

DRAFT – DATED JULY 19, 2017
COMPARISON OF TWO VERSIONS OF PSEUDO-TIE AGREEMENT

Service Agreement No. []

ATTACHMENT ~~MM~~ NN

**FORM OF PSEUDO-TIE AGREEMENT
FOR GENERATOR PSEUDO-TIES INTO THE PJM REGION
WHEN ~~NO~~ JOINT OPERATING AGREEMENT ADDRESSES PSEUDO-TIE
OPERATION AND IMPLEMENTATION**

By and Among
PJM Interconnection, L.L.C.
And
~~[Name of Native Balancing Authority]~~
And
[Name of Company]
[Use as/when applicable:
And
[Name of Native Transmission Operator]
And
[Name of Native Reliability Coordinator]
And
[Name of Third Party Reliability Coordinator]
And
[Name of Additional Third Party Reliability Coordinator]

This Pseudo-Tie Agreement (“Agreement”) including the Specifications and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization, Reliability Coordinator, and Balancing Authority for the PJM Region (hereinafter “PJM” or “PJM Balancing Authority”), ~~Native Balancing Authority~~ **[OPTIONAL: or “[short name”]]**, [_____] (“Native Transmission Operator”), [_____] (“Native Reliability Coordinator”) [_____] (“Third Party Reliability Coordinator”) [_____] (“Additional Third Party Reliability Coordinator”) and [_____] (“Company” **[OPTIONAL: or “[short name”]]**). **[Use as/when applicable:** This Agreement supersedes the _____ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}] Company, ~~Native Balancing Authority, Native Transmission Operator,~~ ~~Native Reliability Coordinator,~~ ~~Third Party Reliability Coordinator,~~ ~~Additional Third Party Reliability Coordinator,~~ and PJM are hereinafter referred to individually as a “Party” and collectively as the “Parties.”

WHEREAS, the Company owns, operates or has contractual authority to control the output of _____ megawatts (“MW”) of capacity, energy and/or ancillary services of [a] generating unit(s), known as **[insert name of generating unit(s)]**, that generate[s] energy and ancillary services, which [is] [are] located outside of the physical and electrical boundaries of the PJM Balancing Authority Area at **[insert address]**, and desires to Pseudo-

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Tie _____ MW of the energy and ancillary services of that generating unit (the “Facility”) into the PJM Balancing Authority Area and participate in the PJM Interchange Energy Markets and capacity market (either through the Reliability Pricing Model or Fixed Resource Requirement Alternative) as a Capacity Market Seller of the Facility;

WHEREAS, ~~the Native Balancing Authority~~ _____ is a North American Electric Reliability Corporation (“NERC”) certified and registered Balancing Authority, as that term is defined in the NERC Glossary of Terms, and is the Native Balancing Authority, as that term is defined in the NERC Glossary of Terms (“Native Balancing Authority”), responsible for balance and interconnection frequency support within its Balancing Authority Area, as that term is defined in the NERC Glossary of Terms;

WHEREAS, PJM is a NERC certified and registered Balancing Authority responsible for balance and interconnection frequency support within the PJM Balancing Authority Area;

[Include the following when applicable for each generating unit comprising the Facility:

[WHEREAS, the Facility is comprised of only a portion of the MW of energy and ancillary service of the **[insert name of generating unit]** such that the first _____ MW of energy and ancillary service dispatched from that unit shall remain with the Native Balancing Authority Area and not subject to the Pseudo-Tie of the Facility, and the remaining _____ MW of energy and ancillary service dispatched from the unit will be electrically moved into the PJM Balancing Authority Area and be dedicated to the Pseudo-Tie of the Facility;]

[WHEREAS, the Facility is comprised of only a portion of the installed capacity of the **[insert name of generating unit]** such that _____ percent of the installed capacity of that unit shall remain with the Native Balancing Authority Area and not subject to the Pseudo-Tie of the Facility, and the remaining _____ percent of the installed capacity of the unit will be electrically moved into the PJM Balancing Authority Area and be dedicated to the Pseudo-Tie of the Facility;]

WHEREAS, Company is a PJM Member and meets all of the PJM qualifications in order to operate the Facility in the PJM Region;

