

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.)	Docket No. ER24-2045-000
)	
Improvements to Generator)	
Interconnection Procedures and)	
Agreements)	

**ORDER NOS. 2023 AND 2023-A COMPLIANCE FILING OF
PJM INTERCONNECTION, L.L.C.**

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ATTACHMENT B: PJM INTERCONNECTION, L.L.C. OPEN ACCESS
TRANSMISSION TARIFF SECTIONS

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PJM INTERCONNECTION, L.L.C.**

PJM Interconnection, L.L.C. (“PJM”) submits this filing in compliance with Order Nos. 2023 and 2023-A issued by the Federal Energy Regulatory Commission (“Commission”) on July 28, 2023 and March 21, 2024, respectively.¹ As demonstrated in this filing, PJM’s Open Access Transmission Tariff (“Tariff”) already substantially complies with the Final Rule, as the Final Rule parallels many reforms PJM has already implemented through the Interconnection Process Reform Task Force (“IPRTF”) effort, which gained overwhelming stakeholder support and Commission approval on November 29, 2022.² In approaching this compliance filing, PJM notes that its reformed

¹ *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 184 FERC ¶ 61,054, *limited order on reh’g*, 185 FERC ¶ 61,063 (2023), *order on reh’g and clarification*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024), *appeals pending*, Petition for Review, *Advanced Energy United v. FERC*, Nos. 23-1282, et al. (D.C. Cir. Oct. 6, 2023). For purposes of this compliance filing, PJM refers to Order No. 2023, as modified by Order No. 2023-A, as the “Final Rule.”

² *PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162 (2022), at PP 30, 33 (“IPRTF Order”) (finding PJM’s proposed queue reforms to be just, reasonable and consistent with prior rulemakings applying the independent entity standard), *reh’g denied*, 184 FERC ¶ 61,006 (2023), *appeals pending*, Petition for Review, *Hecate Energy LLC v. FERC*, Nos. 23-1089, et al. (D.C. Cir. Mar. 31, 2023). The Commission also specifically approved PJM’s proposed transition mechanism, Site Control requirements, and elimination of suspension. IPRTF Order at PP 11, 60, 99-100.

interconnection process, which the Commission approved only a few months before it issued Order No. 2023, is focused on and meets the same objectives as the Final Rule:

- streamlining the generator interconnection process;
- improving processing efficiency; and
- providing more actionable information to Project Developers to facilitate the interconnection of viable generation projects to the PJM Transmission System.³

PJM's reformed interconnection procedures accomplish these objectives in an open, transparent, and not unduly discriminatory manner. To the extent the Tariff is not fully compliant with the Final Rule, PJM seeks independent entity variations to allow it to retain its comprehensive reform package of interconnection rules that not only will accomplish the purpose and satisfy the principles of the Final Rule, but are tailored to the needs of the PJM Region and the challenges PJM faces as a regional transmission organization ("RTO") with an extraordinary volume of generator Interconnection Requests to be processed and studied.⁴

Moreover, PJM urges the Commission to recognize that it has already instituted its approved reforms and processed the readiness requirements for 616 interconnection projects, performed the sorting analysis between the Expedited Process and Transition Cycle #1, begun executing Generator Interconnection Agreements ("GIAs") for Expedited

³ Capitalized terms not otherwise defined herein shall have the meanings given to them in the Tariff or in the Order No. 2023-A Large Generator Interconnection Procedures, as applicable.

⁴ Attachment A to this filing provides a table summarizing both PJM's compliance with the Final Rule and its requests for independent entity variations from the Final Rule, along with justifications for such deviations. Attachment B to this filing includes a copy of the Tariff sheets that are affected by the Final Rule and which are addressed in this filing.

Process projects, and will release the Phase I results of Transition Cycle #1 for more than 300 projects later this month. Given that PJM’s reforms meet the goals of the Final Rule in a comprehensive way, the Commission should grant the requested independent entity variations rather than requiring PJM to halt processing Interconnection Requests, revise its Tariff to change provisions it has already implemented, and then re-start processing under the Order No. 2023 *pro forma* tariff provisions. The latter course would require expensive and time consuming revamping of software and processes developed over the last year and an extraordinary amount of restudies and re-sorting of projects, which would undermine PJM’s efforts to meet the Commission’s and its own goals for generator interconnection. Moreover, such “redo” efforts would cause greater uncertainty and delay for those waiting for studies and frustrate the Commission’s goal of ensuring a more streamlined process with outcomes that developers can rely upon in making their investment decisions. In short, such an outcome would, as a practical matter, put form over substance and frustrate PJM’s and the Commission’s commitment to improving and streamlining the interconnection process, as well as frustrating the Project Developers that have adhered to the transition period rules and seek to interconnect their projects in accordance with those rules.

I. INTRODUCTION

A. The IPRTF Tariff

As early as October 2020, PJM recognized the need to improve its generator interconnection processes and agreements well in advance of the issuance of Order

No. 2023 and, working with its stakeholders, PJM developed, filed (on June 14, 2022),⁵ received Commission approval of,⁶ and has begun implementing a process that meets the Commission’s intent in promulgating the Final Rule. These Tariff reforms were the result of the efforts of the IPRTF and other stakeholder initiatives over a period of 21 months, and are referred to herein as the “IPRTF Tariff.”⁷ The IPRTF Tariff revisions, which were submitted to the Commission and approved by the Commission in the IPRTF Order, comprehensively reformed the PJM interconnection process to more efficiently and timely process New Service Requests by transitioning from a serial “first-come, first-served” queue approach to a “first-ready, first-served” Cycle approach.⁸ As the Commission found in approving the IPRTF Tariff, PJM’s reformed process “provide[s] PJM with the ability to reduce the current backlog more quickly than possible under its current rules and ultimately result[s] in the more efficient and timely processing of New Service Requests.”⁹ The Commission recognized in the IPRTF Order the importance of affording PJM flexibility to address its “region-specific queue processing challenges.”¹⁰

⁵ *PJM Interconnection, L.L.C.*, Tariff Revisions for Interconnection Process Reform, Request for Commission Action by October 3, 2022, and Request for 30-Day Comment Period, Docket No. ER22-2110-000 (June 14, 2022) (“June 14 Filing”).

⁶ IPRTF Order at P 33.

⁷ Information on the IPRTF process, including the initial Problem Statement and Issue Charge, as well as the task force’s final report, is posted on the PJM website at: <https://www.pjm.com/committees-and-groups/closed-groups/iprtf>.

⁸ IPRTF Order at PP 32-33, 60.

⁹ IPRTF Order at P 33.

¹⁰ IPRTF Order at P 32.

B. The Need for Independent Entity Variations to Effectively and Expediently Achieve the Goals of the Final Rule and Earlier PJM Departures from the Pro Forma Large Generator Interconnection Procedures

To the extent the IPRTF Tariff does not fully comply with or exceed the requirements of the Final Rule, PJM requests that the Commission apply the “independent entity variation” standard in considering PJM’s compliance proposal.¹¹ Application of the independent entity standard requires a showing that variations from a Commission order or final rule are “(1) . . . just, reasonable, and not unduly discriminatory or preferential; and (2) accomplish[] the purposes of the order from which a variation is sought.”¹² As an independent RTO, PJM is not affiliated with any market participant and has no reason or incentive to act in a manner that is unduly discriminatory or preferential. The Commission in the Final Rule makes it clear that its reforms are intended to facilitate the ability of Interconnection Customers to connect to the grid in a reliable, efficient, transparent, and timely manner.¹³ The IPRTF Tariff is consistent with this objective and satisfies the requirements of the Final Rule in a just and reasonable manner that is consistently better suited to the PJM Region than the Final Rule. In particular:

- PJM’s Queue Scope tool offers much of the same functionality as the Final Rule’s heatmap application but Queue Scope service has been publicly

¹¹ Order No. 2023 at P 1764.

¹² IPRTF Order at P 2; *see also Midcontinent Indep. Sys. Operator, Inc.*, 185 FERC ¶ 61,231, at P 9 (2023); *ISO New England, Inc.*, 170 FERC ¶ 61,218, at P 26 (2020). This is in contrast to the “consistent with or superior to” standard which applies to non-RTOs, and which requires a non-RTO transmission provider to demonstrate why its proposal is consistent with or superior to the applicable *pro forma* requirements. *See Ariz. Pub. Serv. Co.*, 186 FERC ¶ 61,201, at P 13 (2024); Order No. 2023-A at PP 47, 53.

¹³ Order No. 2023 at PP 45-46; Order No. 2023-A at PP 10, 45-46.

available on PJM’s website since December 2022, i.e., at an earlier date than the Final Rule requires.

- PJM’s “gated” cluster study process is more appropriate for the PJM Region. The process improves on the Final Rule’s requirements by establishing a mechanism that provides certainty as to the costs each Cycle will bear by locking in the studies and cost responsibility of one Cycle before the next Cycle concludes.¹⁴ The process also allows PJM and its Transmission Owners to focus on the earlier requests and process them fully before beginning work on subsequent Cycles, giving Project Developers more certainty as to the study schedule.
- The IPRTF Tariff contains provisions such as those governing PJM’s study and Readiness Deposits that use different dollar thresholds than the amounts set forth in the Final Rule, different disposition of the Readiness Deposit funds, and different conditions under which a project may withdraw without forfeiting its Readiness Deposits. While not identical to the Final Rule’s requirements, these provisions accomplish the goals of the Final Rule to ensure that studies are appropriately funded and reduce the number of non-viable projects that enter a cluster, while at the same time not erecting barriers that are so high as to discourage competitive entry. PJM’s Readiness Deposits are appropriately tailored to the integrated package of reforms adopted in the IPRTF Tariff and support PJM’s processes in a just

¹⁴ PJM’s process also provides “off ramps,” which allow Project Developers to obtain more certainty as to their projects’ expected costs and to exit the process if the anticipated costs exceed their ability to finance, or for other reasons. PJM’s process also provides opportunities for projects that do not require further study, such as small generators, to accelerate to the last stage of the process, negotiation of service agreements.

and reasonable manner. They also were arrived at through stakeholder consensus and have already been effective in weeding out speculative projects. Changing the deposit levels and overall deposit system in the middle of implementation of the reforms already approved by the Commission for PJM would lead to disparate treatment of Project Developers and would create potential gaming between those seeking to fall under the existing IPRTF Tariff and those seeking to utilize the Final Rule's readiness deposit requirements.

- The IPRTF Tariff contains Site Control requirements that are consistent with the provisions of the Final Rule and, in some respects, are more stringent. The rigor of PJM's Site Control requirements should reduce the number of non-viable projects in the interconnection process, but not exceed industry practice for site acquisition and control. By contrast, for the PJM region where available land is both scarce and expensive, the Commission's requirement for Site Control for the life of the facility would negatively affect development of new projects at the very time that PJM is seeing a host of premature retirements of existing generation.
- The IPRTF Tariff's provisions on co-located projects and projects with multiple fuel types behind a single Point of Interconnection are consistent with the Final Rule's goals and requirements, as they provide the development flexibility envisioned by the Final Rule.

The Commission applied the independent entity variation standard in approving the IPRTF Tariff,¹⁵ and should apply the same standard to this compliance filing.

As the Commission recognized in Order No. 2023, the independent entity variation recognizes that RTOs and independent system operators (“ISOs”) have “different operating characteristics depending on . . . size and location” that necessitate varied approaches to compliance based on regional differences.¹⁶ Moreover, the Commission in Order No. 2023-A expressly stated it would “continue to use the ‘independent entity variation’ standard when considering . . . proposals [to deviate from the requirements of the Final Rule] from RTOs/ISOs.”¹⁷ The Commission also stated its intent not to disrupt existing interconnection reforms already being implemented.¹⁸

The Tariff (including its interconnection procedures) has developed over time in ways the Commission has approved¹⁹ but which, under prior applications of the

¹⁵ IPRTF Order at PP 33, 79, 81, 111-13.

¹⁶ See Order No. 2023 at P 1764 n.3346 (citing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103, at P 826 (2003), *order on reh’g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh’g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh’g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff’d sub nom. Nat’l Ass’n of Regul. Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230 (2008)).

¹⁷ Order No. 2023-A at P 53; *see also* Order No. 2023 at P 1764.

¹⁸ Order No. 2023 at P 1765 (stating “[w]e recognize that many transmission providers have adopted or are in the process of adopting similar reforms to those adopted in this final rule. . . . [and] do not intend to disrupt these ongoing transition processes or stifle further innovation”); *see also id.*, *concur op.* (Commissioner Christie) at PP 24-25 (stating that the Final Rule recognizes the need to provide flexibility for transmission providers to show their reforms comply with the Order No. 2023, and that “[s]ome RTOs, such as PJM, have already launched extensive queue reforms; others, such as CAISO, are hard at work on developing queue reforms”).

¹⁹ See IPRTF Order at PP 33 (stating that “to the extent PJM’s proposed reforms reflect deviations from the Commission’s *pro forma* LGIA and LGIP, we find that they satisfy the independent entity variation standard of Order No. 2003”); *see also PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,226, at PP 32, 34, 65-70 (2019) (accepting revisions in PJM’s Order No. 845 compliance filing under the independent entity standard), *order on compliance & reh’g*, 171 FERC ¶ 61,145 (2020), *order on compliance, PJM Interconnection, L.L.C.*, Letter Order, PJM’s Order Nos. 845, 845-A and Order No. 845-B Compliance Filing, Docket No. ER19-1958-003 (Oct. 30, 2020); *see also Midcontinent Indep. Sys. Operator, Inc.*, 178 FERC ¶ 61,141, at P 3 (2022) (holding that “the Commission indicated that it would allow [RTOs] . . . to propose independent entity variations for pricing and non-pricing provisions” and that an RTO “is less likely to act in an unduly discriminatory manner than a transmission provider that is also a market participant”); *Sw. Power Pool, Inc.*,

independent entity variation standard, depart from the Commission's *pro forma* tariffs. As a result, many of the IPRTF Tariff's provisions do not repeat verbatim the interconnection procedures set forth in the Final Rule. The differences include minor changes, such as the use of different terminology, as well as more substantive changes, such as study timing provisions, readiness requirements, and withdrawal penalties that, while consistent with the Final Rule, do not match the Final Rule exactly. These differences are informed by the integrated nature of the IPRTF Tariff and the fact that PJM, with stakeholder approval, is well along in the process of implementing those reforms and expediting studies under its new Expedited Process. PJM also does not utilize Small Generator Interconnection Procedures or a Small Generator Interconnection Agreement because the comprehensive set of reforms in the IPRTF Tariff accommodates all generation sizes with appropriate exceptions to the process for small projects. Thus, those aspects of the Final Rule are not applicable to PJM.

Requiring PJM to modify its processes to mirror the Final Rule at this point would unreasonably sacrifice the overall efficiency achieved through decades of Tariff development under the independent entity variation, culminating in the adoption of the IPRTF Tariff to establish a just and reasonable, resource-neutral, cluster-based approach. As PJM has begun the Transition Period under its IPRTF Tariff, and has been working and continues to work to clear the backlog of Interconnection Requests in conformance with the IPRTF Tariff procedures and deadlines, the independent entity variations requested herein are critical to allow that process to continue, while avoiding additional restudies,

128 FERC ¶ 61,114, at P 15 (2009) (finding use of independent entity variation standard is appropriate for evaluating the interconnection reform filing submitted by SPP).

opportunities for parties to “game” the system between the existing IPRTF Tariff and the Final Rule’s requirements, and further delays and uncertainties that harm Project Developers.²⁰ PJM is at a critical juncture as new projects are needed to move into commercial operation to make up for the spate of retirements of existing generation as detailed in PJM’s Resource Retirements, Replacements, and Risk analysis.²¹ Without the requested independent entity variations, PJM will have to stop work, put in place new or altered procedures, and then redo under the Final Rule’s processes, work it has already performed under the IPRTF Tariff. PJM submits that such a result would be contrary to the goals of the Final Rule.

C. The Commission Rightly Recognized the Importance of Avoiding Disruption of Ongoing Transition Processes and Therefore Should Grant PJM’s Requested Independent Entity Variations

The Commission’s statements that it does not “intend to disrupt . . . ongoing transition processes” or “interfere with the timely completion of . . . transition processes,”²² would ring hollow if the Commission nevertheless requires significant changes to the IPRTF Tariff procedures to which PJM is transitioning. PJM is currently “mid-flight” with its new interconnection process and is making progress reducing its study backlog, having processed 160 service agreements for projects representing approximately 18,000 megawatts (“MWs”) in 2023 alone. Now is not the time to force PJM to substantially revamp its reformed interconnection processes or to require a rigid adherence to the *pro*

²⁰ This includes the requirement to start Transition Cycle #1 no later than one year after the Transition Date. Tariff, Part VII, Subpart B, section 304(C)(2)(a). PJM reached this goal, with Transition Cycle #1 commencing in January 2024, approximately six months after the July 10, 2023 Transition Date.

²¹ See *Energy Transition in PJM: Resource Retirement, Replacements & Risks*, PJM Interconnection, L.L.C. (Feb. 24, 2023), <https://www.pjm.com/-/media/library/reports-notice/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

²² Order No. 2023-A at P 52.

forma provisions adopted in the Final Rule that are inconsistent with or could undermine PJM's already approved reforms.

Absent the requested independent entity variations, PJM's ability to process and study backlogged Interconnection Requests as expeditiously and efficiently as possible will be jeopardized, contrary to the intent and goals of the Final Rule and to the detriment of all concerned. If the Commission denies PJM's independent entity variation requests and, for example, insists on requiring PJM to accommodate project fuel changes at any time Project Developers choose,²³ the problems caused by unready or non-viable projects in the interconnection process will be resurrected, with all the delay created by those scenarios. Further, if the Commission insists on the annual clusters required by the Final Rule, and does not allow PJM to gate each Cycle off from successive Cycles under an independent entity variation, Interconnection Requests will continue stacking up, requiring PJM personnel to address a large number of Interconnection Requests in a new cycle while still performing the studies required for the existing Cycle or Cycles.

In summary, PJM's integrated package of reforms approved by the Commission in the IPRTF Order balances certainty and flexibility and is calibrated to speed up the processing of Interconnection Requests, consistent with the Final Rule's goal. Changing one element to increase flexibility for a single type of generating unit or to impose a time limit that is not suitable for PJM has the effect of disrupting the process as a whole and the balance that was achieved through stakeholder consensus. This outcome would be contrary to the intent of the Final Rule and should be avoided.

²³ See Order No. 2023 at P 1410.

Further, the IPRTF Tariff resulted from a detailed and extensive stakeholder process, involving a diverse group of parties.²⁴ This stakeholder process allowed for participation by all interested stakeholders, involved substantial compromises from all parties, and resulted in the overwhelming approval of the proposed Tariff reforms.²⁵ The Commission accepted the June 14 Filing in all respects, subject to minor compliance filing requirements not at issue here, as an integrated reform package designed to decrease the queue backlog and increase efficiency in satisfaction of the independent entity variation standard.²⁶ The Commission should respect the process, and apply its independent entity variation standard to the resulting IPRTF Tariff, to allow it to stand as previously accepted as a just and reasonable cluster study approach that will provide ready projects with a means to move forward on a non-discriminatory basis, while deterring non-ready projects from entering or lingering in a Cycle, all in a way that is consistent with the goals of the Final Rule.

D. Tariff Sheets

The Commission in Order No. 2023-A clarified “that transmission providers need only re-file and seek approval for previously approved variations where those provisions

²⁴ June 14 Filing at 2, 13. This stakeholder process allowed for participation by all interested stakeholders, including developers, Transmission Owners and state commissions, and resulted in the overwhelming approval of the proposed Tariff reforms, including a sector weighted vote of 4.368 out of a total of 5.00 at PJM’s Markets and Reliability Committee and a sector weighted vote of 4.518 out of a total of 5.00 at PJM’s Members Committee, both of which exceed the two-third weighted sector threshold of 3.33 needed for approval. June 14 Filing at 2, 26. The IPRTF Final Report indicates that the state commissions of Illinois, Michigan, New Jersey, and Maryland participated on the IPRTF process. *Interconnection Process Reform Task Force Final Report*, PJM Interconnection, L.L.C., 3-12 (Oct. 13, 2023), <https://www.pjm.com/-/media/committees-groups/task-forces/iprtf/postings/iprtf-final-report.ashx>.

²⁵ June 14 Filing at 13, 25-28.

²⁶ IPRTF Order at PP 30, 60, 65-66, 147.

are modified by Order No. 2023.”²⁷ Accordingly, PJM submits the following sections of the IPRTF Tariff that are affected by the Final Rule and which are addressed in this filing:

- Part VIII, Definitions, A, C, D, E, G, I, L, M, N, O, P, Q, S, T, and W;
- Part VIII, sections 401-411, 414, 429, 431, and 432; and
- Part IX, Agreements: Application and Studies Agreement, GIA, and Stand Alone CSA.

A copy of the Tariff sheets is included as Attachment B to this compliance filing.

PJM is not proposing to revise the Tariff sections listed above in this initial phase of its Order No. 2023 compliance, as it seeks independent entity variations to retain its approved IPRTF Tariff as an integrated package. PJM plans to submit a second phase of Order No. 2023 compliance based on a compliance filing schedule PJM would put forth within 30 days of a Commission order on this filing that approves the Order No. 2023 compliance changes, including PJM’s proposed graduated study delay consequences outlined herein, and its expected work with its neighbors through Tariff revisions and Joint Operating Agreement reforms to address Affected Systems coordination. This second phase will include new and revised Tariff sheets containing the approved changes, but the timing of submittal of such changes is dependent on the Commission’s ruling and guidance provided in response to this filing.

²⁷ Order No. 2023-A at P 77.

II. COMPLIANCE FILING

A. *Reforms to Implement a First-Ready, First Served Cluster Study Process*

1. *Interconnection information access: PJM seeks an independent entity variation to allow PJM to use its Queue Scope tool to meet this requirement.*

PJM’s Queue Scope tool substantially satisfies and is, in some respects, superior to, the Final Rule’s requirement for transmission providers to provide a “heatmap” of publicly posted available information to inform Generator Interconnection Requests within 30 days after the completion of each cluster study or restudy. Queue Scope’s functionality satisfies the Final Rule’s goal of providing transparency as to potential Points of Interconnection, allowing prospective Project Developers to assess a potential Generating Facility’s effect on the PJM Transmission System.²⁸ PJM agrees with the Commission that Project Developers’ practice of submitting multiple Interconnection Requests increases study delays. Providing Project Developers access to additional information prior to their entering the interconnection queue, as Queue Scope does, enables them to make informed decisions about where to locate, and how to configure, their projects, and should reduce the number of speculative Interconnection Requests PJM receives.²⁹ To that end, PJM began work on its Queue Scope tool in early 2022, months before the Commission issued the Final Rule, and has already implemented the tool, with the tabular user interface version of the tool becoming available in December 2022 and the geospatial user interface version becoming available in December 2023.³⁰ Project Developers appear to find the Queue

²⁸ Order No. 2023 at PP 135-36, 140; Order No. 2023-A at P 80.

²⁹ Order No. 2023 at P 67.

³⁰ General information on Queue Scope is available at: PJM System Planning, *Queue Scope User Guide*, PJM Interconnection, L.L.C. (Dec. 2023), <https://pjm.com/-/media/etools/planning-center/queue-scope-user-guide.ashx> (“Queue Scope Guide”). The tabular user interface provides information in a chart-like, or

Scope tool useful, as the Queue Scope page on PJM’s website has been accessed 22,000 times since the beginning of 2024.

Queue Scope is an interactive prescreening tool that offers many of the same features as the heatmap envisioned by the Final Rule and provides information for a Project Developer to assess the viability of a potential interconnection location and configuration. Specifically, Queue Scope allows a Project Developer to screen potential Points of Interconnection and assess grid impacts based on a given amount of MW injection or withdrawal at a given Point of Interconnection. Consistent with the Final Rule, this functionality can help users determine the thermal grid impacts that may occur or the transmission headroom that may exist for a potential generator interconnection at different Points of Interconnection. In addition, while the Final Rule does not require that the interactive tool become available until after the Transition Period ends,³¹ PJM has already made Queue Scope available, thus providing benefits beyond those required by Order No. 2023.

The Transition Cycle #1, Phase I, study case was made available in Queue Scope as of March 12, 2024, along with the 2025, 2026, and 2027 Regional Transmission Expansion Plan (“RTEP”) base cases and the 2024 Queue Window AG1 expedited process case.³² PJM will update the Cycle study datasets reflected in Queue Scope on a routine basis as Phases I and II of each Cycle are completed (when Phase III of each Cycle is

spreadsheet basis, whereas the geospatial user interface allows users to select from available points on a map and apply a grid impact overlay. Queue Scope Guide at sections 5-6.

³¹ See Order No. 2023 at P 141.

³² All cases are summer peak cases. The AG1 expedited process refers to the pending Interconnection Requests submitted from April 1, 2020 through September 30, 2020, that were determined to be eligible for the expedited process set forth in Tariff, Part VII, Subpart B, sections 304(A)-(B).

completed, the next, most up-to-date study results will be for Phase I of the next Cycle). Updated case results will replace previous results as PJM goes through the Cycle studies and will capture the updates (on a continual basis) coming out of Cycle Decision Points.³³

Project Developers will still have access to current analytical information used by Queue Scope prior to the start of a Cycle and PJM will provide the updated models for the three phases' System Impact Studies once those are complete. In addition, PJM makes study cases available to Project Developers that submit to PJM valid Critical Energy Infrastructure Information ("CEII") requests, providing them access to additional data concerning the name(s) of the contingency(ies) and facility ratings that can be used to assess potential Points of Interconnection.³⁴

Queue Scope allows users to select available Points of Interconnection to assess the injection or withdrawal of a given amount of MWs. The dataset results leveraged in the tool are created using a high-level DC flowgate Generator Deliverability Analysis across the PJM Region, and include a selection of over 6,000 to 7,000 Point of Interconnection buses at 100 kilovolts and above on the PJM Transmission System, to provide users with feedback on worst-case flowgate loading on the PJM Transmission System in the vicinity of those Points of Interconnection. Users can select different case types (RTEP vs. Queue/Cycle) and different case years to compare results.

Queue Scope is consistent with the attributes of the heatmap tool outlined in the Final Rule, as it, in conjunction with the planning models PJM makes publicly available

³³ The Final Rule requires transmission providers to update their interactive tool within 30 days of the completion of each cluster (or Cycle) study or restudy. Order No. 2023 at PP 135, 140.

³⁴ In addition to having the updated cases as an available option in Queue Scope for running screens, PJM also (with CEII approval) will provide Project Developers access to the actual study cases. This will allow Project Developers to see the details of what generation and load is modeled in the case, and to run the generation deliverability study for themselves, simulating the studies PJM performs.

and the study reports available on the PJM website,³⁵ allows Project Developers to identify favorable locations to interconnect, run their own studies using the models, and estimate costs of the facilities required to enable the potential interconnection. PJM makes data that is not confidential and market-sensitive available to Project Developers, which should allow Project Developers and their consultants to estimate the impacts of potential interconnections and thereby assess the viability of locating projects at various Points of Interconnection.³⁶

PJM already has invested significant amounts of time and money into developing its Queue Scope tool as part of its integrated package of interconnection reforms, and Project Developers are already using this tool and relying on its results to inform their decision making.³⁷ Queue Scope is consistent with the intent and objectives of the Final Rule's requirement to provide a prescreening tool that provides information for a Project Developer to assess the viability of a potential interconnection location and configuration. The Commission should therefore grant PJM's request for an independent entity variation to continue to use Queue Scope.

³⁵ These reports are available at: *Service Request Status*, PJM Interconnection, L.L.C., <https://pjm.com/planning/service-requests/services-request-status> (last visited May 16, 2024) (to access the reports, enter the queue number or Project Identifier in the "Project/OASIS ID" search box and select the Phases & Agreements tab).

³⁶ This is consistent with Order No. 2023, in which the Commission indicates the heatmap tool should allow developers to get an estimate of a potential interconnection impact and assess its viability. Order No. 2023 at PP 136-37.

³⁷ As noted already, the Queue Scope page on PJM's website has been accessed 22,000 times since the beginning of 2024, *see supra* pages 14-15.

2. *Cluster study process*

a. Need for reform and interconnection study procedures

The Final Rule requires transmission providers to adopt a cluster/Cycle study process.³⁸ PJM already has done so and thus its Tariff already complies with this fundamental aspect of the Final Rule.

b. Defined terms in the *pro forma* LGIP and LGIA

Order No. 2023 required the definition of Stand Alone Network Upgrades to be clarified to restrict Stand Alone Network Upgrades only to those upgrades that will be used in connection with a single Interconnection Request.³⁹ However, the Commission in Order No. 2023-A modified this requirement and a related *pro forma* Large Generator Interconnection Agreement (“LGIA”) provision to allow Interconnection Customers to coordinate to build these upgrades when: (1) all Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades constructed under this option are required only for Interconnection Customers in a single cluster, and (2) the affected Interconnection Customers execute an agreement addressing responsibilities and payment for the construction of the facilities subject to the Option to Build.⁴⁰ The Commission went on to state, “[t]hese revisions will also avoid potentially lengthy disputes between interconnection customers . . . because, for interconnection customers with shared network upgrades that qualify as stand alone network upgrades, interconnection customers must

³⁸ Order No. 2023 at P 177.

³⁹ Order No. 2023 at P 192; *pro forma* LGIP section 1; *pro forma* LGIA art. 1.

⁴⁰ Order No. 2023-A at PP 141-42.

mutually agree to such agreement outside the transmission provider's interconnection process and thus will not slow down that process."⁴¹

The definition of Stand Alone Network Upgrade in the IPRTF Tariff substantially complies with Order No. 2023-A, as it indicates a Stand Alone Network Upgrade is an upgrade that can be constructed without affecting the Transmission System's day-to-day operations, and that PJM, the Transmission Owner, and the Project Developer must agree as to what constitutes a Stand Alone Network Upgrade.⁴² In addition, PJM's *pro forma* GIA, Schedule L, section 11.2.3.6, states that if more than one Project Developer has been assigned cost responsibility for a Stand Alone Network Upgrade and desires to exercise the Option to Build, PJM will determine how to allocate the construction responsibility among them unless the Project Developers reach agreement among themselves. The IPRTF Tariff's definition of Stand Alone Network Upgrades will avoid litigation about construction responsibility and obligations between or among Project Developers, and thus is consistent with the goals of the Final Rule.⁴³

The Final Rule also requires transmission providers to adopt a definition of Material Modification that clarifies that the Material Modification test takes into account the impact on Interconnection Requests in the same cluster.⁴⁴ The integrated reforms adopted in the IPRTF Tariff already exceed the objectives of this requirement without the need for further changes because the IPRTF Tariff does not permit Material Modifications that would affect Interconnection Requests within the same Cycle. Specifically, the IPRTF Tariff only

⁴¹ Order No. 2023-A at P 143.

⁴² See Tariff, Part VIII, Subpart A, section 400, Definitions S (Definition of Stand Alone Network Upgrades).

⁴³ Tariff, Part IX, Subpart B (Form of GIA), Schedule L, section 11.2.3.6.

⁴⁴ Order No. 2023 at P 192.

allows a defined set of limited changes to an Interconnection Request at Decision Points I and II.⁴⁵ This defined ability to make certain types of changes, which was part of the package for which stakeholders voted, provides certainty and advance notice to developers before they enter the interconnection process of the permissible changes, and prevents PJM from having to expend resources to evaluate a limitless set of change requests from potential Project Developers.⁴⁶ The Commission should accept the Material Modifications provisions of the IPTRF Tariff as they provide certainty for potential Project Developers and for more efficient use of PJM processing resources, consistent with the Final Rule’s intent.

c. Definitive Points of Interconnection

The Final Rule requires an Interconnection Customer to select a definitive Point of Interconnection to be studied at the time it executes a cluster study agreement.⁴⁷ The IPRTF Tariff substantially complies with these requirements, with variances that are appropriate for the PJM Region and PJM’s Cycle study process. Under the IPRTF Tariff, as part of its Interconnection Request, a Project Developer submits a completed Application and Studies Agreement (“Application”) that designates the proposed Point of Interconnection.⁴⁸ Therefore, the IPRTF Tariff requires designation of the Point of Interconnection by the Project Developer at what is essentially the same time as required

⁴⁵ Tariff, Part VIII, Subpart C, sections 406(B) and 408(B)(4).

⁴⁶ PJM notes that under its prior process it received 158 Material Modification requests during the period from January 2022 to May 2023.

⁴⁷ Order No. 2023 at P 200.

⁴⁸ Tariff, Part VIII, Subpart B, sections 403(A) and 403(A)(1)(b); *id.*, Part IX, Subpart A (Form of Application and Studies Agreement), section 9. The Project Developer does not submit an Interconnection Request and an executed Application as separate steps in PJM’s interconnection process; the Application is the equivalent of a cluster study agreement in the Final Rule.

by the Final Rule, and thus should be found permissible under the independent entity variation standard.

In addition, the IPRTF Tariff permits a Project Developer to finalize its Point of Interconnection at Decision Point I.⁴⁹ This provision, part of the package of reforms negotiated and voted on in the stakeholder process that resulted in the June 14 Filing, allows Project Developers flexibility within certain boundaries. The flexibility for a Project Developer to change a project's Point of Interconnection after the application stage makes the IPRTF Tariff superior to the *pro forma* provisions in meeting the goals of the Final Rule because it strikes an appropriate balance between flexibility for Project Developers and certainty as to what PJM is studying, so that speed and efficiency of processing are not sacrificed. The Commission therefore should accept these provisions concerning definitive Points of Interconnection under the independent entity variation standard.

- d. Cluster study window, deficiency periods, annual study cycles as opposed to gated cycles, and customer engagement window

The IPRTF Tariff provides for a rolling submission of Interconnection Requests. PJM will announce the deadline for submitting applications for a Cycle 180 days prior to closing the application period. After the application deadline passes, there is a 90-day period for PJM to review submissions and identify deficiencies in Interconnection Requests so that Project Developers can address those deficiencies.⁵⁰ The Final Rule, in contrast, establishes a 45-calendar day cluster window and a 10-Business Day period for an Interconnection Customer to cure any deficiencies in its Interconnection Request.⁵¹ The

⁴⁹ Tariff, Part VIII, Subpart C, section 406(B)(4).

⁵⁰ Tariff, Part VIII, Subpart B, section 403(B).

⁵¹ Order No. 2023 at P 223.

Final Rule also establishes a 60-calendar day Customer Engagement Window, as well as an annual cluster study process.⁵²

While the time periods in PJM's process are different from those specified in the Final Rule, the timing and notice structure adopted by PJM provides greater flexibility to Project Developers and will better facilitate the submission of complete and accurate Interconnection Requests, which is consistent with the Final Rule. The IPRTF Tariff's 180-day notice provides sufficient notice to prospective Project Developers of the opportunity to submit applications and gives them ample time to develop viable and robust Interconnection Requests. The 180-day period also enables Project Developers to take greater care in confirming the accuracy of, confidence in, and due diligence underlying the information in their applications than the Final Rule's 45-day period would allow. Considerations as to sufficient time to prepare and submit requests were also part of the negotiations in the IPRTF stakeholder process that resulted in a solutions package that was overwhelmingly supported, and ultimately approved, by the stakeholders. The Commission therefore should accept PJM's 180-day notice period under the independent entity variation standard.⁵³

In a large RTO such as PJM, which has an extremely active interconnection queue, the use of an annual cluster window approach as specified in the Final Rule is infeasible and could cause significant disruptions and delays to the process due to the sheer volume

⁵² Order No. 2023 at PP 223, 227, 232.

⁵³ PJM has not adopted a non-refundable application fee at this time, as the Final Rule would require. Order No. 2023 at P 223. Instead, a Project Developer must submit an Application and the required study deposit and Readiness Deposits when it submits its Interconnection Request to PJM. Tariff, Part VIII, Subpart B, section 403(A). PJM may re-evaluate collecting an application fee at a later date, but at this time does not view it as necessary. To the extent necessary, PJM requests the Commission accept the lack of an application fee under the independent entity variation standard.

of interconnection requests received. Instead of the Final Rule’s annual cluster window approach, the IPRTF Tariff establishes a gate between Cycles such that the application deadline for a new Cycle is not announced until the beginning of Phase II of the prior Cycle.⁵⁴ The gating mechanism provides certainty as to the costs each Cycle will bear, locking in the studies and cost responsibility of one Cycle before the next Cycle begins.⁵⁵ Starting a new Cycle on an annual basis without regard to the stage of the ongoing Cycle, as the Final Rule requires, may provide the illusion of speed and progress, but will in fact sow uncertainty as to cost responsibility and may cause late withdrawals and restudies. Significantly, starting a new Cycle while lacking certainty as to which Network Upgrades or impacts will be covered by the prior Cycle would result in unclear model parameters for the new Cycle, undermine the purpose of the current Cycle process, and engender uncertainty for all projects still under study. In addition, not knowing whether the first or a subsequent Cycle will be responsible for a Network Upgrade would make it difficult for the projects in the subsequent Cycle to make decisions, which is precisely the outcome PJM’s gating mechanism is intended to avoid.⁵⁶ Thus, while the IPRTF Tariff does not use an annual cluster window approach, the gating mechanism it has adopted fully meets the Final Rule’s goals of providing an efficient, transparent and non-discriminatory interconnection process and even exceeds the Final Rule’s *pro forma* provisions in creating

⁵⁴ Tariff, Part VIII, Subpart B, section 403(A). As explained in the June 14 Filing, this gating process is necessary for the orderly processing of an interconnection process. June 14 Filing at 35, 49; June 14 Filing, Attachment D (Affidavit of Jason R. Shoemaker) ¶¶ 14, 33, 35 (“Shoemaker Aff.”).

⁵⁵ Lack of a gating process to separate queues/cycles/clusters, the situation in PJM before the IPRTF Tariff was implemented, can lead to substantial cost uncertainty, especially for projects with later-in-time queue positions that could be affected if a project with an earlier-in-time queue position withdrew.

⁵⁶ Moreover, the use of an annual deadline for Cycle windows would redirect significant resources away from the study of prior clusters in order to process new applications. This inefficient use of skilled engineering labor detracts from efficient queue processing and would harm Interconnection Requests that were previously submitted.

an efficient process. PJM therefore requests that the Commission approve PJM's use of gating between Cycles as an independent entity variation,⁵⁷ to allow the IPRTF Tariff to continue to function as intended and as previously accepted.

The IPRTF Tariff substantially complies with the requirement to allow Project Developers 10 Business Days to correct identified deficiencies in their Interconnection Requests.⁵⁸ Under the IPRTF Tariff, PJM will use Reasonable Efforts to inform a Project Developer of any deficiencies in its Interconnection Request within 15 Business Days after the Application Deadline, with the Project Developer then having 10 Business Days to respond and correct the deficiency. PJM then reviews the Project Developer's response within a target of 15 Business Days, and either validate or reject the Application.⁵⁹ Consistent with Order Nos. 2023 and 2023-A,⁶⁰ PJM must complete its determination that an Interconnection Request is valid by the close of the application request review period.

Finally, the IPRTF Tariff complies with Order No. 2023-A's requirement that the deficiency review period should run the length of the customer request window⁶¹ in that PJM requires and in fact utilizes the entire application window to review all Interconnection Requests. However, to the extent the intent of the Final Rule is for each individual customer to receive the full length of the customer request window to cure a deficiency, such a requirement is not compatible with PJM's reformed process and PJM therefore seeks an independent entity variation to retain its deficiency review period

⁵⁷ Order No. 2023 at PP 37, 43, 45-46; Order No. 2023-A at PP 10, 44-46.

⁵⁸ Order No. 2023 at P 223.

⁵⁹ Tariff, Part VIII, Subpart B, section 403(B)(1).

⁶⁰ Order No. 2023-A at P 147.

⁶¹ Order No. 2023-A at P 156.

distinct from the customer request or application window. As noted above, PJM provides a 180-day notice period prior to the start of a Cycle, which gives Project Developers ample time to develop and submit a complete and accurate Interconnection Request. Once an Interconnection Request is reviewed and deficiencies are identified, a Project Developer has 10 Business Days to cure those deficiencies.⁶² Given the large number of Interconnection Requests PJM historically has received and expects to continue receiving, it is not practical to have an extended deficiency review period that will allow non-ready or poorly prepared Project Developers multiple attempts to submit a valid Interconnection Request, each of which must be reviewed and evaluated by PJM personnel. A deficiency review period that is co-extensive with the lengthy request submission window PJM's process provides would effectively require PJM personnel to process multiple requests for the same projects, diverting resources from evaluating other more viable Interconnection Requests and developing studies. This would harm other Project Developers and be inconsistent with the Final Rule's goal of facilitating viable projects while removing non-viable projects from the process.⁶³

e. Scoping meetings

The Final Rule directs transmission providers to hold scoping meetings on an RTO-wide basis with all Project Developers that submitted an Interconnection Request in a cluster request window, and requires that transmission providers use non-disclosure

⁶² Tariff, Part VIII, Subpart B, section 403(B)(1)(b).

⁶³ The Commission makes it clear that the reforms embodied in Order Nos. 2023 and 2023-A are intended to protect viable projects from delays or other harms caused by non-ready or non-viable projects. *See* Order No. 2023 at PP 586, 588, 598; Order No. 2023-A at PP 205, 232. In other words, viable projects should not be adversely affected by non-viable projects.

agreements to maintain confidentiality of commercially sensitive information or information that could be used to identify specific projects.⁶⁴

The IPRTF Tariff substantially complies with this requirement, providing that PJM may hold scoping meetings for projects in each Transmission Owner zone, which can be waived by Applicants or Transmission Owners.⁶⁵ It is reasonable in the RTO context, and in no way contrary to the Final Rule, to hold scoping meetings on a Transmission Owner zone basis. Holding meetings on a RTO-wide basis would be unwieldy, whereas the IPRTF Tariff approach allows scoping meetings to be held and Project Developers to direct questions to PJM and the relevant Transmission Owners “in an efficient manner.”⁶⁶ It is also appropriate to allow the meetings to be waived by Project Developers or Transmission Owner(s), as they are the interested parties. This approach is appropriate for efficiency purposes where all information needed for the initial study has been garnered from the initial application⁶⁷ or through email communications, thus eliminating the need for the Project Developer or Transmission Owner to participate in a meeting if they do not choose to do so.

The Final Rule would require non-disclosure agreements specifically for scoping meetings but this is not necessary in PJM. The Tariff contains comprehensive confidentiality provisions that cover information related to Interconnection Requests.⁶⁸

⁶⁴ Order No. 2023 at PP 246-47.

