III to this CSA.	Nothing in Developer Party's agreement pursuant to this Schedule E shall change Developer Party's indemnification obligations under section 4.2 of Appendix III to this CSA.	Apostrophe added for grammatical purposes.
63.	OATT Part IX.B – GIA Schedule L	Vicki Karandrikas	5.0(b)(3) If Yes is indicated, Project Developer shall build, in accordance with and subject to the conditions and limitations set forth in section 15.3 of this Schedule L, those portions of the Transmission Owner Interconnection Facilities and Stand Alone described in Specifications section 3.0(a)(2) of this GIA.	5.0(b)(3) If Yes is indicated, Project Developer shall build, in accordance with and subject to the conditions and limitations set forth in section <del>11.2.3 45.3</del> of this Schedule L, those portions of the Transmission Owner Interconnection Facilities and Stand Alone <del>Network Upgrades</del> described in Specifications section 3.0(a)(2) of this GIA.	Cross-reference corrected.
64.	OATT Part IX.B GIA – Schedule L	Vicki Karandrikas	8.0 Schedule of Work. The Schedule of Work for all construction is set forth below, provided, however, that such schedule is subject to change in accordance with section 15.3 of this Schedule L.	8.0 Schedule of Work. The Schedule of Work for all construction is set forth below, provided, however, that such schedule is subject to change in accordance with section <del>11.315.3</del> of this Schedule L.	Cross-references corrected, and minor grammatical correction made (the word “and” was listed before “listed”).

			<p>Transmission Owner:</p> <p>[Provide start and completion date for construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades and listed in Schedule C, including any supervisory or other responsibilities associated with use of the Option to Build or state “Not Applicable”]</p> <p>Project Developer:</p> <p>[Provide start and completion date for construction of Project Developer Interconnection Facilities listed in Schedule C, including any facilities being constructed to pursuant to the Option to Build, or state “Not Applicable”]</p>	<p>Transmission Owner:</p> <p>[Provide start and completion date for construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades <del>and</del> listed in <a href="#">Specifications, section 3.0 Schedule C</a>, including any supervisory or other responsibilities associated with use of the Option to Build or state “Not Applicable”]</p> <p>Project Developer:</p> <p>[Provide start and completion date for construction of Project Developer Interconnection Facilities listed in <a href="#">Specifications, section 3.0 Schedule C</a>, including any facilities being constructed to pursuant to the Option to Build, or state “Not Applicable”]</p>	
65.	OATT Part IX.B, GIA – Schedule L	Vicki Karandrikas	9.0 If Project Developer exercises the Option to Build, Project Developer shall pay Transmission Owner for Transmission Owner to execute the responsibilities enumerated to Transmission Owner under section 15.	9.0 If Project Developer exercises the Option to Build, Project Developer shall pay Transmission Owner for Transmission Owner to execute the responsibilities enumerated to Transmission Owner under section <a href="#">11.2.345</a> .	Cross-reference corrected.
66.	OATT Part IX.B, GIA – Schedule L	Vicki Karandrikas	10.1 Project Developer Obligations: Project Developer shall, at its sole cost and expense, design, procure, construct, own, and install the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the Scope of Work, and the System Impact Study(ies) (to the extent that design of the Project Developer Interconnection Facilities is included therein), provided, however, that, in the event and to the extent that the Generating Facility or Merchant Transmission Facility is comprised of or includes	10.1 Project Developer Obligations: Project Developer shall, at its sole cost and expense, design, procure, construct, own, and install the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities in accordance with this GIA, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the Scope of Work, and the System Impact Study(ies) (to the extent that design of the Project Developer Interconnection Facilities is included therein), provided, however, that, in the event and to the extent that the Generating Facility or Merchant Transmission Facility is comprised of or includes Merchant Network Upgrades, subject to the terms of section <a href="#">11.2.3</a>	Cross-reference corrected.



			Merchant Network Upgrades, subject to the terms of section 15.2.3 of this Schedule L, the Transmission Owner shall design, procure, construct and install such Merchant Network Upgrades.	15.2.3 of this Schedule L, the Transmission Owner shall design, procure, construct and install such Merchant Network Upgrades.	
67.	OATT 300, Definitions - C OATT 400, Definitions - C	Vicki Karandrikas	<p><b>Cancellation Costs:</b></p> <p>“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VIII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in this GIA, that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.</p>	<p><b>Cancellation Costs:</b></p> <p>“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under the Tariff, Part VIII. Cancellation costs may include costs for Customer-Funded Upgrades assigned to Project Developer or Eligible Customer, in accordance with the Tariff and as reflected in <u>as set forth in Appendix 2, section 16.1.4 of</u> this GIA, that remain the responsibility of Project Developer or Eligible Customer under the Tariff, even if such New Service Request is terminated or withdrawn.</p>	Cross-referenced added for clarity.
68.	OATT Part IX 500	Vicki Karandrikas	Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer or Upgrade Customer, and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider’s tender for execution of such agreement, Project Developer, Eligible Customer or Upgrade Customer,	Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer, <del>or</del> Upgrade Customer, <u>or Affected System Customer</u> and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider’s tender for execution of such agreement, Project Developer, Eligible Customer, <del>or</del> Upgrade Customer, <u>or Affected System Customer</u> , shall either: (i)	Change made to clarify that the execution deadlines set forth in Tariff, Part IX, section 500 applies to Affected System Customers on the same basis as other Project Developers or other customers with agreements under Tariff, Part IX. The references to Affected System Customers were mistakenly omitted from the Docket No. ER22-2110 interconnection process reform filing. These changes were