WHEREAS, Company represents the generator or load serving entity registered with the PJM Balancing Authority and meeting all of the qualifications of the PJM Balancing Authority in order to operate in the PJM Region and abiding by all applicable rules in the PJM Governing Documents (as defined below);

[Include the following when applicable:

WHEREAS, Native Transmission Operator is the entity that operates or directs operations for the reliability of the “local” transmission system where the Facility is physically located and electrically connected;

WHEREAS, Native Reliability Coordinator is the entity that is responsible for Reliable Operation of the Bulk Electric System, as those terms are defined in the NERC Glossary of

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Terms, where the Facility is physically located and electrically connected;

WHEREAS, Third Party Reliability Coordinator is the [first] affected entity impacted by flows resulting from the operation of the Facility sourcing from the Native Balancing Authority before it reaches the PJM Balancing Authority;

WHEREAS, Additional Third Party Reliability Coordinator is the second affected entity impacted by flows resulting from operation of the Facility sourcing from the Native Balancing Authority before it reaches the PJM Balancing Authority;]

WHEREAS, Native Balancing Authority and PJM Balancing Authority have a joint operating agreement that includes mutually agreeable provisions concerning the operation and implementation of Pseudo-Ties as between their respective Balancing Authority Areas;

WHEREAS, by virtue of acknowledging the Pseudo-Tie of the Facility that is or will be registered in the North America Energy Standards Board (“NAESB”) registry as the effective date of this Agreement, and pursuant to the terms and conditions of its joint operating agreement with the PJM Balancing Authority, the Native Balancing Authority has agreed to facilitate the electrical transfer of generation, and balancing area oversight of the Facility from the Native Balancing Authority into the PJM Region by the Company to the PJM Balancing Authority as defined below;

~~WHEREAS, Native Balancing Authority and PJM Balancing Authority do not have a joint operating agreement that addresses the operation and implementation of Pseudo-Ties as between their respective Balancing Authority Areas;~~

[Include the following if Native Balancing Authority has *not* executed a congestion management agreement with PJM Balancing Authority:

WHEREAS, Native Balancing Authority has not executed an interregional coordination agreement with the PJM Balancing Authority incorporating mutually agreeable congestion management and coordination procedure provisions;]

[Include the following if Native Balancing Authority has executed a congestion management agreement with PJM Balancing Authority:

WHEREAS, Native Balancing Authority has executed an interregional coordination agreement with the PJM Balancing Authority incorporating mutually agreeable congestion management and coordination procedure provisions;]

WHEREAS, the PJM Balancing Authority has agreed to accept the electrical transfer of generation into the PJM Region by the Company from the Native Balancing Authority, and control area oversight from the Native Balancing Authority;

WHEREAS, in order to facilitate the foregoing, the Company desires to establish a new Pseudo-Tie electrical interconnection point for the electrical movement of some or all of

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the capacity, energy and ancillary services of the Facility from the Native Balancing Authority into the PJM Balancing Authority (the “Pseudo-Tie Point”) on the terms and conditions set forth in this Agreement;

WHEREAS, the Parties agree that the Facility is non-recallable to the extent it is pseudo-tied into PJM and is committed to PJM as a Generation Capacity Resource for a Delivery Year to ensure that the Facility will not be directed to serve load in the Native Balancing Authority Area at a time when the PJM Balancing Authority Area requires the output of the Facility, except during a local transmission reliability emergency per NERC Standards IRO-001-4 and TOP-001-3 and their respective successors; and

WHEREAS, all capitalized terms that are not otherwise defined herein have the meaning as defined in the PJM Open Access Transmission Tariff (“PJM Tariff”), Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“PJM Operating Agreement”), Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”), as may be amended from time to time, and in the PJM Manuals if not defined in the PJM Tariff, PJM Operating Agreement or RAA (collectively, “PJM Governing Documents”).