⁶⁵ Tariff, Part VIII, Subpart B, section 403(C).

⁶⁶ See Order No. 2023 at P 246.

⁶⁷ PJM’s new Application will have all the necessary data fields required for the analysis. To the extent any of this information is lacking or requires elaboration, PJM will have communicated the need for further detail in its deficiency review by requesting a clarifying response by the developer.

⁶⁸ Tariff, Part VIII, Subpart E, section 425.

The protection provided by these provisions is equivalent to the protection that would be provided by the non-disclosure agreements required by the Final Rule. Further, as an independent entity, PJM has no incentive to share confidential information and, in fact, is subject to and imposes stringent requirements for information disclosure. In addition to these general protections for confidential information, the sharing of confidential information is not a necessary component of the PJM scoping meeting so there is no need for specific scoping meeting protections. In the event a circumstance arises in which PJM needs to discuss confidential information related to a project, PJM can re-direct the discussion to an individual setting to ensure confidentiality. Moreover, given the number of Project Developers that are expected to submit Interconnection Requests in a given Cycle, it would be overly burdensome for PJM to have to process hundreds of superfluous non-disclosure agreements for the sole purpose of scoping meetings. The Commission should accept the application of the Tariff's confidentiality provisions to scoping meetings, as they apply to all other interactions under the Tariff, as sufficient under an independent entity variation.⁶⁹

f. Posting of metrics for cluster study processing time and restudy processing time

The Final Rule requires transmission providers to post metrics for cluster study and cluster restudy processing times, including the number of cluster studies completed within 150 calendar days of the close of the customer engagement window, with the processing times to be measured from the close of the customer engagement window and from the date a transmission provider notifies Project Developers in the cluster that a cluster restudy

⁶⁹ Tariff, Part VIII, Subpart E, section 425; *id.*, Part IX, Subpart A (Form of Application and Studies Agreement), section 6; *see also id.*, Part VIII, Subpart A, section 400, Definitions C (Definition of Confidential Information).

is needed.⁷⁰ These Final Rule requirements essentially update the provisions in the prior *pro forma* Large Generator Interconnection Procedures (“LGIP”) to update the study names and reflect the study timelines set forth in the Final Rule. Tariff, Part VIII, Subpart E, section 431 substantially complies with these requirements, but appropriately reflects the terminology and study deadlines reflected in the IPRTF Tariff. The Commission in Order No. 2023-A stated that the Final Rule “does not preempt transmission providers from proposing tariff-defined study deadlines that may differ from the *pro forma* LGIP’s 150-day schedule,”⁷¹ Thus, the Commission should find these provisions of the IPRTF Tariff are acceptable.⁷²

g. Interconnection Request evaluation process

The Final Rule requires that transmission providers assign queue positions based on the date and time of valid Interconnection Requests but further specifies that all Project Developers that submit Interconnection Requests during a given cluster have the same priority.⁷³ The IPRTF Tariff satisfies this requirement, stating that “[f]or 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.”⁷⁴ PJM’s process also

⁷⁰ Order No. 2023 at PP 259-60; *pro forma* LGIP sections 3.5.2.1- 3.5.2.2.

⁷¹ Order No. 2023-A at P 156.

⁷² PJM provides support for the variation of PJM’s study and restudy periods from the Final Rules on pages 33 through 36.

⁷³ Order No. 2023 at P 277.

⁷⁴ Tariff, Part VIII, Subpart A, section 401(A); *id.*, Part VIII, Subpart E, section 412(A); *see* Order No. 2023 at P 277. A Project Identifier is the equivalent of a Queue Position number but does not provide priority within a Cycle as Queue Position numbers did under the prior serial process.

satisfies the Final Rule’s requirement that Project Developers in an earlier-in-time Cycle have a higher priority than Project Developers in a later-in-time Cycle.⁷⁵

The Final Rule also directs transmission providers to adopt language providing that moving a Point of Interconnection will result in a loss of queue position if it is deemed a Material Modification by the transmission provider.⁷⁶ Under the IPRTF Tariff, changes to the Point of Interconnection may be made only at Decision Point I;⁷⁷ any other modifications to the Point of Interconnection are not allowed and, if made, require a new Interconnection Request. The IPRTF Tariff thus provides Project Developers with clear guidance as to what types of Point of Interconnection changes are permissible, as opposed to what types of changes require a new Interconnection Request, and when such changes may be made.

In contrast, the Final Rule’s contemplation of allowing changes to Points of Interconnection at any time in the process, so long as the transmission provider determines the changes are not Material Modifications, could undermine the efficiencies of PJM’s Cycle process as: (1) individual projects would be modifying their Interconnection Requests outside the defined phase study timeframes; (2) PJM would need to conduct multiple one-off Material Modification analyses for such projects; and (3) each Material Modification analysis would interrupt the orderly processing of Interconnection Requests and efficient queue administration, to the detriment of all involved. The IPRTF Tariff

⁷⁵ See Order No. 2023 at P 277; Tariff, Part VIII, Subpart A, section 401(A) (stating “[a] given Cycle has priority over Cycles that commence at a later date”).

⁷⁶ Order No. 2023 at P 283.

⁷⁷ Tariff, Part VIII, Subpart C, section 408(B)(4). These Tariff sections state that a Project Developer can only change the location of its Point of Interconnection along the same segment of transmission line or move the location to a different breaker position within the same substation.

provisions are better suited for the PJM Region and its extraordinary number of Interconnection Requests because they maintain focus on pushing towards completion of the Cycle studies, which is in the interest of Project Developers and other stakeholders, as opposed to redirecting skilled engineers to assess a virtually unbounded number of Point of Interconnection modification requests. By providing Project Developers with the exact conditions under which they may modify their Points of Interconnection, PJM can continue to move forward without being diverted into *ad hoc* studies. PJM's restrictions incentivize Project Developers to make informed choices about their Points of Interconnection from the outset, by utilizing the tools provided for that purpose as directed in the Final Rule, i.e., PJM's Queue Scope tool. The restrictions also provide Project Developers with complete information in advance as to what changes to Points of Interconnection are acceptable and when those changes are acceptable.⁷⁸ This is consistent with the Final Rule's goal of facilitating a more efficient and timely interconnection process.⁷⁹ The Final Rule's requirement to study unrestricted Point of Interconnection changes to determine if they constitute Material Modifications could have seriously adverse impacts on PJM's interconnection process, as this would require endless restudies and, consequently, disruption to all those projects in the Cycle that are not seeking to change their Point of Interconnection. In contrast, the IPRTF Tariff's restrictions will promote a more efficient use of limited engineering resources and a more timely study process. Thus, the IPRTF Tariff is consistent with the Final Rule's objectives of promoting more efficient

⁷⁸ Acceptable changes are essentially the types of changes PJM has been approving under its prior Material Modification analyses and standards.

⁷⁹ See, e.g., Order No. 2023 at PP 37, 44.

interconnection,⁸⁰ and the Commission should grant an independent entity variation to allow PJM to maintain the IPRTF Tariff's restrictions on Point of Interconnection changes.⁸¹

h. Fewer than three years' extension to Commercial Operation Date

The Final Rule requires that an Interconnection Customer must receive an extension of the Generating Facility's commercial operations date (i.e., a suspension of its obligations under its GIA) of no more than three cumulative years without requiring that the Interconnection Customer request such an extension from the transmission provider.⁸² Under the IPRTF Tariff approved by the Commission, once a project has executed a GIA, the Project Developer has the unilateral right to extend milestone dates (other than Site Control) by one year for any reason, and still may be able to extend milestone dates in the event of delays it did not cause and could not have remedied through the exercise of due diligence.⁸³ In return for the unilateral right to extend milestones other than Site Control milestones by one year, the Commission authorized the elimination of suspension in the IPRTF Order, applying the independent entity variation standard and recognizing the "specific conditions" faced by PJM, in which allowing Project Developers to extend their

⁸⁰ Order No. 2023 at PP 45-46; Order No. 2023-A at PP 10, 45-46.

⁸¹ PJM acknowledges that the Commission in Order No. 2023-A rejected PJM's request for rehearing of this requirement. Order No. 2023-A at P 155. However, PJM does not view this as precluding PJM from adopting provisions on Point of Interconnection changes that differ from the Final Rule, provided PJM justifies the departure as acceptable under the independent entity variation standard. Order No. 2023 at P 1764; Order No. 2023-A at PP 47, 53.

⁸² Order No. 2023 at P 294.

⁸³ Tariff, Part VIII, Subpart E, section 429(B)(3); *id.*, Part IX, Subpart B (Form of GIA), section 6.4.

deadlines for up to three years may cause uncertainty and delay for lower-queued generators.⁸⁴

The Commission should again grant PJM an independent entity variation, based on the harm that may be caused by automatic extension of the commercial operation date that was agreed upon and memorialized in the GIA, and allow PJM to maintain the IPRTF Tariff's unilateral one-year extension of milestones and elimination of the three-year suspension period. In support of this request, PJM highlights the growing backlog of interconnection projects that have been studied and have service agreements in effect, but are not proceeding to construction and commercial operation. At present, roughly 40 gigawatts of such projects are in PJM's interconnection queue. Because the projects have effective service agreements, PJM models the projects' MWs in its RTEP as though they are in service. When those MWs are not there in reality, reliability issues that would otherwise be apparent in the RTEP analysis may be masked, resulting in increased Network Upgrade costs for some customers. Effectively managing these projects is made more difficult when they are provided three years to achieve commercial operations under the milestones in their service agreements and then are allowed an additional three years of no-questions-asked delay through the right to suspend their service agreements. Providing an automatic three-year suspension period under its pre-IPRTF Tariff rules has caused problems in PJM, as projects with service agreements cease making progress and are not built. Moreover, imposing this requirement just as PJM is transitioning to its new process

⁸⁴ IPRTF Order at PP 111, 113 (finding "that PJM's proposal to eliminate suspension rights and instead allow developers to extend milestones (other than Site Control) for up to one year for any reason meets the independent entity variation standard;" also finding that "[g]iven the specific conditions facing PJM, allowing project developers to continue to extend their timelines to commercial operation even further through a full three-year suspension period may cause uncertainty and delays for lower-queued generators").

and attempting to address the premature retirement of existing generation will only exacerbate the challenges PJM presently has in forecasting future capacity needs to ensure reliability into the future. For this reason, PJM removed the automatic three-year suspension period from the IPRTF Tariff and now seeks an independent entity variation to retain its IPRTF Tariff provisions without the suspension option.

i. Cluster study provisions

PJM adopted, and the Commission approved, a three-stage System Impact Study process under which the Phase I System Impact Study is to be completed within 120 days of the start of Phase I, the Phase II System Impact Study is to be completed within 180 days of the start of Phase II, and the Phase III System Impact Study is to be completed within 180 days of the start of Phase III.⁸⁵ The Final Rule requires transmission providers to implement a number of changes to their interconnection study process, including elimination of feasibility studies,⁸⁶ and adoption of a cluster study process in which transmission providers must complete the Cluster Study within 150 calendar days of the close of the Customer Engagement Window and complete any Cluster Restudy within 150 calendar days of informing the Interconnection Customers in the cluster that restudy is needed.⁸⁷

The Commission in Order No. 2023-A stated the Final Rule, “does not preempt transmission providers from proposing tariff-defined study deadlines that may differ from the *pro forma* LGIP’s 150-day schedule.”⁸⁸ Although the three-part study phase structure

⁸⁵ See Tariff, Part VIII. All completion dates are subject to the Reasonable Efforts standard.

⁸⁶ Order No. 2023 at P 316. PJM has already eliminated feasibility studies.

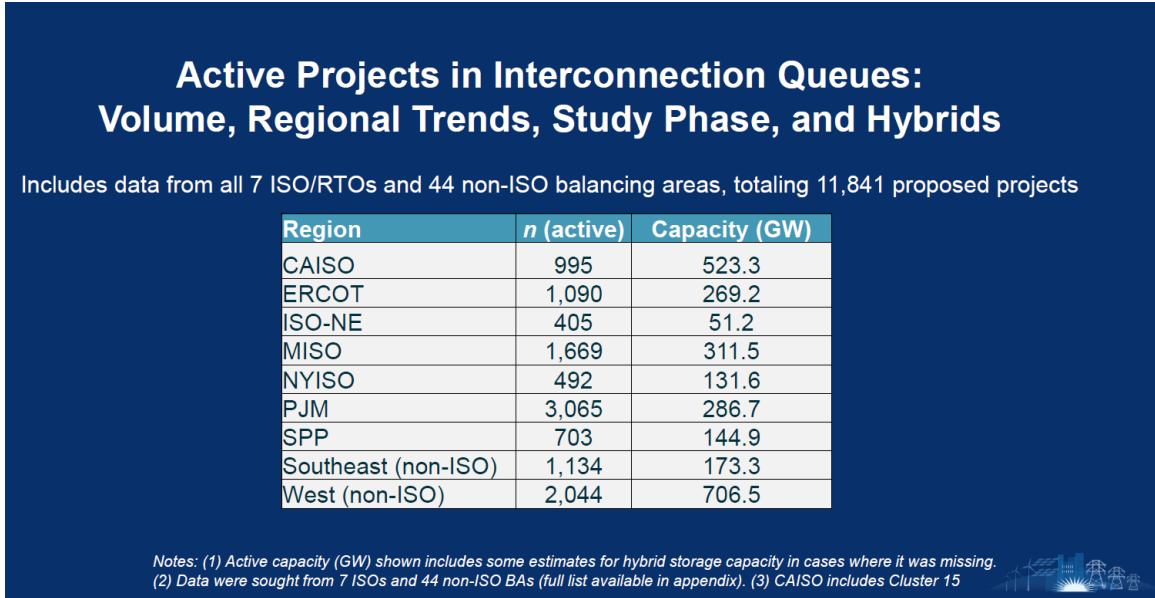
⁸⁷ Order No. 2023 at PP 324-30.

⁸⁸ Order No. 2023-A at P 156.

adopted by PJM differs from the Final Rule's 150-day schedule, it is generally consistent with the Final Rule. PJM's timeframes are longer, but are appropriate for a large RTO with a commensurate size and volume of Interconnection Requests such as PJM, given the complexity and number of Interconnection Requests PJM receives and expects to continue receiving, as well as the number of Transmission Owners with which PJM must coordinate. Figure 1 below demonstrates the disparity in the volume of Interconnection Requests PJM receives as compared to other RTOs and ISOs. The three-part study process adopted by PJM also facilitates the efficient use of PJM's resources and better allows Project Developers to assess the viability of their projects at set stages, and make the decision whether or not to move forward at those times. This process is consistent with the Final Rule's goal of allowing Interconnection Customers to connect to the grid in a reliable, efficient, transparent and timely manner.⁸⁹

⁸⁹ Order No. 2023 at PP 44-46; Order No. 2023-A at PP 10, 45-46.

Figure 1



Source: Joseph Rand, et al., *Queued Up: 2024 Edition Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2023*, Lawrence Berkeley National Laboratory, 9 (April 2024), https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_R2.pdf.

The Phase I System Impact Study is a limited duration load flow screen that allows a Project Developer to determine the expected impacts of its project’s interconnection and make an informed decision prior to having to provide additional at-risk deposits to move forward to the next phase of the process. The load flow study also precedes PJM’s performance of the more labor-intensive and costly short circuit and stability studies, screening out large numbers of projects with the relatively simple load flow study so that fewer projects need to be studied in the short circuit and stability studies. This sequencing of study types as projects move through the phases represents an efficient use of scarce engineering resources to screen large numbers of projects and advance the projects most likely to succeed. The IPRTF Tariff’s three-part study and phase timeframes were a key element of the IPRTF stakeholder process and were tailored to produce optimal PJM-specific results. Because these requirements reflect the expected but aggressive timeline

to complete each phase, based on PJM's experience and the particular circumstances PJM faces, the Commission should approve them as compliant with the Final Rule.

j. Restudies triggered by higher or equally queued Generating Facilities

The Tariff complies with the Final Rule's directive that transmission providers revise their tariffs to state that restudies can be triggered by higher or equally queued projects withdrawing from the queue or a permissible modification to a higher or equally queued project.⁹⁰ PJM's three-part study process, coupled with decision points, accounts for withdrawals and allows certain permissible modifications to occur on a structured basis. The Phase I System Impact Studies will consist of a load flow analysis that will identify the most common, broad impacts. The Phases II and III System Impact Studies will retool (restudy) the load flow analyses of the earlier phases using updated assumptions, including withdrawal or permissible modifications of other projects in the same Cycle, and include the more time consuming short circuit and stability analyses and facilities studies.⁹¹ The focus on the impact of projects in the same Cycle that withdraw or undergo permissible modifications is part of the gating process that treats each Cycle as a discrete review, as described in the June 14 Filing, which was a key element of the IPRTF consensus solution package.⁹²

k. Timing of LGIA tender, execution and filing

The Tariff generally complies with the Final Rule's requirements for transmission providers to adopt provisions to allow an Interconnection Customer to invoke a 60-day

⁹⁰ Order No. 2023 at P 335; *pro forma* LGIP section 8.5.

⁹¹ Tariff, Part VIII, Subpart C, sections 405(A)(1)(a), 407(A)(1)(a), 409(A)(1)(a).

⁹² PJM explained in the June 14 Filing that this gating mechanism will reduce uncertainty as to which facilities are needed for a given Cycle. June 14 Filing at 30, 35, 49; Shoemaker Aff. ¶¶ 14, 35.

negotiation period for the execution of an LGIA, demonstrate Site Control and provide Security.⁹³ The IPRTF Tariff establishes a structured 60-day Final Agreement Negotiation Phase that runs concurrently with Decision Point III.⁹⁴ The Project Developer at this point must provide evidence of Site Control and provide Security consistent with the requirements of the IPRTF Tariff.⁹⁵ The IPRTF Tariff also allows a Project Developer to direct that its GIA be filed on an unexecuted basis if the parties reach an impasse in their negotiations⁹⁶ and, similar to the Final Rule's provisions, requires Project Developers to meet milestones, such as entering into fuel supply contracts, within 60 days of PJM providing the Phase III System Impact Study Report.⁹⁷ The Commission therefore should find these aspects of the IPRTF Tariff comply with the Final Rule.

3. *Allocation of cluster study costs*

The Final Rule states that the Commission will allow a transmission provider to propose its own ratio for allocating shared cluster study costs between a per capita basis and pro rata by MW basis, provided that between 10 and 50 percent of study costs are allocated on a per capita basis, with the remainder allocated pro rata by MW.⁹⁸ The Commission added that a transmission provider may propose to retain its existing study cost allocation ratio if it falls within this range.

⁹³ Order No. 2023 at P 344.

⁹⁴ Tariff, Part VIII, Subpart C, sections 410(A) and 411.

⁹⁵ Tariff, Part VIII, Subpart C, sections 410(A)(1)(a) and (c). While the IPRTF Tariff's Site Control requirements and Security amounts differ from those in the Final Rule, the Commission should accept them under an independent entity variation, as PJM demonstrates in section A.5 below.

⁹⁶ Tariff, Part VIII, Subpart D, section 411(B)(3).

⁹⁷ Tariff, Part VIII, Subpart D, section 411(A).

⁹⁸ Order No. 2023 at P 416.

PJM currently allocates shared load flow study costs solely on a per capita basis, which is appropriate for a large RTO and should be permitted as an appropriate independent entity variation. There are significant initialization efforts and steps that must be taken to study any project, regardless of its size, which makes a per capita allocation just and reasonable. Further, use of a per capita cost allocation does not lead to an unfair, unreasonable or unduly discriminatory allocation of costs. As the Commission recognized in the Final Rule, there is not necessarily a linear relationship between the size of a project and the time and costs associated with studying a project.⁹⁹ Put simply, the expectation that a larger project requires more study is not always correct. In PJM's experience, the nature of the studies and clustering, and the size of PJM's Cycles (previously, of its queues), results in similar study costs regardless of project size because the time required to model a generator, build a base case, run the required analyses, and create a study report is generally the same across all sizes of projects.

In light of the lack of linear relationship between project size and study costs, allocating costs on a per-MW basis would require additional administration but would provide little benefit in return. PJM's strictly per capita allocation of load flow study costs strikes a fair balance between cost causality and administrative overhead.

PJM assigns load flow and short circuit study costs on a Cycle-wide basis and allocates those costs equally to all projects in the Cycle. By contrast, facilities and stability study costs are allocated solely to the projects requiring those studies. Facilities study costs are driven by the specific project and tend to be more variable than load flow study costs as they are based on the complexity and the size of the project. Similarly, stability study

⁹⁹ Order No. 2023 at P 418.

costs are assigned directly to specific projects based on the amount of work needed for each project. The Commission should find the IPRTF Tariff’s provisions on study cost allocation are acceptable under the independent entity variation standard.

4. *Allocation of Cluster Network Upgrade Costs*

The Final Rule requires transmission providers to allocate Network Upgrade costs using the proportional impact method, which the Commission indicates is “a technical analysis conducted by Transmission Provider to determine the degree to which each Generating Facility in the Cluster Study contributes to the need for a specific System Network Upgrade.”¹⁰⁰ A transmission provider also will be obliged to directly assign the cost of shared Transmission Owner Interconnection Facilities to Project Developers on a per capita basis when the Project Developers in a cluster agree to share Interconnection Facilities, unless the parties agreed to a different cost sharing arrangement.¹⁰¹ The Commission concluded that the proportional impact method reflects the Commission’s interconnection pricing policy for facilities designated as Network Upgrades.¹⁰²

The IPRTF Tariff substantially complies with these requirements, requiring a Project Developer to pay for 100 percent of the Network Upgrades necessary to accommodate its Interconnection Request, as well as 100 percent of the costs of the Interconnection Facilities (including Transmission Owner Interconnection Facilities) necessary to accommodate its Interconnection Request.¹⁰³ The Tariff also includes a form of Network Upgrade Cost Responsibility Agreement (“NUCRA”), which allows Project

¹⁰⁰ Order No. 2023 at P 453 & n.914.

¹⁰¹ Order No. 2023 at P 454.

¹⁰² Order No. 2023 at P 456.

¹⁰³ Tariff, Part VIII, Subpart C, sections 404(A)(5)-(6).

Developers to agree amongst themselves on the allocation of Common Use Upgrade costs.¹⁰⁴ Further elaboration as to cost allocation is provided in PJM Manual 14H, where Attachment B to that manual explains the cost allocation rules for Network Upgrades, specifying that the costs of an upgrade needed by more than one Project Developer are shared based on each New Service Request's proportional impact, measured as its MW contribution to the reliability violation (i.e., contribution to the loading on an overloaded facility).

The Final Rule also directs that a substation Network Upgrade may only be considered a Stand Alone Network Upgrade if it is needed to interconnect only one Generating Facility in the cluster and that the proportional impact method will be used in determining whether a substation Network Upgrade is only needed for one Generating Facility.¹⁰⁵ Also, as already noted, the *pro forma* GIA states that if one or more Project Developers have been assigned cost responsibility for a Stand Alone Network Upgrade, only one Project Developer can elect the Option to Build.¹⁰⁶ The IPRTF Tariff achieves the same results the Final Rule requires, as PJM will also use the proportional impact (or a per capita allocation, as appropriate for the type of upgrade) to determine whether one or more Project Developers are subject to cost allocation for a Network Upgrade and only one

¹⁰⁴ Tariff, Part IX, Subpart H (Network Upgrade Cost Responsibility Agreement), section 6.0, Appendix 2 section 2, Schedule B. The term "Common Use Upgrade" refers to a Network Upgrade that is needed for the interconnection of more than one generating facility and which is the shared responsibility of more than one Project Developer. Tariff, Part VIII, Subpart A, section 400, Definitions C (Definition of Common Use Upgrade).

¹⁰⁵ Order No. 2023 at P 460.

¹⁰⁶ Tariff, Part IX, Subpart B, Schedule L, section 11.2.3.6.

Project Developer will construct a Stand Alone Network Upgrade pursuant to the Option to Build.¹⁰⁷

Finally, the Commission in Order No. 2023-A states that “consistent with the rule of reason, the Commission will consider the details of the transmission provider’s proposed proportional impact method and whether those details should be in the tariff in its individual Order No. 2023 compliance filing.”¹⁰⁸ While the Tariff describes how the costs will be allocated, consistent with Commission precedent, the more detailed mechanics of the proportional impact method are appropriately addressed in the PJM Manuals.¹⁰⁹ If the Commission were to require these mechanics to be placed in the Tariff, PJM would need to submit a Federal Power Act (“FPA”) section 205 filing every time the implementation details changed, which would be inefficient and burdensome.

5. *Increased financial commitments and readiness requirements*

a. Increased study deposits

The Final Rule requires transmission providers to adopt the following study deposit structure, to be implemented through a one-time study deposit:¹¹⁰

¹⁰⁷ PJM will include Tariff revisions in its phase 2 compliance filing to revise the Network Upgrade definition appropriately.

¹⁰⁸ Order No. 2023-A at P 175.

¹⁰⁹ See, e.g., *Energy Storage Ass’n v. PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,296, at P 103 (2018) (citing *Cal. Indep. Sys. Operator Corp.*, 122 FERC ¶ 61,271, at P 16 (2008)); see also *City of Cleveland v. FERC*, 773 F.2d 1368, 1376 (finding that utilities must file “only those practices that affect rates and service significantly, that are realistically susceptible of specification, and that are not so generally understood in any contractual arrangement as to render recitation superfluous”); see also *N.Y. Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,102, at P 106 (2022) (indicating that implementation details are appropriately addressed in the RTO’s business practice manuals); *Midcontinent Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,075, at P 38 (2020) (rejecting protests and finding it appropriate to include implementation details in manuals rather than the RTO tariff; also finding that requiring MISO to include this information in the Tariff could curb needed operational flexibility).

¹¹⁰ Order No. 2023 at PP 502-03, 505.

Size of Proposed Generating Facility Associated with Interconnection Request	Amount of Deposit
> 20 MW < 80 MW	\$35,000 + \$1,000/MW
≥ 80 MW < 200 MW	\$150,000
≥ 200 MW	\$250,000

The Commission stated that adopting a tiered structure based on a project’s MW size was appropriate because larger projects tend to cost more to study, and Project Developers will be protected by the requirement that estimated study costs will be trued up to actual study costs at the end of the study process.¹¹¹

The IPRTF Tariff’s study deposit provisions substantially comply with the Final Rule¹¹² and should be accepted by the Commission as appropriate under the independent entity variation standard because they are just and reasonable and aligned with the goals of the Final Rule. PJM’s process includes tiered study deposit amounts based on the MW size of an Interconnection Request.¹¹³ As explained in the June 14 Filing, the tiered study deposit amounts represent a reasonable proxy for the cost of all three studies and the specific tiers and dollar amounts were part of the comprehensive stakeholder negotiated solutions package submitted in the June 14 Filing. Consistent with the Final Rule,¹¹⁴ the study deposit is a tiered, one-time deposit to be provided upon entry to the cluster, subject

¹¹¹ Order No. 2023 at P 504.

¹¹² Specifically, the IPRTF Tariff adopts the following tiered study deposit structure, based on the MW of energy or capacity associated with an Interconnection Request: (a) up to 20 MW: \$75,000; (b) over 20 MW up to 50 MW: \$200,000; (c) over 50 MW up to 100 MW: \$250,000; (d) over 100 MW up to 250 MW: \$300,000; (e) over 250 MW up to 750 MW: \$350,000; and (f) over 750 MW: \$400,000. Tariff, Part VIII, Subpart B, section 403(A)(5)(a)(iv).

¹¹³ Tariff, Part VIII, Subpart B, section 403(A)(5)(a).

¹¹⁴ Order No. 2023 at PP 503-04.

to true up to actual study costs,¹¹⁵ which protects all parties from any under- or over-recovery of costs.¹¹⁶

The Commission clarified in Order No. 2023-A that study and readiness deposits can be provided in the form of surety bonds or other forms of financial security reasonably acceptable to the transmission provider, as well as in cash and irrevocable letters of credit.¹¹⁷ PJM requires the required study deposits to be paid by wire transfer, and the Readiness Deposits to be paid by wire transfer or letter of credit.¹¹⁸ This approach has worked successfully in PJM, as it facilitates the processing of applications, allows sufficient opportunity for Project Developers to submit deposits within the required timeframes, and provides clear guidelines as to what is acceptable. In light of the large number of Interconnection Requests it expects to receive and the rare circumstances in which a surety bond has been acceptable, PJM requests an independent entity variation to permit PJM to limit the forms in which deposits can be provided. Most Project Developers in PJM provide security in the form of cash, letters of credit, or parental guarantees, in the case of vertically integrated utilities. Surety bonds can be more difficult to work with,

¹¹⁵ Tariff, Part VIII, Subpart B, section 403(A)(5)(a)(ii)(d). The Tariff also provides that study deposit amounts that are not used by a Project Developer whose Interconnection Request is terminated or withdrawn can be used to offset the costs of any necessary restudies required as a result. Tariff, Part VIII, Subpart B, section 403(A)(5)(a)(i)(b). This provision was part of the Commission-approved IPRTF Tariff and, consistent with the Final Rule, *see* Order No. 2023 at PP 49, 59, 67, will help reduce the number of speculative projects that enter the queue.

¹¹⁶ Ten percent of this Study Deposit is non-refundable and can be used by PJM to fund any restudies that are required if the Project Developer withdraws its Interconnection Request; the remaining amount after payment of actual study costs is refundable. Tariff, Part VIII, Subpart B, sections 403(A)(5)(a)(i)-(ii). This protects other Project Developers from the costs shifts resulting from another Project Developer's withdrawal. If a project reaches commercial operation, the Project Developer gets back the 10 percent non-refundable portion of the study deposit. If all studies are adequately funded, the refundable portion of the study deposit will be returned to Project Developers after they have entered into their final agreements.

¹¹⁷ Order No. 2023-A at P 185.

¹¹⁸ Tariff, Part VIII, Subpart B, sections 403(5)(a)-(b).

particularly for Readiness Deposits, because they have to be converted to cash when needed.

b. Demonstration of Site Control

The IPRTF Tariff contains detailed Site Control provisions that were a key element of the solutions package negotiated in the IPRTF stakeholder process and of the June 14 Filing, and which substantially comply with and achieve the same goal as the Final Rule.¹¹⁹ Similar to the Final Rule's Site Control requirements, the IPRTF Tariff's Site Control provisions require a strong showing of exclusive access to, and control of, land that can be met through a deed, lease, option or other document demonstrating the Project Developer's right to possess, occupy and control the Site.¹²⁰ Also in line with the Final Rule, the IPRTF Tariff dictates that when there are multiple Project Developers on the same site behind the same Point of Interconnection, the Project Developers must control adequate land for all of their Generating Facilities.¹²¹ The IPRTF Tariff also includes specific provisions providing flexibility for Project Developers using sites owned or physically controlled by a federal or state entity, corresponding with similar provisions in the Final Rule.¹²²

Alternative proposals were discussed during the stakeholder process, but PJM and its stakeholders did not adopt provisions that would allow Project Developers to provide

¹¹⁹ The Final Rule adopts Site Control requirements that, among other things, revise the definition of Site Control and clarify that the Interconnection Customer must have the right to exclusively develop a site. Order No. 2023 at PP 584-85.

¹²⁰ See Order No. 2023 at P 585; Tariff, Part VIII, Subpart A, sections 402(A)(2), (A)(4), (A)(8)(b).

¹²¹ See Order No. 2023 at P 586; Tariff, Part VIII, Subpart A, section 402(A)(5).

¹²² See Order No. 2023 at P 589; Tariff, Part VIII, Subpart A, section 402(A)(2)(d). These provisions, which were added to the IPRTF Tariff towards the end of the stakeholder process, were strongly supported by stakeholders. See June 14 Filing at 27; Shoemaker Aff. ¶ 26. These provisions cover offshore wind projects that need to enter into a lease or similar agreement with the U.S. Bureau of Ocean Energy Management and other projects that are sited on federal or state lands.

additional deposit(s) in lieu of demonstrating Site Control.¹²³ One of the concerns driving the rejection of weaker Site Control provisions was a concern that highly capitalized organizations would be able to flood a Cycle with Interconnection Requests and simply pay or post additional money rather than actually securing Site Control. This concern resonates strongly in PJM, which operates across a footprint of some of the most densely populated states in the United States with limited land availability. Stronger Site Control requirements ensure Project Developers have proved their readiness to construct, and prevents Project Developers from proposing multiple projects at essentially the same site with the intention of developing only a single project. Stronger Site Control requirements also simplify the study process, particularly with regard to Facilities Studies, thereby expediting these studies, which have been delayed in the past. The Commission should permit an independent entity variation so that PJM can maintain its more stringent (except that PJM does not include the requirement of Site Control for the service life of a project) Site Control provisions, in deference to the solutions package developed through the IPRTF stakeholder process and PJM's past experience with Site Control in the PJM Region.

The IPRTF Tariff's Site Control requirements apply not only to the Generating Facility site, but apply also to sites needed for the Interconnection Facilities required to

¹²³ Stakeholders rejected proposed amendments that would have allowed for a lesser showing of Site Control. For example, a proposal to utilize a 75 percent Site Control requirement for Interconnection Facilities was not adopted. *See* draft Markets and Reliability Committee, *Minutes*, PJM Interconnection, L.L.C., section 2E (Apr. 27, 2022), <https://pjm.com/-/media/committees-groups/committees/mrc/2022/20220525/20220525-caa-draft-minutes-mrc-20220427.ashx>; Members Committee, *Minutes*, PJM Interconnection, L.L.C., section 1 (Apr. 27, 2022), <https://pjm.com/-/media/committees-groups/committees/mc/2022/20220517-annual/item-07-consent-agenda-a---draft-mc-minutes-04272022.ashx>. Such lesser showings might be appropriate in other regions, but experience in the PJM Region has shown that a project that has less than 100 percent Site Control may not be a viable project and its position in the existing New Services Queue or in a new Cycle may tie up existing headroom on the Transmission System and thereby harm other projects that have done their due diligence to procure the necessary land to build their facility.

support an Interconnection Request.¹²⁴ The Commission should accept these additional Site Control requirements as appropriate under an independent entity variation because they align with how PJM's planning studies model a project's MW Capacity under a signed agreement. Once a project has an executed GIA, PJM considers the project's MW Capacity as operational as of the GIA commercial operation date and also includes the project *at its specific location* in other elements of the PJM planning process, especially where assumptions as to future potential generation capacity are needed. PJM therefore wants to ensure the project can actually build what the GIA contemplates, including the necessary Interconnection Facilities, where the GIA contemplates. The IPRTF Tariff's additional Site Control requirements thus are necessary for the PJM Region and consistent with the Final Rule's goal of ensuring that projects have sufficient Site Control to move forward to completion.

The Site Control requirements set forth in the IPRTF Tariff were an important element of the stakeholder solutions package and of the June 14 Filing, intended to deter speculative Interconnection Requests. The Commission specifically recognized this in the IPRTF Order, stating:

We find PJM's proposed Site Control requirements to be just and reasonable. The Commission has previously recognized that, as a general matter, more stringent Site Control requirements may help reduce the number of speculative, duplicative, and non-ready projects entering the interconnection queue. The proposed Site Control requirements are intended to help reduce speculative projects entering and progressing through the interconnection process and causing the need for restudies and resulting in delays. We agree with PJM that more stringent Site Control requirements will discourage or prevent project developers from submitting speculative projects. Although the proposed Site Control requirements will add to the burden of prospective interconnection

¹²⁴ Tariff, Part VIII, Subpart C, sections 406(A)(1)(b) and 410(A)(1)(c).

customers, we find that those burdens will be outweighed by the benefits associated with decreasing the number of speculative Interconnection Requests entering the interconnection queue, such as improving PJM's ability to timely process viable Interconnection Requests.¹²⁵

Consistent with the Commission's statements in the Final Rule that more stringent Site Control provisions will help prevent speculative projects from entering the queue and protect viable projects from "the negative impacts of speculative interconnection requests,"¹²⁶ the Commission should accept the IPRTF's Tariff's Site Control provisions as compliant with the Final Rule.

While strict, PJM's Site Control provisions also provide Project Developers with an appropriate degree of flexibility when faced with public land use restrictions or the like. Specifically, if the Project Developer fails to provide the required Site Control evidence at Decision Point III, it must provide evidence acceptable to PJM demonstrating that it is in negotiations with appropriate entities to meet the Site Control requirements, with PJM to add a milestone to the Project Developer's interconnection-related agreement requiring the Project Developer to satisfy the Site Control requirements 180 days after execution of such agreement.¹²⁷ This additional milestone provides Project Developers with some leeway, but also obligates them to have the requisite Site Control within six months of the GIA being fully executed. This in turn requires projects to move forward or be deemed withdrawn, and keeps non-ready projects with executed agreements from unreasonably hoarding system headroom and thereby negatively affecting other projects in the cluster.

¹²⁵ IPRTF Order at P 90 (footnotes omitted).

¹²⁶ Order No. 2023 at P 583.

¹²⁷ Tariff, Part VIII, Subpart C, section 410(A)(1)(c)(iv).

c. Term of Site Control

The Commission in Order No. 2023-A stated that Interconnection Customers are required to “obtain exclusive site control over the term of expected operation of the Generating Facility.”¹²⁸ PJM has adopted Site Control requirements of different durations based on the stage of a Cycle in which the Site Control evidence is being provided,¹²⁹ but none of these required terms are as long as the life of the Generating Facility. The Site Control term requirements in the IPRTF Tariff are currently sufficient in PJM to ensure that a Project Developer has Site Control through the study periods and the initial GIA stages of a project.

PJM seeks an independent entity variation for the term of Site Control consistent with the requirements of the IPRTF Tariff.¹³⁰ The Site Control requirements of the IPRTF Tariff, which are the product of intensive stakeholder negotiations, reflect a carefully crafted compromise specific to the needs of PJM. As already noted, the PJM Region is one of the most densely populated regions in the United States and, as a result, land is scarce and costly.

As noted previously, PJM is seeing the level of premature retirements of existing generation far outpace new projects—including those with signed ISAs—achieving commercial operation. This raises a significant reliability concern as detailed in PJM’s

¹²⁸ Order No. 2023-A at P 198.

¹²⁹ Tariff, Part VIII, Subpart B, section 403(A)(1)(f) (requiring evidence of Site Control for a one-year term as part of application process), Subpart C, sections 406(A)(1)(b)(i) (evidence of Site Control for an additional one-year term at Decision Point I), 410(A)(1)(c) (evidence of Site Control for an additional three-year term at Decision Point III).

¹³⁰ Order No. 2023-A at P 198.

Resource Retirements, Replacement and Risks paper.¹³¹ Although new renewable generation does not have the same accredited value as existing fossil generation, it still would negatively affect reliability if new project development were stymied by a “life of the facility” Site Control requirement in PJM while the pace of retirements of existing generation continues unabated. Given that PJM has found its existing Site Control requirements satisfactory to weed out speculative projects, PJM believes that an independent entity variation is reasonable to ensure that the pace of project development does not lag behind the pace of retirements of existing generation. PJM’s Site Control requirements, generally more strict than the Final Rule requires but not requiring Site Control for the service life of a Generating Facility, are consistent with the Final Rule and are just and reasonable, and the Commission should continue to find them acceptable under the independent entity variation standard.

d. Commercial Readiness

The Commission-approved IPRTF Tariff requires a Project Developer to provide the following Readiness Deposits:

Readiness Deposit No. 1, \$4,000 per MW energy (Maximum Facility Output) or per MW capacity (Interconnection Rights), whichever is greater, at that time it submits its Interconnection Request;¹³²

Readiness Deposit No. 2, the amount equal to: (a) the greater of 10 percent of the cost allocation for the Network Upgrades as calculated in Phase I or the Readiness Deposit No. 1; minus (b) the Readiness Deposit No. 1 amount

¹³¹ See *Energy Transition in PJM: Resource Retirement, Replacements & Risks*, PJM Interconnection, L.L.C. (Feb. 24, 2023), <https://www.pjm.com/-/media/library/reports-notice/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

¹³² Tariff, Part VIII, Subpart B, section 403(A)(5)(b).

during the Application Phase, to be provided at Decision Point I if the Project Developer elects to proceed to Phase II;¹³³ and

Readiness Deposit No. 3, equal to (a) 20 percent of the cost allocation for the Network Upgrades as calculated in Phase II or 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.¹³⁴

Figure 2 below shows the timing, structure and at-risk components of PJM’s Readiness Deposits:

Figure 2

	Application Submission	Application Review	Phase 1	Decision Point 1	Phase 2	Decision Point 2	Phase 3	Decision Point 3	Final Agreement	Final Site Control Demonstration
Study Deposit										
Readiness Deposit 1										
2										
3										

= deposit due = deposit not at risk = 10% of deposit is at risk = 50% of deposit is at risk = 100% of deposit is at risk

As with the IPRTF Tariff’s study deposits, the Readiness Deposit structure contained in the IPRTF Tariff substantially aligns with the Final Rule¹³⁵ and will

¹³³ Tariff, Part VIII, Subpart C, section 406(A)(1)(a)(i). This amount can be zero, but cannot be less than zero. Tariff, Part VIII, Subpart C, section 406(A)(1)(a)(i)(c).

¹³⁴ Tariff, Part VIII, Subpart C, section 408(A)(1)(b). This amount can be zero, but cannot be less than zero.

¹³⁵ The Commission in the Final Rule adopted commercial readiness requirements that established the following readiness deposits: (a) *Initial commercial Readiness Deposit* = two times the study deposit to enter the cluster study; (b) *Commercial Readiness Deposit to enter the cluster study* = five percent of the Interconnection Customer’s Network Upgrade cost assignment identified in the cluster study; and (c) *Commercial readiness deposit to enter the facilities study* = ten percent of Interconnection Customer’s Network Upgrade cost assignment identified in the cluster study or restudy. Order No. 2023 at PP 692-93.

accomplish the same goal, with differences that are appropriate for the PJM Region and reflective of the IPRTF Tariff. In line with the Final Rule, the Readiness Deposits will help “reduce the submission of speculative, commercially non-viable Interconnection Requests into” the PJM interconnection process.¹³⁶ In addition, because the total Readiness Deposits at risk will increase as the interconnection process proceeds, Project Developers that are not ready to proceed will be incentivized to withdraw, and to do so at earlier stages to avoid the need to provide these deposits or, as successive deposits are submitted, to avoid having greater amounts at risk.¹³⁷ The Readiness Deposit structure is also in line with the Final Rule’s requirement that the initial deposit should be based on the project’s size, with the remaining deposits based on the project’s Network Upgrade costs, set at a level that will deter speculative projects without being so high as to discourage viable projects from smaller developers and others from entering a Cycle.¹³⁸ Accordingly, the Commission should find this aspect of the IPRTF Tariff complies with the Final Rule.

e. LGIA deposit

The IPRTF Tariff requires a Project Developer to provide Security equal to 100 percent of the Network Upgrade costs that are allocated to that Project Developer at Decision Point III, with the Project Developer to receive a refund of its Readiness Deposits and any unspent portion of its Study Deposit if it enters into a final interconnection-related service agreement or agreements and meets Decision Point III Site Control requirements; the Security amount is to be used as the Security under the relevant interconnection-related

¹³⁶ Order No. 2023 at P 691.