			<p>shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer or Upgrade Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer or Upgrade Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.</p>	<p>execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer, <del>or</del> Upgrade Customer, <u>or Affected System Customer</u>, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer, <del>or</del> Upgrade Customer, <u>or Affected System Customer</u> has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.</p>	<p>also made for consistency with Tariff, Part VII, section 336(B)(3)(d) and Part VIII, section 434(B)(3)(d).</p>
69.	OATT Part VII.C 305 – Introduction, Overview and Eligibility	Vicki Karandrikas	(A) 3. To move forward in Transition Cycle #2, each Upgrade Customer with valid projects in AG2-AH1 must submit revised technical data and/or configuration information, and updates other requirements for its	(A) 3. To move forward in Transition Cycle #2, each Upgrade Customer with valid projects in AG2-AH1 must submit revised technical data and/or configuration information, and updates other requirements for its Upgrade Request, and submit the required	Cross-references corrected. The word “below” was deleted for clarity.

			<p>Upgrade Request, and submit the required Study Deposit amounts, as set forth below in Tariff, Part VII, Subpart C, section 306, Application Rules.</p> <p>a. Each valid Upgrade Request from AG2-AH1 shall maintain its existing priority upon successful resubmission under Tariff, Part VII, Subpart C, section 306, Application Rules within 60 days of the Transition Date. Such existing priority shall be subsequent to valid AG1 and prior Upgrade Requests.</p> <p>b. A valid Upgrade Request will be processed in accordance with Tariff, Part VII, Subpart C, section 306.</p>	<p>Study Deposit amounts, as set forth <del>below</del> in Tariff, Part VII, <del>Subpart H, section 337, Upgrade Requests Subpart C, section 306, Application Rules.</del></p> <p>a. Each valid Upgrade Request from AG2-AH1 shall maintain its existing priority upon successful resubmission under Tariff, Part VII, Subpart C, section 306, Application Rules within 60 days of the Transition Date. Such existing priority shall be subsequent to valid AG1 and prior Upgrade Requests.</p> <p>b. A valid Upgrade Request will be processed in accordance with Tariff, Part VII, <del>Subpart H, section 337, Upgrade Requests Subpart C, section 306.</del></p>	
70.	OATT Part VII.A 302 – Site Control and; OATT Part VIII.A 402 – Site Control	Vicki Karandrikas	<p>(A) 9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual 14G, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.</p> <p>(A) 9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual 14G, executed by an officer or authorized representative</p>	<p>(A) 9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual <del>14H 14G</del>, executed by an officer or authorized representative of Project Developer, verifying that the Site Control requirements are met. At PJM's request, Project Developer shall provide copies of landowner attestations, county recordings, or other similar documentation acceptable to PJM to validate such Site Control certifications.</p> <p>(A) 9. At each point within a Cycle where a Project Developer is required to provide Site Control, the Project Developer shall also provide Site Control certification in a form set forth in PJM Manual <del>14H 14G</del>, executed by an officer or authorized representative</p>	Cross-reference corrected.
71.	OATT Part IX.J – CSA	Vicki Karandrikas	<p>This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, "CSA") is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. ("Transmission Provider" or "PJM"), _____ ("Developer Party" [OPTIONAL: or "[short name]"]) and _____</p>	<p>This Construction Service Agreement, including the Appendices attached hereto and incorporated herein (collectively, "CSA") is made and entered into as of the Effective Date (as defined in the attached Appendix III) by and among PJM Interconnection, L.L.C. ("Transmission Provider" or "PJM"), _____ ("Developer Party" [OPTIONAL: or "[short name]"]) and _____ ("Transmission Owner" [OPTIONAL: or "[short name]"]). Transmission Provider,</p>	Extraneous clause deleted.

			<p>(“Transmission Owner” [OPTIONAL: or “[short name]”). Transmission Provider, Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select [Project Developer, Eligible Customer or Affected System Customer]} as defined in in this GIP. For purposes of this Upgrade CSA, For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	<p>Developer Party and Transmission Owner are referred to herein individually as “Party” and collectively as “the Parties.” Developer Party is a {instruction: select [Project Developer, Eligible Customer or Affected System Customer]} as defined in in this GIP. <del>For purposes of this Upgrade CSA,</del> For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, or use Tariff, Part VIII if this is a post-transition period agreement}.</p>	
72.	OATT Part IX.B – GIA	Vicki Karandrikas	<p>{For all wind or non-synchronous generation facilities requesting an incremental increase in capacity or energy output which have entered the New Services Queue after November 1, 2016, and were not commercially operable prior to November 1, 2016 include the following requirements:}</p>	<p>{For all wind or non-synchronous <u>Generating Facilities generation</u> <del>facilities</del> requesting an incremental increase in capacity or energy output which have <u>submitted an Interconnection Request entered</u> <del>the New Services Queue</del> after November 1, 2016, and were not commercially operable prior to November 1, 2016 include the following requirements:}</p>	Changes made to conform to definitions in Tariff, Parts VII and VIII.
73.	OATT Part IX.B – GIA	Vicki Karandrikas	<p>10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any there are Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other</p>	<p>10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any <del>there are</del> Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.</p>	Change made for grammatical purposes.

			relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.		
74.	OATT 300 Definitions S; OATT 400 Definitions S	Vicki Karandrikas	“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of a GIA, or Schedule of an ICSEA, as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.	“Schedule of Work” shall mean that Schedule of Work set forth in section 8.0 of <u>Schedule L of</u> a GIA, or Schedule of <u>a CSA an IGSA</u> , as applicable, setting forth the timing of work to be performed by the Constructing Entity(ies), based upon the System Impact Study(ies) and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.	Changes made to clarify the cross-reference to section 8.0, and for internal consistency.