NOW THEREFORE, in consideration of the mutual covenants and agreements in this Agreement and of other good and valuable consideration, the sufficiency and adequacy of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. Creation of Pseudo-Tie Point. The physical location at which a Facility is electrically interconnected with the [Native Balancing Authority] [Native Transmission Operator] for the purpose of delivering up to ____ megawatts (“MW”) of capacity, energy and/or ancillary service, as applicable, between the Facility and the PJM Balancing Authority pursuant to this Agreement, shall be a Pseudo-Tie Point. From and after the effective date hereof, any energy delivered from or consumed by the Facility at the Pseudo-Tie Point shall, as among the Native Balancing Authority and PJM Balancing Authority, be included in the Balancing Authority Actual Net Interchange (“ANI”), as defined in the NERC Glossary of Terms, between the Native Balancing Authority and the PJM Balancing Authority whether or not, at the time of delivery or consumption of such energy, the metering, data processing, telemetry and other equipment associated with the Pseudo-Tie Point is properly functioning. Neither the PJM Balancing Authority nor the Native Balancing Authority will take title to any energy delivered from or consumed by the Facility at the Pseudo-Tie Point. As necessary the Parties will work cooperatively with Native Balancing Authority to cause any energy delivered from or consumed by the Facility at the Pseudo-Tie Point to be treated as a Balancing Authority ANI between the Native Balancing Authority and the PJM Balancing Authority.

2. Implementation. The Pseudo-Tie of the Facility established under this Agreement shall be implemented and operated in accordance with this Agreement and the applicable provisions of the PJM Governing Documents. Each Party shall design, construct, operate, implement and maintain the equipment according to NERC and ~~North America Energy Standards Board~~ (“NAESB”) standards for which it is responsible under this Agreement and otherwise, and shall take all other actions required of it, to create and have the Pseudo-Tie MW value recognized by the PJM Balancing Authority and Native Balancing Authority as an ANI

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between the Native Balancing Authority and the PJM Balancing Authority. Native Balancing Authority shall recognize the Pseudo-Tie Point as ANI between it and the PJM Balancing Authority for the purpose of allowing the Facility to be treated as having been electrically moved out of the Native Balancing Authority Area and into the PJM Balancing Authority Area. A basic block diagram of the communications equipment required for the Pseudo-Tie Point is set forth in Appendix 1. As among ~~the Parties~~PJM and Company:

(a) This Agreement does not provide for the reservation or sale of transmission service under the PJM Tariff or on any other transmission system or address rates, terms or conditions of transmission service or indicate in any way that transmission service is available or properly awarded. Company shall secure and pay for all cost associated with transmission service, across all transmission service providers necessary to deliver or consume power from the Facility to the interface with the PJM Balancing Authority or to the interface with the Native Balancing Authority.

(b) In order to Pseudo-Tie the Facility into the PJM Region, the Company shall secure long-term firm Point-to-Point Transmission Service or the equivalent thereof, as required by the PJM Governing Documents, from where it is physically located in the Native Balancing Authority Area through the path to the interface with the PJM Balancing Authority, and maintain such transmission service, sufficient to deliver ___ MW of capacity, ___ MW of energy and ___ MW of ancillary service for the term of this Agreement. PJM shall confirm that the appropriate transmission service reservations are in place and maintained prior to allowing the electrical movement of the Facility out of the Native Balancing Authority Area and into the PJM Balancing Authority Area. Failure to maintain the required transmission service shall constitute a violation of the PJM Governing Documents pertaining to Capacity Resources and a breach of this Agreement.

(c) Nothing in this Agreement makes Company a Market Participant under the PJM Governing Documents. **[Include the following if Company is not already a Market Participant:** If Company seeks to become a Market Participant, Company is solely responsible for satisfying all requirements as set forth for a Market Participant in the PJM Governing Documents to become a Market Participant.]

(d) PJM, in accordance with the PJM Governing Documents, will provide the Company commitment and dispatch instructions for participation in the PJM Interchange Energy Markets consistent with such instructions issued to other registered Capacity Resources. PJM and Native Balancing Authority will also provide data concerning its dispatch decisions for the Facility to each other solely for use for their operational planning analyses, pursuant to the terms of their joint operating agreement or applicable operating guide.

(e) Company shall design, construct, operate and maintain real-time and historical systems and communications equipment in accordance with the PJM

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Governing Documents, at Company's expense, in order to (1) receive PJM dispatch instructions, and (2) provide the Native Balancing Authority and the PJM Balancing Authority with the corresponding real-time Pseudo-Tie value. Company's systems shall provide this signal to the PJM Balancing Authority per the PJM Balancing Authority's Inter-Control Center Communications Protocol standards, and to the Native Balancing Authority in a manner mutually agreed to between the Native Balancing Authority and the Company.