¹³⁷ Order No. 2023 at P 691.

¹³⁸ See Order No. 2023 at PP 692-93, 704.

agreement.¹³⁹ As with the study deposits and Readiness Deposits, PJM uses a structure that aligns with the intent and goals of the Final Rule, and should be deemed permissible under the independent entity variation standard.

Specifically, consistent with the Final Rule, the IPRTF Tariff's approach properly ties the Security amount to the estimated costs of the required Network Upgrades, which sends an accurate cost signal to Project Developers, and aligns the Security that is provided with its function of ensuring that the necessary Network Upgrades are paid for and constructed.¹⁴⁰ As the Commission recognized in the Final Rule, the ability of a Project Developer to provide a Security amount based on the projected costs of its Network Upgrades is also indicative of a project's viability.¹⁴¹ Not only does the approach adopted in the IPRTF Tariff ensure that sufficient Security is provided for the benefit of the relevant Transmission Owner, it also means that funds will be available to ensure that such upgrades are constructed if a Project Developer withdraws or its project is terminated, thus protecting other non-withdrawing Project Developers from the resulting shift of costs from the withdrawing or terminated project to them.

f. Withdrawal penalties

The Readiness Deposits under the IPRTF Tariff are subject to forfeiture to offset the cost of underfunded Network Upgrades if a project is terminated or withdrawn. When

¹³⁹ Tariff, Part VIII, Subpart A, section 400, Definitions S (Definition of Security), Subpart C, section 410(A)(1)(a); *see also* June 14 Filing at 56-57. The Final Rule would require a slightly different approach, under which an Interconnection Customer is required to provide a deposit that will increase the total commercial readiness deposit paid to be equal to 20 percent of the estimated Network Upgrade costs and to provide security for its discrete portion of Network Upgrades and transmission provider Interconnection Facilities. Order No. 2023 at PP 715-17.

¹⁴⁰ *See* Order No. 2023 at P 715.

¹⁴¹ *See* Order No. 2023 at P 715.

all New Service Requests in a Cycle have either entered into final agreements and met the Decision Point III Site Control requirements or have been withdrawn, PJM will make a final determination of the amount of underfunded Network Upgrades that are represented in the Cycle. Underfunded Network Upgrades will be identified as those where one or more withdrawn New Service Requests were identified as having a cost allocation in the Phase III analysis results. At that point, Readiness Deposits will be handled as follows: (1) all Readiness Deposits will be refunded if there are no underfunded Network Upgrades; (2) Readiness Deposits will be applied to underfunded Network Upgrades on a pro rata basis to replace amounts in the Phase III cost allocations attributable to withdrawn Interconnection Requests; and (3) the remaining Readiness Deposits will be refunded to projects on a pro rata basis.¹⁴²

These provisions are in accordance with, and serve the same functions as, the withdrawal penalties imposed in the Final Rule.¹⁴³ Consistent with the Final Rule, the Readiness Deposit forfeiture provisions will serve “to reduce Network Upgrade cost shifts caused by withdrawals [, which] will reduce the risk that the shifted costs are so large as to cause cascading withdrawals, thus ensuring that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.”¹⁴⁴ Also in accordance with the Final Rule,¹⁴⁵ the forfeiture of Readiness Deposits applies when the Project Developer actively decides to withdraw its project, or its project is terminated or otherwise

¹⁴² Tariff, Part VIII, Subpart A, section 401(D)(2)(c).

¹⁴³ See Order No. 2023 at PP 783-94. In addition, the Readiness Deposits, including the refund and forfeiture provisions, were an integral part of the negotiated stakeholder process that resulted in the June 14 Filing and, indeed, stakeholders agreed on specific timing and dollar/percentage amounts. PJM submits that the Commission should not take steps that would undermine that comprehensive process.

¹⁴⁴ Order No. 2023 at P 799.

¹⁴⁵ See Order No. 2023 at PP 783, 785, 794.

does not achieve commercial operation; however, there will be no forfeiture in the event of certain adverse study results.¹⁴⁶ As directed by the Final Rule, the adverse study results thresholds are also “set at an amount that provides sufficient room for estimates to change as the cluster evolves while limiting interconnection customer exposure to withdrawal penalties when such estimates change by a significant amount.”¹⁴⁷ PJM’s adverse study result rules are also consistent with the Commission’s recognition in Order No. 2023-A that it is reasonable for the thresholds for penalty-free withdrawal to be higher at later stages of the interconnection study process, “given the greater harms of late-stage withdrawals and the importance of incentivizing earlier withdrawal of non-viable interconnection requests.”¹⁴⁸

Figure 2 above illustrates the at-risk components of PJM’s readiness deposits. The determination of the Readiness Deposit amounts to be refunded or forfeited is appropriately made after Decision Point III and after all Project Developers have entered into final interconnection-related agreements or withdrawn from the process. This timing is necessary in order to determine the full impact of any withdrawals or terminations on the remaining Project Developers in the Cycle. This aligns with the Final Rule, which states the transmission provider is to hold all withdrawal penalty funds for a cluster until all Interconnection Requests have been terminated or withdrawn or all Interconnection Customers have executed an LGIA or requested that one be filed unexecuted.¹⁴⁹

¹⁴⁶ A Project Developer can receive a refund of all of its Readiness Deposits if its Network Upgrade costs increase from Phase I to Phase II by 25 percent or more, and by more than \$10,000 per MW, or if its Network Upgrade costs increase from Phase I to Phase III by 35 percent or more, and by more than \$25,000 per MW. Tariff, Part VIII, Subpart C, sections 408(B)(3)(b)(ii) and 410(B)(5)(d).

¹⁴⁷ See Order No. 2023 at P 786.

¹⁴⁸ Order No. 2023-A at P 232.

¹⁴⁹ Order No. 2023 at P 801.

The Commission in Order No. 2023-A leaves it to the transmission provider to determine whether a withdrawal has a material impact on the cost or timing of any Interconnection Requests with an equal or lower queue priority, and indicates that a withdrawal that does not have a material impact should not face withdrawal penalties.¹⁵⁰ PJM does not apply a materiality test to withdrawals, but instead counts all withdrawals as equivalent and incorporates them in the assumptions for future phase(s) of study. This bright line standard reduces disputes and uncertainty as to whether a withdrawal has a material impact on other projects and, at the same time, more consistently accomplishes the Final Rule’s goal of preventing disruptive late-stage withdrawals.¹⁵¹ A bright line standard, as opposed to an individual harm test, also is less susceptible to gaming. Midcontinent Independent System Operator, Inc. (“MISO”) recently changed its withdrawal impact provisions specifically because projects were able to submit withdrawal requests in such a way that the requests only ever harmed those particular projects and few, if any, withdrawal penalties were levied as a result. The Commission accepted those changes as consistent with the Final Rule and the Final Rule’s recognition of the harm that results from project withdrawals.¹⁵² The IPRTF Tariff provisions address this particular concern, and the Commission should apply the same reasoning it applied to MISO’s requested change to its withdrawal impact provisions and find that the IPRTF Tariff provisions are acceptable as an independent entity variation to address specific regional circumstances.

¹⁵⁰ Order No. 2023-A at P 233.

¹⁵¹ Order No. 2023 at PP 781, 790.

¹⁵² See *Midcontinent Indep. Sys. Operator, Inc.*, 186 FERC ¶ 61,054, at PP 32, 71 78, *order on reh’g*, 187 FERC ¶ 61,031 (2024).

B. The IPRTF Tariff Complies with the Final Rule’s Reforms to Increase the Speed of Interconnection Queue Processing. However, to the Extent Necessary and Based upon the Commission’s Order on this Filing, PJM Anticipates Filing a Second Phase of This Compliance Filing to Address Study Delay Consequences and Affected Systems Coordination.

While PJM believes the IPRTF Tariff should be maintained and reapproved as a holistic interconnection process that has been developed specifically for the PJM Region, and PJM does not support study delay penalties, PJM acknowledges its obligation to comply with the Final Rule (albeit under protest as it pertains to elimination of the Reasonable Efforts standard and imposition of study delay penalties).¹⁵³ Accordingly, PJM proposes a second phase of its Final Rule compliance based on the Commission’s order on this compliance filing, which would include new and revised Tariff sections to incorporate consequences for study delays and more rigorous Affected Systems coordination provisions. PJM has set forth its proposal with regard to handling penalties and consequences of study delays and seeks the Commission’s conceptual approval of that proposal before submitting specific Tariff revisions. In addition, on Affected System coordination, PJM will need to work with its neighbors through both Tariff revisions and Joint Operating Agreement revisions. Development of the necessary revisions will take time and could not be completed by the generally applicable deadline for submission of this Order No. 2023 compliance filing. PJM’s future actions will be affected by the guidance provided by the Commission in its response to this filing. Accordingly, PJM commits to providing a detailed compliance schedule on these two issues within 30 days of the Commission’s order on this compliance filing.

¹⁵³ See Unopposed Motion for Leave to Amend Petition for Review of PJM Interconnection, L.L.C., *PJM Interconnection, L.L.C. v. FERC*, No. 23-1299 (D.C. Cir. May 7, 2024).

1. *PJM seeks an independent entity variation to implement a tailored alternative structure for study delay consequences that will better drive timely completion of studies within the context of the Interconnection Requests that PJM will be processing.*

The Final Rule directs transmission providers to eliminate the Reasonable Efforts standard for studying Interconnection Requests and imposes in its place a regime of penalties for failure to meet firm deadlines for completing interconnection studies.¹⁵⁴ The Commission determined, however, that no study delay penalties will be assessed until the third cluster study cycle after the effective date established by the Commission for a transmission provider's compliance filing.¹⁵⁵ Even with conservative assumptions about Commission acceptance of this filing and the time needed for two cluster study cycles to be completed, Tariff revisions to eliminate the reasonable efforts standard and establish a penalty regime will not be needed for several years. PJM believes this provides time for PJM and other interested parties to determine the success of the IPRTF Tariff and whether a penalty regime is even necessary, but recognizes that it nevertheless is required to provide Tariff revisions now to implement consequences for study delays.

To satisfy this compliance obligation, PJM seeks an independent entity variation to implement a just and reasonable tailored alternative to the Final Rule's penalty regime that accomplishes the Final Rule's objective of incentivizing timely performance of interconnection studies while accounting for PJM's unique circumstances given (a) the volume of requests that PJM continues to receive, (b) resource constraints resulting from shortages of available personnel knowledgeable about the PJM system and not otherwise conflicted through their work in a consulting firm or for a utility, and (c) the need to tailor

¹⁵⁴ Order No. 2023 at PP 965-66, 968.

¹⁵⁵ Order No. 2023 at P 979.

the triggers for study dates and resulting penalty regime to reflect the complexities of a given queue Cycle so as to ensure that the penalty system reflects the realities of different levels of queue cycle complexity and avoids arbitrary outcomes. In addition, the manner in which PJM packages together its System Impact Studies, stability and short circuit fault analyses, and Affected Systems studies and Transmission Owners' Facilities Studies, together with the way PJM collects study deposits and bills its own and Transmission Owners' study costs to Interconnection Customers will make it difficult to determine fault for study delays and to pay penalties in the manner that the Commission proposes in the Final Rule.

To avoid excessive administrative burdens, and ensure that a penalty regime is based on a realistic up-front assessment of a given Cycle's complexity, PJM proposes to develop and implement a tailored structure as follows:

- For each Cycle, PJM, working with its Transmission Owners, will perform an assessment before commencing Phase I and then develop a targeted completion date for all three phases of studies based on an analysis of, among other factors: (a) the number of projects in a Cycle, (b) the complexity and dominant location of the requested Points of Interconnection, (c) historic trends as to interconnection withdrawal rates by Project Developers, and (d) the interrelationship of queue processing to baseline upgrades that may already be underway. These criteria and their application would be included in the Tariff. This detailed analysis of the size and complexities of a given queue recognizes that a 'one size fits all' deadline for processing queues of varying size and complexity does not

comport with reality. The targeted completion dates for a particular cycle will be posted and reviewed with stakeholders before work commences on the cycle.

- If, after application of the Final Rule's grace periods, there is less than 10 percent variance between the actual number of days for completion of the studies for a given cluster and the established deadline for that cluster, PJM will take no action other than publicly posting the occurrence of the delay.
- If, after application of the Final Rule's grace periods, the number of days for completion of the studies exceeds the number of days between the start of studies and the established deadline by 10 percent to 25 percent, PJM and its Transmission Owners will jointly file a report to the Commission as to the situation that caused the study deadline to be missed. The joint report will also address whether it is expected that study completion dates for future Cycles will be missed to the same degree as a result of the particular cause that gave rise to the missed deadline for the Cycle in question. PJM and its Transmission Owners will also detail in their filing proposed process reforms to be implemented going forward to resolve identified causes for study completion delays.
- If, after application of the Final Rule's grace periods, the number of days for completion of the studies exceeds the number of days between the start of studies and the established deadline by 26 percent or more, PJM will, subject to the Final Rule's procedure for appeal of study delay penalties to

the Commission, rebate to the Project Developers affected by the delay a portion of the study deposits they provided to PJM. The Tariff would label the return of a portion of study deposits a rebate to affected Project Developers so as to avoid the legal issues associated with PJM assessing penalties that are not based on adjudicated findings of fault and payment of such amounts to Project Developers rather than to the U.S. Treasury as required by FPA sections 315 and 316A.¹⁵⁶ The rebate would be capped at 50 percent of the total study deposits provided. Characterization of this financial consequence of study delays as a rebate of study deposits aligns with the Commission’s analysis of the study delay penalties the Final Rule imposes as not for the purpose of “redress[ing] a wrong to the public” but rather for the purpose of “effectively adjust[ing] what transmission providers can charge based on study timeliness.”¹⁵⁷

PJM expects to be able to implement these revisions by the beginning of its first Cycle under Tariff, Part VIII (i.e., after the Transition Period Cycles are complete or nearly complete), which it currently anticipates will be in 2026. Upon the Commission’s approval in principle of the above proposal, PJM will consult with its stakeholders with the goal of providing revised and new Tariff sections in its phase 2 compliance filing.

PJM acknowledges that the Commission declined to adopt a similar model on a nationwide basis in Order No. 2023.¹⁵⁸ However, the Commission left open the potential for such structures to be considered through the independent entity variation process.

¹⁵⁶ 16 U.S.C. §§ 825n and 825o-1.

¹⁵⁷ Order No. 2023-A at P 413.

¹⁵⁸ Order No. 2023 at PP 952, 1017.

Given (a) the sheer volume and complexities of individual cycles in a system as tightly integrated as PJM's; (b) the difficulty of assessing fault given the integrated nature of PJM and its Transmission Owners' study work; and (c) that queue reforms have already been adopted in PJM, with the support of Project Developers, that will work to eliminate more speculative projects that have led to study delays, PJM urges the Commission to adopt this more tailored structure for the PJM Region. The proposed structure will still meet the goals of incenting timely completion of studies, while avoiding the pitfalls of having to determine fault and allocate penalties between PJM and its Transmission Owners in an interconnection study program as tightly integrated as PJM's. PJM therefore urges its conceptual adoption in the order on this filing, subject to the filing of Tariff revisions that PJM would develop in consultation with its stakeholders.

2. *PJM will provide Tariff revisions on Affected Systems coordination in a compliance filing to be submitted at a later date.*

PJM's June 14 Filing of the IPRTF Tariff contained a comprehensive set of Tariff reforms that adopted a cluster study process that improves the efficiency of PJM's interconnection process and will facilitate the interconnection of viable generation projects with the PJM Transmission System in a manner that meets the Final Rule's goals. This filing included revisions to PJM's Affected Systems coordination procedures. While the IPRTF Tariff's Affected Systems coordination procedures generally comply with the Final Rule when evaluated under the independent entity variation standard, PJM is considering additional revisions to these procedures to align them more closely with the Final Rule's goals.

The revisions PJM contemplates include, among other things:

- A newly created agreement, based on the Final Rule’s *pro forma* Affected Systems Impact Study Agreement (“ASISA”), to be included in Tariff, Part IX, along with a requisite fixed \$30,000 study deposit to cover PJM’s incurred costs in performing the study. PJM’s ASISA would need to be signed by any customer interconnecting a project that is located outside the PJM footprint that PJM has determined needs to be studied for impacts on PJM Transmission Owner facilities. The ASISA would impose timelines and structure on the Affected Systems customer in order to support PJM’s Cycle timeline.
- Affected Systems Interconnection Customers who have executed the ASISA will be higher-queued than Project Developers in the PJM Cycle that have not received their Phase I System Impact Study results and lower-queued than Project Developers in the PJM Cycle that have already received their Phase I System Impact Study results.
- PJM will study Affected Systems Interconnection Requests using Energy Resource Interconnection Service modeling standards.
- In order to support PJM’s Cycle timeline, any PJM Project Developer that needs an Affected Systems Study to be performed by a neighboring ISO/RTO would need to sign the ASISA (if applicable) with that neighboring ISO/RTO within 30 days of the close of Decision Point I to ensure that the neighboring ISO/RTO that is the Affected System will have sufficient time during Phase II of the relevant PJM Cycle to perform the

study and that PJM will have the results to include in its Phase II System Impact Study at the end of Phase II.

- Projects will be withdrawn if the Project Developers do not execute the ASISA by the required time.

PJM expects to be able to implement these revisions at the beginning of its second Transition Period Cycle, which is currently anticipated to commence by the second quarter of 2025. PJM will provide revised and new Tariff sections and further support for its proposed Affected Systems coordination changes in its phase 2 compliance filing , for which it will provide a schedule within 30 days of a Commission order on this compliance filing.

C. *The IPRTF Tariff Incorporates Reforms Designed to Add Technological Advancements to the Interconnection Process*

1. Increasing flexibility in the generator interconnection process

- a. The IPRTF Tariff complies with the requirement to allow co-located Generating Facilities behind one Point of Interconnection with shared Interconnection Requests.

The Final Rule requires transmission providers to allow more than one Generating Facility to co-locate on a shared site behind a single Point of Interconnection and share a single Interconnection Request.¹⁵⁹ The Final Rule also explicitly provides that, to the extent transmission providers believe they already comply with this requirement, they may so demonstrate in their compliance filings.¹⁶⁰

The IPRTF Tariff is fully compliant with the Final Rule’s co-location requirement as it allows for co-location of multiple resources behind a single Point of

¹⁵⁹ Order No. 2023 at P 1346.

¹⁶⁰ Order No. 2023 at P 1354.

Interconnection.¹⁶¹ The IPRTF Tariff also allows for multiple fuel types behind the same Point of Interconnection and, for Interconnection Requests that involve multiple fuel types, allows removal of a fuel type through a permissible reduction in a project's Maximum Facility Output and/or Capacity Interconnection Rights.¹⁶² The Commission should therefore find the IPRTF Tariff is both compliant with, and exceeds the requirements of, the Final Rule.

- b. The IPRTF Tariff appropriately limits material modifications to changes that cannot adversely affect other developers

PJM requests that the Commission find the IPRTF Tariff's modification process compliant with the Final Rule under the independent entity variation standard. The Final Rule requires transmission providers to evaluate an Interconnection Customer's proposed addition of a second Generating Facility at the same Point of Interconnection as the Generating Facility for which it originally requested interconnection, prior to deeming such an addition a material modification, if the addition does not change the originally requested interconnection service level.¹⁶³

While the Final Rule finds that automatically deeming a request to add a Generating Facility to an existing Interconnection Request a material modification creates a significant barrier to access to the Transmission System,¹⁶⁴ the Final Rule also states that this requirement does not apply to transmission providers that use fuel-based dispatch

¹⁶¹ Tariff, Part VIII, Subpart A, section 402(A)(6).

¹⁶² Tariff, Part VIII, Subpart B, sections 406(B)(3) and 408(B)(4)(c).

¹⁶³ Order No. 2023 at P 1406.

¹⁶⁴ Order No. 2023 at P 1407.

assumptions in their interconnection studies.¹⁶⁵ Because PJM uses fuel-based dispatch assumptions in its interconnection studies, this particular requirement of the Final Rule does not apply to PJM.¹⁶⁶

c. Expansion of Surplus Interconnection Service in PJM

The Final Rule requires transmission providers to expand the availability of Surplus Interconnection Service to the point in time at which the initial Interconnection Customer has an executed LGIA or has requested filing of an unexecuted LGIA.¹⁶⁷ As PJM has previously explained, while PJM has offered Surplus Interconnection Service for years in accordance with the requirements of Order No. 845,¹⁶⁸ few developers have requested it. There is little advantage provided to developers in the PJM Region to expand a service no one in PJM is requesting.¹⁶⁹ Nevertheless, PJM will submit Tariff revisions in phase 2 of its compliance to modify Tariff, Part VIII, Subpart E, section 414 to make clear that Surplus Interconnection Service is available to Project Developers with an executed GIA or that have requested filing of an unexecuted GIA, in addition to Project Developers with projects already in service.

¹⁶⁵ Order No. 2023 at P 1406; *pro forma* LGIP section 4.4.3.1 (preceding parenthetical). As the Commission recognized in the Final Rule, Order No. 2023 at P 1411, transmission providers that use fuel-based dispatch assumptions may experience challenges with this requirement because their interconnection study assumptions vary depending on the fuel type and a request to add a generating facility of a different fuel type to an existing interconnection request would always constitute a modification that would require a study.

¹⁶⁶ See Transmission Planning Department, *PJM Manual 14B: PJM Region Transmission Planning Process*, PJM Interconnection, L.L.C., Attachment C.3.1.3 (Dec. 20, 2023), <https://pjm.com/-/media/documents/manuals/m14b.ashx>.

¹⁶⁷ Order No. 2023 at P 1436.

¹⁶⁸ See *PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,145, at PP 35-36 (2020) (accepting PJM's Surplus Interconnection Service provisions, subject to minor compliance filing); see also *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 at PP 467 (2018) (imposing requirements to add Surplus Interconnection Service), *order on reh'g & clarification*, Order No. 845-A, 166 FERC ¶ 61,137, *order on reh'g & clarification*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

¹⁶⁹ *Improvements to Generator Interconnection Procedures and Agreements*, Request for Clarification and Rehearing of PJM Interconnection. L.L.C., Docket No. RM22-14-001, at 36 (Aug. 28, 2023).

- d. PJM's annual RTEP study process complies with the Final Rule's requirement to account for Project Developer-provided operating assumptions.

The Final Rule directs transmission providers to use operating assumptions in interconnection studies that reflect the proposed charging behavior of energy storage resources, at the request of the Interconnection Customer, unless Good Utility Practice, including applicable reliability standards, otherwise requires the use of different operating assumptions.¹⁷⁰ The Final Rule further states that a transmission provider does not have to use customer-supplied operating assumptions that it determines are inconsistent with Good Utility Practice,¹⁷¹ but requires the transmission provider to provide an explanation as to why the operating assumptions are inappropriate and allows the Interconnection Customer a further opportunity to re-submit its proposed parameters and any control technologies it would use to limit the operation of its resource to the intended operation.¹⁷²

PJM acknowledges that the Commission rejected its request for rehearing of this aspect of the Final Rule,¹⁷³ but requests that the Commission grant PJM an independent entity variation to allow PJM to deviate from this aspect of the Final Rule. Use of customer-provided operating assumptions is not consistent with how PJM performs its planning studies for its annual RTEP process and the manner in which PJM operates the system in real time. In order to plan reliably and in accordance with Good Utility Practice, PJM plans its system based on long-term conditions and conservative assumptions, not on real time operations and customer parameters that are subject to change. This approach of

¹⁷⁰ Order No. 2023 at P 1509.

¹⁷¹ *Id.* at P 1511.

¹⁷² *Id.* at PP 1511, 1515.

¹⁷³ Order No. 2023-A at P 575.

making conservative assumptions is far more reliable and consistent with PJM's planning requirements than accounting for customer-supplied parameters, which could change substantially with each Interconnection Request and cannot be monitored for or enforced.

The operating parameters also may change not only with each new request, but may change for the same project. PJM anticipates that Project Developers will change their behavior, and therefore the operating parameters they provide, based upon the signals provided by PJM's ever evolving markets. PJM would then be required to perform restudies of customer-supplied operating parameters when the markets change, as developers will request PJM to study their revised operating parameters under a Necessary Study Agreement. The prospect of multiple operating parameter restudies every time the markets change is untenable.

Further, to the extent the Commission suggests that PJM can develop and implement a monitoring regime to ensure that battery storage projects operate in strict accordance to the operating parameters they supplied for study, PJM cautions that such a regime would have to be developed to be specific to each battery storage facility. Given the size of the PJM Region, this would constitute an extraordinary administrative burden, for little benefit to anyone but battery storage operators.

Moreover, PJM's interconnection process is, and has historically been, resource-neutral.¹⁷⁴ If PJM modifies its process for one specific type of resource, the resulting administrative burdens and additional studies will slow down interconnection studies for all Project Developers at the very time when PJM is implementing its Commission-

¹⁷⁴ PJM has adopted fuel neutral policies as a bedrock principle of its interconnection policy. Craig Glazer, *PJM Interconnection Workshop #1: An Overview of Federal Interconnection Policy*, PJM Interconnection, L.L.C., 5 (Oct. 30, 2020), <https://www.pjm.com/-/media/committees-groups/task-forces/iprtf/postings/overview-of-federal-interconnection-policy.ashx>.

approved interconnection reforms. Requiring the use of customer-supplied modeling assumption solely for storage projects is therefore incompatible with PJM's resource-neutral process and the need for timely forward focus on implementing the stakeholder-supported and Commission-approved interconnection reforms.

Strict adherence to the Final Rule would require PJM to include a special interconnection study within the larger cluster study for each storage project whose owner submits operating parameters.¹⁷⁵ The overlay of multiple unit-specific studies on the entire cluster study is likely to add more time to the interconnection study process, contrary to Final Rule's stated goal of facilitating the prompt completion of interconnection studies. Further, PJM will not be able to readily integrate real-time operating assumptions into its interconnection studies because interconnection studies are planning studies and as such, they analyze conditions over a longer time frame. Studying customer-provided operating assumptions in conjunction with planning standards is fundamentally inconsistent with how transmission providers, including PJM, perform planning studies.¹⁷⁶ The purpose of interconnection studies is to determine the Network Upgrades needed to ensure that system conditions that limit the availability and usefulness of resources are addressed and ameliorated. These studies are neither predicting nor incorporating the real-time dispatch of resources or withdrawals of load or storage resources. As a result, the costs of the necessary Network Upgrades from which storage facilities are relieved could be shifted to load.¹⁷⁷

¹⁷⁵ See Tariff, Part VIII, Subpart C, sections 404(A), 405(A)(1)(a), 407(A)(1)(a), 409(A)(1) (describing the elements of PJM's three-phase study approach).

¹⁷⁶ See, e.g., *Improvements to Generator Interconnection Procedures and Agreements*, Initial Comments of PJM Interconnection, L.L.C., Docket No. RM22-14-000, at 70 (Oct. 13, 2022).

¹⁷⁷ Moreover, any such operating parameters may limit the effectiveness of interconnecting storage facilities. Storage is intended be a fast-acting resource that can ramp and respond quickly. If storage resources limit

Further compounding the potential for delay is the Final Rule’s requirement to provide the Interconnection Customer with a clear explanation in writing of why the submitted operating assumptions are insufficient or inappropriate by no later than 30 calendar days before the end of the customer engagement window, and allow the Interconnection Customer to revise and resubmit the proposed operating assumptions.¹⁷⁸ This requirement add more time to the processing of Interconnection Requests and burden others in the same cluster, as these resubmissions will drive restudies that will delay the process for others. PJM is committed to explaining to stakeholders generically how it handles assumptions concerning battery usage but believes that allowing for resubmissions, which drive restudies on an individual resource basis, will only work to drive further queue delays. There is little justification for allowing only one class of customers to keep presenting individualized operating assumptions (none of which are enforceable as a practical matter) when PJM’s overall assumptions, approach, and analyses have already been presented to stakeholders.

For all of these reasons, the Commission should grant PJM an independent entity variation so that PJM is not required to change its modeling assumption requirements.

2. *Incorporating the enumerated alternative transmission technologies into the generator interconnection process*

All of the enumerated grid enhancing technologies (“GETs”) already are considered and studied as necessary, if merit exists in the use of such technologies, in the course of interconnection studies in the PJM Region. This incorporation of new and

themselves to certain operating parameters in an effort to interconnect at a lower cost, they may be limiting their value in real-time.

¹⁷⁸ Order No. 2023 at P 1511.

emerging technology is consistent with the objectives of the Final Rule, which requires transmission providers to evaluate certain GETs in each and every one of its interconnection studies.¹⁷⁹

PJM also plans to provide additional transparency on the utilization of GETs in PJM by the end of 2024. By that time, the Technical Reference Guide that PJM Applied Innovations is championing for alternative transmission technologies and GETs, which will catalog those technologies and describe the conditions under which certain technologies may be considered as a reinforcement solution, will be publicly available through posting on PJM's website. PJM proposed in a separate proceeding¹⁸⁰ that transmission providers and key stakeholders develop and transparently provide this operating guide for review with stakeholders.

However, PJM seeks an independent entity variation with respect to the Final Rule's requirement that transmission providers include in interconnection study reports the results of their evaluation of the feasibility, cost, and time savings of GETs as an alternative to traditional transmission technologies.¹⁸¹ The fact is that a broad spectrum of potential solutions, including GETs, are already considered as part of PJM's interconnection study process, and detailed solution analysis and evaluation is performed to determine the solutions that are effective and the most efficient.¹⁸² PJM will provide a summary of its

¹⁷⁹ Order No. 2023 at P 1581.

¹⁸⁰ See *Implementation of Dynamic Line Ratings*, Motion for Leave to Comment and Supplemental Comments of PJM Interconnection, L.L.C., Docket No. AD22-5-000, at 4 (Jan. 17, 2024).

¹⁸¹ Order No. 2023 at P 1581.

¹⁸² Moreover, at this time, GETs' applications are limited and are evaluated by host Transmission Owners. More industry education as to GETs applications is needed as (1) GETs are not a substitute for transmission capability; and (2) GETs introduce another layer of risk due to additional cyber security attack vectors and reliability relay protection and control coordination risks.

evaluations in the study results and will address its evaluation in the studies in more detail, relying on the parameters set forth in the Technical Reference Guide. The Technical Reference Guide, which PJM proposed in Docket No. AD22-5-000, will provide a far more effective and efficient way to review the use of GETs with stakeholders.

While the Commission rejected PJM’s request for rehearing of this aspect of the Final Rule,¹⁸³ PJM requests that the Commission apply the independent entity variation standard and find that PJM’s incorporation of alternative technologies into its current interconnection process, along with its publication and review with stakeholders of the Technical Reference Guide satisfies the Final Rule’s provisions for transparency and stakeholder understanding of where GETs would prove useful.

3. *Modeling and ride-through requirements for non-synchronous generating facilities.*

a. Modeling requirements

Generators seeking to initiate the interconnection queue process must provide modeling information along with their Application and at other stages of the interconnection process.¹⁸⁴ The Final Rule requires each Interconnection Customer requesting to interconnect a non-synchronous Generating Facility to submit to the transmission provider (1) a validated user-defined root mean square (“RMS”) positive sequence dynamic model; (2) an appropriately parameterized generic library RMS positive sequence dynamic model, including a model block diagram of the inverter control system

¹⁸³ Order No. 2023-A at P 616.

¹⁸⁴ See Interconnection Projects Department, *PJM Manual 14H: New Service Requests Cycle Process*, PJM Interconnection, L.L.C., 32, 51-54 (July 26, 2023), <https://www.pjm.com/-/media/documents/manuals/m14h.ashx>; see also Interconnection Analysis & Interconnection Planning Analysis Department, *PJM Dynamic Model Development Guidelines for Interconnection Analysis*, PJM Interconnection, L.L.C. (Sept. 18, 2023), <https://www.pjm.com/-/media/planning/services-requests/pjm-dynamic-model-development-guidelines.ashx>.

and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by Western Electricity Coordinating Council; and (3) a validated electromagnetic transient (“EMT”) model, if the transmission provider performs an EMT study as part of the interconnection study process.¹⁸⁵ PJM submits that its Dynamic Model Development Guidelines, which are publicly available to all Developers seeking to interconnect, fully comply with this requirement.¹⁸⁶

b. Ride-through requirements

The IPRTF Tariff includes ride-through requirements for abnormal frequency conditions and voltage conditions. Schedule H of the GIA requires non-synchronous Generating Facilities be designed to remain in service (not trip) for frequencies and times as specified in Attachment 2 of North American Electric Reliability Corporation (“NERC”) Reliability Standard PRC-024-1, and successor Reliability Standards, for both high and low frequency conditions, irrespective of generator size, subject to the permissive trip exceptions established in PRC-024-1.¹⁸⁷ GIA, Appendix 2, section 4.7 also requires Project Developers to follow NERC Standards.¹⁸⁸ Each of these obligations satisfies the requirements of the Final Rule to establish ride-through requirements for abnormal frequency conditions and voltage conditions within the “no trip zone” defined by NERC Reliability Standard PRC-024-3 or successor mandatory ride-through reliability

¹⁸⁵ Order No. 2023 at P 1659.

¹⁸⁶ See Interconnection Analysis & Interconnection Planning Analysis Department, *PJM Dynamic Model Development Guidelines for Interconnection Analysis*, PJM Interconnection, L.L.C (Sept. 18, 2023), <https://www.pjm.com/-/media/planning/services-requests/pjm-dynamic-model-development-guidelines.ashx>.

¹⁸⁷ Tariff, Part IX, Subpart B, Schedule H.

¹⁸⁸ Tariff, Part IX, Subpart B, Appendix 2, section 4.7.

standards.¹⁸⁹ The Commission should therefore find that the IPRTF Tariff is compliant with this requirement.

c. Applicability of ride-through requirements

The Final Rule requires that all newly interconnecting large Generating Facilities provide frequency and voltage ride through capability consistent with any standards and guidelines that are applied to other Generating Facilities in the balancing authority area on a comparable basis.¹⁹⁰ PJM's GIA, and therefore the IPRTF Tariff, already complies with this requirement.

¹⁸⁹ Order No. 2023 at P 1711.

¹⁹⁰ Order No. 2023 at P 1733.

III. COMMUNICATIONS

Correspondence and communications with respect to this filing should be sent to, and PJM requests the Secretary include on the official service list, the following:¹⁹¹

Craig Glazer
Vice President – Federal Government
Policy
PJM Interconnection, L.L.C.
1200 G Street, NW, Suite 600
Washington, DC 20005
(202) 423-4743 (phone)
(202) 393-7741(fax)
craig.glazer@pjm.com

Christopher Holt
Managing Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd
Audubon, PA 19403-2497
(610) 666-2368
Christopher.Holt@pjm.com

Wendy B. Warren
Elizabeth P. Trinkle
David S. Berman
Wright & Talisman, P.C.
1200 G Street, NW, Suite 600
Washington, DC 20005
(202) 393-1200 (phone)
(202) 393-1240 (fax)
warren@wrightlaw.com
trinkle@wrightlaw.com
berman@wrightlaw.com

IV. SERVICE

PJM has served a copy of this filing on all PJM Members and on the affected state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,¹⁹² PJM will post a copy of this filing to the FERC filings section on its internet site, <https://pjm.com/library/filing-order>, and will send an email on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region,¹⁹³ alerting them that this filing has been made

¹⁹¹ To the extent necessary, PJM requests waiver of Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.203(b)(3), to permit all of the persons listed to be placed on the official service list for this proceeding.

¹⁹² *See id.* §§ 35.2(e) and 385.2010(f)(3).

¹⁹³ PJM already maintains, updates, and regularly uses email lists for all PJM Members and affected state commissions.

by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within twenty-four hours of the filing.

V. CONCLUSION

As demonstrated in this compliance filing, the provisions of the IPRTF Tariff either wholly comply with the Final Rule or, if not completely compliant, are consistent with the Commission's goals as set forth in the Final Rule of providing an efficient, transparent and non-discriminatory interconnection process.¹⁹⁴ Accordingly, the Commission should either accept these provisions of the IPRTF Tariff as compliant with the Final Rule or as permissible and consistent with the Final Rule applying the independent entity variation standard. PJM will address issues relating to reasonable efforts and study delay penalties, Affected Systems coordination, and the minor Tariff revisions referenced in this compliance filing in a further, phase 2 compliance filing with a schedule for that filing to be submitted within 30 days of the Commission's order on this filing.

¹⁹⁴ Order No. 2023 at PP 37, 43, 45-46; Order No. 2023-A at PP 10, 44-46.

Respectfully submitted,

/s/ Wendy B. Warren

Wendy B. Warren
David S. Berman
Elizabeth P. Trinkle
Wright & Talisman, P.C.
1200 G Street, NW, Suite 600
Washington, DC 20005
(202) 393-1200 (phone)
(202) 393-1240 (fax)
warren@wrightlaw.com
berman@wrightlaw.com
trinkle@wrightlaw.com

Craig Glazer
Vice President – Federal Government
Policy
PJM Interconnection, L.L.C.
1200 G Street, NW, Suite 600
Washington, DC 20005
(202) 423-4743 (phone)
(202) 393-7741 (fax)
Craig.Glazer@pjm.com

Christopher Holt
Managing Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd
Audubon, PA 19403-2497
(610) 666-2368
Christopher.Holt@pjm.com

***Counsel for
PJM Interconnection, L.L.C.***

Dated: May 16, 2024

Attachment A

PJM Interconnection, L.L.C. Order Nos. 2023 and 2023-A Compliance Filing Summary Table

PJM Interconnection, L.L.C. Order Nos. 2023 and 2023-A
Compliance Filing Summary Table

III.A. Reforms to Implement a First-Ready, First-Served Cluster Study Process			
	Reforms	Proposed Deviation Standard	Justification
1.	Interconnection Information Access	Independent entity variation ¹	<p>In conjunction with the planning models PJM makes publicly available and the study reports available on the PJM website, Queue Scope permits Project Developers to identify favorable locations to interconnect, run their own studies using the models, and estimate costs of the facilities required to enable the potential interconnection. This degree of functionality substantially complies with Final Rule’s requirement for transmission providers to provide a “heatmap.”</p> <p>Queue Scope provides users with two interfaces, tabular and geospatial, and allows Project Developers to screen potential points of interconnection and assess grid impacts based on a given amount of megawatt (“MW”) injection or withdrawal at a given Point of Interconnection.</p> <p>Queue Scope’s dataset results are created using a high-level DC flowgate Generator Deliverability Analysis across the PJM Region.</p> <ul style="list-style-type: none"> • Includes a selection of over 6,000 to 7,000 Point of Interconnection buses at 100 kilovolts and above on the PJM Transmission System. • Provides users with feedback on worst-case flowgate loading on the PJM Transmission System in the vicinity of those points of interconnection.

¹ Application of the independent entity standard requires a showing that variations from a Commission order or final rule are “(1) . . . just, reasonable, and not unduly discriminatory or preferential; and (2) accomplish[] the purposes of the order from which a variation is sought.” *PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162, at P 2 (2022), *reh’g denied*, 184 FERC ¶ 61,006 (2023), *appeals pending*, Petition for Review, *Hecate Energy LLC v. FERC*, Nos. 23-1089, et al. (D.C. Cir. Mar. 31, 2023); *see also Midcontinent Indep. Sys. Operator, Inc.*, 185 FERC ¶ 61,231, at P 9 (2023); *ISO New England, Inc.*, 170 FERC ¶ 61,218, at P 26 (2020).