(f) For generators pseudo-tying from a Native Balancing Authority that operates wholesale electricity markets, the real time Pseudo-Tie MW value will be equal to the real-time telemetered generator output received by PJM from the Company. For generators pseudo-tying from a Native Balancing Authority that does not operate wholesale electricity markets, the real time Pseudo-Tie MW value will be equal to the telemetered output of the generator minus the losses on the Native Balancing Authority's or other transmission provider's transmission system. Losses shall be handled as indicated in Article 3 and Appendix 2 of this Agreement. The Company shall simultaneously provide this value to the Native Balancing Authority.

(g) The Native Balancing Authority and the PJM Balancing Authority will include the real time Pseudo-Tie value in their respective calculations of ANI and Area Control Error ("ACE"), as those terms are defined in the NERC Glossary of Terms, and hereby agree that the PJM Balancing Authority shall have operational control of the Facility while this Agreement is in effect.

(h) Company shall notify Parties of any real-time circumstances that affect the Company's obligation or ability to meet the PJM dispatch instructions or Native Balancing Authority instructions.

(i) The Native Balancing Authority and the PJM Balancing Authority shall integrate the real time Pseudo-Tie MW value on a five minute basis, or such other agreed upon interval, and maintain this information for balancing authority checkout, inadvertent energy flow calculations and payback purposes in accordance with the applicable NERC standards, [pursuant to the terms of their joint operating agreement](#). It is the responsibility of the Native Balancing Authority to checkout these five minute or other agreed upon interval integrated values with the Company prior to the Native Balancing Authority's final daily check out with the PJM Balancing Authority.

(j) The technical characteristics of the Pseudo-Tie of the Facility are set forth in this Agreement, including Appendix 2 appended hereto.

(k) The Pseudo-Tie of the Facility is or will be registered in the NAESB (or successor) registry as of the effective date of this Agreement.

(l) The Native Balancing Authority, [native Reliability Coordinator, as that

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term is defined in the NERC Glossary of Terms,] [Native Reliability Coordinator], [native Transmission Operator, as that term is defined in the NERC Glossary of Terms,] [Native Transmission Operator], or combination thereof, shall have the right to direct that the amount of energy utilizing the Pseudo-Tie of the Facility be adjusted for local transmission reliability concerns, and shall be responsible for mitigating the transmission related congestion on the transmission system where the Facility is connected. All of the procedures associated with adjusting the energy output of the Facility for local transmission reliability concerns will conform to the direction of the [native Reliability Coordinator] [Native Reliability Coordinator].

(m) PJM, as the Reliability Coordinator for the PJM Balancing Authority, under normal operating conditions, shall be responsible for the capacity, energy and dispatch of the MW dedicated to the Pseudo-Tie of the Facility that is the subject of this Agreement.

(n) The Company shall obtain station service for the Facility in accordance with the rules of the Native Balancing Authority.

(o) The Pseudo-Tie of the Facility shall be implemented and operated consistent with all applicable NERC Standards, including but not limited to INT-004-3.1, IRO-001-4 and TOP-001-3 and their respective successors.

[Include the following when applicable:

For Pseudo-Tie of Facility's Output Above Threshold Value:

(p) If the Facility is comprised of only a portion of the MW of energy and ancillary service of the Company's _____ unit such that not all of the MW of energy and ancillary service dispatched from that unit will be electrically moved into the PJM Balancing Authority Area and be dedicated to the Pseudo-Tie of the Facility, and some of the MW of energy and ancillary service will remain within the Native Balancing Authority Area and not subject to the Pseudo-Tie of the Facility, the Company, ~~Native Balancing Authority~~ and PJM Balancing Authority agree that the first ___ MW dispatched from that unit shall remain with the Native Balancing Authority Area, and the remaining MW of energy and ancillary service shall be dedicated to the Pseudo-Tie of the Facility. The Company shall be required to obtain Native Balancing Authority's agreement for this partial Pseudo-Tie option before PJM will approve it or implement it.