			<ul style="list-style-type: none"> • Users can select different case types (“RTEP vs. Queue/Cycle”) and different case years to compare results. • Provides the available MW on the Transmission System for the facility based on the applicable facility rating and loading and will provide planning case information intended to be indicative of expected operating conditions under certain conditions. <p>PJM makes publicly available its planning models and study reports on the PJM website.</p> <p>PJM will update the Cycle study datasets reflected in Queue Scope on a routine basis as Phases I and II of each Cycle are completed, and will replace previous results with updated case results.</p> <p>PJM began developing its Queue Scope tool before the Commission issued the Final Rule and has already implemented the tool; thus offering advantages over the Final Rule’s requirements.</p>
2.	Cluster Study Process		
a.	Need for reform and interconnection study procedures	Compliant	PJM has already adopted a cluster/Cycle study process. The PJM Tariff complies with this aspect of the Final Rule.
b.	Defined terms in the <i>pro forma</i> LGIP and LGIA	Independent entity variation	<p>The definition of Stand Alone Network Upgrade in the IPRTF Tariff substantially complies with the Final Rule as modified by Order No. 2023-A, as it indicates that a Stand Alone Network Upgrade is an upgrade that can be constructed without affecting the Transmission System’s day-to-day operations, and that PJM and Project Developer must agree as to what constitutes a Stand Alone Network Upgrade.</p> <p>PJM’s <i>pro forma</i> Generator Interconnection Agreement (“GIA”), Schedule L, section 11.2.3.6, provides that if more than one Project Developer has been assigned cost responsibility for a Stand Alone Network Upgrade and desires to exercise the Option to Build, PJM will determine how to allocate among them unless the Project Developers reach agreement among themselves on how to proceed.</p>

			<p>Consistent with the Final Rule, this avoids litigation about construction responsibility and obligations.</p> <p>PJM does not need to revise its definition of Material Modification. PJM’s IPRTF Tariff does not permit for Material Modifications that would affect Interconnection Requests within the same Cycle. The IPRTF Tariff only permits limited changes to an Interconnection Request at Decision Points I and II, which are not expected to have a material adverse impact on Interconnection Requests within the same cluster; thus, consistent with the Final Rule’s intent.</p>
c.	Definitive Points of Interconnection	Independent entity variation	<p>PJM’s Tariff substantially complies with the requirement that an interconnection customer select a definitive Point of Interconnection to be studied when executing a cluster study agreement with variances that are appropriate for the PJM Region and PJM’s Cycle study process.</p> <p>The IPRTF Tariff requires designation of the Point of Interconnection by the Project Developer at the same time as required by Final Rule.</p> <p>IPRTF Tariff permits flexibility for Project Developers to make limited revisions to its Point of Interconnection at Decision Point I, consistent with the goals of the Final Rule.</p>
d.	Cluster Request Window and Customer Engagement Window	Independent entity variation	<p>The IPRTF Tariff has a rolling application period for Interconnection Requests.</p> <p>The time periods in PJM’s process resulted from the IPRTF stakeholder process and was overwhelmingly approved by stakeholders and was part of the package of reforms accepted by the Commission.</p> <p>PJM announces the deadline for a Cycle 180 days prior to closing the application period, which provides Project Developers with sufficient time to develop and check the accuracy of their applications. The approach is consistent with and even superior to the Final Rule, as it allows greater time for the submission of an Interconnection Request.</p> <p>During the subsequent 90-day period, PJM reviews submissions and identifies deficiencies in Interconnection Requests to allow Project Developers to address any deficiencies.</p>

			<p>The IPRTF Tariff establishes a gate between Cycles such that the application deadline for a new Cycle is not announced until the start of Phase II of the previous Cycle. This gating mechanism provides greater cost certainty than use of annual cluster window, and better meets the Final Rule’s goals of providing an efficient, transparent and non-discriminatory interconnection process.</p> <p>The IPRTF Tariff substantially complies with and even exceeds the requirements to allow Project Developers 10 Business Days to correct identified deficiencies in their Interconnection Requests.</p> <p>PJM will use Reasonable Efforts to inform a Project Developer of any deficiencies in its Interconnection Request within 15 Business Days after the Application Deadline, with Project Developer then having 10 Business Days to respond and correct deficiencies.</p> <p>PJM will then use Reasonable Efforts to review responses within 15 Business Days, and then will either validate or reject the application.</p> <p>PJM seeks an independent entity variation to retain its deficiency review period-as noted above, the 180-day notice period provides Project Developers with ample time to develop and submit a valid Interconnection Request, and an extended deficiency review period is not necessary.</p>
e.	Scoping Meetings	Independent entity variation	<p>The IPRTF Tariff provides that PJM may hold scoping meetings for projects in each Transmission Owner zone, which can be waived by Applicants or Transmission Owners.</p> <p>This approach generally complies with, and improves, the Final Rule’s requirements, at least in PJM. Holding meetings on a Regional Transmission Organization (“RTO”)-wide basis would be unwieldy, whereas the PJM approach allows scoping meetings to be held and Project Developers to direct questions to PJM and the relevant Transmission Owners efficiently. Further, it is appropriate to permit meetings to be waived where all information needed for the initial study has been obtained through the initial application or email communications.</p> <p>The IPRTF Tariff contains comprehensive confidentiality provisions that cover information related to Interconnection</p>

			Requests equivalent to the protections that would be provided by the non-disclosure agreements required by the Final Rule. Given the number of Project Developers that are expected to submit requests in a given Cycle, it would be burdensome for PJM to have to process hundreds of superfluous non-disclosure agreements for the sole purpose of scoping meetings.
f.	Posting of Metrics for Cluster Study Processing Time and Restudy Processing Time	Independent entity variation	Tariff, Part VIII, Subpart E, section 431 substantially complies with the requirements to post metrics for cluster study and cluster restudy processing times, but uses different timeframes and terminology than set forth in the Final Rule.
g.	Interconnection Request Evaluation Process	Independent entity variation	<p>Consistent with the Final Rule, Project Developers within a given Cycle have the same priority, and Project Developers in an earlier-in-time Cycle have a higher priority than Project Developers in a later-in-time Cycle.</p> <p>The IPRTF Tariff generally complies with the requirement that transmission providers adopt language providing that moving a Point of Interconnection will result in a loss of queue position if it is deemed a Material Modification by the transmission provider. While it allows limited changes to the Point of Interconnection at Phase I, consistent with the Final Rule, the IPRTF Tariff provides Project Developers with clear guidance as to what types of Point of Interconnection changes are permissible as opposed to what types require a new Interconnection Request and when such changes may be made. These provisions promote a more efficient use of limited engineering resources and provide a timelier study process, consistent with the Final Rule’s objectives.</p>
h.	Fewer than Three Year Extension to Commercial Operating Date	Independent entity variation	<p>Under the IPRTF Tariff, upon executing a GIA, Project Developers have a unilateral right to extend milestone dates by one year for any reason, and still may extend milestone dates in the event of delays it did not cause or could not have remedies through the exercise of due diligence.</p> <p>The Commission authorized the elimination of suspension in the IPRTF Order under the independent entity variation standard and recognized the “specific conditions” PJM faced in permitting Project Developers to extend their</p>

			<p>deadlines for up to three years, potentially causing delay and uncertainty for lower-queued generators.</p> <p>The Commission should again grant PJM an independent entity variation and permit PJM to maintain the IPRTF Tariff's unilateral one-year extension of milestones and elimination of three-year suspension period.</p>
i.	Cluster Study Provisions	Independent entity variation	<p>PJM's Commission-approved three-stage System Impact Study process under which Phase I is to be completed within 120 days of the start of Phase I, the Phase II System Impact Study is to be completed within 180 days of the start of Phase II, and Phase III System Impact Study is to be completed within 180 days of the start of Phase III.</p> <p>Although PJM's three-part study phase structure differs from the Final Rule's 150-day schedule, it is a sequenced study process that is generally consistent with the Final Rule. Further, PJM's study phase structure facilitates the efficient use of PJM's resources and better allows Project Developers to assess the viability of their projects at set stages, and make go or no go decisions at those times.</p> <p>PJM's sequencing of study types as projects move through the phases allows for the efficient use of scarce engineering resources to screen large numbers of projects and advance the projects most likely to succeed. The IPRTF Tariff's study and phase timeframes reflect the expected time to complete each phase based on PJM's experience and the particular circumstances it faces.</p>
j.	Restudies Triggered by Higher - or Equally Queued Generating Facility	Independent entity variation	<p>The IPRTF Tariff substantially complies with the Final Rule's directive that transmission providers revise their tariff to state that restudies can be triggered by higher or equally queued projects withdrawing from the queue or a permissible modification to a higher or equally queued project.</p> <p>PJM's three phase study process, coupled with three Decision Points, accounts for withdrawals and allows certain permissible modifications to occur on a structured basis.</p>
k.	Timing of LGIA Tender, Execution, and Filing	Independent entity variation	<p>The IPRTF Tariff generally complies with the Final Rule's requirements for transmission providers to allow an interconnection customer to invoke a 60-day negotiation period for the execution of a Large Generator</p>

			<p>Interconnection Agreement (“LGIA”), demonstrated Site Control and provide Security.</p> <p>The IPRTF Tariff’s 60-day Final Agreement Negotiation Phase runs concurrently with Decision Point III.</p> <p>The IPRTF Tariff permits Project Developers to direct that GIAs be filed on an unexecuted basis if the parties reach an impasse in negotiations.</p> <p>Similar to the Final Rule’s provisions, the IPRTF Tariff requires Project Developers to meet milestones, such as fuel supply contracts, within 60 days of PJM providing the Phase III System Impact Study.</p>
3.	Allocation of Cluster Study Costs	Independent entity variation	<p>PJM currently allocates study costs solely on a per capita basis, which is appropriate for large RTOs and should be permitted as an independent entity variation.</p> <p>Significant initialization efforts and steps are required to study any project, which makes a per capita allocation just and reasonable. Per capita cost allocation does not lead to unfair, unreasonable or unduly discriminatory cost allocations, and as the Commission has recognized, there is not necessarily a linear relationship between the size of a project and the time and costs associated with studying a project. Moreover, allocating costs on a per-MW basis will require additional administration for little benefit.</p>
4.	Allocation of Cluster Study Network Upgrade Costs	Independent entity variation	<p>The IPRTF Tariff substantially complies with the Final Order’s requirements. Project Developers are required to pay 100 percent of the Network Upgrade costs of the Interconnection Facilities necessary to accommodate its Interconnection Request. The IPRTF Tariff includes a form of Network Upgrade Cost Responsibility Agreement, which allows for the allocation of Common Use Upgrade costs among Project Developers.</p> <p>Under the IPRTF Tariff, PJM will use the proportional impact method to determine whether one or more Project Developers are subject to cost allocation for a Network Upgrade. Only one Project Developer can construct a Stand Alone Network Upgrade pursuant to the Option to Build.</p> <p>If the Commission were to require PJM to provide the detailed mechanics (contained in PJM Manuals) of how costs will be allocated, PJM would need to submit a Federal</p>

			Power Act section 205 filing every time the implementation details changed, which would be inefficient and burdensome.
5.	Increased Financial Commitments and Readiness Requirements		
a.	Increased Study Deposits	Independent entity variation	<p>The IPRTF Tariff’s study provisions substantially comply with the Final Rule. While the study deposit amounts differ from that set forth in the Final Rule, like the Final Rule, PJM’s process consists of a tiered study deposit amount based on the MW-size of an Interconnection Request. This process represents a reasonable proxy for the cost of all three studies and the specific tiers and dollar amounts were part of the comprehensive stakeholder negotiated solutions package.</p> <p>The study deposit is a tiered, one-time deposit to be provided upon entry to the cluster, subject to true up to actual study costs, which protects all parties from any under- or over-recovery of costs.</p> <p>PJM requires that study deposits be paid by wire transfer, and the Readiness Deposits to be paid by wire transfer (cash) or letter of credit. This approach has proven workable, and provides Project Developers with clear instructions and sufficient opportunity to submit deposits within the require timeframes.</p>
b.	Demonstration of Site Control	Independent entity variation	<p>The IPRTF Tariff substantially complies with and achieves the same goal as the Final Rule.</p> <p>The IPRTF Tariff contains detailed Site Control provisions and were negotiated through the IPRTF stakeholder process and accepted in the IPRTF Order. Like the Final Rule, the IPRTF Tariff’s Site Control provisions require a strong showing of exclusive access to and control of land that can be met through a deed, lease, option or other document demonstrating the Project Developer’s right to possess, occupy and control the Site. The IPRTF Tariff also dictates that when there are multiple Project Developers on the same site behind the same Point of Interconnection, Project Developers must control adequate land for all their Generating Facilities. The IPRTF Tariff includes specific provisions for Project Developers using Sites owned or physically controlled by a federal or state entity.</p> <p>Strong Site Control requirements ensure Project Developers have proved their readiness to construct and simplify the</p>

			<p>study process and PJM has implemented Site Control requirements that apply to sites needed for the Interconnection Facilities required to support an Interconnection Request. These requirements are consistent with the Final Rule’s goals because they ensure projects have sufficient Site Control to move forward to completion.</p> <p>PJM’s Site Control provisions also provide Project Developers with an appropriate degree of flexibility when faced with permitting constraints. While different from the Final Rule, these provisions are consistent with the Final Rule’s goals and allow a reasonable amount of flexibility to Project Developers. This includes the option of including a milestone in the Project Developer’s GIA allowing it 180 days after execution of such agreement to satisfy the Site Control requirements.</p>
c.	Commercial Readiness	Independent entity variation	<p>As with the IPRTF Tariff’s study deposits, the Readiness Deposit structure contained in the IPRTF Tariff substantially aligns with the Final Rule and will accomplish the same goal, with differences appropriate for the PJM Region.</p> <p>Consistent with the Final Rule, the Readiness Deposits will help reduce the number of speculative Interconnection Requests. PJM’s Readiness Deposit structure is in line with the Final Rule requirement that the initial deposit be based on the project’s size, with the remaining deposits based on the project’s Network Upgrade costs, set at a level that will deter speculative projects without being too high as to discourage viable projects from smaller developers and other from entering a Cycle.</p>
d.	LGIA Deposit	Independent entity variation	<p>The IPRTF Tariff approach ties the Security amount to the estimated costs of the required Network Upgrades, which sends an accurate cost signal to Project Developers, and aligns the Security that is provided with its function of ensuring that the necessary Network Upgrades are paid for and constructed. It also ensure that funds will be available to construct upgrades if a Project Developer withdraws or its project is terminated. This process properly aligns with the intent and goals of the Final Rule, and should be permissible under the independent entity variation standard. It also recognizes that a Project Developer’s ability to provide a Security amount based on the projected costs of its Network Upgrades is indicative of a project’s viability.</p>

e.	Withdrawal Penalties	Independent entity variation	<p>Rather than the term “withdrawal penalties,” the IPRTF Tariff used the term “Readiness Deposits,” which are subject to forfeiture to offset the cost of underfunded Network Upgrades if a project is terminated or withdrawn.</p> <p>These provisions are in accordance with, and serve the same function as, the withdrawal penalties imposed in the Final Rule. When all New Service Requests in a Cycle have either entered into final agreements and the Decision Point III Site Control requirements have been met, or have been withdrawn, PJM will undertake a retooled study to provide a final determination of the Network Upgrades that are required for the Cycle.</p> <p>The forfeiture of Readiness Deposits applies when the Project Developer actively decides to withdraw its project, or its project is terminated or otherwise does not achieve commercial operation. However, there will be no forfeiture in the event of certain adverse study results, consistent with the Final Rule.</p> <p>The determination of the Readiness Deposit amounts to be refunded or forfeited is appropriately made after Decision Point III and after all Project Developers have entered into final interconnection-related agreements.</p> <p>Thus, aligns with the Final Rule, which states that the transmission provider is to hold all withdrawal penalty funds in a cluster until all Interconnection Requests have been terminated or withdrawn or all interconnection customers have executed an LGIA or requested that one be filed unexecuted.</p> <p>PJM does not apply a materiality test to withdrawals but instead counts all withdrawals as equivalent.</p> <p>This standard should reduce disputes and uncertainty as to whether a withdrawal has a material impact on other projects, and consistently accomplishes the Final Rule’s goal of preventing disruptive late-stage withdrawals.</p>
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III.B. Reforms to Increase the Speed of Interconnection Queue Processing²

III.C. Reforms to Incorporate Technology Advancements into the Interconnection Process

	Reforms	Proposed Deviation Standard	Justification
1.	Increasing Flexibility in the Generator Interconnection Process		
a.	Co-Located Generating Flexibility in the Generator Interconnection Process	Compliant	The IPRTF Tariff is fully compliant with the Final Rule’s co-location requirement as it allows for co-location of multiple resources behind a single Point of Interconnection. The IPRTF Tariff also allows for multiple fuel types behind the same Point of Interconnection and, for Interconnection Requests that involve multiple fuel types, permits removal of a fuel type through a permissible reduction in a project’s Maximum Facility Output.
b.	Revisions to the Modification Process to Require Consideration of Generating Facility Additions	Compliant	The IPRTF Tariff appropriately limits Material Modifications to changes that can adversely affect other developers. The Final Rule states that this requirement does not apply to transmission providers that use fuel-based dispatch assumption in its interconnection studies. PJM uses fuel-based dispatch assumptions in its interconnection studies and thus no revisions to its Tariff are required.
c.	Availability of Surplus Interconnection Service		PJM will make revisions related to Surplus Interconnection Service in a compliance filing to be submitted at a later date.
d.	Operating Assumptions for Interconnection Studies	Independent entity variation	PJM requests that the Commission grant PJM an independent entity variation to allow PJM to deviate from this aspect of the Final Rule to find that PJM’s modeling assumption requirements are not required to change. The use of customer-provided operating assumptions is not consistent with how PJM performs its planning studies for its annual regional transmission planning process and the manner in which PJM operates the system in real time. Moreover, PJM’s interconnection process is, and has been

² PJM will address issues related to the elimination of the Reasonable Efforts Standard and Affected System issues in a compliance filing to be submitted at a later date.

			historically, resource-neutral, and if PJM modifies its process for one specific type of resource, the resulting administrative burdens and additional studies will slow down interconnection studies for all Project Developers. Additionally, strict adherence to the Final Rule would require PJM to include a special interconnection study with the larger cluster study for each project whose owner submits operating parameters.
2.	Incorporating the Enumerated Alternative Transmission Technologies into the Generator Interconnection Process	Independent entity variation	<p>PJM seeks an independent entity variation with respect to the Final Rule’s requirement that transmission providers include in interconnection study reports the results of their evaluation of the feasibility, cost, and time savings of grid enhancing technologies (“GETs”) as an alternative to traditional transmission technologies. The IPRTF Tariff already accounts for alternative transmission technologies in the interconnection process, as all of the enumerated GETs already are considered and studied, as necessary in the course of interconnection studies in the PJM Region. There is nothing about GETs that requires special study protocols or separate reporting.</p> <p>PJM also plans to provide additional transparency on the utilization of GETs in PJM by the end of 2024. By that time, the Technical Reference Guide that PJM Applied Innovations is developing for alternative transmission technologies and GETS which will catalog those technologies and describe the conditions under which certain technologies may be considered as a reinforcement solution, will be publicly available through posting on PJM’s website.</p>
3.	Modeling and Ride-Through Requirements for Non-Synchronous Generating Facilities		
a.	Modeling Requirements	Compliant	PJM’s Dynamic Model Development Guidelines, which are publicly available to all Developers seeking to interconnect, fully comply with this requirement.
b.	Ride Through Requirements	Compliant	The IPRTF Tariff includes ride-through requirements for abnormal frequency conditions and voltage conditions that satisfy the requirements of the Final Rule to establish ride through requirements for abnormal frequency conditions and voltage conditions within the “no trip zone” defined by NERC Reliability Standards.
c.	Applicability of Ride	Compliant	The Final Rule requires that all newly interconnecting large Generating Facilities provide frequency and voltage ride through capability consistent with any standards and

	Through Requirements		guidelines that are applied to other Generating Facilities in the balancing authority area on a comparable basis. PJM's GIA already complies with this requirement.
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Attachment B

PJM Interconnection, L.L.C. Open Access Transmission Tariff Sections

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 Study Agreement

“Affected System Study Agreement” shall mean the agreement set forth in Tariff, Part IX, Subpart N.

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 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 D

Decision Point I:

“Decision Point I” shall mean the time period that commences on the first Business Day immediately following Phase I of a Cycle, and shall end within 30 calendar days; however, if the 30th does not fall on a Business Day, this time period shall conclude on the next Business Day.

Decision Point II:

“Decision Point II” shall mean the time period that commences on the first Business Day immediately following Phase II of a Cycle, and shall end within 30 calendar days; however, if the 30th does not fall on a Business Day, this time period shall conclude on the next Business Day.

Decision Point III:

“Decision Point III” shall mean the time period that commences on the first Business Day immediately following Phase III of a Cycle, and shall end within 30 calendar days; however, if the 30th does not fall on a Business Day, this time period shall conclude on the next Business Day.

Default:

As used in the Generation Interconnection Agreement, Construction Service Agreement, and Network Upgrade Cost Responsibility Agreement, “Default” shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of a Generation Interconnection Agreement, Construction Service Agreement, or Network Upgrade Cost Responsibility Agreement.

Distribution System:

“Distribution System” shall mean the Transmission Owner’s facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades:

“Distribution Upgrades” shall mean the additions, modifications, and upgrades to the Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the delivery service necessary to affect Project Developer’s wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

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

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 G

Generating Facility:

“Generating Facility” shall mean Project Developer’s device for the production and/or storage for later injection of electricity identified in the New Service Request, but shall not include the Project Developer’s Interconnection Facilities. A Generating Facility consists of one or more generating unit(s) and/or storage device(s) which usually can operate independently and be brought online or taken offline individually.

Generation Interconnection Agreement (“GIA”):

“Generation Interconnection Agreement” (“GIA”) shall mean the form of interconnection agreement applicable to a Generation Interconnection Request or Transmission Interconnection Request. A form of the GIA is set forth in Tariff, Part IX, Subpart B.

Generation Interconnection Procedures (“GIP”):

“Generation Interconnection Procedures” (“GIP”) shall mean the interconnection procedures set forth in Tariff, Part VIII.

Generation Interconnection Request:

“Generation Interconnection Request” shall mean a request by a Generation Project Developer pursuant to Tariff, Part VIII, Subpart B, section 403(A)(1), to interconnect a generating unit with the Transmission System or to increase the capacity of a generating unit interconnected with the Transmission System in the PJM Region.

Generation Project Developer:

“Generation Project Developer” shall mean an entity that submits a Generation Interconnection Request to interconnect a new generation facility or to increase the capacity of an existing generation facility interconnected with the Transmission System in the PJM Region.

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).

Governmental Authority:

“Governmental Authority” shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over any Interconnection Party or Construction Party or regarding any matter relating to a Generation Interconnection Agreement or Construction Service Agreement, as applicable.

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 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 L

List of Approved Contractors:

“List of Approved Contractors” shall mean a list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner’s system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

Load Serving Entity (LSE):

“Load Serving Entity” or “LSE” shall have the meaning specified in the Reliability Assurance Agreement.

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

Material Modification:

“Material Modification” shall mean, as determined through a Necessary Study, any modification to a Generation Interconnection Agreement that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades or Transmission Owner Interconnection Facilities needed to accommodate, any Interconnection Request with a later Cycle.

Maximum Facility Output:

“Maximum Facility Output” shall mean the maximum (not nominal) net electrical power output in megawatts, specified in the Generation Interconnection Agreement, after supply of any parasitic or host facility loads, that a Generation Project Developer’s Generating Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Generating Facility that Transmission Provider utilized in the System Impact Study.

Maximum State of Charge:

“Maximum State of Charge” shall mean the maximum State of Charge that should not be exceeded, measured in units of megawatt-hours.

Merchant A.C. Transmission Facilities:

“Merchant A.C. Transmission Facility” shall mean Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

Merchant D.C. Transmission Facilities:

“Merchant D.C. Transmission Facilities” shall mean direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to the Tariff.

Merchant Network Upgrades:

“Merchant Network Upgrades” shall mean additions to, or modifications or replacements of, or advancement of additions to, or modifications or replacement of, physical facilities of the Transmission Owner that, on the date of the pertinent Upgrade Customer’s Upgrade Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan, but that are not already subject to an already 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.

Merchant Transmission Facilities:

“Merchant Transmission Facilities” shall mean A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to the Tariff, Part VIII and that are so identified in Tariff, Attachment T, provided, however, that Merchant Transmission Facilities shall not include (i) any Project Developer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Tariff, Attachment T, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

Merchant Transmission Provider:

“Merchant Transmission Provider” shall mean an Project Developer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to this Tariff, Part VIII, Subpart E, section 428, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Tariff, Part VIII, Subpart E, section 417.

Metering Equipment:

“Metering Equipment” shall mean all metering equipment installed at the metering points designated in the appropriate appendix to a Generation Interconnection Agreement.

Minimum State of Charge:

“Minimum State of Charge” shall mean the minimum State of Charge that should be maintained in units of megawatt-hours.

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 O

Open Access Same-Time Information System (OASIS) or PJM Open Access Same-Time Information System:

“Open Access Same-Time Information System,” “PJM Open Access Same-Time Information System” or “OASIS” shall mean the electronic communication and information system and standards of conduct contained in Part 37 and Part 38 of the Commission’s regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS for the collection and dissemination of information about transmission services in the PJM Region, established and operated by the Office of the Interconnection in accordance with FERC standards and requirements.

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 the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. 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.

Option to Build:

“Option to Build” shall mean the option of the Project Developer to build certain Stand Alone Network Upgrades, as set forth in, and subject to the terms of, the Construction Service 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.

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 Q

Qualifying Facility:

“Qualifying Facility” shall mean means an electric energy generating facility that complies with the qualifying facility definition established by Public Utility Regulatory Policies Act (“PURPA”) and any FERC rules as amended from time to time (18 C.F.R. part 292, section 292.203 et seq.) implementing PURPA and, to the extent required to obtain or maintain Qualifying Facility status, is self-certified as a Qualifying Facility or is certified as a Qualified Facility by the FERC.

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, or Schedule of 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 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 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 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.

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 400
Definitions T

Transmission Facilities:

“Transmission Facilities” shall have the meaning set forth in the Operating Agreement.

Transmission Injection Rights:

“Transmission Injection Rights” shall mean Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

Transmission Interconnection Request:

“Transmission Interconnection Request” shall mean a request by a Transmission Interconnection Project Developer pursuant to Tariff, Part VIII, Subpart B, section 403(A)(4) to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System in 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.

Transmission Owner Interconnection Facilities:

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Project Developer Interconnection Facilities and that, after the transfer under Appendix 2, section 23.3.5 of the GIA to the Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Project Developer constructed, are owned, controlled, operated and maintained by the Transmission Owner on the Transmission Owner’s side of the Point of Change of Ownership identified in appendices to the Generation Interconnection Agreement and if applicable, the Interconnection Construction Service 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 or interconnected distribution facilities.

Transmission Owner Upgrades:

“Transmission Owner Upgrades” shall mean Distribution Upgrades, Merchant Transmission Upgrades, Network Upgrades and Stand-Alone Network Upgrades.

Transmission Project Developer:

“Transmission Project Developer” shall mean an entity that submits a request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

Transmission Provider:

The “Transmission Provider” shall be the Office of the Interconnection for all purposes, provided that the Transmission Owners will have the responsibility for the following specified activities:

(a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to direct the operation and maintenance of those transmission facilities that are not listed in the PJM Designated Facilities List contained in the PJM Manual on Transmission Operations;

(b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and

(c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff, Operating Agreement and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

Transmission Service:

“Transmission Service” shall mean Point-To-Point Transmission Service provided under Tariff, Part II on a firm and non-firm basis.

Transmission System:

“Transmission System” shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Tariff, Part II and Part III.

Transmission Withdrawal Rights:

“Transmission Withdrawal Rights” shall mean Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

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

Wholesale Market Participation Agreement (“WMPA”):

“Wholesale Market Participation Agreement” (“WMPA”) shall mean the form of agreement intended to allow a Project Developer to effectuate in wholesale sales in the PJM markets. A form of the WMPA is set forth in Tariff, Part IX, Subpart C.

Wholesale Transaction:

“Wholesale Transaction” shall mean any transaction involving the transmission or sale for resale of electricity in interstate commerce that utilizes any portion of the Transmission System.

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)(b).
 - 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 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 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 14G, 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 B, section 403
Application Rules

A. Application Submission

A Project Developer or Eligible Customer (collectively, “Applicant”) that seeks to initiate a New Service Request must submit the following information to the Transmission Provider: (i) a Project Developer Applicant electronically submits through the PJM web site, an Application and Studies Agreement (“Application”), a form of which is provided in Tariff, Part IX, Subpart A, (ii) an Eligible Customer Applicant electronically submits a Completed Application and subsequently executes an Application, a form of which is provided in Tariff, Part IX, Subpart A following the procedures outlined in Tariff, Parts II and III as applicable.

To be considered in a Cycle, a Project Developer must submit a completed and signed Application, including the required Study Deposit and Readiness Deposit, to Transmission Provider prior to the Cycle’s Application Deadline. To be considered in a Cycle, an Eligible Customer must submit a Completed Application, to Transmission Provider prior to the Cycle’s Application Deadline. Transmission Provider will post a firm Application Deadline for a Cycle at the beginning of Phase II of the immediately prior Cycle, no less than 180 days in advance of the Application Deadline. Only Completed New Service Requests received from Project Developers by the Application Deadline will be considered for the corresponding Cycle. Only Completed Applications received from Eligible Customers by the Application Deadline will be considered for the corresponding Cycle. Completed New Service Requests and Completed Applications shall be assigned a tentative Project Identifier. Transmission Provider will review and validate New Service Requests and the Project Identifier during the Application Phase, prior to Phase I of the corresponding Cycle. Only valid New Service Requests will proceed past the Application Phase.

1. Generation Interconnection Request Requirements

For Transmission Provider to consider an Application for a Generation Interconnection Request complete, Applicant must include at a minimum each of the following, as further described in the Application and PJM Manuals:

- a. Provide all Applicant information required in the Application, including parent company information and banking and wire transfer information.
- b. Specify the location of the proposed Point of Interconnection 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.
- c. Provide information about the Generating Facility project, including whether it is (1) a proposed new Generating Facility, (2) an increase in

capability of an existing Generating Facility, or (3) the replacement of an existing Generating Facility.

- d. Indicate the type of Interconnection Service requested, whether (1) Energy Resource only or (2) Capacity Resource (includes Energy Resource) with Capacity Interconnection Rights.
- e. Specify the project location and provide a detailed site plan.
- f. Submit required evidence of Generating Facility Site Control (including the location of the main step-up transformer), including a certification by an officer or authorized representative of Applicant; and, at Transmission Provider's request, copies of landowner attestations or county recordings.
- g. Provide information about Qualifying Facility status under the Public Utility Regulatory Policies Act, as applicable.
- h. Submit required information and documentation if the Generating Facility will share Applicant's Interconnection Facilities with another Generating Facility.
- i. For a new Generating Facility, specify requested Maximum Facility Output and Capacity Interconnection Rights.
- j. For a requested increase in generation capability of an existing Generating Facility, specify the existing Maximum Facility Output and Capacity Interconnection Rights, and requested increases.
- k. Provide a detailed description of the equipment configuration and electrical design specifications for the Generating Facility.
- l. Specify the fuel type for the Generating Facility; or, in the case of a multi-fuel Generating Facility, the fuel types.
- m. For a multi-fuel Generating Facility, provide a detailed description of the physical and electrical configuration.
- n. If the Generating Facility will include a storage component, provide detailed information about (1) whether and how the storage device(s) will charge using energy from the Transmission System, (2) the primary frequency response operating range for the storage device(s), (3) the MWh stockpile, and (4) the hour class, as applicable.
- o. Specify the proposed date that the project or uprate associated with the Application will be in service.

- p. Provide other relevant information, including whether Applicant or an affiliate has submitted a previous Application for the Generating Facility; and, if an increase in generation capability, information about existing PJM Service Agreements and associated Queue Position Nos. or Project Identifier Nos.

2. Behind the Meter Generator Application Requirements

In addition to the above requirements for a Generating Facility, in order for Transmission Provider to consider an Application for behind-the-meter generation Interconnection Service complete, Applicant must include at a minimum each of the following, as further described in the Application and PJM Manuals:

- a. Specify gross output, behind the meter load, requested Maximum Facility Output, and requested Capacity Interconnection Rights.
- b. For a requested increase in generation capability of an existing Behind the Meter Generating Facility, specify existing and requested increase in gross output, behind the meter load, Maximum Facility Output, and Capacity Interconnection Rights.

3. Long Term Firm Transmission Service Application Requirements

For Transmission Provider to consider an Application for Long Term Firm Transmission Service complete, Applicant must include at a minimum each of the following, as further described in the Application and PJM Manuals:

- a. Provide all Applicant information required in the Application, including parent company information and banking and wire transfer information.
- b. Specify the locations of the Point(s) of Receipt and Point(s) of Delivery.
- c. Specify the requested Service Commencement Date and term of service.
- d. Specify the transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission System.

4. Merchant Transmission Application Requirements

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

- a. Provide all Applicant information required in the Application, including parent company information and banking and wire transfer information.

- b. Specify the location of the proposed facilities, and the name and description of the substation where Applicant proposes to interconnect or add its facilities.
- c. Specify the proposed voltage and nominal capability of new facilities or increase in capability of existing facilities.
- d. Provide a detailed description of the equipment configuration and electrical design specifications for the project.
- e. Specify the proposed date that the project or increase in capability will be in service.
- f. Specify whether the proposed facilities will be either (1) merchant A.C., (2) Merchant D.C. Transmission Facilities, or (3) Controllable A.C. Merchant Transmission Facilities.
- g. If Merchant D.C. Transmission Facilities or Controllable A.C. Merchant Transmission Facilities, specify whether Applicant elects to receive (1) Firm or Non-Firm Transmission Injection Rights (TIR) and/or Firm or Non-Firm Transmission Withdrawal Rights (TWR) or (2) Incremental Delivery Rights, Incremental Auction Revenue Rights, and/or Incremental Capacity Transfer Rights.
 - i. If Applicant elects to receive TIRs or TWRs, specify (1) total project MWs to be evaluated as Firm (capacity) injection for TIR; (2) total project MWs to be evaluated as Non-firm (energy) injection for TIR; (3) total project MWs to be evaluated as Firm (capacity) withdrawal for TWR; and (4) total project MWs to be evaluated as Non-firm (energy) withdrawal for TWR.
 - ii. If Applicant elects to receive Incremental Delivery Rights, specify the location on the Transmission System where it proposes to receive Incremental Delivery Rights associated with its proposed facilities.
- h. If the proposed facilities will be Controllable A.C. Merchant Transmission Facilities, and provided that Applicant contractually binds itself in its interconnection-related service agreement always to operate its Controllable A.C. Merchant Transmission Facilities in a manner effectively the same as operation of D.C. transmission facilities, the interconnection-related service agreement will provide Applicant with the same types of transmission rights that are available under the Tariff for Merchant D.C. Transmission Facilities. In the Application, Applicant shall represent that, should it execute an interconnection-related service agreement for its project described in the Application, it will agree in the

interconnection-related service agreement to operate its facilities continuously in a controllable mode.

- i. Specify the site where Applicant intends to install its major equipment, and provide a detailed site plan.
- j. Submit required evidence of Site Control for the major equipment, including a certification by an officer or authorized representative of Applicant; and, at Transmission Provider's request, copies of landowner attestations or county recordings.
- k. Provide evidence acceptable to Transmission Provider that Applicant has submitted a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting, as applicable. Applicant 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 Applicant 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.

5. Additional Requirements Applicable to All Applications

- a. Study Deposit: For Transmission Provider to consider an Application complete, Transmission Provider must receive from the Applicant the required Study Deposit by wire transfer, the amount of which is based on the size of the project as described below. Applicant's wire transfer must specify the Application reference number to which the Study Deposit corresponds, or Transmission Provider will not review or process the Application.
 - i. Ten percent of the Study Deposit is non-refundable. If Applicant withdraws its New Service Request, or the New Service Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:
 - (a) Any outstanding monies owed by Applicant in connection with outstanding invoices due to Transmission Provider, Transmission Owner(s), and/or third party contractors, as applicable, as a result of any failure of Applicant to pay actual costs associated with the New Service Request;

- (b) Any restudies required as a result of the rejection, termination, and/or withdrawal of such New Service Request; and/or
 - (c) Any outstanding monies owed by Applicant in connection with outstanding invoices related to other New Service Requests.
- ii. Ninety percent of the Study Deposit is refundable, and Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
 - (a) The cost of the Application review;
 - (b) The dollar amount of Applicant's cost responsibility for the System Impact Study; and
 - (c) If the New Service Request is modified, rejected, terminated, and/or withdrawn, refundable deposit money shall be applied to cover all of the costs incurred by Transmission Provider up to the point of the New Service Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:
 - (i) The costs of any restudies required as a result of the modification, rejection, termination, and/or withdrawal of the New Service Request;
 - (ii) Any outstanding monies owed by Applicant in connection with outstanding invoices due to Transmission Provider, Transmission Owner(s), and/or third party contractors, as applicable, as a result of any failure of Applicant to pay actual costs associated with the New Service Request; and/or
 - (iii) Any outstanding monies owed by Applicant in connection with outstanding invoices related to other New Service Requests.
 - (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to Applicant in accordance with the PJM Manuals.

- iii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
 - (a) Applicant is responsible for, and must pay, all actual study costs.
 - (b) If Transmission Provider sends Applicant notification of additional study costs, then Applicant 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 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.
- iv. The Study Deposit shall be calculated as follows, based on the number of MW energy (e.g., Maximum Facility Output) or MW capacity (e.g., Capacity Interconnection Rights), whichever is greater:
 - (a) Up to 20 MW: \$75,000;
 - (b) Over 20 MW up to 50 MW: \$200,000;
 - (c) Over 50 MW up to 100 MW: \$250,000;
 - (d) Over 100 MW up to 250 MW: \$300,000;
 - (e) Over 250 MW up to 750 MW: \$350,000; and
 - (f) Over 750 MW: \$400,000.
- b. Readiness Deposit: For Transmission Provider to consider an Application complete, Applicant must submit to Transmission Provider the required Readiness Deposit by wire transfer or letter of credit. Applicant's wire transfer or letter of credit must specify the Application reference number to which the Readiness Deposit corresponds, or Transmission Provider will not review or process the Application. Readiness Deposit No. 1 shall be an amount equal to \$4,000 per MW energy (e.g., Maximum Facility Output) or per MW capacity (e.g., Capacity Interconnection Rights), whichever is greater, as specified in the Application.

B. Application Review Phase

- 1. After the close of the Application Deadline, Transmission Provider will begin the Application Review Phase, wherein Transmission Provider reviews Applications

received from Project Developers for completeness and then establishes the validity of such submitted Applications, beginning with a deficiency review, as follows:

- a. Transmission Provider will exercise Reasonable Efforts to inform Applicant of Application deficiencies within 15 Business Days after the Application Deadline.
 - b. Applicant then has 10 Business Days to respond to Transmission Provider's deficiency determination.
 - c. Transmission Provider then will exercise Reasonable Efforts to review Applicant's response within 15 Business Days, and then will either validate or reject the Application.
2. After the close of the Application Deadline, Transmission Provider will begin the Application Review Phase, wherein Transmission Provider reviews Applications received from Eligible Customers for completeness and then establishes the validity of such submitted Applications.
 3. Transmission Provider will only review an Application during the Application Review Phase following the Application Deadline for which the Application was submitted and deemed complete, which will extend for 90 days or the amount of time it takes to complete all Application review activities for the relevant Cycle, whichever is greater.
 4. During the Application Review Phase, and at least 30 days prior to initiating Phase I of the Cycle, Transmission Provider will post the Phase I Base Case data for review, subject to CEII protocols.
 5. In the case of an Application for a Generating Facility, the Application Review Phase will include a Site Control review for the Generating Facility. Specifically, Applicant shall provide Site Control evidence, as set forth in Tariff, Part VIII, Subpart A, section 402, for at least a one-year term beginning from the Application Deadline, for 100 percent of the Generating Facility Site including the location of the high-voltage side of the Generating Facility's main power transformer(s). In addition, Applicant shall provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further, at Transmission Provider's request, Applicant shall provide copies of landowner attestations or county recordings. The Site Control requirement in the Application includes an acreage requirement for the Generating Facility, as set forth in the PJM Manuals.
 6. In the case of an Application for Merchant Transmission, the Application Review Phase will include a Site Control review for the Site of the HVDC converter station(s), phase angle regulator (PAR), and/or variable frequency transformer, as

applicable. Specifically, Applicant shall provide Site Control evidence, as set forth in Tariff, Part VIII, Subpart A, section 402 for at least a one-year term beginning from the Application Deadline, for 100 percent of the Site. In addition, Applicant shall provide a certification, executed by an officer or authorized representative of Applicant, verifying that the Site Control requirement is met. Further, at Transmission Provider's request, Applicant shall provide copies of landowner attestations or county recordings.

C. Scoping Meetings

1. During the Application Review Phase, Transmission Provider may hold a single, or several, scoping meetings for projects in each Transmission Owner zone, which are optional and may be waived by Applicants or Transmission Owner.
2. Scoping meetings may include discussion of potential Affected System needs, whereby Transmission Provider may coordinate with Affected System Operators the conduct of required studies.

D. Other Requirements

1. Applicant must submit any claim for Capacity Interconnection Rights from deactivating generation units with the Application, and it must be received by Transmission Provider prior to the Application Deadline.
2. When an Application results in a valid New Service Request, Transmission Provider shall confirm the assigned Project Identifier to the New Service Request, in accordance with Tariff, Part VIII, Subpart E, section 412. Applicant and Transmission Provider shall reference the Project Identifier in all correspondence, submissions, wire transfers, documents, and other materials relating to the New Service Request.

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 and Decision Point I
- b. Phase II: Phase II System Impact Study and Decision Point II; and
- c. Phase III: Phase III System Impact Study 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 405
Phase I

A. Phase I Rules

1. This Tariff, Part VIII, Subpart C, section 405 sets forth the procedures and other terms governing the Transmission Provider's administration of Phase I of the Cycle process. After the Application Phase of a Cycle is completed and a group of valid New Service Requests is established therein, Phase I of a Cycle will commence. During Phase I of a Cycle, the Transmission Provider shall conduct a Phase I System Impact Study.
 - a. The Phase I System Impact Study is conducted on an aggregate basis within a New Services Request's Cycle, and results are provided in a single Cycle format. The Phase I System Impact Study Results will be publicly available on Transmission Provider's website; Project Developers must obtain the results from the website.
 - b. Start and Duration of Phase I
 - i. Phase I shall start on the first Business Day immediately following the end of the Application Review phase, but no earlier than 30 days following the distribution of the Phase I Base Case Data. Transmission Provider shall use Reasonable Efforts to complete Phase I within 120 calendar days from the date such phase commenced. If the 120th day does not fall on a Business Day, Phase I shall be extended to the end of the next Business Day. If Transmission Provider is unable to complete Phase I within 120 calendar days, Transmission Provider shall notify all impacted Project Developers and Eligible Customers simultaneously 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 Phase I.
 - ii. During Phase I, and at least 30 days prior to initiating Decision Point I of the Cycle, Transmission Provider will post an estimated start date for Decision Point I in order for Project developers and Eligible Customers to prepare to meet their Decision Point I requirements.

Tariff, Part VIII, Subpart C, section 406
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 VIII, Subpart C, section 406(A)(2).
 - 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 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 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 Tariff, Part VIII, Subpart C, section 406(A)(1)(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 Tariff, Part VIII, Subpart C, section 406(A)(1)(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 Tariff, Part VIII, Subpart C, section 406(A)(1)(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 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 VIII, Subpart A, section 402, and is also in accordance with the following additional specifications:
 - (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.
 - (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-year term beginning from the last day of the relevant Cycle, Phase I.

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 406(A)(2)(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 Tariff, Part VIII, Subpart C, section 406(A)(2)(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 Tariff, Part VIII, Subpart C, section 406(A)(2)(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.
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 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 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 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.
 - (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 three 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. If applicable, Interconnection Switchyard 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.
 - (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 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, section 406(A)(3)(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, section 406(A)(3)(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, section 406(A)(3)(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 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 Tariff, Part VIII, section 406(A)(3)(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 Tariff, Part VIII, section 406(A)(3)(a) through (f) above was submitted, Transmission Provider will begin the deficiency review

of the elements set forth in Tariff, Part VIII, section 406(A)(3)(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 VIII, Subpart D, section 411.

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 VIII, Subpart C, section 406.
- 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; and

(b) At the conclusion of the Cycle, refund to Project Developer or Eligible Customer up to 50 percent of Readiness Deposit No. 1 pursuant to Tariff, Part VIII, Subpart A, section 401(D)(2)(c).

ii. At the conclusion of Transmission Provider's deficiency review for Decision Point I, 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.

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 C, sections 406(A)(1) and 406(A)(3).

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 VIII, Subpart C, section 407
Phase II

A. Phase II Rules

1. This Tariff, Part VIII, Subpart C, section 407 sets forth the procedures and other terms governing the Transmission Provider's administration of Phase II of the Cycle process. After the Decision Point I phase of a Cycle is completed and a group of valid New Service Requests is established therein, Phase II of a Cycle will commence. During Phase II of a Cycle, the Transmission Provider shall conduct the Phase II System Impact Study. Only New Service Requests meeting the requirements of Tariff, Part VIII, Subpart C, section 406, Decision Point I phase, will be included in the Phase II System Impact Study.
 - a. The Phase II System Impact Study analysis will retool load flow results based on decisions made during Decision Point I, and perform short circuit and stability analyses as required.
 - b. The Phase II System Impact Study will identify Affected Systems, if applicable.
 - i. If an Affected System Study Agreement is required, the Transmission Provider shall notify the Project Developer or Eligible Customer prior to the end of Phase II by posting on the Transmission Provider's website of the need for Project Developer or Eligible Customer to enter into an Affected System Study Agreement.
 - c. The Phase II System Impact Study Results will be publicly available on Transmission Provider's website; Project Developers and Eligible Customers must obtain the results from the website.
 - d. Facilities Study. During the Phase II System Impact Study, a Facilities Study shall also be conducted pursuant to Tariff, Part VIII, Subpart C, section 404(A)(7).
 - e. Start and Duration of Phase II
 - i. Phase II shall start on the first Business Day immediately following the end of the Decision Point I 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 the Decision Point III Phase of the immediately preceding Cycle.
 - ii. The Transmission Provider shall use Reasonable Efforts to complete Phase II within 180 days from the date such Phase II

commenced. If the 180th day does not fall on a Business Day, Phase II shall be extended to end on the next Business Day. If the Transmission Provider is unable to complete Phase II within 180 days, the Transmission Provider shall notify all impacted Project Developers simultaneously 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 Phase II.

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) increases overall by 25 percent or more; and
- (b) 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 409
Phase III

A. Phase III Rules

1. This Tariff, Part VIII, Subpart C, section 409 sets forth the procedures and other terms governing the Transmission Provider's administration of Phase III of the Cycle process. After Decision Point II of a Cycle is completed and a group of valid New Service Requests is established therein, Phase III of a Cycle will commence. During Phase III of a Cycle, the Transmission Provider shall conduct a Phase III System Impact Study. Only New Service Requests meeting the requirements of Tariff, Part VIII, Subpart C, section 408, Decision Point II, will be included in the Phase III System Impact Study.
 - a. The Phase III System Impact Study analysis will retool load flow, short circuit, and stability results based on decisions made in Decision Point II.
 - b. The Phase III System Impact Study will include a final Affected System study, if applicable.
 - c. Phase III System Impact Study results will be publicly available on Transmission Provider's website; Project Developers and Eligible Customers must obtain the results from the website.
 - d. Facilities Study. During the Phase III System Impact Study, a Facilities Study shall also be conducted pursuant to Tariff, Part VIII, Subpart C, section 404(A)(7).
 - e. Start and Duration of Phase III
 - i. Phase III shall start on the first Business Day immediately following the end 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.
 - ii. The Transmission Provider shall use Reasonable Efforts to complete Phase III within 180 days from the date such Phase III commenced. If the 180th day does not fall on a Business Day, Phase III shall be extended to end on the next Business Day. If the Transmission Provider is unable to complete Phase III within 180 days, the Transmission Provider shall notify all impacted Project Developers or Eligible Customers simultaneously 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 Phase III.

f. Draft Agreement

Prior to the Final Agreement Negotiation Phase, Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX, as applicable to the Project Developer's or Eligible Customer's New Service Request, along with any applicable draft schedules, to the parties to such interconnection related agreement.

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 D, section 411
Final Agreement Negotiation Phase

- A. 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 end of Phase III, and shall run concurrently with Decision Point III. New Service Requests that enter Decision Point III will also enter the Final Agreement Negotiation Phase. The purpose of the Final Agreement Phase is to negotiate, execute and enter into a final interconnection related service agreement found in Tariff, Part IX, as applicable to a New Service Request; adjust the Security obligation based on New Service Requests withdrawn during Decision Point III and/or during the Final Agreement Negotiation Phase; and conduct any remaining analyses or updated analyses based on New Service Requests withdrawn during Decision Point III. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
1. If a New Service Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the New Service Request from the Cycle, and adjust the Security obligations of other New Service Requests based on the withdrawal.
- B. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:
1. Transmission Provider shall provide in electronic form a draft interconnection related agreement from Tariff, Part IX (as applicable to the Project Developer's or Eligible Customer's New Service Request), along with any applicable draft schedules, to the parties to such interconnection related agreement prior to the start of the Final Agreement Negotiation Phase.
 - a. Subject to any withdrawn New Service Requests during Decision Point III that require Transmission Provider to update study results, the draft interconnection related agreement shall be prepared using the study results available from Phase III or the most-recently completed studies conducted during the Final Agreement Negotiation Phase.
 - i. If a different New Service Request is withdrawn during Decision Point III after a draft agreement has been tendered to Project Developer or Eligible Customer, and that withdrawn New Service Request impacts the Project Developer's or Eligible Customer tendered draft, Transmission Provider shall use Reasonable Efforts to update and reissue the tendered draft within 15 Business Days.

2. 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, Project Developer or Eligible 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.

3. Impasse

If the Project Developer or Eligible 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.

4. 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 interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
 - i. execute the final interconnection related 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 interconnection related service agreement in unexecuted form

- (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
 - iv. and provide any required adjustments to Security.
 - b. If Project Developer or Eligible 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 interconnection related 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 interconnection related serviced agreement in unexecuted form.
 - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
- 5. Parties may not proceed under such interconnection related 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.

Tariff, Part VIII, Subpart E, section 414
Surplus Interconnection Service

A Surplus Interconnection Service Request

Requests for Surplus Interconnection Service may be made by the existing Project Developer whose Generating Facility is already interconnected, or one of its affiliates, or by an unaffiliated Project Developer. The existing Project Developer or one of its affiliates has priority to use this service; however, if they do not exercise this priority, Surplus Interconnection Requests also may be made available to an unaffiliated Surplus Project Developer. Surplus Interconnection Service is limited to utilizing or transferring an existing Generating Facility's Surplus Interconnection Service at the pre-existing Point of Interconnection of the existing Generating Facility and cannot exceed the existing Generating Facility's total amount of Interconnection Service, i.e., the total amount of Interconnection Service used by the Generating Facility requesting Surplus Interconnection Service and the existing Generating Facility shall not exceed the lesser of the Maximum Facility Output stated in the existing Generating Facility's Interconnection Service Agreement or Generator Interconnection Agreement, or the total "as-built capability" of the existing Generating Facility. If the Generating Facility requests Surplus Interconnection Service associated with an existing Generating Facility that is an Energy Resource, the Generating Facility requesting the Surplus Interconnection Service shall be an Energy Resource; and if the existing Generating Facility is a Capacity Resource, the Generating Facility requesting Surplus Interconnection Service associated with the Generating Facility may be an Energy Resource or a Capacity Resource (but only up to the amount of Capacity Interconnection Rights granted the existing Generating Facility). Surplus Interconnection Service cannot be granted if doing so would require new Network Upgrades or would have additional impacts affecting the determination of what Network Upgrades would be necessary to New Service Customers already in the New Services Queue or that have a material impact on short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response.

1. Surplus Interconnection Request Requirements. A Surplus Project Developer seeking Surplus Interconnection Service must submit a complete and fully executed Surplus Interconnection Study Agreement, which form is located at Tariff, Part IX. To be considered complete at the time of submission, the Surplus Project Developer's Surplus Interconnection Study Agreement must include, at a minimum, each of the following:
 - a. Specification of the location of the 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 generating unit Site); and
 - b. Evidence of an ownership interest in, or right to acquire or control the surplus generating unit Site for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider; and

- c. The MW size of the proposed surplus generating unit or the amount of increase in MW capability of an existing surplus generating unit; and
- d. Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- e. Identification of the fuel type of the proposed surplus generating unit or upgrade thereto; and
- f. A description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the surplus generating unit is wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and
- g. The planned date the proposed surplus generating unit or increase in MW capability of an existing surplus generating unit will be in service; and
- h. Any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- i. A description of the circumstances under which Surplus Interconnection Service will be available at the existing Generating Facility's Point of Interconnection; and
- j. A deposit in the amount of \$10,000 plus \$100 for each MW requested provided that the maximum total deposit amount for a Surplus Interconnection Request shall not exceed \$110,000. If any deposit monies remain after the Surplus Interconnection Study is complete and any outstanding monies owed by the Surplus Project Developer in connection with outstanding invoices related to prior New Service Requests and/or Surplus Interconnection Requests by the Surplus Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Surplus Project Developer; and
- k. 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
- l. If the Surplus Project Developer is an unaffiliated third party, the Surplus Project Developer must submit with its Surplus Interconnection Study Agreement the following information and documentation acceptable to the Transmission Provider:

- i. 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 Interconnection Service Agreement or Generation Interconnection Agreement; and
 - ii. 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 Interconnection Service Agreement or Generation 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.
 - m. If an Energy Storage Resource, Surplus Project Developer must submit primary frequency response operating range for the surplus generating unit.
2. Deficiency Review. Following the receipt of the Surplus Interconnection Study Agreement and requisite information and/or monies listed above, Transmission Provider shall determine whether the listed requirements were submitted as valid or deficient. If deemed deficient by Transmission Provider, Surplus Project Developer must submit the requisite information and/or monies acceptable to the Transmission Provider within 10 Business Days of receipt of the Transmission Provider's notice of deficiency. Failure of the Project Developer to timely provide information and/or monies identified in the deficiency notice shall result in the Surplus Interconnection Request being terminated and withdrawn. The Surplus Interconnection Service Request shall be considered valid as of the date and time the Transmission Provider receives from the Project Developer the last piece of required information and/or monies deemed acceptable by the Transmission Provider to clear such deficiency notice.

B Surplus Interconnection Study

After receiving a valid Surplus Interconnection Study Agreement seeking Surplus Interconnection Service and the requisite deposit set forth in Tariff, Part VIII, Subpart E, section 414(A)(1)(j) from the Surplus Project Developer, the Transmission Provider shall conduct a Surplus Interconnection Study.

1. Scope of Surplus Interconnection Study. A Surplus Interconnection Study shall consist of reactive power, short circuit/fault duty, stability analysis and any other appropriate analyses. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied under off-

peak conditions. Off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. The Transmission Provider shall use Reasonable Efforts to complete the Surplus Interconnection Study within one hundred eighty (180) days of determination of a valid Surplus Interconnection Service Request. If the Transmission Provider is unable to complete the Surplus Interconnection Study within such time period, Transmission Provider shall notify the Surplus Project Developer and provide an estimated completion date and an explanation of the reasons why the additional time is required.

2. Once the Surplus Interconnection Study is completed and Transmission Provider confirms that (i) no new Network Upgrades are required, (ii) there are no impacts affecting the determination of what upgrades are necessary for New Service Customers in the New Services Queue, and (iii) there are no material impacts on short circuit capability limits, steady-state thermal and voltage limits or dynamic system stability and response, the Transmission Provider shall issue the Surplus Interconnection Study to the Surplus Project Developer. If the Surplus Project Developer is an unaffiliated third party, PJM shall issue a Surplus Interconnection Study to the owner of the existing Generating Facility. A revised Interconnection Service Agreement or Generation Interconnection Agreement will be prepared and issued to the owner of the existing Generating Facility within sixty days of issuance of the Surplus Interconnection Study including the terms and conditions for Surplus Interconnection Service. Within sixty days of receipt by the owner of the existing Generating Facility of the revised Interconnection Service Agreement or Generation Interconnection Agreement, the owner of the existing Generating Facility will execute the revised Interconnection Service Agreement or Generation Interconnection Agreement, request dispute resolution or request that the Interconnection Service Agreement or Generator Interconnection Agreement be filed unexecuted in accordance.
3. If the Transmission Provider determines from the Surplus Interconnection Study that Network Upgrades may be required or there may be impacts affecting the determination of what upgrades are necessary for New Service Customers in the New Services Queue, or there may be material impacts on short circuit capability limits, steady-state thermal and voltage limits or dynamic system stability and response, the Surplus Interconnection Request will be terminated and withdrawn upon issuance of the Surplus Interconnection Study.
4. Deactivation of Existing Generating Facility
 - a. Surplus Interconnection Service cannot be offered if the existing Generating Facility from which Surplus Interconnection is provided is deactivated or has submitted a Notice to Deactivate to Transmission Provider consistent with Tariff, Part V, before the surplus generating unit has commenced commercial operation.

- b. Limited Operation. A Generating Facility receiving Surplus Interconnection Service may continue to receive Surplus Interconnection Service for a period not to exceed one year after the existing Generating Facility's Deactivation Date under the following conditions:
 - i. The surplus generating unit must have been studied by the Transmission Provider for the sole operation at the Point of Interconnection; and
 - ii. The owner of the existing Generating Facility must agree in writing that the Surplus Project Developer may continue to operate at either its limited share of the existing Generating Facility's capability under its Interconnection Service Agreement or Generator Interconnection Agreement, or any level below such capability upon the deactivation of the existing Generating Facility.
- c. If the Surplus Project Developer cannot satisfy the conditions of this Tariff, Part VIII, Subpart E, section 414(B)(4)(b) above, the revised Interconnection Service Agreement or Generator Interconnection Agreement for the existing Generating Facility shall terminate consistent with the Interconnection Service Agreement or Generator Interconnection Agreement terms of termination for a deactivated Generating Facility.

Tariff, Part VIII, Subpart E, section 429
Milestones

- A. In order to proceed with Generation Interconnection Agreement, within 60 days after receipt of the Phase III System Impact Study (or, if no Phase III System Impact Study was required, then after the results of either the Phase I or Phase II System Impact Study were provided on Transmission Provider's website):
1. Project Developer must demonstrate that it has:
 - a. entered a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnections; and
 - b. obtained any necessary local, county, and state site permits; and
 - c. signed a memorandum of understanding for the acquisition of major equipment; and
 - d. if applicable, obtained any necessary local, county, and state siting permits or other required approvals for the construction of its proposed Merchant D.C. Transmission Facilities or Merchant Controllable A.C. Transmission Facilities.
- B. The Transmission Provider may include any additional related milestone dates beyond those included in the Generation Interconnection Agreement for the construction of the project Developer's generation project that, if not met, shall relieve the Transmission Provider and the Transmission Owner(s) from the requirement to construct the necessary facilities and upgrades.
1. If the milestone dates in the Generation Interconnection Agreement are not met, such Generation Interconnection Agreement may be deemed to be terminated and Transmission Provider may cancel such agreement with the Federal Energy Regulatory Commission, and the New Service Agreement may simultaneously be deemed to be terminated and withdrawn.
 2. Such milestones may include site acquisition, permitting, regulatory certifications (if required), acquisition of any necessary third-party financial commitments, commercial operation, and similar events.
 3. The Transmission Provider may reasonably extend any such milestone dates (including those required in order to proceed with an Generation Interconnection Agreement) in the event of delays not caused by the Project Developer, such as unforeseen regulatory or construction delays that could not be remedied by the Project Developer through the exercise of due diligence.

4. The Generation Interconnection Agreement set forth in Tariff, Part IX, Subpart B, provides Project Developer shall also have a one-time option to extend any milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. Other milestone dates stated in the Generation Interconnection Agreement shall be deemed to be extended coextensively with Project Developer's use this provision.
5. Termination and withdrawal of a New Service Request for failure to meet a milestone shall not relieve the Project Developer from reimbursing the Transmission Provider (for the benefit of the affected Transmission Owner(s)) for the costs incurred prior to such termination and withdrawal. Applicable provisions of the Generation Interconnection Agreement set forth in Tariff, Part IX, Subpart B will continue in effect after termination to the extent necessary to provide for final billings, billing adjustments, and the determination and enforcement of liability and indemnification obligations arising from events or acts that occurred while the CSA or the applicable Generation Interconnection Agreement was in effect.

Tariff, Part VIII, Subpart E, section 431
Interconnection Studies Processing Time and Metrics

A. Phase I System Impact Studies Processing Time

1. Number of New Service Requests that had Phase I System Impact Studies completed within the six month reporting period,
2. Number of New Service Requests that had Phase I System Impact Studies completed within Transmission Provider's coordinated region during the six month reporting period that were completed more than 120 days, as determined in conformance with Tariff, Part VIII, Subpart C, section 405(A)(1)(b)(i).
3. At the end of the six month reporting period, the number of active valid New Service Requests with ongoing incomplete Phase I System Impact Studies exceeding 120 days, as determined in conformance with Tariff, Part VIII, Subpart C, section 405(A)(1)(b)(i).
4. Mean time (in days), for Phase I System Impact Studies completed within Transmission Provider's coordinated region during the six-month reporting period, from the date when Transmission Provider initiated the performance of the System Impact Studies to the date when Transmission Provider provided the completed Phase I System Impact Study to Project Developers.
5. Percentage of New Service Requests with Phase I System Impact Studies exceeding 120 days as determined in conformance with Tariff, Part VIII, Subpart C, section 405(A)(1)(b)(i) to complete this six month reporting period, calculated as the sum of section 431(A)(2) plus 431(A)(3) divided by the sum of section 431(A)(1) plus 431(A)(3).

B. Phase II System Impact Studies Processing Time

1. Number of New Service Requests that had Phase II System Impact Studies completed within Transmission Provider's coordinated region during the six-month reporting period.
2. Number of New Service Requests that had Phase II System Impact Studies completed within Transmission Provider's coordinated region during the six month reporting period that were completed more than 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 407(A)(1)(e)(i) after the date the end of Decision Point I.
3. At the end of the six month reporting period, the number of active valid New Service Requests with ongoing incomplete Phase II System Impact Studies exceeding 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 407(A)(1)(e)(i) after the end of Decision Point I.

4. Mean time (in days), for Phase II System Impact Studies completed within Transmission Provider's coordinated region during the six-month reporting period from the day after the end of Decision Point to the date when Transmission Provider provided the completed Phase II Interconnection System Impact Study to Project Developers.
5. Percentage of New Service Requests with Phase II System Impact Studies exceeding 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 407(A)(1)(e)(i), to complete this six month reporting period, calculated as the sum of section 431(B)(2) plus 431(B)(3) divided by the sum of section 431(B)(1) plus 431(B)(3)).

C. Phase III System Impact Studies Processing Time

1. Number of New Service Requests that had Phase III System Impact Studies completed within Transmission Provider's coordinated region during the six month reporting period.
2. Number of New Service Requests that had Phase III System Impact Studies completed within Transmission Provider's coordinated region during the six month reporting period that were completed more 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 409(A)(1)(e)(i) after the end of Decision Point II.
3. At the end of the six month reporting period, the number of active valid New Service Requests with ongoing incomplete Phase III System Impact Studies exceeding 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 409(A)(1)(e)(i) after the end of Decision Point II.
4. Mean time (in days), for Phase III System Impact Studies completed within Transmission Provider's coordinated region during the six month reporting period, from the day after the end of Decision Point II to the date when Transmission Provider provided the completed Phase III Interconnection System Impact Study to the Project Developers.
5. Percentage of New Service Requests with Phase III System Impact Studies exceeding the sum of 180 days as determined in conformance with Tariff, Part VIII, Subpart C, section 409(A)(1)(e)(i) to complete this six month reporting period, calculated as the sum of section 431(C)(2) plus 431(C)(3) divided by the sum of section 431(C)(1) plus 431(C)(3)).

D. Withdrawn New Service Requests

1. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue during the six month reporting period.

2. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue during the six month reporting period before the start of Planning Phase I.
3. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue during the six month reporting period from start of Phase I, to at or before the end of Decision Point I.
4. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue during the six month reporting period after the end of Decision Point I to at or before the end of Decision Point II.
5. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue during the six month reporting period after the end of Decision Point II to before execution of an interconnection-related service agreement or transmission service agreement, or Project Developer or Eligible Customer requests the filing of an unexecuted, new interconnection agreement.
6. Number of New Service Requests withdrawn from Transmission Provider's interconnection queue after execution of an interconnection-related service agreement or transmission service agreement, or Project Developer or Eligible Customer requests the filing of an unexecuted, new interconnection agreement.
7. Mean time (in days), for all withdrawn New Service Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the Cycle.

E. Posting Requirements

Transmission Provider is required to post on its website the measures in Tariff, Part VIII, Subpart E, sections 431(A) through 431(D) for each six-month reporting period within 30 days of the end of the reporting period; however, if the 30th does not fall on a Business Day, this time period shall conclude on the next Business Day. Transmission Provider will keep the measures posted on its website for three calendar years with the first required reporting year to be 2020.

F. Additional Compliance Requirements

In the event that any of the values calculated in Tariff, Part VIII, Subpart E, section 431(A)(5); Tariff, Part VIII, Subpart E, section 431(B)(5); or Tariff, Part VIII, Subpart E, section 431(C)(5) exceeds 25 percent for two consecutive reporting periods, Transmission Provider will have to comply with the measures below for the next two six-month reporting periods and must continue reporting this information until Transmission Provider reports two consecutive six-month reporting periods without the values calculated in Tariff, Part VIII, Subpart E, section 431(A)(5); Tariff, Part VIII, Subpart E, section 431(B)(5); or Tariff, Part VIII, Subpart E, section 431(C)(5) exceeding 25 percent for two consecutive six-month reporting periods:

1. Transmission Provider must submit a report to the Commission describing the reason for each study or group of clustered studies pursuant to an New Service Request that exceeded its deadline (i.e., 45, 90 or 180 days) for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 days of the end of the reporting period.
2. Transmission Provider shall aggregate the total number of employee hours and third party consultant hours expended towards interconnection studies within its coordinated region that reporting period and post on its website. This information is to be posted within 30 days of the end of the reporting period.

Tariff, Part VIII, Subpart E, section 432
Transmission Provider Website Postings

Transmission Provider shall maintain, on Transmission Provider's website, with regard to Project Developers, Eligible Customers and Upgrade Customers, the following:

- A. the Project Identifier;
- B. the proposed or incremental Maximum Facility Output and Capacity Interconnection Rights;
- C. the location of the project by state;
- D. the station or transmission line or lines where the interconnection will be made;
- E. the project's projected in-service date;
- F. the project's status;
- G. the type of service requested;
- H. the availability of any related studies;
- I. the type of project to be constructed.

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 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.

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.

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 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.

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)

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	
---------------------------------------------------------------	--

- 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 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

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 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:

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

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

d. Description of proposed facilities and equipment:

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

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:

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:

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.

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 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.

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 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 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 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 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 20th 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 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

Tariff, Part IX, Subpart B

**FORM OF
GENERATION INTERCONNECTION AGREEMENT COMBINED WITH
CONSTRUCTION SERVICE AGREEMENT**

Service Agreement No. []

(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 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 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 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 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: }

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.

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.

[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:

b. Location of Generating Facility or Merchant Transmission Facility:

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:

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.}

- 2.2 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.

{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:}

- [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.]

[for Transmission Project Developers]

- 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]

Pursuant to the GIP, Project Developer shall have Transmission Injection Rights at each indicated Point of Interconnection in the following quantity(ies):

- 2.5 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 2.3 only if customer is interconnecting Controllable A.C. Merchant Transmission Facilities]

- 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.

{Instructions – use for Merchant Transmission Developers as applicable}

2.7 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):

2.8 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:

2.9 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 Distribution Upgrades Charge: \$_____

[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]

4.4 Other Charges: \$_____

[Optional: Provide Breakdown of Charge Based on Transmission Owner responsibilities]

4.5 Cost breakdown:

\$ Direct Labor
\$ Direct Material
\$ Indirect Labor
\$ Indirect Material

[Additional items for breakdown as necessary]

\$ Total

4.6 Security Amount Breakdown:

\$ Estimated Cost of Network Upgrades, Distribution Upgrades, 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 4.4 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 - 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**

APPENDIX 1

DEFINITIONS

From the Generation Interconnection Procedures accepted for filing by FERC as of the effective date of this agreement

APPENDIX 2

STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS

1 Commencement, Term of and Conditions Precedent to Interconnection Service

1.1 Commencement Date:

The effective date of a Generation Interconnection Agreement shall be the date provided in section 4.0 of the Generation Interconnection Agreement. Interconnection Service under this Generation Interconnection Agreement shall commence upon the satisfaction of the conditions precedent set forth in section 1.2 below.

1.2 Conditions Precedent:

The following conditions must be satisfied prior to the commencement of Interconnection Service under this Generation Interconnection Agreement:

(a) This Generation Interconnection Agreement, if filed with FERC, shall have been accepted for filing by the FERC;

(b) All requirements for Initial Operation as specified in section 1.4 below shall have been met and Initial Operation of the Generating Facility or Merchant Transmission Facility shall have been completed.

(c) Project Developer shall be in compliance with all Applicable Technical Requirements and Standards for interconnection under the Tariff (as determined by the Transmission Provider).

1.3 Term:

This Generation Interconnection Agreement shall remain in full force and effect until it is terminated in accordance with section 16 of this Appendix 2.

1.4 Initial Operation:

The following requirements shall be satisfied prior to Initial Operation of the Generating Facility or Merchant Transmission Facility:

1.4.1 The construction of all Interconnection Facilities and Transmission Owner Upgrades necessary for the interconnection of the Generating Facility or Merchant Transmission Facility has been completed;

1.4.2 The Transmission Owner has accepted any Interconnection Facilities and Stand Alone Network Upgrades constructed by Project Developer pursuant to this GIA;

1.4.3 The Project Developer and the Transmission Owner have all necessary systems and personnel in place to allow for parallel operation of their respective facilities;

1.4.4 The Transmission Owner has received all applicable documentation for the Interconnection Facilities built by the Project Developer, certified as correct, including, but not

limited to, access to the field copy of marked-up drawings reflecting the as-built condition, pre-operation test reports, and instruction books; and

1.4.5 Project Developer shall have received any necessary authorization from Transmission Provider to synchronize with the Transmission System or to energize, as applicable per the determination of Transmission Provider, the Generating Facility or Merchant Transmission Facility and Interconnection Facilities.

1.4A Other Interconnection Options

1.4A.1 Limited Operation:

If any of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades are not reasonably expected to be completed prior to the Project Developer's planned date of Initial Operation, and provided that the Transmission Owner has accepted the Project Developer Interconnection Facilities pursuant to this GIA, Transmission Provider shall, upon the request and at the expense of Project Developer, perform appropriate power flow or other operating studies on a timely basis to determine the extent to which the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities may operate prior to the completion of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and the Generation Interconnection Agreement. In accordance with the results of such studies and subject to such conditions as Transmission Provider determines to be reasonable and appropriate, Transmission Provider shall (a) permit Project Developer to operate the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities, and (b) grant Project Developer limited, interim Interconnection Rights commensurate with the extent to which operation of the Generating Facility or Merchant Transmission Facility is permitted.

1.4A.2 Provisional Interconnection Service:

Upon the request of Project Developer, and prior to completion of requisite Interconnection Facilities, Distribution Upgrades, Network Upgrades, Stand Alone Network Upgrades, or system protection facilities Project Developer may request limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies, which terms shall be memorialized in the Generation Interconnection Agreement to be tendered by Transmission Provider to Project subject to the execution timelines and provisions set forth in Tariff, Part IX, section 500.

Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Project Developer interconnects without modifications to the Generating Facility or Merchant Transmission Facility or the Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or Stand Alone Network Upgrades, or system protection facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new,

modified and/or expanded Generating Facility or Merchant Transmission Facility are in place prior to the commencement of Interconnection Service from the Generating Facility or Merchant Transmission Facility. Where available studies indicate that such Interconnection Facilities, Network Upgrades, Distribution Upgrades, or Stand Alone Network Upgrades, and/or system protection facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility or Merchant Transmission Facility are not currently in place, Transmission Provider will perform a study, at the Project Developer's expense, to confirm the facilities that are required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility or Merchant Transmission Facility shall be studied and updated annually and at the Project Developer's expense. The results will be communicated to the Project Developer in writing upon completion of the study. Project Developer assumes all risk and liabilities with respect to the Provisional Interconnection Service, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, or Stand Alone Network Upgrades, and/or system protection facilities cost responsibilities.

1.5 Survival:

The Generation Interconnection Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while the Generation Interconnection Agreement was in effect; and to permit each Interconnection Party to have access to the real property, including but not limited to leased property and easements of the other Interconnection Parties pursuant to section 16 of this Appendix 2 to disconnect, remove or salvage its own facilities and equipment.

2 Interconnection Service

2.1 Scope of Service:

Interconnection Service shall be provided to the Project Developer at the Point of Interconnection (a) in the case of interconnection of the Generating Facility of a Generation Project Developer, up to the Maximum Facility Output, and (b) in the case of interconnection of the Merchant Transmission Facility of a Transmission Project Developer, up to the Nominal Rated Capability. The location of the Point of Interconnection shall be mutually agreed by the Interconnected Entities, provided, however, that if the Interconnected Entities are unable to agree on the Point of Interconnection, the Transmission Provider shall determine the Point of Interconnection, provided that Transmission Provider shall not select a Point of Interconnection that would impose excessive costs on either of the Interconnected Entities and shall take material system reliability considerations into account in such selection. Specifications for the Generating Facility or Merchant Transmission Facility and the location of the Point of Interconnection shall be set forth in an appendix to the Generation Interconnection Agreement and shall conform to those stated in the System Impact Study(ies).

2.2 Non-Standard Terms:

The standard terms and conditions of this Appendix 2 shall not apply, to such extent as Transmission Provider determines to be reasonably necessary to accommodate such circumstances, in the event that the Project Developer acquires an ownership interest in facilities which, under the standard terms and conditions of this GIA would be part of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades. In such circumstances and to the extent determined by Transmission Provider to be reasonably necessary, non-standard terms and conditions mutually agreed upon by all Interconnection Parties shall apply, subject to FERC and any other necessary regulatory acceptance or approval. In addition, a Project Developer that acquires an ownership interest in such facilities shall become, and shall remain for so long as it retains such interest, a signatory to the Consolidated Transmission Owners Agreement.

2.3 No Transmission Services:

The execution of a Generation Interconnection Agreement does not constitute a request for transmission service, or entitle Project Developer to receive transmission service, under Part II or Part III of the Tariff. Nor does the execution of a Generation Interconnection Agreement obligate the Transmission Owner or Transmission Provider to procure, supply or deliver to Project Developer or the Generating Facility or Merchant Transmission Facility any energy, capacity, Ancillary Services or Station Power (and any associated distribution services).

2.4 Use of Distribution Facilities:

To the extent that a Generation Project Developer uses distribution facilities for the purpose of delivering energy to the Transmission System, Interconnection Service under this Tariff shall include the construction and/or use of such distribution facilities. In such cases, to such extent as

Transmission Provider determines to be reasonably necessary to accommodate such circumstances, the Generation Interconnection Agreement may include non-standard terms and conditions mutually agreed upon by all Interconnection Parties as needed to conform with Applicable Laws and Regulations and Applicable Standards relating to such distribution facilities.

3 Modification of Facilities

3.1 General:

Subject to Applicable Laws and Regulations and to any applicable requirements or conditions of the Tariff and the Operating Agreement, either Interconnected Entity may undertake modifications to its facilities (“Planned Modifications”). In the event that an Interconnected Entity plans to undertake a modification, that Interconnected Entity, in accordance with Good Utility Practice, shall provide notice to the other Interconnection Parties with sufficient information regarding such modification, including any modification to its project that causes the project’s capacity, location, configuration or technology to differ from any corresponding information provided in the Interconnection Request, so that the other Interconnection Parties may evaluate the potential impact of such modification prior to commencement of the work. The Interconnected Entity desiring to perform such modification shall provide the relevant drawings, plans, specifications and models to the other Interconnection Parties in advance of the beginning of the work. Transmission Provider and the applicable Interconnection Entity shall enter into a Necessary Studies Agreement, a form is located in the Tariff, Part IX, pursuant to which Transmission Provider agrees to conduct the necessary studies to determine whether the Planned Modifications will have a permanent material impact on the Transmission System or would constitute a Material Modification, 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.

The Interconnected Entity shall provide the information required by the Necessary Study Agreement and provide the required deposit. Transmission Provider, upon completion of the Necessary Studies, shall provide the Interconnected Entity (i) the type and scope of the permanent material impact, if any, the Planned Modifications will have on the Transmission System; (ii) the additions, modifications, or replacements to the Transmission System required to accommodate the Planned Modifications; and (iii) a good faith estimate of the cost of the additions, modifications, or replacements to the Transmission System required to accommodate the Planned Modifications. In the event such Planned Modification have a permanent material impact on the Transmission System or would constitute a Material Modification, Project Developer shall then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

3.2 Interconnection Request:

This section 3 shall not apply to any proposed modifications by Project Developer to its facilities for which Project Developer must make an Interconnection Request under the Tariff. In such circumstances, the Project Developer and Transmission Provider shall follow the requirements set forth in the GIP.

3.3 Standards:

Any additions, modifications, or replacements made to an Interconnected Entity's facilities shall be constructed and operated in accordance with Good Utility Practice, Applicable Standards and Applicable Laws and Regulations.

3.4 Modification Costs:

Unless otherwise required by Applicable Laws and Regulations or this Appendix 2 and, with respect to a Transmission Project Developer, subject to the terms of the GIP,:

(a) Project Developer shall not be responsible for the costs of any additions, modifications, or replacements that the Transmission Owner in its discretion or at the direction of Transmission Provider makes to the Interconnection Facilities and Transmission Owner Upgrades or the Transmission System in order to facilitate the interconnection of a third party to the Interconnection Facilities and Transmission Owner Upgrades or the Transmission System, or to provide transmission service under the Tariff to a third party.

(b) Project Developer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Facilities and Transmission Owner Upgrades or the Transmission System that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements made by Project Developer to the Generating Facility or Merchant Transmission Facility or to the Project Developer Interconnection Facilities.

(c) Project Developer shall be responsible for the costs of any additions, modifications, or replacements to the Project Developer Interconnection Facilities or the Generating Facility or Merchant Transmission Facility that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements that Transmission Provider or the Transmission Owner makes to the Transmission System or to the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades, but only to the extent that Transmission Provider's or the Transmission Owner's changes to the Transmission System or the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades are made pursuant to Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards.

4 Operations

4.1 General:

Each Interconnected Entity shall operate, or shall cause operation of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

4.1.1 Project Developer Initial Drawings:

On or before the applicable date specified in the Milestones of the Generation Interconnection Agreement, Project Developer shall submit to the Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities. Transmission Owner and Transmission Provider shall review the drawings to assess the consistency of Project Developer's design of the Project Developer Interconnection Facilities with the design that was analyzed in the planning model as described in PJM Manuals. After consulting with the Transmission Owner, Transmission Provider shall provide comments on the drawings to Project Developer within 45 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.

4.1.1.1 Effect of Review:

Transmission Owner's and Transmission Provider's reviews of Project Developer's initial drawings of the Project Developer Interconnection Facilities 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 Project Developer Interconnection Facilities as may reasonably be required by Transmission Provider, in consultation with the Transmission Owner, to ensure that the Project Developer Interconnection Facilities meet Applicable Standards and, to the extent that design of the Project Developer Interconnection Facilities is included in the System Impact Study(ies), to ensure that such facilities conform with the System Impact Study(ies).

4.1.2 Project Developer "As-Built" Drawings:

Within 120 days after the date of Initial Operation, unless the Interconnection Parties agree on another mutually acceptable deadline, the Project Developer shall deliver to the Transmission Provider and the Transmission Owner final, "as-built" drawings, information and documents regarding the Project Developer Interconnection Facilities, including, as and to the extent applicable: a one-line diagram, a site plan showing the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities, plan and elevation drawings showing the layout of the Project Developer Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Project Developer's step-up transformers, the facilities connecting

the Generating Facility or Merchant Transmission Facility to the step-up transformers and the Project Developer Interconnection Facilities, and the impedances (determined by factory tests) for the associated step-up transformers and the Generating Facility or Merchant Transmission Facility. As applicable, the Project Developer shall provide Transmission Provider and the Transmission Owner Specifications for the excitation system, automatic voltage regulator, Generating Facility or Merchant Transmission Facility control and protection settings, transformer tap settings, and communications. Transmission Provider and Transmission Owner shall have the right to review such drawings, and charge Project Developer their actual costs of conducting such review.

4.2 Project Developer Obligations:

Project Developer shall obtain Transmission Provider's approval prior to either synchronizing with the Transmission System or energizing, as applicable per the determination of Transmission Provider, the Generating Facility or Merchant Transmission Facility or, except in an Emergency Condition, disconnecting the Generating Facility or Merchant Transmission Facility from the Transmission System, and shall coordinate such synchronizations, energizations, and disconnections with the Transmission Owner.

4.3 Transmission Project Developer Obligations:

A Transmission Project Developer that will be a Merchant Transmission Provider is subject to the terms and conditions in the GIP.

4.4 Permits and Rights-of-Way:

Each Interconnected Entity at its own expense shall maintain in full force and effect all permits, licenses, rights-of-way and other authorizations as may be required to maintain the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades that the entity owns, operates and maintains and, upon reasonable request of the other Interconnected Entity, shall provide copies of such permits, licenses, rights-of-way and other authorizations at its own expense to the requesting party.

4.5 No Ancillary Services:

Except as provided in section 4.6 of this Appendix 2, nothing in this Appendix 2 is intended to obligate the Project Developer to supply Ancillary Services to either Transmission Provider or the Transmission Owner.

4.6 Reactive Power and Primary Frequency Response

4.6.1 Reactive Power

4.6.1.1 Reactive Power Design Criteria

4.6.1.1.1 New Facilities:

For all new Generating Facilities to be interconnected pursuant to the Tariff, other than wind-powered and other non-synchronous generation facilities, the Generation Project Developer shall design its Generating Facility to maintain a composite power delivery at continuous rated power output at a power factor of at least 0.95 leading to 0.90 lagging. For all new wind-powered and other non-synchronous generation facilities the Generation Project Developer shall design its Generating Facility with the ability to maintain a composite power delivery at a power factor of at least 0.95 leading to 0.95 lagging across the full range of continuous rated power output. For all wind-powered and other non-synchronous generation facilities that submitted a New Services Request on or after November 1, 2016, the power factor requirement shall be measured at the high-side of the facility substation transformers. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two.

For new generation resources of more than 20 MW, other than wind-powered and other non-synchronous Generating Facilities, the power factor requirement shall be measured at the generator's terminals. For new generation resources of 20 MW or less the power factor requirement shall be measured at the Point of Interconnection. Any different reactive power design criteria that Transmission Provider determines to be appropriate for a wind-powered or other non-synchronous generation facility shall be stated in the Generation Interconnection Agreement.

A Transmission Project Developer interconnecting Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities shall design its Generating Facility to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when the Generating Facility is operating at any level within its approved operating range.

4.6.1.1.2 Increases in Generating Capacity or Energy Output:

All increases in the capacity or energy output of any generation facility interconnected with the Transmission System, other than wind-powered and other non-synchronous Generating Facilities, shall be designed with the ability to maintain a composite power delivery at continuous rated power output at a power factor for all incremental MW of capacity or energy output, of at least 1.0 (unity) to 0.90 lagging. Wind-powered generation facilities and other non-synchronous generation facilities that submitted a New Services Request on or after November 1, 2016, shall be designed with the ability to maintain a composite power delivery at a power factor for all incremental MW of capacity or energy output of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers across the full range of continuous rated power output. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two.

The power factor requirement associated with increases in capacity or energy output of more than 20 MW to synchronous generation facilities interconnected with the Transmission System

shall be measured at the generator's terminals. The power factor requirement associated with increases in capacity or energy output of 20 MW or less to synchronous generation facilities interconnected to the Transmission System shall be measured at the Point of Interconnection; however, if the aggregate capacity or energy output of Generating Facility is or will be more than 20 MW, the power factor requirement shall be measure at the generator's terminals.

4.6.1.2 Obligation to Supply Reactive Power:

Project Developer agrees, as and when so directed by Transmission Provider or when so directed by the Transmission Owner acting on behalf or at the direction of Transmission Provider, to operate the Generating Facility to produce reactive power within the design limitations of the Generating Facility pursuant to voltage schedules, reactive power schedules or power factor schedules established by Transmission Provider or, as appropriate, the Transmission Owner. Transmission Provider shall maintain oversight over such schedules to ensure that all sources of reactive power in the PJM Region, as applicable, are treated in an equitable and not unduly discriminatory manner. Project Developer agrees that Transmission Provider and the Transmission Owner, acting on behalf or at the direction of Transmission Provider, may make changes to the schedules that they respectively establish as necessary to maintain the reliability of the Transmission System.

4.6.1.3 Deviations from Schedules:

In the event that operation of the Generating Facility or Merchant Transmission Facility of an Project Developer causes the Transmission System or the Transmission Owner's facilities to deviate from appropriate voltage schedules and/or reactive power schedules as specified by Transmission Provider or the Transmission Owner's operations control center (acting on behalf or at the direction of Transmission Provider), or that otherwise is inconsistent with Good Utility Practice and results in an unreasonable deterioration of the quality of electric service to other customers of Transmission Provider or the Transmission Owner, the Project Developer shall, upon discovery of the problem or upon notice from Transmission Provider or the Transmission Owner, acting on behalf or at the direction of Transmission Provider, take whatever steps are reasonably necessary to alleviate the situation at its expense, in accord with Good Utility Practice and within the reactive capability of the Generating Facility or Merchant Transmission Facility. In the event that the Project Developer does not alleviate the situation within a reasonable period of time following Transmission Provider's or the Transmission Owner's notice thereof, the Transmission Owner, with Transmission Provider's approval, upon notice to the Project Developer and at the Project Developer's expense, may take appropriate action, including installation on the Transmission System of power factor correction or other equipment, as is reasonably required, consistent with Good Utility Practice, to remedy the situation cited in Transmission Provider's or the Transmission Owner's notice to the Project Developer under this section.

4.6.1.4 Payment for Reactive Power:

Any payments to the Project Developer for reactive power shall be in accordance with Tariff, Schedule 2.