OR

For Pseudo-Tie of Percent of Facility's Output:

(p) If the Facility is comprised of only a portion of the MW of energy and ancillary service of the Company's _____ unit such that not all of the MW of

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energy and ancillary service dispatched from that unit will be electrically moved into the PJM Balancing Authority Area and be dedicated to the Pseudo-Tie of the Facility, and some of the MW of energy and ancillary service will remain within the Native Balancing Authority Area and not subject to the Pseudo-Tie of the Facility, the Company, ~~Native Balancing Authority~~ and PJM Balancing Authority agree that ___ percent of the installed capacity of that unit shall be dedicated to the Pseudo-Tie of the Facility. The Company shall be required to obtain Native Balancing Authority's agreement for this partial Pseudo-Tie option before PJM will approve it or implement it.

3. Losses. Company will be responsible for loss compensation to deliver its energy to or receive its energy from the PJM Balancing Authority. Pseudo-tie value(s) will be calculated net of losses external to PJM. Losses within the PJM Balancing Authority attributable to the Company's participation in the PJM Interchange Energy Markets and capacity market shall be handled in the same manner as other PJM Interchange Energy Markets and capacity market transactions per the PJM Governing Documents.

4. Compensation. The PJM Balancing Authority shall not be responsible for compensating the Native Balancing Authority for its reasonable implementation and operations related costs incurred to accommodate the Pseudo-Tie under this Agreement, if any. Responsibility for the payment of any such costs shall be as agreed upon between Company and Native Balancing Authority.

5. Operating and Maintenance Costs. The Company shall be responsible for all of its costs incurred for the purpose of meeting its obligations under this Agreement.

6. Operation and Modeling Requirements. The use of this Pseudo-Tie of the Facility as between Native Balancing Authority and Company shall be modeled by the PJM Balancing Authority in accordance with established practices and requirements of all impacted Parties, as well as Good Utility Practice.

7. Congestion Management Requirements. In order to capture Facility impacts, ~~neither the Native Balancing Authority or any~~ Party shall tag or request to tag the scheduled energy flows from a Generation Capacity Resource that utilize the Pseudo-Tie because 1) PJM operated Generation Capacity Resources that are Pseudo-Ties cannot be subject to NERC Interchange Distribution Calculator ("IDC") tag curtailments per the PJM Reliability Assurance Agreement; and 2) information about the Pseudo-Tie of the Facility is included in a congestion management procedure via an alternate method as described in NERC Standard INT-004-3.1. PJM shall include the Facility impacts in its Market Flow calculation consistent with any applicable Federal Energy Regulatory Commission ("Commission")-approved congestion management agreement to which PJM is a party. **[Include the following for any Pseudo-Tie for which Native Balancing Authority/Native Reliability Coordinator/Native Transmission Operator has not executed a congestion management agreement:** Because [Insert Party Name(s)] [is not a signatory] [are not signatories] to a congestion management agreement, [it] [they] hereby agree[s] and [is] [are] required to 1) waive the NERC tagging requirement for Generation Capacity Resources that utilize the Pseudo-Tie of the Facility, 2) agree to control

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Facility impacts via the NERC IDC re-dispatch process, 3) honor firm delivery transfer status via third party firm flow limit calculation procedures pursuant to the same congestion management procedure (“Congestion Management Process”) provisions included in the Joint Operating Agreement Between the Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C., and 4) recognize Facility impacts via Market Flow calculations described in the Congestion Management Process, which Market Flows will be reported to NERC IDC. PJM will utilize its Day-ahead Security Constrained Economic Dispatch (DA SCED) to establish firm flow limits.] Generator real power output of, and management thereof, for the Facility is considered within the PJM Balancing Authority Area for all purposes of application, implementation, and execution of NERC Reliability Standards requirements for the duration of this Agreement.

8. Establishment of Coordinated Flowgates. Coordinated Flowgates, as that term is defined in the applicable Commission-approved congestion management agreement to which PJM is a party, will be established based on the terms of that agreement. **[Include the following for any Pseudo-Tie for which Native Balancing Authority/Native Reliability Coordinator/Native Transmission Operator has *not* executed a congestion management agreement:** Because [Insert Party Name(s)] [is not a signatory] [are not signatories] to a congestion management agreement, [it’s] [their] coordinated flowgates will be established based on the Congestion Management Process Coordinated Flowgate criterion.]

9. Contingency Operational Requirements. If the Pseudo-Tie signal is lost or determined to be unacceptable, or the telemetry from the Facility is lost or determined to be unacceptable, pursuant to Native Balancing Authority’s and PJM Balancing Authority’s applicable tariff provisions and business rules and any applicable NERC Standard, operation of the Pseudo-Tie of the Facility will only continue under the following procedure:

- (a) Native Balancing Authority or PJM will notify Company of the failure, [pursuant to the terms of their joint operating agreement or applicable operating guide.](#)
- (b) Native Balancing Authority and PJM will hold the last known accurate Pseudo-Tie MW value on the Pseudo-Tie of the Facility until it is determined to be inaccurate or a more accurate value is provided by Company, [pursuant to the terms of their joint operating agreement or applicable operating guide.](#)
- (c) It is the responsibility of the Company to verbally communicate changes in the real-time Pseudo-Tie MW values to the other Parties [and Native Balancing Authority.](#)
- (d) Changes to the manually-updated Pseudo-Tie MW value cannot occur more frequently than once per hour unless otherwise mutually agreed upon by Company, PJM Balancing Authority and Native Balancing Authority.
- (e) To the extent possible, the Party maintaining the failed telemetry will provide a reasonable estimate of anticipated time of restoration. [If the failed telemetry is being maintained by the Native Balancing Authority, Company shall](#)

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be responsible to obtain the estimate of anticipated time of restoration from the Native Balancing Authority and provide that information to the other Parties.

(f) If the primary data source is not restored within twenty-four (24) hours, Company, PJM Balancing Authority, and Native Balancing Authority must agree on a plan to restore an acceptable data source for the Pseudo-Tie to continue operating.

In the event of a planned or unplanned outage of the Facility or local transmission system that would disrupt the Pseudo-Tie of the Facility, then Company shall notify PJM and Native Balancing Authority of the outage per their applicable tariff and business rules.

10. Other Obligations. Nothing in this Agreement is intended to modify or change any obligations or rights under any tariff (including the PJM Tariff, PJM Operating Agreement and RAA), any rate schedule, or any other contract. This Agreement does not establish any generation as a designated network resource under the Tariff; the requirements of the Tariff still must be satisfied. Nothing in this Agreement affects Company's rights or obligations as a Market Participant. The Parties will comply with, and be subject to, all applicable provisions of the PJM Governing Documents and any applicable Joint Operating Agreement between PJM and the Native Balancing Authority, to the extent applicable to that particular Party, which provisions shall be deemed to be incorporated herein. The intent of the Parties is that the use of the referenced Pseudo-Tie of the Facility will not negatively impact a Balancing Authority's reliability or performance expectations as defined by NERC.

11. Modification. Nothing in this Agreement is intended to modify or limit, nor shall be construed as affecting in any way, the right of PJM to submit to the Commission under Federal Power Act section 205 or section 206 unilateral changes to this Agreement or make application for a change in rates, terms and conditions, charges, classification of service, rule or regulation (both the form Agreement and any signed agreement), the right of any other Party to seek unilateral changes under this Agreement under Federal Power Act section 206, or the authority of the Commission to accept any Federal Power Act section 205 filing or to make changes under Federal Power Act section 206 or to initiate proceedings under Federal Power Act section 206. Nothing in this Agreement supersedes, modifies or changes any of the express provisions of the PJM Governing Documents, and in the event of any conflict, the provisions of the PJM Governing Documents shall control.

12. Auditing. Each Party reserves the right to audit records necessary to permit evaluation and verification of claims submitted, and the other Party's compliance with this Agreement. The Parties shall retain for a period of seven (7) years all information and records relating to the performance of this Agreement. Each Party may examine and copy such information and records at the other Party's premises during regular business hours and upon advance written notice given no less than fifteen (15) calendar days prior to such examination.

13. Disputes. Any disputes under this Agreement shall first be resolved pursuant to the PJM Dispute Resolution Procedures set forth in PJM Tariff, section 12. Any disputes that remain unresolved after completing the PJM Dispute Resolution Procedures may be brought

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to the Commission for resolution.