4.6.2 Primary Frequency Response:

Generation Project Developer shall ensure the primary frequency response capability of its Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Generating Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Generation Project Developer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Generating Facility’s real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Generating Facility’s real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Generation Project Developer shall notify Transmission Provider that the primary frequency response capability of the Generating Facility has been tested and confirmed during commissioning. Once Generation Project Developer has synchronized the Generating Facility with the Transmission System, Generation Project Developer shall operate the Generating Facility consistent with the provisions specified in sections 4.6.2.1 and 4.6.2.2 of this agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Generating Facilities.

4.6.2.1 Governor or Equivalent Controls:

Whenever the Generating Facility is operated in parallel with the Transmission System, Generation Project Developer shall operate the Generating Facility with its governor or equivalent controls in service and responsive to frequency. Generation Project Developer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Generation Project Developer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Generation Project Developer needs to operate the Generating Facility with its governor or equivalent controls not in service, Generation Project Developer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the

following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Generation Project Developer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Generation Project Developer shall make Reasonable Efforts to keep outages of the Generating Facility's governor or equivalent controls to a minimum whenever the Generating Facility is operated in parallel with the Transmission System.

4.6.2.2 Timely and Sustained Response:

Generation Project Developer shall ensure that the Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Generating Facility has operating capability in the direction needed to correct the frequency deviation. Generation Project Developer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

4.6.2.3 Exemptions:

Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from sections 4.6.2, 4.6.2.1, and 4.6.2.2 of this agreement. Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in section 4.6.2, but shall be otherwise exempt from the operating requirements in sections 4.6.2, 4.6.2.1, 4.6.2.2, and 4.6.2.4 of this agreement.

4.6.2.4 Energy Storage Resources:

Generation Project Developer interconnecting an Energy Storage Resource shall establish an operating range in Schedule I of this GIA that specifies a minimum state of charge and a maximum state of charge between which the Energy Storage Resource will be required to provide primary frequency response consistent with the conditions set forth in sections 4.6.2, 4.6.2.1, 4.6.2.2, and 4.6.2.3 of this agreement. Schedule I shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations

outside of the deadband parameter in the interconnection; (4) the physical capabilities of the Energy Storage Resource; (5) operational limitations of the Energy Storage Resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Generation Project Developer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Schedule I must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Generation Project Developer's Energy Storage Resource is required to provide timely and sustained primary frequency response consistent with section 4.6.2.2 of this agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the Energy Storage Resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Generation Project Developer's Energy Storage Resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Generation Project Developer's Energy Storage Resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

4.7 Under- and Over-Frequency and Under- and Over- Voltage Conditions:

The Generation Project Developer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Generating Facility. The Generation Project Developer shall enable these capabilities such that its Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to section 1.4.4 of Appendix 2 of this Generation Interconnection Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis. The Generating Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Generation Project Developer's Generating Facility to stay connected to and synchronized with the Transmission System or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis. The term "voltage ride through" as used herein shall mean

the ability of a Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis.

The Transmission System is designed to automatically activate a load-shed program as required by NERC and each Applicable Regional Entity in the event of an under-frequency system disturbance. A Generation Project Developer shall implement under-frequency and over-frequency relay set points for the Generating Facility as required by NERC and each Applicable Regional Entity to ensure “frequency ride through” capability of the Transmission System. The response of a Generation Project Developer’s Generating Facility to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations shall be studied and coordinated with the Transmission Provider in accordance with Good Utility Practice.

4.8 System Protection and Power Quality:

4.8.1 System Protection:

Project Developer shall, at its expense, install, operate and maintain such System Protection Facilities as may be required in connection with operation of the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities consistent with Applicable Technical Requirements and Standards. Transmission Owner shall install any System Protection Facilities that may be required, as determined by Transmission Provider, on the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades or the Transmission System in connection with the operation of the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities. Responsibility for the cost of any System Protection Facilities required on the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades or the Transmission System shall be allocated as provided in the GIP.

4.8.2 Power Quality:

The Generating Facility or Merchant Transmission Facility and Project Developer Interconnection Facilities shall not cause excessive deviations from the power quality criteria set forth in the Applicable Technical Requirements and Standards.

4.9 Access Rights:

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity’s representatives of safety rules applicable to an area.

4.10 Switching and Tagging Rules:

The Interconnected Entities shall comply with applicable Switching and Tagging Rules in obtaining clearances for work or for switching operations on equipment. Such Switching and Tagging Rules shall be developed in accordance with OSHA standards codified at 29 C.F.R. part 1910, or successor standards. Each Interconnected Entity shall provide the other Interconnected Entity a copy of its Switching and Tagging Rules that are applicable to the other Interconnected Entity's activities.

4.11 Communications and Data Protocol:

The Interconnected Entities shall comply with any communications and data protocol that the Transmission Provider may establish.

4.12 Nuclear Generating Facilities:

In the event that the Generating Facility is a nuclear Generating Facility, the Interconnection Parties shall agree to such non-standard terms and conditions as are reasonably necessary to accommodate the Project Developer's satisfaction of Nuclear Regulatory Commission requirements relating to the safety and reliability of operations of such facilities.

5 Maintenance

5.1 General:

Each Interconnected Entity shall maintain, or shall cause the maintenance of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

5.2 Outage Authority and Coordination:

5.2.1 Coordination:

The Interconnection Parties agree to confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Generating Facility or Merchant Transmission Facility, the Project Developer Interconnection Facilities and any Transmission Owner Interconnection Facilities. In the event an Interconnection Construction Service Agreement is required, the Construction Parties acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner, as more specifically detailed in the Scope of Work, may be necessary in order to complete the process of constructing and installing all Interconnection Facilities. The Interconnection Parties, and where applicable, any Construction Parties, further acknowledge and agree that any such outages shall be coordinated by and through the Transmission Provider.

5.2.2 Authority:

Each Interconnected Entity may, in accordance with Good Utility Practice, remove from service its facilities that may affect the other Interconnected Entity's facilities in order to perform maintenance or testing or to install or replace equipment. Except in the event of an Emergency Condition, the Project Developer proposing to remove such facilities from service shall provide prior notice of such activities to the Transmission Provider and the Transmission Owner, and the Interconnected Entities shall coordinate all scheduling of planned facility outages with Transmission Provider, in accordance with applicable sections of the Operating Agreement, the PJM Manuals and any other applicable operating guidelines or directives of the Transmission Provider. Subject to the foregoing, the Interconnected Entity scheduling a facility outage shall use Reasonable Efforts to coordinate such outage with the other Interconnected Entity's scheduled outages.

5.2.3 Outages Required for Maintenance:

Subject to any necessary approval by Transmission Provider, each Interconnected Entity shall provide necessary equipment outages to allow the other Interconnected Entity to perform periodic maintenance, repair or replacement of its facilities and such outages shall be provided at mutually agreeable times, unless conditions arise which an Interconnected Entity believes, in accordance with Good Utility Practice, may endanger persons or property.

5.2.4 Rescheduling of Planned Outages:

To the extent so provided by the Tariff, the Operating Agreement, and the PJM Manuals, an Interconnected Entity may seek compensation from Transmission Provider for any costs related to rejection by Transmission Provider of a request of such Interconnected Entity for a planned maintenance outage.

5.2.5 Outage Restoration:

If an outage on an Interconnected Entity's facilities adversely affects the other Interconnected Entity's facilities, the Interconnected Entity that owns or controls the facility that is out of service shall use Reasonable Efforts to restore the facility to service promptly.

5.3 Inspections and Testing:

Each Interconnected Entity shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Generating Facility or Merchant Transmission Facility with the Transmission System in a safe and reliable manner. Each Interconnected Entity shall have the right, upon advance written notice, to request reasonable additional testing of an Interconnected Entity's facilities for good cause, as may be in accordance with Good Utility Practice.

5.4 Right to Observe Testing:

Each Interconnected Entity shall notify the other Interconnected Entity in advance of its performance of tests of its portion of the Interconnection Facilities. The other Interconnected Entity shall, at its own expense, have the right, but not the obligation, to:

- (a) Observe the other Party's tests and/or inspection of any of its system protection facilities and other protective equipment, including power system stabilizers;
- (b) Review the settings of the other Party's system protection facilities and other protective equipment;
- (c) Review the other Party's maintenance record relative to the Interconnection Facilities, system protection facilities and other protective equipment; and
- (d) Exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party.

5.5 Secondary Systems:

Each Interconnected Entity agrees to cooperate with the other in the inspection, maintenance, and testing of those Secondary Systems directly affecting the operation of an Interconnected Entity's facilities and equipment which may reasonably be expected to affect the other

Interconnected Entity's facilities. Each Interconnected Entity shall provide advance notice to the other Interconnected Entity before undertaking any work on such equipment, especially in electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

5.6 Access Rights:

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity's representatives of safety rules applicable to an area.

5.7 Observation of Deficiencies:

If an Interconnection Party observes any Abnormal Condition on, or becomes aware of a lack of scheduled maintenance and testing with respect to, an Interconnection Party's facilities and equipment that might reasonably be expected to adversely affect the observing Interconnection Party's facilities and equipment, the observing Interconnection Party shall provide prompt notice under the circumstances to the appropriate Interconnection Party, and such Interconnection Party shall consider such notice in accordance with Good Utility Practice. Any Interconnection Party's review, inspection, and approval related to the other Interconnection Party's facilities and equipment shall be limited to the purpose of assessing the safety, reliability, protection, and control of the Transmission System and shall not be construed as confirming or endorsing the design of such facilities and equipment, or as a warranty of any type, including safety, durability, or reliability thereof. Notwithstanding the foregoing, the observing Interconnection Party shall have no liability whatsoever for failure to give a deficiency notice to the other Interconnection Party and the Interconnected Entity that owns the relevant Interconnection Facilities and Transmission Owner Upgrades shall remain fully liable for its failure to determine and correct deficiencies and defects in its facilities and equipment.

6 Emergency Operations

6.1 Obligations:

Subject to Applicable Laws and Regulations, each Interconnection Party shall comply with the Emergency Condition procedures of NERC, the Applicable Regional Entity, Transmission Provider, the Transmission Owner and Project Developer.

6.2 Notice:

Each Interconnection Party shall notify the other parties promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect operation of the Generating Facility or Merchant Transmission Facility, the Project Developer Interconnection Facilities, the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades, or the Transmission System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the facilities and/or operation thereof, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

6.3 Immediate Action:

An Interconnection Party becoming aware of an Emergency Condition may take such action, including disconnection of the Generating Facility or Merchant Transmission Facility from the Transmission System, as is reasonable and necessary in accord with Good Utility Practice (i) to prevent, avoid, or mitigate injury or danger to, or loss of, life or property; (ii) to preserve the reliability of, in the case of Project Developer, the Generating Facility or Merchant Transmission Facility, or, in the case of Transmission Provider or the Transmission Owner, the Transmission System and interconnected sub-transmission and distribution facilities; or (iii) to expedite restoration of service. Unless, in Project Developer's reasonable judgment, immediate action is required to prevent imminent loss of life or property, Project Developer shall obtain the consent of Transmission Provider and the Transmission Owner prior to performing any manual switching operations at the Generating Facility or Merchant Transmission Facility or the Generation Interconnection Facilities. Each Interconnection Party shall use Reasonable Efforts to minimize the effect of its actions during an Emergency Condition on the facilities and operations of the other Interconnection Parties.

6.4 Record-Keeping Obligations:

Each Interconnection Party shall keep and maintain records of actions taken during an Emergency Condition that may reasonably be expected to affect the other parties' facilities and make such records available for audit in accordance with section 19.3 of this Appendix 2.

7 Safety

7.1 General:

Each Interconnected Entity and, as applicable, each Construction Party shall perform all work under this Appendix 2 that may reasonably be expected to affect the other Interconnected Entity and, as applicable, the other Construction Party in accordance with Good Utility Practice and all Applicable Laws and Regulations pertaining to the safety of persons or property. An Interconnected Entity and, as applicable, a Construction Party performing work within the boundaries of the other Interconnected Entity's facilities and, as applicable, the other Construction Party's facilities must abide by the safety rules applicable to the site. Each party agrees to inform the other party's representatives of applicable safety rules that must be obeyed on the premises. A Construction Party performing work within an area controlled by another Construction Party must abide by the safety rules applicable to the area.

7.2 Environmental Releases:

Each Interconnected Entity and, as applicable, each Construction Party shall notify the other Interconnection Parties and, as applicable, Construction Parties, first orally and promptly thereafter in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities, related to the Generating Facility or Merchant Transmission Facility or the Interconnection Facilities and Transmission Owner Upgrades, any of which may reasonably be expected to affect one or both of the other parties. The notifying party shall (i) provide the notice as soon as possible; (ii) make a good faith effort to provide the notice within 24 hours after the party becomes aware of the occurrence; and (iii) promptly furnish to the other parties copies of any publicly available reports filed with any governmental agencies addressing such events.

8 Metering

8.1 General:

Project Developer shall have the right to install, own, operate, test, and maintain the necessary Metering Equipment. In the event that Project Developer exercises this option, the Transmission Owner shall have the right to install its own check meter(s), at its own expense, at or near the location of the Metering Equipment. If both Project Developer and Transmission Owner install meters, the meter installed by the Project Developer shall control unless it is determined by testing to be inaccurate. If the Project Developer does not exercise the option provided by the first sentence of this section, the Transmission Owner shall have the option to install, own, operate, test and maintain all necessary Metering Equipment at Project Developer's expense. If the Transmission Owner does not exercise this option, the Project Developer shall install, own, operate, test and maintain all necessary Metering Equipment. Transmission Provider shall determine the location where the Metering Equipment shall be installed, after consulting with Project Developer and the Transmission Owner. All Metering Equipment shall be tested prior to any operation of the Generating Facility or Merchant Transmission Facility. Power flows to and from the Generating Facility or Merchant Transmission Facility shall be compensated to the Point of Interconnection, or, upon the mutual agreement of the Transmission Owner and the Project Developer, to another location.

8.2 Standards:

All Metering Equipment installed pursuant to this Appendix 2 to be used for billing and payments shall be revenue quality Metering Equipment and shall satisfy applicable ANSI standards and Transmission Provider's metering standards and requirements. Nothing in this Appendix 2 precludes the use of Metering Equipment for any retail services of the Transmission Owner provided, however, that in such circumstances Applicable Laws and Regulations shall control.

8.3 Testing of Metering Equipment:

The Interconnected Entity that, pursuant to section 8.1 of this Appendix 2, owns the Metering Equipment shall operate, maintain, inspect, and test all Metering Equipment upon installation and at least once every two years thereafter. Upon reasonable request by the other Interconnected Entity, the owner of the Metering Equipment shall inspect or test the Metering Equipment more frequently than every two years, but in no event more frequently than three times in any 24-month period. The owner of the Metering Equipment shall give reasonable notice to the Interconnection Parties of the time when any inspection or test of the owner's Metering Equipment shall take place, and the other parties may have representatives present at the test or inspection. If Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced in order to provide accurate metering. Where the Transmission Owner owns the Metering Equipment, the expense of such adjustment, repair or replacement shall be borne by the Project Developer, except that the Project Developer shall not be responsible for such expenses where the inaccuracy or defect is caused by the Transmission Owner. If Metering Equipment fails to register, or if the measurement made by Metering

Equipment during a test varies by more than 1 percent from the measurement made by the standard meter used in the test, the owner of the Metering Equipment shall inform Transmission Provider, and the Transmission Provider shall inform the other Interconnected Entity, of the need to correct all measurements made by the inaccurate meter for the period during which the inaccurate measurements were made, if the period can be determined. If the period of inaccurate measurement cannot be determined, the correction shall be for the period immediately preceding the test of the Metering Equipment that is equal to one-half of the time from the date of the last previous test of the Metering Equipment, provided that the period subject to correction shall not exceed nine months.

8.4 Metering Data:

At Project Developer's expense, the metered data shall be telemetered (a) to a location designated by Transmission Provider; (b) to a location designated by the Transmission Owner, unless the Transmission Owner agrees otherwise; and (c) to a location designated by Project Developer. Data from the Metering Equipment at the Point of Interconnection shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from or to the Generating Facility or Merchant Transmission Facility to the Point of Interconnection, provided that the Transmission Provider's rules applicable to Station Power as set forth at Tariff, Attachment K-Appendix, section 1.7.10(d) shall control with respect to a Generation Project Developer's consumption of Station Power.

8.5 Communications

8.5.1 Project Developer Obligations:

Project Developer shall install and maintain satisfactory operating communications with Transmission Provider's system dispatcher or its other designated representative and with the Transmission Owner. Project Developer shall provide standard voice line, dedicated voice line, and electronic communications at its Generating Facility or Merchant Transmission Facility control room. Project Developer also shall provide and maintain backup communication links with both Transmission Provider and Transmission Owner for use during abnormal conditions as specified by Transmission Provider and Transmission Owner, respectively. Project Developer further shall provide the dedicated data circuit(s) necessary to provide Project Developer data to the Transmission Provider and Transmission Owner as necessary to conform with Applicable Technical Requirements and Standards.

8.5.2 Remote Terminal Unit:

Unless otherwise deemed unnecessary by Transmission Provider and Transmission Owner, as indicated in the Generation Interconnection Agreement, prior to any operation of the Generating Facility or Merchant Transmission Facility, a remote terminal unit, or equivalent data collection and transfer equipment acceptable to the Interconnection Parties, shall be installed by Project Developer, or by the Transmission Owner at Project Developer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider and Transmission Owner through use of a dedicated point-to-point data circuit(s) as indicated in

section 8.5.1 of this Appendix 2. Instantaneous, bi-directional real power and, with respect to a Generation Project Developer's Generating Facility or Merchant Transmission Facility, reactive power flow information, must be telemetered directly to the location(s) specified by Transmission Provider and the Transmission Owner.

8.5.3 Phasor Measurement Units (PMUs):

A Project Developer entering the New Services Queue on or after October 1, 2012, with a proposed new Generating Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units ("PMUs"). PMUs shall be installed on the Generating Facility low side of the generator step-up transformer, unless it is a non-synchronous generation facility, in which case the PMUs shall be installed on the Generating Facility side of the Point of Change of Ownership. The PMUs must be capable of performing phasor measurements at a minimum of 30 samples per second which are synchronized via a high-accuracy satellite clock. To the extent Project Developer installs similar quality equipment, such as relays or digital fault recorders, that can collect data at least at the same rate as PMUs and which data is synchronized via a high-accuracy satellite clock, such equipment would satisfy this requirement. As provided for in the PJM Manuals, a Project Developer shall be required to install and maintain, at its expense, PMU equipment which includes the communication circuit capable of carrying the PMU data to a local data concentrator, and then transporting the information continuously to the Transmission Provider; as well as store the PMU data locally for 30 days. Project Developer shall provide to Transmission Provider all necessary and requested information through the Transmission Provider synchrophasor system, including the following: (a) gross MW and MVAR measured at the Generating Facility side of the generator step-up transformer (or, for a non-synchronous generation facility, to be measured at the Generating Facility side of the Point of Interconnection); (b) generator terminal voltage; (c) generator terminal frequency; and (d) generator field voltage and current, where available. The Transmission Provider will install and provide for the ongoing support and maintenance of the network communications linking the data concentrator to the Transmission Provider. Additional details regarding the requirements and guidelines of PMU data and telecommunication of such data are contained in the PJM Manuals.

9 Force Majeure

9.1 Notice:

An Interconnection Party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify the other parties in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

9.2 Duration of Force Majeure:

A party shall not be considered to be in Default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other parties in writing as soon as reasonably possible after the occurrence of the cause relied upon. Those notices shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. Written notices given pursuant to this Article shall be acknowledged in writing as soon as reasonably possible. The party affected shall exercise Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance. The party affected has a continuing notice obligation to the other parties, and must update the particulars of the original Force Majeure notice and subsequent notices, in writing, as the particulars change. The affected party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such party shall resume performance and give prompt written notice thereof to the other parties.

9.3 Obligation to Make Payments:

Any Interconnection Party's obligation to make payments for services shall not be suspended by Force Majeure.

9.4 Definition of Force Majeure:

For the purposes of this section, shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or any other cause beyond a party's control that, in any of the foregoing cases, by exercise of due diligence, such party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force majeure does not include (i) a failure of performance that is due to an affected party's own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected party.

10 Charges

10.1 Specified Charges:

If and to the extent required by the Transmission Owner, after the Initial Operation of the Generating Facility or Merchant Transmission Facility, Project Developer shall pay one or more of the types of recurring charges described in this section to compensate the Transmission Owner for costs incurred in performing certain of its obligations under this Appendix 2. All such charges shall be stated in Schedule E of the Generator Interconnection Agreement. Permissible charges under this section may include:

(a) Administration Charge – Any such charge may recover only the costs and expenses incurred by the Transmission Owner in connection with administrative obligations such as the preparation of bills, the processing of Generating Facility- or Merchant Transmission Facility-specific data on energy delivered at the Point of Interconnection and costs incurred in similar types of administrative processes related to Project Developer’s Interconnection Service. An Administration Charge shall not be permitted to the extent that the Transmission Owner’s other charges to the Project Developer under the same Generator Interconnection Agreement include an allocation of Transmission Owner’s administrative and general expenses and/or other corporate overhead costs.

(b) Metering Charge – Any such charge may recover only the Transmission Owner’s costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any Metering Equipment that is owned by the Transmission Owner.

(c) Telemetry Charge – Any such charge may recover only the Transmission Owner’s costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any telemetry equipment that is owned by the Transmission Owner and that is used exclusively in conjunction with Interconnection Service for the Project Developer.

(d) Generating Facility or Merchant Transmission Facility Operations and Maintenance Charge – Any such charge may recover only the Transmission Owner’s costs and expenses associated with operation, maintenance, inspection, testing, modifications, taxes, and carrying or capital replacement charges for Transmission Owner Interconnection Facilities and Transmission Owner Upgrades related to the Project Developer’s Interconnection Service and that are owned by the Transmission Owner, provided that

(i) any such charge shall exclude costs and expenses associated with Transmission Owner Interconnection Facilities and Transmission Owner Upgrades owned by the Transmission Owner that are radial line facilities that serve load in addition to an Project Developer; and

(ii) except as otherwise provided by Applicable Laws and Regulations, any such charge may include only an allocated share, derived in accordance with the allocations

contained in the System Impact Study(ies), of costs and expenses associated with Transmission Owner Interconnection Facilities and Transmission Owner Upgrades owned by the Transmission Owner that are radial line facilities that serve more than one Project Developer. At the discretion of the affected Interconnected Entities, a Generating Facility or Merchant Transmission Facility Operations and Maintenance Charge authorized under this section may apply on a per-incident basis or on a monthly or other periodic basis.

(e) Other Charges – Any other charges applicable to the Project Developer, as mutually agreed upon by the Project Developer and the Transmission Owner.

10.2 FERC Filings:

To the extent required by law or regulation, each Interconnection Party shall seek FERC acceptance or approval of its respective charges or the methodology for the calculation of such charges. If such filing is required, Transmission Owner shall provide Transmission Provider and Project Developer with appropriate cost data, schedules and/or written testimony in support of any charges under this section in such manner and at such time as to allow Transmission Provider to include such materials in its filing of the Generation Interconnection Agreement with the FERC.

11 Security, Billing and Payments

11.1 Recurring Charges Pursuant to section 10:

The following provisions shall apply with respect to recurring charges applicable to Interconnection Service after Initial Operation of the Generating Facility or Merchant Transmission Facility pursuant to section 10 of this Appendix 2.

11.1.1 General:

Except as, and to the extent, otherwise provided in the Generation Interconnection Agreement, billing and payment of any recurring charges applicable to Interconnection Service after Initial Operation of the Generating Facility or Merchant Transmission Facility pursuant to section 10 of this Appendix 2 shall be in accordance with section 7 of the Tariff. The Transmission Owner shall provide Transmission Provider with all necessary information and supporting data that Transmission Provider may reasonably require to administer billing for and payment of applicable charges under this Appendix 2. Transmission Provider shall remit to the Transmission Owner revenues received in payment of Transmission Owner's charges to Project Developer under this Appendix 2 upon Transmission Provider's receipt of such revenues. At Transmission Provider's reasonable discretion, charges to Project Developer and remittances to Transmission Owner under this Appendix 2 may be netted against other amounts owed by or to such parties under the Tariff.

11.1.2 Billing Disputes:

In the event of a billing dispute between Transmission Provider and Project Developer, Transmission Provider shall continue to provide interconnection service under this Appendix 2 as long as Project Developer (i) continues to make all payments not in dispute, and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Project Developer fails to meet these two requirements for continuation of service, then Transmission Provider shall so inform the Interconnection Parties and may provide notice to Project Developer of a Breach pursuant to section 15 of this Appendix 2. Within 30 days after the resolution of the dispute, the Interconnection Party that owes money to the other Interconnection Party shall pay the amount due with interest calculated in accord with section 11.4.

11.2 Costs for Transmission Owner Interconnection Facilities and Transmission Owner Upgrades:

The following provisions shall apply with respect to charges for the Costs of the Transmission Owner for which the Project Developer is responsible.

11.2.1 Adjustments to Security:

The Security provided by Project Developer at or before execution of the Generation Interconnection Agreement (a) shall be reduced as portions of the work are completed, and/or (b)

shall be increased or decreased as required to reflect adjustments to Project Developer's cost responsibility, as determined in accordance with the GIP, to correspond with changes in the Scope of Work developed in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

11.2.2 Invoice:

The Transmission Owner shall provide Transmission Provider a quarterly statement of the Transmission Owner's scheduled expenditures during the next three months for, as applicable (a) the design, engineering and construction of, and/or for other charges related to, construction of the Interconnection Facilities and Transmission Owner Upgrades for which the Transmission Owner is responsible under the GIA, or (b) in the event that the Project Developer exercises the Option to Build, for the Transmission Owner's oversight costs (i.e. costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Project Developer is complying with the Transmission Owner's standards and Specifications for the construction of facilities) associated with Project Developer's building Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades, including but not limited to Costs for tie-in work and Cancellation Costs. Transmission Owner oversight costs shall be consistent with Schedule L of this GIA. Transmission Provider shall bill Project Developer on behalf of the Transmission Owner, for the Transmission Owner's expected Costs during the subsequent three months. Project Developer shall pay each bill within 20 days after receipt thereof. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the Transmission Owner. Project Developer may request that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of Costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that section 11.2.3 of this Appendix 2 shall govern the timing of the final cost reconciliation upon completion of the work.

11.2.3 Final Invoice:

Within 120 days after the Transmission Owner completes construction and installation of the Interconnection Facilities and Transmission Owner Upgrades for which the Transmission Owner is responsible under the Generation Interconnection Agreement, Transmission Provider shall provide Project Developer with an accounting of, and the appropriate Interconnection Party, and where applicable, the Construction Party shall make any payment to the other that is necessary to resolve, any difference between (a) Project Developer's responsibility under the Tariff for the actual Cost of such facilities, and (b) Project Developer's previous aggregate payments to Transmission Provider for the Costs of such facilities. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment to either the Project Developer or the Transmission Owner that the preceding sentence requires it to make unless and until the Transmission Provider has received the payment that it is required to refund from the Interconnection Party, and where applicable, the Construction Party owing the payment.

11.2.4 Disputes:

In the event of a billing dispute between any of the Interconnection Parties, and where applicable, the Construction Parties, Transmission Provider and the Transmission Owner shall continue to perform their respective obligations pursuant to this Generation Interconnection Agreement and any related Interconnection Construction Service Agreements so long as (a) Project Developer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Project Developer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Project Developer fails to meet any of these requirements, then Transmission Provider shall so inform the other Interconnection Parties and Construction Parties and Transmission Provider or the Transmission Owner may provide notice to Project Developer of a Breach pursuant to section 15 of this Appendix 2.

11.3 No Waiver:

Payment of an invoice shall not relieve Project Developer from any other responsibilities or obligations it has under this Appendix 2, nor shall such payment constitute a waiver of any claims arising hereunder.

11.4 Interest:

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. § 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment.

12 Assignment

12.1 Assignment with Prior Consent:

Except as provided in section 12.2 to this Appendix 2, no Interconnection Party shall assign its rights or delegate its duties, or any part of such rights or duties, under the Generation Interconnection Agreement without the written consent of the other Interconnection Parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. An Interconnection Party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of its properties including the Interconnection Facilities and Transmission Owner Upgrades which it owns or will own upon completion of construction and the transfer of title required as set forth in section 23 of this Appendix 2, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this Generation Interconnection Agreement. In addition, the Transmission Owner shall be entitled, subject to Applicable Laws and Regulations, to assign the Generation Interconnection Agreement to any Affiliate or successor that owns and operates all or a substantial portion of the Transmission Owner's transmission facilities.

12.2 Assignment Without Prior Consent

12.2.1 Assignment to Owners:

Project Developer may assign the Generation Interconnection Agreement without the Transmission Owner's or Transmission Provider's prior consent to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities, provided that prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical and operational competence to comply with the requirements of this Generation Interconnection Agreement and assumes in a writing provided to the Transmission Owner and Transmission Provider all rights, duties, and obligations of Project Developer arising under this Generation Interconnection Agreement. However, any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider, such consent not to be unreasonably withheld, conditioned or delayed. Project Developer shall provide Transmission Provider with notice of any such assignment in accordance with the PJM Manuals.

12.2.2 Assignment to Lenders:

Project Developer may, without the consent of the Transmission Provider or the Transmission Owner, assign the Generation Interconnection Agreement to any Project Finance Entity(ies), provided that such assignment does not alter or diminish Project Developer's duties and obligations under this Generation Interconnection Agreement. If Project Developer provides the Transmission Owner with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entities as contacts for notice purposes pursuant to section 21 of

this Appendix 2, the Transmission Provider or Transmission Owner shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Generation Interconnection Agreement in accordance with this Generation Interconnection Agreement. Transmission Provider or Transmission Owner shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the Generation Interconnection Agreement, provided that such documents do not alter or diminish the rights of the Transmission Provider or Transmission Owner under this Generation Interconnection Agreement, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider and/or the Transmission Owner's invoice therefor, Project Developer shall pay the Transmission Provider and/or the Transmission Owner's reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Owner and Transmission Provider.

12.3 Successors and Assigns:

This Generation Interconnection Agreement and all of its provisions are binding upon, and inure to the benefit of, the Interconnection Parties and their respective successors and permitted assigns.

13 Insurance

13.1 Required Coverages For Generation Resources Of More Than 20 Megawatts or Merchant Transmission Facilities:

Each Interconnected Entity and, as applicable, Constructing Entity shall maintain insurance at its own expense as described in paragraphs (a) through (d) below. In addition, if there any construction activities associated with this GIA, each Interconnected Entity and, as applicable, Constructing Entity shall maintain insurance at its own expense as described in paragraph (e). All insurance shall be procured from insurance companies rated "A-", VII, or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities and Transmission Owner Upgrades are or will be located. Failure to maintain required insurance shall be a Breach of the Generation Interconnection Agreement.

(a) Workers Compensation insurance with statutory limits, as required by the state and/or jurisdiction in which the work is to be performed, and employer's liability insurance with limits of not less than one million dollars (\$1,000,000).

(b) Commercial General Liability Insurance and/or Excess Liability Insurance covering liability arising out of premises, operations, personal injury, advertising, products and completed operations coverage, independent contractors coverage, liability assumed under an insured contract, coverage for pollution to the extent normally available, and punitive damages to the extent allowable under applicable law, with limits of not less than one million dollars (\$1,000,000) per occurrence/one million dollars (\$1,000,000) general aggregate/one million dollars (\$1,000,000) products and completed operations aggregate.

(c) Business/Commercial Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of not less than one million dollars (\$1,000,000) each accident for bodily injury, including death, and property damage.

(d) Excess and/or Umbrella Liability Insurance with a limit of liability of not less than twenty million dollars (\$20,000,000) per occurrence. These limits apply in excess of the employer's liability, commercial general liability and business/commercial automobile liability coverages described above. This requirement can be met alone or via a combination of primary, excess and/or umbrella insurance.

(e) In addition, if there are construction activities required in connection with this GIA, the following Professional Liability Insurance requirements shall apply:

Professional Liability, including Contractors Legal Liability, providing errors, omissions and/or malpractice coverage. Coverage shall be provided for the Interconnected Entity or Constructing Entity's duties, responsibilities and performance outlined in Schedule L to this GIA, with limits of liability as follows:

\$10,000,000 each occurrence

\$10,000,000 aggregate

An Interconnected Entity may meet the Professional Liability Insurance requirements by requiring third-party contractors, designers, or engineers, or other parties that are responsible for design work associated with the transmission facilities or Interconnection Facilities and Transmission Owner Upgrades necessary for the interconnection to procure professional liability insurance in the amounts and upon the terms prescribed by this section 13.1(e), and providing evidence of such insurance to the other Interconnected Entity. Such insurance shall be procured from companies rated “A-”, VII, or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities and Transmission Owner Upgrades are located. Nothing in this section relieves the Interconnected Entity from complying with the insurance requirements. In the event that the policies of the designers, engineers, or other parties used to satisfy the Interconnected Entity’s insurance obligations under this section become invalid for any reason, including but not limited to, (i) the policy(ies) lapsing or otherwise terminating or expiring; (ii) the coverage limits of such policy(ies) are decreased; or (iii) the policy(ies) do not comply with the terms and conditions of the Tariff; Interconnected Entity shall be required to procure insurance sufficient to meet the requirements of this section, such that there is no lapse in insurance coverage.

13.1A Required Coverages for Generation Resources of 20 Megawatts or Less:

Each Interconnected Entity and, as applicable, Constructing Entity shall maintain the types of insurance as described in section 13.1 paragraphs (a) through (e) in an amount sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. Additional insurance may be required by the Project Developer, as a function of owning and operating a Generating Facility. All insurance shall be procured from insurance companies rated “A-”, VII, or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities and Transmission Owner Upgrades are located. Failure to maintain required insurance shall be a Breach of the Generation Interconnection Agreement.

13.2 Additional Insureds:

The Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability policies procured by each Interconnected Entity (the “Insuring Interconnected Entity”) shall include each other Interconnection Party (the “Insured Interconnection Party”), and its respective officers, agents and employees as additional insureds, and as applicable each other Construction Party (“Insured Construction Party”) its officers, agents and employees as additional insureds, providing all standard coverages and covering liability of the Insured Interconnection Party, and as applicable Insured Construction Party arising out of bodily injury and/or property damage (including loss of use) in any way connected with the operations, performance, or lack of performance under this Generation Interconnection Agreement.

13.3 Other Required Terms:

The above-mentioned insurance policies (except workers' compensation) shall provide the following:

(a) Each policy shall contain provisions that specify that it is primary and non-contributory for any liability arising out of that party's negligence, and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Insuring Interconnected Entity shall be responsible for its respective deductibles or retentions.

(b) If any coverage is written on a Claims First Made Basis, continuous coverage shall be maintained or an extended discovery period will be exercised for a period of not less than two years after termination of the Generation Interconnection Agreement.

(c) Provide for a waiver of all rights of subrogation which the Insuring Interconnected Entity's insurance carrier might exercise against the Insured Interconnection Party.

13.3A No Limitation of Liability:

The requirements contained herein as to the types and limits of all insurance to be maintained by the Interconnected Entities are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Interconnection Parties under the Generation Interconnection Agreement.

13.4 Self-Insurance:

Notwithstanding the foregoing, each Interconnected Entity may self-insure to meet the minimum insurance requirements of this section 13 of this Appendix 2 to the extent it maintains a self-insurance program, provided that such Interconnected Entity's senior secured debt is rated at investment grade or better by Standard & Poor's and its self-insurance program meets the minimum insurance requirements of this section 13. For any period of time that an Interconnected Entity's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under this section 13. In the event that an Interconnected Entity is permitted to self-insure pursuant to this section, it shall notify the other Interconnection Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in section 13.5 of this Appendix 2.

13.5 Notices; Certificates of Insurance:

All policies of insurance shall provide for 30 days prior written notice of cancellation or material adverse change. If the policies of insurance do not or cannot be endorsed to provide 30 days

prior notice of cancellation or material adverse change, each Interconnected Entity shall provide the other Interconnected Entities with 30 days prior written notice of cancellation or material adverse change to any of the insurance required in this agreement. Each Interconnected Entity shall provide the other with certificates of insurance prior to Initial Operation of the Generating Facility or Merchant Transmission Facility and thereafter at such time intervals as they shall mutually agree upon, provided that such interval shall not be less than one year. All certificates of insurance shall indicate that the certificate holder is included as an additional insured under the Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability coverages, and that this insurance is primary with a waiver of subrogation included in favor of the other Interconnected Entities.

In the event the construction activities pursuant to Schedule L are required, the following provisions will apply, in addition to the provisions set forth above: Prior to the commencement of work pursuant to Schedule L, the Constructing Entities agree to furnish each other with certificates of insurance evidencing the insurance coverage obtained in accordance with section 13.1 of this Appendix 2.

13.6 Subcontractor Insurance:

In accord with Good Utility Practice, each Interconnected Entity shall require each of its subcontractors to maintain and provide evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the subcontractor. Bonding of contractors or subcontractors shall be at the hiring Interconnected Entity's discretion, but regardless of bonding, the hiring principal shall be responsible for the performance or non-performance of any contractor or subcontractor it hires.

13.7 Reporting Incidents:

The Interconnection Parties shall report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of the Generation Interconnection Agreement.

14 Indemnity

14.1 Indemnity:

Each Interconnection Party shall indemnify and hold harmless the other Interconnection Parties, and the other Interconnection Parties' officers, shareholders, stakeholders, members, managers, representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with, or resulting from (i) the indemnifying Interconnection Party's breach of any of the representations or warranties made in, or failure of the indemnifying Interconnection Party or any of its subcontractors to perform any of its obligations under, this Generation Interconnection Agreement (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying Interconnection Party or its contractors; provided, however, that no Interconnection Party shall have any indemnification obligations under this section 14.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the Interconnection Party seeking indemnity.

14.2 Indemnity Procedures:

Promptly after receipt by a Person entitled to indemnity ("Indemnified Person") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in section 14.1 may apply, the Indemnified Person shall notify the indemnifying Interconnection Party of such fact. Any failure of or delay in such notification shall not affect an Interconnection Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Interconnection Party. The Indemnified Person shall cooperate with the indemnifying Interconnection Party with respect to the matter for which indemnification is claimed. The indemnifying Interconnection Party shall have the right to assume the defense thereof with counsel designated by such indemnifying Interconnection Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying Interconnection Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying Interconnection Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying Interconnection Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying Interconnection Party. Notwithstanding the foregoing, the indemnifying Interconnection Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves

the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying Interconnection Party, in such event the indemnifying Interconnection Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

14.3 Indemnified Person:

If an Indemnified Person is entitled to indemnification under this section 14 as a result of a claim by a third party, and the indemnifying Interconnection Party fails, after notice and reasonable opportunity to proceed under section 14.2 of this Appendix 2, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying Interconnection Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

14.4 Amount Owing:

If an indemnifying Interconnection Party is obligated to indemnify and hold any Indemnified Person harmless under this section 14, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

14.5 Limitation on Damages:

Except as otherwise provided in this section 14, the liability of an Interconnection Party under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any Interconnection Party or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another Interconnection Party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this section 14.5 are without regard to the cause or causes related thereto, including the negligence of any Interconnection Party, whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any Interconnection Party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this section 14.5 shall survive the termination or expiration of the Generation Interconnection Agreement.

14.6 Limitation of Liability in Event of Breach:

An Interconnection Party ("Breaching Party") shall have no liability hereunder to the other Interconnection Parties, and the other Interconnection Parties hereby release the Breaching Party, for all claims or damages that either of them incurs that are associated with any interruption in the availability of the Generating Facility or Merchant Transmission Facility, Interconnection Facilities and Transmission Owner Upgrades, Transmission System or Interconnection Service or damages to an Interconnection Party's facilities, except to the extent such interruption or damage is caused by the Breaching Party's gross negligence or willful misconduct in the

performance of its obligations under this Generation Interconnection Agreement (including Appendix 2).

14.7 Limited Liability in Emergency Conditions:

Except as otherwise provided in the Tariff or the Operating Agreement, no Interconnection Party shall be liable to any other Interconnection Party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or of the Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Project Developer shall be liable in the event that it fails to comply with any instructions of Transmission Provider or the Transmission Owner related to an Emergency Condition.

15 Breach, Cure and Default

15.1 Breach:

A Breach of this Generation Interconnection 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 Appendix 2 or of the other portions of the Generation Interconnection Agreement or any attachments or Schedule hereto, including but not limited to any material breach of a representation, warranty or covenant (other than in subsections (a) and (c)-(e) of this section) made in this Appendix 2 or any provisions of Schedule L;
- (c) Assignment of the Generation Interconnection Agreement in a manner inconsistent with its terms;
- (d) Failure of an Interconnection Party to provide access rights, or an Interconnection Party's attempt to revoke or terminate access rights, that are provided under this Appendix 2; or
- (e) Failure of an Interconnection Party to provide information or data required to be determined under this Appendix 2 to another Interconnection Party for such other Interconnection Party to satisfy its obligations under this Appendix 2.

15.2 Continued Operation:

In the event of a Breach or Default by either Interconnected Entity, and subject to termination of the Generation Interconnection Agreement under section 16 of this Appendix 2, the Interconnected Entities shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for Transmission Provider and the Transmission Owner to operate and maintain the Transmission System and the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades and for Project Developer to operate and maintain the Generating Facility or Merchant Transmission Facility and the Project Developer Interconnection Facilities, in a safe and reliable manner.

15.3 Notice of Breach:

An Interconnection 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 Interconnection 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 Interconnection Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 21 of this Appendix 2.

15.4 Cure and Default:

An Interconnection Party that commits a Breach and does not take steps to cure the Breach pursuant to this section 15.4 is automatically in Default of this Appendix 2 and of the Generation Interconnection 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.

15.4.1 Cure of Breach:

15.4.1.1 Except for the event of Breach set forth in section 15.1(a) above, the Breaching Interconnection 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 Interconnection Parties. Such agreement shall not be unreasonably withheld.

15.4.1.2 In an event of Breach set forth in section 15.1(a), the Breaching Interconnection Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Interconnection 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.

15.5 Right to Compel Performance:

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting Interconnection Party shall be entitled to exercise such other rights and remedies as it may have in equity or at law. Subject to section 20.1, no remedy conferred by any provision of this Appendix 2 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.

16 Termination

16.1 Termination of the Generation Interconnection Agreement:

This Generation Interconnection Agreement and Interconnection Service under this Generation Interconnection Agreement may be terminated by the following means:

16.1.1 By Mutual Consent:

Interconnection Service may be terminated as of the date on which the Interconnection Parties mutually agree to terminate the Generation Interconnection Agreement.

16.1.2 By Project Developer:

Subject to its payment of Cancellation Costs, Project Developer may unilaterally terminate the Generation Interconnection Agreement pursuant to Applicable Laws and Regulations upon providing Transmission Provider and the Transmission Owner 60 days prior written notice thereof.

16.1.3 Upon Default of Project Developer:

Transmission Provider may terminate the Generation Interconnection Agreement upon the Default of Project Developer of its obligations under the Generation Interconnection Agreement by providing Project Developer and the Transmission Owner prior written notice of termination.

16.1.4 Cancellation Cost Responsibility upon Termination:

In the event of cancellation pursuant to Appendix 2, section 16.1 of this GIA, the Project Developer shall be liable to pay to the Transmission Owner or Transmission Provider all Cancellation Costs in connection with the GIA. Cancellation costs may include costs for Network Upgrades assigned to Project Developer, in accordance with the Tariff and as reflected in this GIA, which remain the responsibility of Project Developer under the Tariff. This shall include costs including, but not limited to, the costs for such Network Upgrades to the extent such cancellation would be a Material Modification, or would have an adverse effect or impose costs on other Project Developers in the Cycle. 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. The Project Developer shall pay the Transmission Provider each bill for Cancellation Costs within 30 days after, as applicable, the Transmission Owner's or Transmission Provider's presentation to the Project Developer of written demand therefor, provided that such demand includes reasonable documentation of the Cancellation Costs that the invoicing party seeks to collect. Upon receipt of each of Project Developer's payments of such bills of the Transmission Owner, Transmission Provider shall reimburse the Transmission Owner for Cancellation Costs incurred by the latter.

16.2 Disposition of Facilities upon Termination:

16.2.1 Disconnection:

Upon termination of the Generation Interconnection Agreement in accordance with this section 16, Transmission Provider and/or the Transmission Owner shall, in coordination with Project Developer, physically disconnect the Generating Facility or Merchant Transmission Facility from the Transmission System, except to the extent otherwise allowed by this Appendix 2.

16.2.2 Network Facilities:

At the time of termination, the Transmission Provider and the Interconnected Entities shall keep in place any portion of the Interconnection Facilities and Transmission Owner Upgrades that the Transmission Provider deems necessary for the safety, integrity and/or reliability of the Transmission System. Otherwise, Transmission Provider may, in its discretion, within 30 days following termination of Interconnection Service, require the removal of all or any part of the Interconnection Facilities and Transmission Owner Upgrades.

16.2.2.1: In the event that (i) the Generation Interconnection Agreement and Interconnection Service under this Appendix 2 are terminated and (ii) Transmission Provider determines that some or all of the Interconnection Facilities and Transmission Owner Upgrades that are owned by the Project Developer are necessary for the safety, integrity and/or reliability of the Transmission System, Project Developer, subject to Applicable Laws and Regulations, shall transfer to the Transmission Owner title to the Interconnection Facilities and Transmission Owner Upgrades that Transmission Provider has determined to be necessary for the safety, integrity and/or reliability of the Transmission System.

16.2.2.2: In the event that removal of some or all of the Interconnection Facilities and Transmission Owner Upgrades is necessary to maintain compliance with Applicable Standards, Project Developer shall be responsible for the costs of any such removal. Project Developer shall have the right to take or retain title to equipment and/or facilities that are removed pursuant to this section; alternatively, in the event that the Project Developer does not wish to retain title to removed equipment and/or facilities that it owns, the Transmission Owner may elect to pay the Project Developer a mutually agreed amount to acquire and own such equipment and/or facilities.

16.2.3 Request for Disposition Determination:

Project Developer may request a determination from the Transmission Provider whether any Interconnection Facilities and Transmission Owner Upgrades will be removed in the event of any termination of Interconnection Service to the Generating Facility or Merchant Transmission Facility within the following year. Transmission Provider shall respond to that request no later than 60 days after receipt.

16.3 FERC Approval:

Notwithstanding any other provision of this Appendix 2, no termination hereunder shall become effective until the Interconnected Entities and/or Transmission Provider have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with the FERC of a notice of termination of the Generation Interconnection Agreement, and acceptance of such notice for filing by the FERC.

16.4 Survival of Rights:

Termination of this Generation Interconnection Agreement shall not relieve any Interconnection Party of any of its liabilities and obligations arising under this Generation Interconnection Agreement (including Appendix 2) prior to the date on which termination becomes effective, and each Interconnection Party may take whatever judicial or administrative actions it deems desirable or necessary to enforce its rights hereunder. Applicable provisions of this Appendix 2 will continue in effect after termination to the extent necessary to provide for final billings, billing adjustments, and the determination and enforcement of liability and indemnification obligations arising from events or acts that occurred while the Generation Interconnection Agreement was in effect.

In the event activities under Schedule L are required, the following provisions will apply, in addition to the provisions set forth above:

The obligations of the Construction Parties hereunder with respect to payments, Cancellation Costs, warranties, liability and indemnification shall survive termination to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while GIA was in effect. In addition, applicable provisions of this GIA will continue in effect after expiration, cancellation or termination to the extent necessary to provide for final billings, payments, and billing adjustments.

17 Confidentiality:

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Interconnection Party providing the information orally informs the Interconnection Party receiving the information that the information is confidential. If requested by any Interconnection Party, the disclosing Interconnection Party shall provide in writing the basis for asserting that the information referred to in this section warrants confidential treatment, and the requesting Interconnection Party may disclose such writing to an appropriate Governmental Authority. Any Interconnection Party shall be responsible for the costs associated with affording confidential treatment to its information.

17.1 Term:

During the term of the Generation Interconnection Agreement, and for a period of three years after the expiration or termination of the Generation Interconnection Agreement, except as otherwise provided in this section 17, each Interconnection Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by any other Interconnection Party.

17.2 Scope:

Confidential Information shall not include information that the receiving Interconnection Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Interconnection Party; (ii) was in the lawful possession of the receiving Interconnection Party on a non-confidential basis before receiving it from the disclosing Interconnection Party; (iii) was supplied to the receiving Interconnection Party without restriction by a third party, who, to the knowledge of the receiving Interconnection Party, after due inquiry, was under no obligation to the disclosing Interconnection Party to keep such information confidential; (iv) was independently developed by the receiving Interconnection Party without reference to Confidential Information of the disclosing Interconnection Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Interconnection Party or breach of this Appendix 2; or (vi) is required, in accordance with section 17.7 of this Appendix 2, to be disclosed to any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the Generation Interconnection Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Interconnection Party that designated the information as confidential notifies the other Interconnection Parties that it no longer is confidential.

17.3 Release of Confidential Information:

No Interconnection Party shall disclose Confidential Information to any other person, except to its Affiliates (limited by FERC's Standards of Conduct requirements), subcontractors, employees, consultants or to parties who may be or considering providing financing to or equity participation in Project Developer or to potential purchasers or assignees of Project Developer,

on a need-to-know basis in connection with the Generation Interconnection Agreement, unless such person has first been advised of the confidentiality provisions of this section 17 and has agreed to comply with such provisions. Notwithstanding the foregoing, an Interconnection Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this section 17.

17.4 Rights:

Each Interconnection Party retains all rights, title, and interest in the Confidential Information that it discloses to any other Interconnection Party. An Interconnection Party's disclosure to another Interconnection Party of Confidential Information shall not be deemed a waiver by any Interconnection Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

17.5 No Warranties:

By providing Confidential Information, no Interconnection Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Interconnection Party obligates itself to provide any particular information or Confidential Information to any other Interconnection Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

17.6 Standard of Care:

Each Interconnection Party shall use at least the same standard of care to protect Confidential Information it receives as the Interconnection Party uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Interconnection Party may use Confidential Information solely to fulfill its obligations to the other Interconnection Parties under the Generation Interconnection Agreement or to comply with Applicable Laws and Regulations.

17.7 Order of Disclosure:

If a Governmental Authority with the right, power, and apparent authority to do so requests or requires an Interconnection Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Interconnection Party shall provide the Interconnection Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Interconnection Party may seek an appropriate protective order or waive compliance with the terms of this Appendix 2 or the Generation Interconnection Agreement. Notwithstanding the absence of a protective order or agreement, or waiver, the Interconnection Party that is subjected to the request or order may disclose such Confidential Information which, in the opinion of its counsel, the Interconnection Party is legally compelled to disclose. Each Interconnection Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

17.8 Termination of Generation Interconnection Agreement:

Upon termination of the Generation Interconnection Agreement for any reason, each Interconnection Party shall, within 10 calendar days of receipt of a written request from another party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure and deletion certified in writing to the requesting party) or to return to the other party, without retaining copies thereof, any and all written or electronic Confidential Information received from the requesting party.

17.9 Remedies:

The Interconnection Parties agree that monetary damages would be inadequate to compensate an Interconnection Party for another Interconnection Party's Breach of its obligations under this section 17. Each Interconnection Party accordingly agrees that the other Interconnection Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Interconnection Party breaches or threatens to breach its obligations under this section 17, which equitable relief shall be granted without bond or proof of damages, and the receiving Interconnection Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed to be an exclusive remedy for the breach of this section 17, but shall be in addition to all other remedies available at law or in equity. The Interconnection Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Interconnection Party, however, shall be liable for indirect, incidental or consequential or punitive damages of any nature or kind resulting from or arising in connection with this section 17.

17.10 Disclosure to FERC or its Staff:

Notwithstanding anything in this section 17 to the contrary, and pursuant to 18 C.F.R. § 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Interconnection Parties that is otherwise required to be maintained in confidence pursuant to this Generation Interconnection Agreement, the Interconnection Party, shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Interconnection Party must, consistent with 18 C.F.R. § 388.122, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Interconnection Parties are prohibited from notifying the other Interconnection Parties prior to the release of the Confidential Information to FERC or its staff. An Interconnection Party shall notify the other Interconnection Parties to the Generation Interconnection Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Interconnection Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

17.11 Non-Disclosure:

Subject to the exception in section 17.10 of this Appendix 2, no Interconnection Party shall disclose Confidential Information of another Interconnection Party to any person not employed

or retained by the Interconnection Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Interconnection Party to be required in connection with a dispute between or among the Interconnection Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the Interconnection Party that provided such Confidential Information, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Generation Interconnection Agreement or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. Prior to any disclosures of another Interconnection Party's Confidential Information under this subparagraph, the disclosing Interconnection Party shall promptly notify the other Interconnection Parties in writing and shall assert confidentiality and cooperate with the other Interconnection Parties in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

17.12 Information in the Public Domain:

This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

17.13 Return or Destruction of Confidential Information:

If an Interconnection Party provides any Confidential Information to another Interconnection Party in the course of an audit or inspection, the providing Interconnection Party may request the other party to return or destroy such Confidential Information after the termination of the audit period and the resolution of all matters relating to that audit. Each Interconnection Party shall make Reasonable Efforts to comply with any such requests for return or destruction within 10 days of receiving the request and shall certify in writing to the other Interconnection Party that it has complied with such request.

18 Subcontractors

18.1 Use of Subcontractors:

Nothing in this Appendix 2 shall prevent the Interconnection Parties from utilizing the services of subcontractors as they deem appropriate to perform their respective obligations hereunder, provided, however, that each Interconnection Party shall require its subcontractors to comply with all applicable terms and conditions of this Appendix 2 in providing such services.

18.2 Responsibility of Principal:

The creation of any subcontract relationship shall not relieve the hiring Interconnection Party of any of its obligations under this Appendix 2. Each Interconnection Party shall be fully responsible to the other Interconnection Parties for the acts and/or omissions of any subcontractor it hires as if no subcontract had been made.

18.3 Indemnification by Subcontractors:

To the fullest extent permitted by law, an Interconnection Party that uses a subcontractor to carry out any of the Interconnection Party's obligations under this Appendix 2 shall require each of its subcontractors to indemnify, hold harmless and defend each other Interconnection Party, its representatives and assigns from and against any and all claims and/or liability for damage to property, injury to or death of any person, including the employees of any Interconnection Party or of any Affiliate of any Interconnection Party, or any other liability incurred by the other Interconnection Party or any of its Affiliates, including all expenses, legal or otherwise, to the extent caused by any act or omission, negligent or otherwise, by such subcontractor and/or its officers, directors, employees, agents and assigns, that arises out of or is connected with the operation of the facilities of either Interconnected Entity described in this Appendix 2; provided, however, that no Interconnection Party or Affiliate thereof shall be entitled to indemnity under this section 18.3 in respect of any injury, loss, or damage to the extent that such loss, injury, or damage results from the negligence or willful misconduct of the Interconnection Party or Affiliate seeking indemnity.

18.4 Subcontractors Not Beneficiaries:

No subcontractor is intended to be, or shall be deemed to be, a third-party beneficiary of a Generation Interconnection Agreement.

19 Information Access and Audit Rights

19.1 Information Access:

Consistent with Applicable Laws and Regulations, each Interconnection Party shall make available such information and/or documents reasonably requested by another Interconnection Party that are necessary to (i) verify the costs incurred by the other Interconnection Party for which the requesting Interconnection Party is responsible under this Appendix 2; and (ii) carry out obligations and responsibilities under this Appendix 2, provided that the Interconnection Parties shall not use such information for purposes other than those set forth in this section 19.1 and to enforce their rights under this Appendix 2.

19.2 Reporting of Non-Force Majeure Events:

Each Interconnection Party shall notify the other Interconnection Parties when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than an event of force majeure as defined in section 9.4 of this Appendix 2. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this section shall not entitle the receiving Interconnection Party to allege a cause of action for anticipatory breach of the Generation Interconnection Agreement.

19.3 Audit Rights:

Subject to the requirements of confidentiality under section 17 of this Appendix 2, each Interconnection Party shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent other Interconnection Party, to audit at its own expense the other Interconnection Party's accounts and records pertaining to such Interconnection Party's performance and/or satisfaction of obligations arising under this Appendix 2. Any audit authorized by this section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the Interconnection Party to be audited not later than 24 months after the event as to which the audit is sought. Each Interconnection Party shall preserve all records held by it for the duration of the audit period.

20 Disputes

20.1 Submission:

Any claim or dispute that any Interconnection Party may have against another arising out of the Generation Interconnection Agreement may be submitted for resolution in accordance with the dispute resolution provisions of the Tariff.

20.2 Rights Under the Federal Power Act:

Nothing in this section shall restrict the rights of any Interconnection Party to file a complaint with FERC under relevant provisions of the Federal Power Act.

20.3 Equitable Remedies:

Nothing in this section shall prevent any Interconnection Party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations.

21 Notices

21.1 General:

Any notice, demand or request required or permitted to be given by any Interconnection Party to another and any instrument required or permitted to be tendered or delivered by any Interconnection Party, in writing to another shall be provided electronically or may be so given, tendered or delivered, 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 Interconnection Party, or personally delivered to the Interconnection Party, at the electronic or other address specified in the Generation Interconnection Agreement.

21.2 Emergency Notices:

Moreover, notwithstanding the foregoing, any notice hereunder concerning an Emergency Condition or other occurrence requiring prompt attention, or as necessary during day-to-day operations, may be made by telephone or in person, provided that such notice is confirmed in writing promptly thereafter. Notice in an Emergency Condition, or as necessary during day-to-day operations, shall be provided (i) if by the Transmission Owner, to the shift supervisor at, as applicable, a Generation Project Developer's Generating Facility or a Transmission Project Developer's control center; and (ii) if by the Project Developer, to the shift supervisor at the Transmission Owner's transmission control center.

21.3 Operational Contacts:

Each Interconnection Party shall designate, and provide to each other Interconnection Party contact information concerning, a representative to be responsible for addressing and resolving operational issues as they arise during the term of the Generation Interconnection Agreement.

22 Miscellaneous

22.1 Regulatory Filing:

In the event that this Generation Interconnection Agreement contains any terms that deviate materially from the form included in the Tariff, Transmission Provider shall file the Generation Interconnection Agreement on behalf of itself and the Transmission Owner with FERC as a service schedule under the Tariff within 30 days after execution. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 17 of this Appendix 2. An Project Developer shall have the right, with respect to any Generation Interconnection Agreement tendered to it, to request (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with Schedule 5 of the Operating Agreement, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted Generation Interconnection Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between or among the Interconnection Parties.

22.2 Waiver:

Any waiver at any time by an Interconnection Party of its rights with respect to a Breach or Default under this Generation Interconnection Agreement or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any subsequent Breach or Default or other matter.

22.3 Amendments and Rights Under the Federal Power Act:

This Generation Interconnection Agreement may be amended or supplemented only by a written instrument duly executed by all Interconnection Parties. An amendment to the Generation Interconnection Agreement shall become effective and a part of this Generation Interconnection Agreement upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the foregoing, nothing contained in this Generation Interconnection Agreement shall be construed as affecting in any way any of the rights of any Interconnection Party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Interconnection Party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this Generation Interconnection Agreement and every appendix referred to therein shall be amended, as mutually agreed by the Interconnection Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

22.4 Binding Effect:

This Generation Interconnection Agreement, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the Interconnection Parties.

22.5 Regulatory Requirements:

Each Interconnection Party's performance of any obligation under this Generation Interconnection Agreement for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Interconnection Party, or the Interconnection Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Interconnection Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

23 Representations and Warranties

23.1 General:

Each Interconnected Entity hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the Interconnected Entity during the time the Generation Interconnection Agreement is effective:

23.1.1 Good Standing:

Such Interconnected Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated and operates as stated in the Generation Interconnection Agreement.

23.1.2 Authority:

Such Interconnected Entity has the right, power and authority to enter into the Generation Interconnection Agreement, to become a party hereto and to perform its obligations hereunder. The Generation Interconnection Agreement is a legal, valid and binding obligation of such Interconnected Entity, enforceable against such Interconnected Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

23.1.3 No Conflict:

The execution, delivery and performance of the Generation Interconnection Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the Interconnected Entity, or with any judgment, license, permit, order, material agreement or instrument applicable to or binding upon the Interconnected Entity or any of its assets.

23.1.4 Consent and Approval:

Such Interconnected Entity has sought or obtained, or, in accordance with the Generation Interconnection Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of the Generation Interconnection Agreement and it will provide to any Governmental Authority notice of any actions under this Appendix 2 that are required by Applicable Laws and Regulations.

23.2 Transmission Outages:

23.2.1 Outages; Coordination:

The Construction Parties acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner, as more specifically detailed in the Scope of Work, may be necessary in order to complete the process of constructing and installing all Interconnection Facilities and Transmission Owner Upgrades. The Construction Parties further acknowledge and agree that any such outages shall be coordinated by and through the Transmission Provider.

23.3 Land Rights; Transfer of Title:

In the event activities under Schedule L of this GIA are required, the following provisions will apply, in addition to the provisions set forth above:

23.3.1 Grant of Easements and Other Land Rights:

Project Developer at its sole cost and expense, shall grant such easements and other land rights to the Transmission Owner over the Site at such times and in such a manner as the Transmission Owner may reasonably require to perform its obligations under the GIA and/or to perform its operation and maintenance obligations under the Generation Interconnection Agreement.

23.3.2 Construction of Facilities on Project Developer Property:

To the extent that the Transmission Owner is required to construct and install any Transmission Owner Interconnection Facilities and Transmission Owner Upgrades on land owned by the Project Developer, the Project Developer, at its sole cost and expense, shall legally transfer to the Transmission Owner all easements and other land rights required pursuant to section 23.1 above prior to the commencement of such construction and installation.

23.3.3 Third Parties:

If any of the easements and other land rights described in section 23.1 above must be obtained from a third party, the Transmission Owner's obligation for completing its construction responsibilities in accordance with the Schedule of Work set forth in Schedule L hereto, to the extent of the facilities that it is responsible for constructing for which such easements and land rights are necessary, shall be subject to Project Developer's acquisition of such easements and other land rights at such times and in such manner as the Transmission Owner may reasonably require to perform its obligations under this Appendix 2, and/or to perform its operation and maintenance obligations under the Generation Interconnection Agreement, provided, however, that upon Project Developer's 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. The terms of easements and land rights acquired by Project Developer shall not unreasonably impede the Transmission Owner's timely completion of construction of the affected facilities.

23.3.4 Documentation:

Project Developer shall prepare, execute and file such documentation as the Transmission Owner may reasonably require to memorialize any easements and other land rights granted pursuant to this section 23.3. Documentation of such easements and other land rights, and any associated filings, shall be in a form acceptable to the Transmission Owner.

23.3.5 Transfer of Title to Certain Facilities Constructed by Project Developer:

Within 30 days after the Project Developer's receipt of notice of acceptance following Stage Two energization of the Interconnection Facilities and Transmission Owner Upgrades, the Project Developer shall deliver to the Transmission Owner, for the Transmission Owner's review and approval, all of the documents and filings necessary to transfer to the Transmission Owner title to any Transmission Owner Interconnection Facilities and Transmission Owner Upgrades constructed by the Project Developer, and to convey to the Transmission Owner any easements and other land rights to be granted by Project Developer in accordance with section 23.3.1 above that have not then already been conveyed. The Transmission Owner shall review and approve such documentation, such approval not to be unreasonably withheld, delayed, or conditioned. Within 30 days after its receipt of the Transmission Owner's written notice of approval of the documentation, the Project Developer, in coordination and consultation with the Transmission Owner, shall make any necessary filings at the FERC or other governmental agencies for regulatory approval of the transfer of title. Within 20 days after the issuance of the last order granting a necessary regulatory approval becomes final (i.e., is no longer subject to rehearing), the Project Developer shall execute all necessary documentation and shall make all necessary filings to record and perfect the Transmission Owner's title in such facilities and in the easements and other land rights to be conveyed to the Transmission Owner. Prior to such transfer to the Transmission Owner of title to the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades built by the Project Developer, the risk of loss or damages to, or in connection with, such facilities shall remain with the Project Developer. Transfer of title to facilities under this section shall not affect the Project Developer's receipt or use of the interconnection rights related to Network Upgrades, Distribution Upgrades, Stand Alone Network Upgrades, or Transmission Owner Interconnection Facilities which it otherwise may be eligible as provided in the GIP.

23.3.6 Liens:

The Project Developer shall take all reasonable steps to ensure that, at the time of transfer of title in the Transmission Owner Interconnection Facilities built by the Project Developer to the Transmission Owner, those facilities shall be free and clear of any and all liens and encumbrances, including mechanics' liens. To the extent that the Project Developer cannot reasonably clear a lien or encumbrance prior to the time for transferring title to the Transmission Owner, Project Developer shall nevertheless convey title subject to the lien or encumbrance and shall indemnify, defend and hold harmless the Transmission Owner against any and all claims, costs, damages, liabilities and expenses (including without limitation reasonable attorneys' fees) which may be brought or imposed against or incurred by Transmission Owner by reason of any such lien or encumbrance or its discharge.

23.4 Warranties:

23.4.1 Project Developer Warranty:

The Project Developer shall warrant that its work (or the work of any subcontractor that it retains) in constructing and installing the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades that it builds is free from defects in workmanship and design and shall conform to the requirements of this GIA for one year (the “Project Developer Warranty Period”) commencing upon the date title is transferred to Transmission Owner in accordance with section 23.3.5 of this Appendix 2. The Project Developer shall, at its sole expense and promptly after notification by the Transmission Owner, correct or replace defective work in accordance with Applicable Technical Requirements and Standards, during the Project Developer Warranty Period. The warranty period for such corrected or replaced work shall be the unused portion of the Project Developer Warranty Period remaining as of the date of notice of the defect. The Project Developer Warranty Period shall resume upon acceptance of such corrected or replaced work. All Costs incurred by Transmission Owner as a result of such defective work shall be reimbursed to the Transmission Owner by the Project Developer on demand; provided that the Transmission Owner submits the demand to the Project Developer within the Project Developer Warranty Period and provides reasonable documentation of the claimed costs. The Transmission Owner’s acceptance, inspection and testing, or a third party’s inspection or testing, of such facilities pursuant to Schedule L, section 11.9 of this GIA shall not be construed to limit in any way the warranty obligations of the Project Developer, and this provision does not modify and shall not limit the Project Developer’s indemnification obligations set forth in Appendix 2, section 14.0 of this GIA.

23.4.2 Manufacturer Warranties:

Prior to the transfer to the Transmission Owner of title to the Transmission Owner Interconnection Facilities built by the Project Developer, the Project Developer shall produce documentation satisfactory to the Transmission Owner evidencing the transfer to the Transmission Owner of all manufacturer warranties for equipment and/or materials purchased by the Project Developer for use and/or installation as part of the Transmission Owner Interconnection Facilities and Stand Alone Network Upgrades built by the Project Developer.

24 Tax Liability

24.1 Safe Harbor Provisions:

This section 24.1 is applicable only to Project Developers. Provided that Project Developer agrees to conform to all requirements of the Internal Revenue Service (“IRS”) (e.g., the “safe harbor” 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)) 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 and Transmission Owner Upgrades, 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 24.4.2 below, shall not include income taxes in the Costs of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades that are payable by Project Developer under the Generation Interconnection Agreement. Project Developer shall document its agreement to conform to IRS requirements for such non-taxable status in the Generation Interconnection Agreement, the Interconnection Construction Service Agreement, and/or applicable agreement.

24.2 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 and Transmission Owner Upgrades 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 Generation Interconnection Agreement or Interconnection Construction Service Agreement.

24.3 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 Appendix 2 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.

24.4 Income Tax Gross-Up:

24.4.1 Additional Security:

In the event that Project Developer does not provide the safe harbor documentation required under section 24.1 prior to execution of the Generation Interconnection Agreement, 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 Generation Interconnection Agreement shall include any amounts described as additional Security under this section 24.4 regarding income tax gross-up.

24.4.2 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 any 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 Generation 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 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.

24.4.3 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.

24.5 Tax Status:

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Generation Interconnection Agreement or the GIP 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.

SCHEDULE A

CUSTOMER FACILITY LOCATION/SITE PLAN

SCHEDULE B
SINGLE-LINE DIAGRAM

SCHEDULE C

LIST OF METERING EQUIPMENT

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 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 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

{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 24.1 of Appendix 2 to this GIA 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 construction and installation of the Transmission Owner Interconnection Facilities and Transmission Owner Upgrades specified in this GIA.

Nothing in Project Developer's agreement pursuant to this Schedule G shall change Project Developer's indemnification obligations under section 24.2 of Appendix 2 to this GIA.

SCHEDULE H

INTERCONNECTION REQUIREMENTS FOR ALL WIND, SOLAR AND NON-SYNCHRONOUS GENERATION FACILITIES

{Include the appropriate language from the alternatives below }

{Include the following language if the Generating Facility is not a wind, solar or non-synchronous generation facility }

Not Required

[OR]

{Include the following language when the Generating Facility is a wind, solar or non-synchronous generation facility }

A. Voltage Ride Through Requirements

The Generating Facility shall be designed to remain in service (not trip) for voltages and times as specified for the Eastern Interconnection in Attachment 1 of NERC Reliability Standard PRC-024-1, and successor Reliability Standards, for both high and low voltage conditions, irrespective of generator size, subject to the permissive trip exceptions established in PRC-024-1 (and successor Reliability Standards).

B. Frequency Ride Through Requirements

The Generating Facility shall be designed to remain in service (not trip) for frequencies and times as specified in Attachment 2 of NERC Reliability Standard PRC-024-1, and successor Reliability Standards, for both high and low frequency condition, irrespective of generator size, subject to the permissive trip exceptions established in PRC-024-1 (and successor Reliability Standards).

C. Supervisory Control and Data Acquisition (“SCADA”) Capability

The wind, solar or non-synchronous generation facility shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind, solar or non-synchronous generation facility Project Developer shall determine what SCADA information is essential for the proposed wind, solar or non-synchronous generation facility, taking into account the size of the facility and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

D. Meteorological Data Reporting Requirement (Applicable to wind generation facilities only)

The wind generation facility shall, at a minimum, be required to provide the Transmission Provider with site-specific meteorological data including:

- Temperature (degrees Fahrenheit)
- Wind speed (meters/second)
- Wind direction (degrees from True North)
- Atmosphere pressure (hectopascals)
- Forced outage data (wind turbine and MW unavailability)

E. Meteorological Data Reporting Requirement (Applicable to solar generation facilities only)

The solar generation facility shall, at a minimum, be required to provide the Transmission Provider with site-specific meteorological data including:

- Temperature (degrees Fahrenheit)
- Irradiance
- Forced outage data

The Transmission Provider and Project Developer may mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such additional mutually agreed upon requirements for meteorological and forced outage data are set forth below: [STATE “NOT APPLICABLE UNDER THIS GIA” OR SPECIFY THE AGREED UPON METEOROLOGICAL AND FORCED OUTAGE DATA REQUIREMENTS]

SCHEDULE I
INTERCONNECTION SPECIFICATIONS FOR AN
ENERGY STORAGE RESOURCE

{Include the appropriate language from the alternatives below.}

{Include the following language if the Generating Facility is not an Energy Storage Resource:}

Not Required

{Include the following language if the Generating Facility is an Energy Storage Resource:}

This Schedule I specifies information for Energy Storage Resource will be required to provide primary frequency response consistent with the conditions set forth in Appendix 2, sections 4.7.2, 4.7.2.1, 4.7.2.2, 4.7.2.3, and 4.7.2.4 of this GIA.

1.0 Minimum State of Charge and Maximum State of Charge

Primary frequency response operating range for Energy Storage Resources:

Minimum State of Charge: _____; and

Maximum State of Charge: _____.

2.0 Static or Dynamic Operating Range

{Specify whether the operating range is static or dynamic. If the operating range is dynamic, then this Schedule I must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.}

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

{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 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.

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 15.3 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 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 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 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 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 J

**FORM OF
CONSTRUCTION SERVICE AGREEMENT**

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: _____

APPENDIX I

SCOPE AND SCHEDULE OF WORK FOR NETWORK UPGRADES TO BE BUILT BY TRANSMISSION OWNER

A. Scope of Work

Transmission Owner hereby agrees to provide the following Network Upgrades pursuant to the terms of this CSA:

[Identify Network Upgrades to be constructed]

B. Schedule of Work

[Add schedule for construction work to be completed]

C. Costs

Developer Party shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with section 9.0 of Appendix III to this CSA.

Network Upgrades Charge: \$_____

[Add additional sections to list: any Contingencies, Applicable Technical Requirements, and Estimate of Tax Gross-ups, as required pursuant to Appendix III]

D. Construction of Network Upgrades

[include 1 through 3 below only for Project Developers or Affected System Customers]

1. The Network Upgrades regarding which Transmission Owner shall be the Constructing Entity are described on the attached Appendix I, section A to this CSA.

2. Election of Construction Option. Specify below whether the Constructing Entities have mutually agreed to construction of the Network Upgrades that will be built by the Transmission Owner pursuant to the Standard Option or the Negotiated Contract Option. (See sections 6.1 and 6.1.1 of Appendix III to this CSA.)

_____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 attached to this CSA, respectively, shall be

as set forth in Schedule A attached to this CSA. 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.

3. Specify whether Developer Party has exercised the Option to Build in accordance with respect to some or all of the Stand Alone Network Upgrades:

_____ Yes

_____ No

If Yes is indicated, Developer Party shall build, in accordance with and subject to the conditions and limitations set forth in section 6.2.3 of Appendix III to this CSA, those portions of the Stand Alone Network Upgrades described below:

[The following section applies only to Eligible Customers]

Specify whether Developer Party has exercised the Option to Build with respect to some or all of the Stand Alone Network Upgrades:

_____ Yes

_____ No

If Yes is indicated, Developer Party shall build, in accordance with and subject to the conditions and limitations set forth in section 6.2.3 of Appendix III to this CSA, those portions of the Stand Alone Network Upgrades described below:

APPENDIX II

DEFINITIONS

From the Generation Interconnection Procedures accepted for filing by FERC as of the effective date of this agreement.

APPENDIX III
GENERAL TERMS AND CONDITIONS

1.0 Effective Date and Term

1.1 Effective Date.

Subject to regulatory acceptance, this CSA shall become effective on the date the agreement has been executed by all Parties, or if the agreement is filed with FERC unexecuted, upon the date specified by FERC. The Transmission Owner shall have no obligation to begin construction or preparation for construction of the Network Upgrades, identified in Appendix I to this CSA, until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with FERC; (ii) such agreement, if unexecuted and non-conforming, has been filed with and accepted by FERC; 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.

1.2 Term.

This CSA shall continue in full force and effect from the Effective Date until the termination hereof.

1.3 Survival.

This CSA shall continue in effect after termination to the extent necessary to provide for final billings and payments, including billings and payments pursuant to this CSA, and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this CSA was in effect.

2.0 Facilitation by Transmission Provider

Transmission Provider shall keep itself apprised of the status of the Transmission Owner's construction-related activities and, upon request of Developer Party or Transmission Owner, Transmission Provider shall meet with the Developer Party and Transmission Owner separately or together to assist them in resolving issues between them regarding their respective activities, rights and obligations under this CSA. Transmission Owner shall cooperate in good faith with the other Parties in Transmission Provider's efforts to facilitate resolution of disputes.

3.0 Construction Obligations.

3.1 Network Upgrades.

3.1.1 Generally.

All Network Upgrades identified in Appendix I to this CSA shall be designed, engineered, procured, installed and constructed in accordance with this section 3.0, Applicable Standards, Applicable Laws and Regulations, Good Utility Practice, the Facilities Study and the Scope of Work under this CSA.

3.2 Scope of Applicable Technical Requirements and Standards.

Applicable technical requirements and standards shall apply to the design, engineering, procurement, construction and installation of the Network Upgrades identified in Appendix I to this CSA only to the extent that the provisions thereof relate to the design, engineering, procurement, construction and/or installation of such Network Upgrades. Such provisions relating to the design, engineering, procurement, construction and/or installation of such Network Upgrades shall be contained in Appendix I appended to this CSA. The 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 appended to this CSA. In the event of any conflict between the provisions of the applicable technical requirements and standards that are appended to this CSA and any later-modified provisions that are stated in the pertinent PJM Manuals, the provisions appended to this CSA shall control.

4.0 Tax Liability

4.1 Safe Harbor Provisions.

Provided that Developer Party agrees to conform to all requirements of the Internal Revenue Service (“IRS”) (e.g., the “safe harbor” 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)) that would confer nontaxable status on some or all of the transfer of property, including money, by Developer Party to the Transmission Owner for payment of the Costs of construction of the Network Upgrades, 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 4.4.2 below, shall not include income taxes in the Costs of Network Upgrades that are payable by Developer Party under the Generation Interconnection Agreement or this Agreement. Developer Party shall document its agreement to conform to IRS requirements for such non-taxable status in the Generation Interconnection Agreement or this Agreement.

4.2 Tax Indemnity.

Developer Party 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 Developer Party to the Transmission Owner with respect to the construction of the Network Upgrades is taxable income to the Transmission Owner. Developer Party 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 Developer Party 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 Developer Party 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. Developer Party’s tax indemnification obligation under this section shall survive any termination of the Generation Interconnection Agreement or this Agreement.

4.3 Taxes Other Than Income Taxes.

Upon the timely request by Developer Party, and at Developer Party’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 Developer Party may be required to reimburse Transmission Provider under the terms of this Appendix 2 or the GIP. Developer Party 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. Developer Party 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 Developer Party 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, Developer Party will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Transmission Owner.

4.4 Income Tax Gross-Up.

4.4.1 Additional Security.

In the event that Developer Party does not provide the safe harbor documentation required under section 4.1 prior to execution of the Generation Interconnection Agreement or this Agreement, within the later of 15 days after execution of the Generation Interconnection Agreement or this Agreement, Transmission Provider shall notify Developer Party in writing of the amount of additional Security that Developer Party must provide. The amount of Security that a Transmission Developer Party must provide initially pursuant to the Generation Interconnection Agreement or this Agreement shall include any amounts described as additional Security under this section 4.4 regarding income tax gross-up.

4.4.2 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 any Network Upgrades for which Developer Party 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 the Network Upgrades for which Developer Party is responsible under the Generation Interconnection Agreement or this 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 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.

4.4.3 Time for Payment.

Developer Party 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.

4.5 Tax Status.

Each Party shall cooperate with the other to maintain the other Party’s tax status. Nothing in the Generation Interconnection Agreement, this Agreement or the GIP 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.

5.0 Safety

5.1 General.

Transmission Owner shall perform all work hereunder in accordance with Good Utility Practice, Applicable Standards and Applicable Laws and Regulations pertaining to the safety of persons or property.

5.2 Environmental Releases.

Transmission Owner shall notify Transmission Provider and Developer Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the facility or the facilities, any of which may reasonably be expected to affect Transmission Provider or Developer Party. Transmission Owner shall: (i) provide the notice as soon as possible; (ii) make a good faith effort to provide the notice within 24 hours after it becomes aware of the occurrence; and (iii) promptly furnish to Transmission Provider and Developer Party copies of any publicly available reports filed with any governmental agencies addressing such events.

6.0 Schedule of Work

6.1 Standard Option.

The Transmission Owner shall use Reasonable Efforts to design, engineer, procure, construct and install the Network Upgrades, identified in Appendix I to this CSA, in accordance with the Schedule and Scope of Work.

6.1.1 Negotiated Contract Option.

Consistent with Appendix 1, section D.2 (negotiated contract option), as an alternative to the Standard Option set forth in section 6.1 of this Appendix III, the Transmission Owner and the Developer Party may mutually agree to a Negotiated Contract Option for the Transmission Owner's design, procurement, construction and installation of the Network Upgrades. Under the Negotiated Contract Option, the Affected System Customer and the Transmission Owner may agree to terms different from those included in the Standard Option of section 6.1 above and the corresponding standard terms set forth in the applicable provisions of Part VI of the Tariff and this Appendix III. 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 Affected System Customer and the Transmission Owner that are parties to this CSA; no other Developer Party's responsibility for Costs may be affected (section 217 of the Tariff). No other terms of the Tariff or this Appendix III 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 shall be stated in full in an appendix to this CSA.

6.2 Option to Build.

6.2.1 Option.

Developer Party shall have the option, ("Option to Build"), to design, procure, construct and install all or any portion of the Stand Alone Network Upgrades on the dates specified in Appendix I of this Agreement. Transmission Provider and Developer Party must agree as to what constitutes Stand Alone Network Upgrades in Schedule C of this Agreement. If the Transmission Provider and Developer Party disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Developer Party 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. Transmission Provider and Developer Party must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Schedule C (Option to Build) of this Agreement. Except for Stand Alone Network Upgrades, Developer Party shall have no right to construct Network Upgrades under this option. Unless a Developer

party is subject to a Generation Interconnection Agreement, in order to exercise this Option to Build, the Developer Party 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 Developer Party receives the results of the Facility Study (or, if no Facilities Study was required completion of the System Impact Study). Developer Party may not elect Option to Build after such date. Developer Party shall indicate its election to exercise the option in this CSA.

6.2.2 General Conditions Applicable to Option.

In addition to the other terms and conditions applicable to the construction of facilities under this Appendix III, the Option to Build is subject to the following conditions:

(a) If Developer Party assumes responsibility for the design, procurement and construction of Stand Alone Network Upgrades:

(i) Developer Party shall engineer, procure equipment, and construct Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Owner;

(ii) Developer Party's engineering, procurement and construction of 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 Stand Alone Network Upgrades;

(iii) Transmission Owner shall review and approve engineering design, equipment acceptance tests, and the construction of Stand Alone Network Upgrades;

(iv) Prior to commencement of construction, Developer Party shall provide to Transmission Owner a schedule for construction of 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 the 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 Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Owner, Developer Party shall be obligated to remedy deficiencies in that portion of the Stand Alone Network Upgrades;

(vii) Developer Party shall indemnify Transmission Owner and Transmission Provider for claims arising from Developer Party's construction of Network Upgrades that are Direct Connection Network Upgrades under the terms and procedures applicable to this Appendix III, sections 12.1, 12.2, 12.3, and 12.4;

(viii) Developer Party shall transfer control of Network Upgrades that are Direct Connection Network Upgrades to Transmission Owner;

(ix) Unless Parties otherwise agree, Developer Party shall transfer ownership of Stand Alone Network Upgrades to Transmission Owner;

(x) Transmission Owner shall approve and accept for operation and maintenance for Stand Alone to the extent engineered, procured, and constructed in accordance with this Agreement, Appendix 2, section 3.2.3.2;

(xi) Developer Party shall deliver to Transmission Owner “as-built” drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Stand Alone Network Upgrades are built to the standards and specifications required by Transmission Owner; and

(xii) If Developer Party exercises the Option to Build, Developer Party shall pay Transmission Owner to execute the responsibilities enumerated to Transmission Owner under section 6.2.2. Transmission Owner shall invoice Developer Party for this total amount to be divided on a monthly basis pursuant to Appendix III, section 9.3.

(b) The Developer Party must obtain or arrange to obtain all necessary permits and authorizations for the construction and installation of the 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 Developer Party 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;

(c) The Developer Party must obtain all necessary land rights for the construction and installation of the Stand Alone Network Upgrades that it is building, provided, however, that upon Developer Party’s reasonable request, the Transmission Owner shall assist the Developer Party 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;

(d) 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 Stand Alone Network Upgrades that the Developer Party builds; and

(e) The Stand Alone Network Upgrades built by the Developer Party shall be successfully inspected, tested and energized pursuant to sections 19 and 20 of this Appendix III.

6.2.3 Additional Conditions Regarding Network Facilities.

To the extent that the Developer Party utilizes the Option to Build for design, procurement, construction and/or installation of Stand Alone Network Upgrades in existence or under construction by or on behalf of the Transmission Owner on the date that the Developer Party solicits bids under section 6.2.7 below, or Stand Alone Network Upgrades 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 Appendix III, all work shall comply with the following further conditions:

(i) All work performed by or on behalf of the Developer Party 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 Network Upgrades built by or for the Developer Party; 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 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 Developer Party and with Transmission Provider before directing that work be stopped or ordering any corrective measures;

(iv) The Developer Party 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 Developer Party within 20 business days after a request therefore made by Developer Party following its receipt of the Facilities Study;

(v) The Developer Party shall be responsible for controlling the performance of its contractors, employees and agents; and

(vi) All activities performed by or on behalf of the Developer Party 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.

6.2.4 Administration of Conditions.

To the extent that a Transmission Owner exercises any discretion in the application of any of the conditions stated in sections 6.2.2 and 6.2.3 of this Appendix III, 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 Developer Party may require for the purpose of complying with any of those conditions.

6.2.5 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 Developer Party, a Transmission Owner shall add to its List of Approved Contractors (1) any design or construction contractor regarding which the Developer Party 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 Developer Party 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.

6.2.6 Construction by Multiple Developer Parties.

In the event that there are multiple Developer Parties that wish to exercise an Option to Build with respect to facilities of the types described in section 6.2.3 to this Appendix III, the Transmission Provider shall determine how to allocate the construction responsibility among them unless they reach agreement among themselves on how to proceed.

6.2.7 Option Procedures.

(a) Within 10 days after executing this CSA or directing that this CSA be filed, Developer Party 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 Network Upgrades that the Developer Party seeks to build under the Option to Build on terms (i) that will meet the Developer Party's proposed schedule; (ii) that, if

the Developer Party seeks to have an Approved Contractor construct or install Stand Alone Network Upgrades, will satisfy all of the conditions on construction specified in sections 6.2.2 and 6.2.3 of this Appendix III; and (iii) that will satisfy the obligations of a Constructing Entity (other than those relating to responsibility for the costs of facilities) under this CSA.

(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 Developer Party.

(c) Upon receipt of a qualifying bid acceptable to it, the Developer Party 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 Developer Party in response to its solicitation, the Transmission Owner(s) shall be responsible for the design, procurement, construction and installation of the Network Upgrades in accordance with the Standard Option described in section 6.2.1 of this Appendix III.

6.2.8 Developer Party Drawings.

Developer Party shall submit to the Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Network Upgrades that Developer Party arranges to build under the Option to Build. The Transmission Owner and Transmission Provider shall review the drawings to assess the consistency of Developer Party's design of the pertinent Network Upgrades with Applicable Standards and the Facilities Study. After consulting with the Transmission Owner, Transmission Provider shall provide comments on such drawings to Developer Party within sixty 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.

6.2.9 Effect of Review.

Transmission Owner's and Transmission Provider's reviews of Developer Party's initial drawings of the Network Upgrades that the Developer Party 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, Developer Party shall make such changes to the design of the pertinent Network Upgrades as may reasonably be required by Transmission Provider, in consultation with the Transmission Owner, to ensure that the Network Upgrades that Developer Party is building meet Applicable Standards and conform with the Facilities Study.

6.3 Revisions to Schedule and Scope of Work.

The Schedule and Scope of Work shall be revised as required in accordance with Transmission Provider's scope change process for projects set forth in the PJM Manuals, or otherwise by mutual agreement of the Transmission Provider and Transmission Owner, which agreement shall not be unreasonably withheld, conditioned or delayed.

7.0 Suspension of Work upon Default

Upon the occurrence of a Default by Developer Party, the Transmission Provider or the Transmission Owner may, by written notice to Developer Party, suspend further work associated with the Network Upgrades, identified in Appendix I to this CSA, Transmission Owner is responsible for constructing. Such suspension shall not constitute a waiver of any termination rights under this section 7.0. In the event of a suspension by Transmission Provider or Transmission Owner, the Developer Party shall be responsible for the Costs incurred in connection with any suspension hereunder.

7.1 Notification and Correction of Defects.

7.1.1 In the event that inspection and/or testing of any Network Upgrades, identified in Appendix I to this CSA, built by Transmission Owner identifies any defects or failures to comply with Applicable Standards in such Network Upgrades, then Transmission Owner shall take appropriate action to correct any such defects or failures within 20 days after it learns thereof. If 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. Such acceptance does not modify and shall not limit the Project Developer's indemnification obligations set forth in Tariff, Attachment P, Appendix 2, section 3.2.3(e).

8.0 Transmission Outages

8.1 Outages; Coordination.

The Transmission Provider and Transmission Owner acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner, as more specifically detailed in the Scope of Work, may be necessary in order to complete the process of constructing and installing the Network Upgrades identified in Appendix I to this CSA. The Transmission Provider and Transmission Owner further acknowledge and agree that any such outages shall be coordinated by and through Transmission Provider.

9.0 Security, Billing and Payments

The following provisions shall apply with respect to charges for the Costs of the Transmission Owner for which the Developer Party is responsible.

9.1 Adjustments to Security.

The Security provided by Developer Party at or before the Effective Date of this CSA shall be: (a) reduced as portions of the work on Network Upgrades, identified in Appendix I to this CSA, are completed; and/or (b) increased or decreased as required to reflect adjustments to Developer Party's cost responsibility, to correspond with changes in the Scope of Work developed in accordance with Transmission Provider's scope change process for projects set forth in the PJM Manuals.

9.2 Invoice.

Transmission Owner shall provide Transmission Provider a quarterly statement of its scheduled expenditures during the next three months for, as applicable, the design, engineering and construction of, and/or for other charges related to, construction of the Network Upgrades identified in Appendix I to this CSA, or (b) in the event that the Developer Party exercises the Option to Build, for the Interconnected Transmission Owner's oversight costs (i.e. costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Developer Party is complying with the Transmission Owner's standards and specifications for the construction of facilities) associated with the Developer Party's building Stand Alone Network Upgrades, including but not limited to Costs for tie-in work and Cancellation Costs. Transmission Owner's oversight costs shall be consistent with Attachment GG, Appendix III, section 6.2.2(a)(12). If Developer Party exercises the Option to Build, Developer Party shall pay Transmission Owner costs associated with its responsibilities pursuant to section 6.2.1 and in accordance with the amount agreed to by the Transmission Owner and Developer Party pursuant to Appendix III, section 6.2.1(a)(12). Transmission Provider shall bill Developer Party, on behalf of Transmission Owner, for Transmission Owner's expected costs during the subsequent three months. Developer Party shall pay each bill within 20 days after receipt thereof. Upon receipt of each of Developer Party's payments of such bills, Transmission Provider shall reimburse the Transmission Owner. Developer Party may request that the Transmission Provider provide quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that section 9.3 of this Appendix III shall govern the timing of the final cost reconciliation upon completion of the work.

9.3 Final Invoice.

Within 120 days after Transmission Owner completes construction and installation of the Network Upgrades under this CSA, Transmission Provider shall provide Developer Party with an accounting of, and the appropriate Party shall make any payment to the other that is necessary to resolve, any difference between: (a) Developer Party's responsibility under the Tariff for the

Costs of the Network Upgrades identified in Appendix I to this CSA; and (b) Developer Party's previous aggregate payments to Transmission Provider for the Costs of the facilities identified in Appendix I to this CSA. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment to the Developer Party or the Transmission Owner that the preceding sentence requires it to make unless and until the Transmission Provider has received the payment that it is required to refund from the Party owing the payment.

9.4 Disputes.

In the event of a billing dispute among the Transmission Provider, Transmission Owner, and Developer Party, Transmission Provider and the Transmission Owner shall continue to perform their respective obligations pursuant to this CSA so long as: (a) the Developer Party continues to make all payments not in dispute, and the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute; or (b) the Developer Party pays to Transmission Provider, or into an independent escrow account established by the Developer Party, the portion of the invoice in dispute, pending resolution of such dispute. If the Developer Party fails to meet any of these requirements, then Transmission Provider shall so inform the other Parties and Transmission Provider or the Transmission Owner may provide notice to Developer Party of a Breach pursuant to section 13 of this Appendix III.

9.5 Interest.

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. § 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment.

9.6 No Waiver.

Payment of an invoice shall not relieve Developer Party from any other responsibilities or obligations it has under this CSA, nor shall such payment constitute a waiver of any claims arising hereunder.

10.0 Assignment

10.1 Assignment with Prior Consent.

Subject to section 10.2 of this Appendix III, no Party shall assign its rights or delegate its duties, or any part of such rights or duties, under this CSA without the written consent of the other Parties, which consent shall not be unreasonably withheld, conditioned or delayed. Any such assignment or delegation made without such written consent shall be null and void.

In addition, the Transmission Owner shall be entitled, subject to Applicable Laws and Regulations, to assign this CSA to any Affiliate or successor of the Transmission Owner that owns and operates all or a substantial portion of such Transmission Owner's transmission facilities.

10.2 Assignment Without Prior Consent.

10.2.1 Assignment by Developer Party.

Developer Party may assign this CSA without the Transmission Owner's or Transmission Provider's prior consent to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Developer Party's assets provided that, prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical competence and financial ability to comply with the requirements of this CSA and assumes in a writing provided to the Transmission Owner and Transmission Provider all rights, duties, and obligations of Developer Party arising under this CSA. However, any assignment described herein shall not relieve or discharge the Developer Party from any of its obligations hereunder absent the written consent of the Transmission Owner, such consent not to be unreasonably withheld, conditioned, or delayed.

10.2.2 Assignment by Transmission Owner.

Transmission Owner shall be entitled, subject to applicable laws and regulations, to assign this Upgrade CSA to an Affiliate or successor that owns and operates all or a substantial portion of Transmission Owner's transmission facilities.

10.2.3 Assignment to Lenders.

Developer Party may, without the consent of the Transmission Provider or the Transmission Owner, assign this CSA to any Project Finance Entity(ies), provided that such assignment shall not alter or diminish Developer Party's duties and obligations under this CSA. If Developer Party provides the Transmission Owner with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to Article 6 of this CSA, the Transmission Provider or Transmission Owner shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this CSA in accordance with this CSA. Transmission Provider or Transmission Owner shall, if requested by such lenders, provide such customary and reasonable documents, including

consents to assignment, as may be reasonably requested with respect to the assignment and status of this CSA, provided that such documents do not alter or diminish the rights of the Transmission Provider or Transmission Owner under this CSA, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider's and/or the Transmission Owner's invoice therefore, Developer Party shall pay the Transmission Provider and/or the Transmission Owner's reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Developer Party from any of its obligations hereunder absent the written consent of the Transmission Owner and Transmission Provider.

10.3 Successors and Assigns.

This CSA and all of its provisions are binding upon, and inure to the benefit of, the Transmission Provider and Transmission Owner and their respective successors and permitted assigns.

11.0 Insurance

11.1 Required Coverages.

Constructing Entity shall maintain, at its own expense, insurance as described in paragraphs A through E below. All insurance shall be procured from insurance companies rated “A-,” VII or better by AM Best and authorized to do business in a State or States in which the Network Upgrades, identified in Appendix I to this CSA, will be located. Failure to maintain required insurance shall be a Breach of this CSA.

A. Workers Compensation Insurance with statutory limits, as required by the State and/or jurisdiction in which the work is to be performed, and employer’s liability insurance with limits of not less than one million dollars (\$1,000,000).

B. Commercial General Liability Insurance and/or Excess Liability Insurance covering liability arising out of premises, operations, personal injury, advertising, products and completed operations coverage, independent contractors coverage, liability assumed under an insured contract, coverage for pollution to the extent normally available and punitive damages to the extent allowable under applicable law, with limits of not less than one million dollars (\$1,000,000) per occurrence/one million dollars (\$1,000,000) general aggregate/one million dollars (\$1,000,000) each accident products and completed operations aggregate.

C. Business/Commercial Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of no less than one million dollars (\$1,000,000) each accident for bodily injury, including death, and property damage.

D. Excess and/or Umbrella Liability Insurance with a limit of liability of twenty million dollars (\$20,000,000) per occurrence. These limits apply in excess of the employer’s liability, commercial general liability and business/commercial automobile liability coverages described above. This requirement can be met alone or via a combination of primary, excess and/or umbrella insurance.

E. Professional Liability, including Contractors Legal Liability, providing errors, omissions and/or malpractice coverage. Coverage shall be provided for the Constructing Entity’s duties, responsibilities and performance outlined in this CSA, with limits of liability as follows:

\$10,000,000 each occurrence

\$10,000,000 aggregate

An entity may meet the Professional Liability Insurance requirements by requiring third-party contractors, designers, or engineers, or other parties that are responsible for design and engineering work associated with the Network Upgrades, identified in Appendix I to this CSA, necessary for the transmission service to procure professional liability insurance in the amounts

and upon the terms prescribed by this section, and providing evidence of such insurance to the other entity. Such insurance shall be procured from companies rated “A-,” VII or better by AM Best and authorized to do business in a State or States in which the Network Upgrades, identified in Appendix I to this CSA, are located. Nothing in this section relieves the entity from complying with the insurance requirements. In the event that the policies of the designers, engineers, or other parties used to satisfy the entity’s insurance obligations under this section become invalid for any reason, including but not limited to: (i) the policy(ies) lapsing or otherwise terminating or expiring; (ii) the coverage limits of such policy(ies) are decreased; or (iii) the policy(ies) do not comply with the terms and conditions of the PJM Tariff; entity shall be required to procure insurance sufficient to meet the requirements of this section, such that there is no lapse in insurance coverage. Notwithstanding the foregoing, in the event an entity will not design, engineer or construct or cause to design, engineer or construct any new Network Upgrades, Transmission Provider, in its discretion, may waive the requirement that an entity maintain the Professional Liability Insurance pursuant to this section.

11.2 Additional Insureds.

The Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability policies procured by each Constructing Entity (“Insuring Constructing Entity”) shall include each other party (the “Insured Party”), its officers, agents and employees as additional insureds, providing all standard coverages and covering liability of the Insured Party arising out of bodily injury and/or property damage (including loss of use) in any way connected with the operations, performance, or lack of performance under this CSA.

11.3 Other Required Terms.

The above-mentioned insurance policies (except workers’ compensation) shall provide the following:

(a) Each policy shall contain provisions that specify that it is primary and non-contributory for any liability arising out of that party’s negligence, and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer’s liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Insuring Constructing Entity shall be responsible for its respective deductibles or retentions.

(b) If any coverage is written on a Claims First Made Basis, continuous coverage shall be maintained or an extended discovery period will be exercised for a period of not less than two years after termination of this CSA.

(c) Provide for a waiver of all rights of subrogation which the Insuring Constructing Entity’s insurance carrier might exercise against the Insured Party.

11.4 No Limitation of Liability.

The requirements contained herein as to the types and limits of all insurance to be maintained by the Constructing Entities are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this CSA.

11.5 Self-Insurance.

Notwithstanding the foregoing, each Constructing Entity may self-insure to meet the minimum insurance requirements of this section to the extent it maintains a self-insurance program; provided that such Constructing Entity's senior secured debt is rated at investment grade or better by Standard & Poor's and its self-insurance program meets the minimum insurance requirements of this section 11. For any period of time that a Constructing Entity's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, it shall comply with the insurance requirements applicable to it under this section 11. In the event that a Constructing Entity is permitted to self-insure pursuant to this section, it shall notify the other Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in section 11.6 of this Appendix III.

11.6 Notices; Certificates of Insurance.

Prior to the commencement of work pursuant to this CSA, the Constructing Entities agree to furnish certificate(s) of insurance evidencing the insurance coverage obtained in accordance with section 11 of this Appendix III. All certificates of insurance shall indicate that the certificate holder is included as an additional insured under the Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability coverages, and that this insurance is primary with a waiver of subrogation in favor of the other Interconnected Entities. All policies of insurance shall provide for 30 days prior written notice of cancellation or material adverse change. If the policies of insurance do not or cannot be endorsed to provide 30 days prior written notice of cancellation or material adverse change, each Constructing Entity shall provide the other Constructing Entities with 30 days prior written notice of cancellation or material adverse change to any of the insurance required in this CSA.

11.7 Subcontractor Insurance.

In accord with Good Utility Practice, each Constructing Entity shall require each of its subcontractors to maintain and provide evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the subcontractor. Bonding of contractors or subcontractors shall be at the hiring Constructing Entity's discretion, but regardless of bonding, the Transmission Owner shall be responsible for the performance or non-performance of any contractor or subcontractor it hires.

11.8 Reporting Incidents.

The Parties shall report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this CSA.

12.0 Indemnity

12.1 Indemnity.

Each Constructing Entity shall indemnify and hold harmless the other Parties, and the other Parties' officers, shareholders, stakeholders, members, managers, representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property of persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with or resulting from: (i) the indemnifying Constructing Entity's breach of any of the representations or warranties made in, or failure of the indemnifying Constructing Entity or any of its subcontractors to perform any of its obligations under, this CSA; or (ii) the negligence or willful misconduct of the indemnifying Constructing Entity or its contractors; provided, however, that the neither Constructing Entity shall not have any indemnification obligations under this section in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the Party seeking indemnity.

12.2 Indemnity Procedures.

Promptly after receipt by a person entitled to indemnity ("Indemnified Person") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this section 12 may apply, the Indemnified Person shall notify the indemnifying Constructing Entity of such fact. Any failure of or delay in such notification shall not affect a Constructing Entity's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Constructing Entity. The Indemnified Person shall cooperate with the indemnifying Constructing Entity with respect to the matter for which indemnification is claimed. The indemnifying Constructing Entity shall have the right to assume the defense thereof with counsel designated by such indemnifying Constructing Entity and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying Constructing Entity and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying Constructing Entity, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying Constructing Entity shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying Constructing Entity. Notwithstanding the foregoing, the indemnifying Constructing Entity shall not: (i) be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity

of interest between the Indemnified Person and the indemnifying Constructing Entity, in such event the indemnifying Constructing Entity shall pay the reasonable expenses of the Indemnified Person; and (ii) settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

12.3 Indemnified Person.

If an Indemnified Person is entitled to indemnification under this section 12 as a result of a claim by a third party, and the indemnifying Constructing Entity fails, after notice and reasonable opportunity to proceed under this section 12, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying Constructing Entity contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

12.4 Amount Owing.

If the indemnifying Constructing Entity is obligated to indemnify and hold any Indemnified Person harmless under this section 12, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

12.5 Limitation on Damages.

Except as otherwise provided in this section 12, the liability of a Party shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any Party or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this section 12.5 are without regard to the cause or causes related thereto, including the negligence of any Party, whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any Party's rights to obtain equitable relief as otherwise provided in this CSA. The provisions of this section 12 shall survive the termination or expiration of this CSA.

12.6 Limitation of Liability in Event of Breach.

A Breaching Party shall have no liability hereunder to any other Party, and each other Party hereby releases the Breaching Party, for all claims or damages it incurs that are associated with any interruption in the availability of the Network Upgrades identified in Appendix I to this CSA, the Transmission System, or Transmission Service, or associated with damage to the Network Upgrades identified in Appendix I to this CSA, except to the extent such interruption or damage is caused by the Breaching Party's gross negligence or willful misconduct in the performance of its obligations under this CSA.

12.7 Limited Liability in Emergency Conditions.

Except as otherwise provided in the PJM Tariff or the Operating Agreement, no Party shall be liable to any other Party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or the Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Developer Party shall be liable in the event that it fails to comply with any instructions of Transmission Provider or the Transmission Owner related to an Emergency Condition.

13.0 Breach, Cure and Default

13.1 Breach.

A Breach of this CSA shall include:

- (a) The failure to pay any amount when due;
- (b) The failure to comply with any material term or condition of this Appendix 2 or of the other portions of the CSA or any attachments or Schedule hereto, including but not limited to any material breach of a representation, warranty or covenant (other than in subsections (a) and (c)-(e) of this section) made in this Appendix 2;
- (c) Assignment of the CSA in a manner inconsistent with its terms;
- (d) Failure of an Interconnection Party to provide access rights, or an Interconnection Party's attempt to revoke or terminate access rights, that are provided under this Appendix 2; or
- (e) Failure of an Interconnection Party to provide information or data required to be determined under this Appendix 2 to another Interconnection Party for such other Interconnection Party to satisfy its obligations under this Appendix 2.

13.2 Continued Operation.

In the event of a Breach or Default by either Interconnected Entity, and subject to termination of this CSA under section 16 of this Appendix 2, the Interconnected Entities shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for Transmission Provider and the Transmission Owner to operate and maintain the Transmission System and the Transmission Owner Upgrades and for Developer Party to operate and maintain the Generating Facility or Merchant Transmission Facility and the Developer Party Interconnection Facilities, in a safe and reliable manner.

13.3 Notice of Breach.

An Interconnection 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 Interconnection 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 Developer Party, Transmission Provider or the Transmission Owner agree to provide notice of such Breach and in the same manner as its notice to Developer Party, to any Project Finance Entity provided that the Developer Party has provided the notifying Interconnection Party with notice of an assignment to such Project Finance

Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 21 of this Appendix 2.

13.4 Cure and Default.

An Interconnection Party that commits a Breach and does not take steps to cure the Breach pursuant to this section 13.4 is automatically in Default of this Appendix 2 and of the CSA, 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.

13.4.1 Cure of Breach.

13.4.1.1

Except for the event of Breach set forth in section 13.1(a) above, the Breaching Interconnection 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 Interconnection Parties. Such agreement shall not be unreasonably withheld.

13.4.1.2

In an event of Breach set forth in section 13.1(a), the Breaching Interconnection Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Interconnection Party is the Developer Party, and the Developer Party 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, Developer Party shall be in automatic Default and its project and this Agreement shall be deemed terminated and withdrawn.

13.5 Right to Compel Performance.

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting Interconnection Party shall be entitled to exercise such other rights and remedies as it may have in equity or at law. Subject to section 20.1, no remedy conferred by any provision of this Appendix 2 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.

14 Termination

14.1 Termination.

14.1.1 Upon Completion of Construction.

14.1.1.1 Conforming CSAs.

If this CSA is conforming and, therefore, is only reported to FERC on PJM's Electric Quarterly Report, it shall terminate upon the date Transmission Provider receives written notice, in a form acceptable to the Transmission Provider from the Transmission Owner that the following conditions have occurred: (i) completion of construction of all Transmission Owner Upgrades; (ii) if Developer Party exercised the Option to Build, transfer of title under section 5.5 of this Appendix 2; (iii) final payment of all Costs due and owing under this CSA; and (iv) if Developer Party exercised the Option to Build, delivery to the Transmission Owner of final "as-built" drawings of any Stand Alone Network Upgrades built by the Developer Party in accordance with section 3.2.3.2(a)(xi) of this Appendix 2.

14.1.1.2 Non-Conforming CSAs.

If this CSA is non-conforming and, therefore, has been filed with and accepted by FERC, it shall terminate upon (a) Transmission Provider receiving written notice, in a form acceptable to Transmission Provider, from Transmission Owner that the following conditions have occurred: (i) completion of construction of all Transmission Owner Upgrades; (ii) if Developer Party exercised the Option to Build, transfer of title under section 5.5 of this Appendix 2; (iii) final payment of all Costs due and owing under this CSA; and (iv) if Developer Party exercised the Option to Build, delivery to Transmission Owner of final "as-built" drawings of any Stand Alone Network built by Developer Party in accordance with section 3.2.3.2(a)(xi) of this CSA; and (b) the effective date of Transmission Provider's cancellation of the CSA in accordance with Commission rules and regulations. Transmission Provider shall serve the Transmission Owner and Developer Party with a copy of the notice of cancellation of any CSA in accordance with Commission rules and regulations.

14.1.2 Upon Default by Either Constructing Entity.

Either Constructing Entity may terminate its obligations hereunder in the event of a Default by the other Constructing Entity as defined in section 13.3 of this Appendix 2. Transmission Provider may terminate the CSA upon the Default of Developer Party of its obligations under this CSA or the applicable Generation Interconnection Agreement by providing Developer Party and the Transmission Owner prior written notice of termination

14.1.3 By Developer Party.

Subject to its payment of Cancellation Costs as explained in section 14.2 below, the Developer Party may be relieved of its obligations hereunder upon sixty days written notice to Transmission Provider and the Transmission Owner.

14.2 Cancellation by Developer Party.

14.2.1 Applicability.

The following provisions shall survive and shall apply in the event that Developer Party terminates the CSA pursuant to this section 14.2.

14.2.1.1 Cancellation Cost Responsibility upon Termination.

Upon the unilateral termination of the CSA by the Developer Party, the Developer Party shall be liable to pay to the Transmission Owner or Transmission Provider all Cancellation Costs in connection with Construction Service for the Developer Party pursuant to this CSA, including section 14.2.1.2 of this Appendix 2. Cancellation costs may include costs for Network Upgrades assigned to Developer Party, in accordance with the Tariff and as reflected in this CSA, that remain the responsibility of Developer Party under the Tariff. This shall include costs including, but not limited to, the costs for such Network Upgrades to the extent such cancellation would be a Material Modification, or would have an adverse effect or impose costs on other Developer Parties. In the event the Transmission Owner incurs Cancellation Costs, it shall provide the Transmission Provider, with a copy to the Developer Party, with a written demand for payment and with reasonable documentation of such Cancellation Costs. The Developer Party shall pay the Transmission Provider each bill for Cancellation Costs within 30 days after, as applicable, the Transmission Owner's or Transmission Provider's presentation to the Developer Party of written demand therefor, provided that such demand includes reasonable documentation of the Cancellation Costs that the invoicing party seeks to collect. Upon receipt of each of Developer Party's payments of such bills of the Transmission Owner, Transmission Provider shall reimburse the Transmission Owner for Cancellation Costs incurred by the latter.

14.2.1.2 Disposition of Facilities upon Termination.

Upon termination of the CSA by a Developer Party, Transmission Provider, after consulting with the Transmission Owner, may, at the sole cost and expense of the Developer Party, authorize the Transmission Owner to (a) cancel supplier and contractor orders and agreements entered into by the Transmission Owner to design, construct, install, operate, maintain and own the Transmission Owner Upgrades, provided, however, that Developer Party shall have the right to choose to take delivery of any equipment ordered by the Transmission Owner for which Transmission Provider otherwise would authorize cancellation of the purchase order; or (b) remove any Transmission Owner Upgrades built by the Transmission Owner or any Transmission Owner Stand Alone Network (only after title to the subject facilities has been transferred to the Transmission Owner) built by the Developer Party; or (c) partially or entirely complete the Transmission Owner Upgrades as necessary to preserve the integrity or reliability of the Transmission System, provided that Developer Party shall be entitled to receive any rights associated with such facilities and upgrades as determined in accordance with the CSA; or (d) undo any of the changes to the Transmission System that were made pursuant to this CSA. To the extent that the Developer Party has fully paid for equipment that is unused upon cancellation or which is removed pursuant to subsection (b) above, the Developer Party shall have the right to

take back title to such equipment; alternatively, in the event that the Developer Party does not wish to take back title, the Transmission Owner may elect to pay the Developer Party a mutually agreed amount to acquire and own such equipment.

14.2.2 Termination upon Default.

In the event that Developer Party exercises its right to terminate under section 14.1.2 of this Appendix 2, and notwithstanding any other provision of this CSA, the Developer Party shall be liable for payment of the Transmission Owner's Costs incurred up to the date of Developer Party's notice of termination pursuant to section 14.1.2 and the costs of completion of some or all of the Transmission Owner Transmission Owner Upgrades or specific unfinished portions thereof, and/or removal of any or all of such facilities which have been installed, to the extent that Transmission Provider determines such completion or removal to be required for the Transmission Provider and/or Transmission Owner to perform their respective obligations under the GIP of the Tariff or this CSA, provided, however, that Developer Party's payment of such costs shall be without prejudice to any remedies that otherwise may be available to it under this Appendix 2 for the Default of the Transmission Owner. Developer Party will also be subject to Cancellation Cost responsibility provisions of section 14.2.1.1 of this Appendix 2.

14.3 Survival of Rights.

Termination of this CSA or the applicable Generation Interconnection Agreement shall not relieve any Interconnection Party of any of its liabilities and obligations arising under this CSA or the applicable Generation Interconnection Agreement (including Appendix 2) prior to the date on which termination becomes effective, and each Interconnection Party may take whatever judicial or administrative actions it deems desirable or necessary to enforce its rights hereunder. Applicable provisions of this Appendix 2 will continue in effect after termination to the extent necessary to provide for final billings, billing adjustments, and the determination and enforcement of liability and indemnification obligations arising from events or acts that occurred while the CSA or the applicable Generation Interconnection Agreement was in effect.

15 Force Majeure

15.1 Notice.

A Construction Party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify each other Construction Party in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

15.2 Duration of Force Majeure.

A party shall not be considered to be in Default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other parties in writing as soon as reasonably possible after the occurrence of the cause relied upon. Those notices shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. Written notices given pursuant to this Article shall be acknowledged in writing as soon as reasonably possible. The party affected shall exercise Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance. The party affected has a continuing notice obligation to the other parties, and must update the particulars of the original Force Majeure notice and subsequent notices, in writing, as the particulars change. The affected party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such party shall resume performance and give prompt written notice thereof to the other parties.

15.3 Obligation to Make Payments.

Any Construction Party's obligation to make payments for services shall not be suspended by Force Majeure.

15.4 Definition of Force Majeure.

For the purposes of this section, an event of force majeure shall mean shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or any other cause beyond a party's control that, in any of the foregoing cases, by exercise of due diligence, such party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force majeure does not include (i) a failure of performance that is due to an affected party's own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected party

fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected party.

16.0 Confidentiality

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the other Party receiving the information that the information is confidential. If requested by any Party, the disclosing Party shall provide in writing the basis for asserting that the information referred to in this section warrants confidential treatment, and the requesting Party may disclose such writing to an appropriate Governmental Authority. Any Party shall be responsible for the costs associated with affording confidential treatment to its information.

16.1 Term.

During the term of this CSA, and for a period of three years after the termination of this CSA, except as otherwise provided in section 16 of this CSA, each Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by any Party.

16.2 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Party; (ii) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (iii) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party, after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (iv) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of this CSA; or (vi) is required, in accordance with section 16.7 of this Appendix III, to be disclosed to any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this CSA. Information designated as Confidential Information shall no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

16.3 Release of Confidential Information.

No Party shall disclose Confidential Information of another Party to any other person, except to its Affiliates (in accordance with FERC's Standards of Conduct requirements), subcontractors, employees, consultants or to parties who may be or considering providing financing to or equity participation in Developer Party on a need-to-know basis in connection with this CSA, unless such person has first been advised of the confidentiality provisions of this section and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party that provides Confidential Information of another Party to any person shall remain responsible for any release of Confidential Information in contravention of this section.

16.4 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that it discloses to any other Party. A Party's disclosure to another Party of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

16.5 No Warranties.

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to any other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

16.6 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as the Party uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under this CSA or to comply with Applicable Laws and Regulations.

16.7 Order of Disclosure.

If a Governmental Authority with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Party may seek an appropriate protective order, or waive compliance with the terms of this CSA. Notwithstanding the absence of a protective order, or agreement, or waiver, the Party subjected to the request or order may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

16.8 Termination of Construction Service Agreement.

Upon termination of this CSA for any reason, each Party shall, within 10 calendar days of receipt of a written request from another Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure and deletion certified in writing to the requesting Party) or to return to the requesting Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the requesting Party.

16.9 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this section 16. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this section, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed to be an exclusive remedy for the breach of this section, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, consequential, or punitive damages of any nature or kind resulting from or arising in connection with a Breach of any obligation under this section 16.

16.10 Disclosure to FERC or its Staff.

Notwithstanding anything in this section to the contrary, and pursuant to 18 C.F.R. § 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this CSA, the Party, shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. § 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this CSA prior to the release of the Confidential Information to FERC or its staff. A Party shall notify the other Parties when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

16.11 Non-Disclosure.

Subject to the exception noted above in section 16.10 of this Appendix III, no Party shall disclose Confidential Information of Party to any person not employed or retained by the disclosing Party, except to the extent disclosure is: (i) required by law; (ii) reasonably deemed by the disclosing Party to be required in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the Party that provided such Confidential Information, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this CSA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. Prior to any disclosures of another Party's Confidential Information under this subparagraph, the disclosing Party shall promptly notify the other Parties in writing and shall assert confidentiality and cooperate with the other Parties in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

16.12 Information in the Public Domain.

This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

16.13 Return or Destruction of Confidential Information.

If any Party provides any Confidential Information to another Party in the course of an audit or inspection, the providing Party may request the other Party to return or destroy such Confidential Information after the termination of the audit period and the resolution of all matters relating to that audit. Each Party shall make Reasonable Efforts to comply with any such requests for return or destruction within 10 days after receiving the request and shall certify in writing to the requesting Party that it has complied with such request.

17.0 Information Access And Audit Rights

17.1 Information Access.

Subject to Applicable Laws and Regulations, each Party shall make available to the other Parties information necessary: (i) to verify the Costs incurred by the other Party for which the requesting Party is responsible under this CSA and the PJM Tariff; and (ii) to carry out obligations and responsibilities under this CSA and the PJM Tariff. The Parties shall not use such information for purposes other than those set forth in this section 17 and to enforce their rights under this CSA and the PJM Tariff.

17.2 Reporting of Non-Force Majeure Events.

Each Party shall notify the other Parties when it becomes aware of its inability to comply with the provisions of this CSA for a reason other than an event of force majeure as defined in section 1.21 of Appendix 2 of this Attachment GG. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this section 17 shall not entitle the receiving Party to allege a cause of action for anticipatory breach of this CSA and the PJM Tariff.

17.3 Audit Rights.

Subject to the requirements of confidentiality of this CSA and the PJM Tariff, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent Party, to audit at its own expense the other Party's accounts and records pertaining to such Party's performance and/or satisfaction of obligations arising under this CSA and the PJM Tariff. Any audit authorized by this section 17 shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this CSA. Any request for audit shall be presented to the other Party not later than 24 months after the event as to which the audit is sought. Each Party shall preserve all records held by it for the duration of the audit period.

17.4 Waiver.

Any waiver at any time by any Party of its rights with respect to a Breach or Default under this CSA, or with respect to any other matters arising in connection with this CSA, shall not be deemed a waiver or continuing waiver with respect to any other Breach or Default or other matter.

17.5 Amendments and Rights Under the Federal Power Act.

Except as set forth in this section 17, this CSA may be amended, modified, or supplemented only by written agreement of the Parties. Such amendment shall become effective and a part of this CSA upon satisfaction of all Applicable Laws and Regulations.

Notwithstanding the foregoing, nothing contained in this CSA shall be construed as affecting in any way any of the rights of any Party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this CSA shall be amended, as mutually agreed by the Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

17.6 Regulatory Requirements.

Each Party's performance of any obligation under this CSA for which such Party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

18.0 Representations and Warranties

18.1 General.

Each Constructing Entity hereby represents, warrants and covenants as follows, with these representations, warranties, and covenants effective as to the Constructing Entity during the full time this CSA is effective:

18.1.1 Good Standing.

Such Constructing Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated.

18.1.2 Authority.

Such Constructing Entity has the right, power and authority to enter into this CSA, to become a Party thereto and to perform its obligations thereunder. This CSA is a legal, valid and binding obligation of such Constructing Entity, enforceable against such Constructing Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

18.1.3 No Conflict.

The execution, delivery and performance of this CSA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Constructing Entity, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Constructing Entity or any of its assets.

19.0 Inspection and Testing of Completed Facilities

19.1 Coordination.

Developer Party and the Transmission Owner shall coordinate the timing and schedule of all inspection and testing of the Network Upgrades, identified in Appendix I to this CSA.

19.2 Inspection and Testing.

Each Constructing Entity shall cause inspection and testing of any Network Upgrades that it constructs in accordance with the provisions of this section. The Parties 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 Constructing Entity is building.

19.2.1 Of Developer Party-Built Facilities.

Upon the completion of the construction and installation, but prior to energization, of any Network Upgrades constructed by the Developer Party 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.

19.2.2 Of Transmission Owner-Built Facilities.

Upon the completion of the construction and installation, but prior to energization, of any Network 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 Developer Party and Transmission Provider shall have the right to attend and observe, and to obtain the written results of, such testing.

19.3 Review of Inspection and Testing by Transmission Owner.

In the event that the written report, or the observation of either Constructing Entity or Transmission Provider, of the inspection and/or testing pursuant to section 19.2 of this Appendix III reasonably leads the Transmission Provider or Transmission Owner to believe that the inspection and/or testing of some or all of the Network Upgrades built by the Developer Party 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 Developer Party, perform its own inspection and/or testing of such Network Upgrades to determine whether the facilities are acceptable for energization, which determination shall not be unreasonably delayed, withheld or conditioned.

19.4 Notification and Correction of Defects.

19.4.1 If the Transmission Owner, based on inspection or testing pursuant to section 19.2 or 19.3 of this Appendix III, identifies any defects or failures to comply with Applicable Standards in the Network Upgrades constructed by the Developer Party, the Transmission Owner shall notify the Developer Party 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 Developer Party 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.

19.4.2 In the event that inspection and/or testing of any Network 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.

19.5 Notification of Results.

Within 10 days after satisfactory inspection and/or testing of Network Upgrades built by the Developer Party (including, if applicable, inspection and/or testing after correction of defects or failures), the Transmission Owner shall confirm in writing to the Developer Party and Transmission Provider that the successfully inspected and tested facilities are acceptable for energization.

20.0 Energization of Completed Facilities

(A) Unless otherwise provided in the Schedule of Work, energization, when applicable as determined by Transmission Provider, of the Network Upgrades, identified in Appendix I to this CSA, shall occur in two stages. Stage One energization may occur prior to initial energization of the Network Upgrades. Stage Two energization shall consist of energization of the remainder of the Network Upgrades, identified in Appendix I, to the CSA.

(B) In the case of Network Upgrades for which the Transmission Provider determines that two-stage energization is inapplicable, energization shall occur in a single stage. Such a single-stage energization shall be regarded as Stage Two energization for the purposes of the remaining provisions of this section 20.0 and of section 22.0 of this Appendix III.

20.1 Stage One energization may not occur prior to the satisfaction of the following additional conditions:

(a) The Developer Party shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Stand Alone Network Upgrades that Developer Party has constructed; and

(b) The Developer Party shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Stand Alone Network Upgrades that Developer Party has constructed.

20.2 As soon as practicable after the satisfaction of the conditions for Stage One energization specified in sections 19 and 20.1 of this Appendix III, the Transmission Owner and the Developer Party shall coordinate and undertake the Stage One energization of facilities.

20.3 Stage Two energization of the remainder of the Network Upgrades, identified in Appendix I to this CSA, may not occur prior to the satisfaction of the following additional conditions:

(a) The Developer Party shall have delivered to the Transmission Owner and Transmission Provider a writing transferring to the Transmission Owner and Transmission Provider operational control over any Network Upgrades that Developer Party has constructed and operational control of which it has not previously transferred pursuant to section 20.1 of this Appendix III; and

(b) The Developer Party shall have provided a mark-up of construction drawings to the Transmission Owner to show the “as-built” condition of all Network Upgrades that Developer Party has constructed and which were not included in the Stage One energization, but are included in the Stage Two energization.

20.4 As soon as practicable after the satisfaction of the conditions for Stage Two energization specified in sections 19 and 20.3 of this Appendix III, the Transmission Owner and the Developer Party shall coordinate and undertake the Stage Two energization of facilities.

20.5 To the extent defects in any Network 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 Network 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 Network Upgrades in accordance with section 20.0 of this Appendix III; 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 19 of this Appendix III.

21.0 Transmission Owner's Acceptance of Facilities Constructed by Developer Party

Within five days after determining that Network Upgrades have been successfully energized, the Transmission Owner shall issue a written notice to the Developer Party accepting the Network Upgrades built by the Developer Party 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 Network Upgrades built by the Developer Party, or their compliance with Applicable Standards.

22.0 Transfer of Title to Certain Facilities Constructed by Developer Party

Within 30 days after the Developer Party's receipt of notice of acceptance under section 21.0 of this Appendix III following Stage Two energization of the Network Upgrades, the Developer Party shall deliver to the Transmission Owner, for the Transmission Owner's review and approval, all of the documents and filings necessary to transfer to the Transmission Owner title to any Network Upgrades constructed by the Developer Party, and to convey to the Transmission Owner any easements and other land rights to be granted by Developer Party that have not then already been conveyed. The Transmission Owner shall review and approve such documentation, such approval not to be unreasonably withheld, delayed, or conditioned. Within 30 days after its receipt of the Transmission Owner's written notice of approval of the documentation, the Developer Party, in coordination and consultation with the Transmission Owner, shall make any necessary filings at the FERC or other governmental agencies for regulatory approval of the transfer of title. Within 20 days after the issuance of the last order granting a necessary regulatory approval becomes final (i.e., is no longer subject to rehearing), the Developer Party shall execute all necessary documentation and shall make all necessary filings to record and perfect the Transmission Owner's title in such facilities and in the easements and other land rights to be conveyed to the Transmission Owner. Prior to such transfer to the Transmission Owner of title to the Network Upgrades built by the Developer Party, the risk of loss or damages to, or in connection with, such facilities shall remain with the Developer Party. Transfer of title to facilities under this section shall not affect the Developer Party's receipt or use of the rights related to the Network Upgrades for which it otherwise may be eligible as provided in Subpart C of Part VI of the Tariff.

23.0 Liens

The Developer Party shall take all reasonable steps to ensure that, at the time of transfer of title in the Network Upgrades built by the Developer Party to the Transmission Owner, those facilities shall be free and clear of any and all liens and encumbrances, including mechanics' liens. To the extent that the Developer Party cannot reasonably clear a lien or encumbrance prior to the time for transferring title to the Transmission Owner, Developer Party shall nevertheless convey title subject to the lien or encumbrance and shall indemnify, defend and hold harmless the Transmission Owner against any and all claims, costs, damages, liabilities and expenses (including without limitation reasonable attorneys' fees) which may be brought or imposed against or incurred by Transmission Owner by reason of any such lien or encumbrance or its discharge.

24.0 Charges

24.1 Specified Charges.

If and to the extent required by the Transmission Owner, after the Initial Operation of the Network Upgrade, Project Developer shall pay one or more of the types of recurring charges described in this section to compensate the Transmission Owner for costs incurred in performing certain of its obligations under this Appendix III. Transmission Provider will deliver a copy of such filing to Project Developer. Permissible charges under this section may include:

(a) Administration Charge - Any such charge may recover only the costs and expenses incurred by the Transmission Owner in connection with administrative obligations such as the preparation of bills. An Administration Charge shall not be permitted to the extent that the Transmission Owner's other charges to the Project Developer under the same CSA include an allocation of the Transmission Owner's administrative and general expenses and/or other corporate overhead costs.

(b) Network Upgrade Operations and Maintenance Charge - Any such charge may recover only the Transmission Owner's costs and expenses associated with operation and maintenance charges related to the Project Developer's Network Upgrade owned by the Transmission Owner.

(c) Other Charges - Any other charges applicable to the Project Developer, as mutually agreed upon by the Project Developer and the Transmission Owner and as accepted by the FERC as part of a CSA.

24.2 FERC Filings.

To the extent required by law or regulation, each Party shall seek FERC acceptance or approval of its respective charges or the methodology for the calculation of such charges.

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