14. Breach. If any Party breaches the terms of this Agreement, then a non-breaching Party may seek to suspend this Agreement in accordance with section 17, terminate this Agreement in accordance with section 18, or pursue any relief it believes is appropriate at the Commission. A breach is considered a substantive violation of any term or condition of this Agreement. Prior to pursuing a remedy at the Commission for a breach, a non-breaching Party shall provide five (5) Business Days' written notice of the breach to the breaching Party. If the breaching Party does not eliminate the breach within five (5) Business Days after the notice is received by the breaching Party, then the non-breaching Party may pursue its remedies at the Commission; provided, however, that such cure period may be extended, if agreed to by all Parties, if the breaching party cannot eliminate the breach within five (5) Business Days despite its best efforts.

15. Commission Filing. If unchanged, a signed version of this form agreement shall not be filed with the Commission. PJM will report the existence of a signed agreement in its quarterly reports to the Commission. If the form agreement is substantively changed, then PJM shall file on behalf of itself, Company and Native Balancing Authority as a service schedule under the Tariff within thirty (30) days after execution by all Parties the revised form agreement with the Commission. The Parties shall be bound by the terms of this Agreement accepted or modified by the Commission.

16. Effective Date. The Agreement shall be effective upon execution by all Parties if it is not filed with the Commission. If the Agreement is filed with the Commission, then it shall be effective upon the later of the date of execution or the date specified by the Commission in its order accepting the Agreement for filing. This Agreement shall remain in full force and effect until terminated pursuant to section 18 below. If the Parties cannot agree on all the terms and conditions of the Agreement, PJM shall file with the Commission, within thirty (30) days after the date the Company provides written notification directing PJM to file, an unexecuted Agreement containing terms and conditions deemed appropriate by PJM, including all agreed-upon non-conforming deviations.

17. Suspension. PJM reserves the right to suspend the Pseudo-Tie of the Facility if the Company no longer satisfies the PJM Governing Document requirements for Pseudo-Ties, criteria for participation in PJM's markets as an external resource, or other applicable regulatory, legal or reliability requirements, if Company commits a material default under this Agreement or has failed to cure any breach of this Agreement in accordance with section 14, or if PJM reasonably determines that the Pseudo-Tie of the Facility poses a risk to system reliability or risk of violation of established reliability criteria, by giving immediate notice of suspension. PJM also reserves the right to suspend the Pseudo-Tie of the Facility if the Company fails to provide real-time Pseudo-Tie MW values in a timely manner pursuant to applicable tariff or business rule requirements of the Native Balancing Authority and/or PJM Balancing Authority, upon mutual agreement of the Native Balancing Authority and PJM Balancing Authority, and upon giving immediate notice to Company and Native Balancing Authority. In the event of such suspension for failure to provide real-time Pseudo-Tie MW values in a timely manner, the Company shall provide a remedy for the cause of the failure, which PJM shall review in order

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to determine whether the Pseudo-Tie of the Facility will be permitted to resume operation. Two suspensions of the Pseudo-Tie of the Facility within a thirty (30) day period shall constitute a breach under section 14 of this Agreement. In the event of two suspensions within a thirty (30) day period, this Agreement may be terminated, in accordance with section 18 of this Agreement, by mutual agreement of the Native Balancing Authority and PJM Balancing Authority; provided, however, that the Party seeking to exercise this right to terminate must provide notice of such termination within one hundred eighty (180) days of the second suspension. Except as otherwise expressly permitted under the PJM Governing Documents, the suspension of the Pseudo-Tie of the Facility shall not relieve the Company of any of its obligations owed to PJM, specifically including but not limited to, any energy market or RPM must-offer requirements or any capacity obligations for which it has committed the Facility to PJM in an RPM Auction or FRR Capacity Plan. During any suspension period, the Facility shall remain under the operational control of the Attaining Balancing Authority and shall not be under the operational control of the Native Balancing Authority.

18. Termination. Any Party shall have the right to terminate this Agreement, in its sole discretion, upon forty-two (42) months' notice prior to the commencement of a Delivery Year, subject to receiving all necessary regulatory approvals for such termination, if any. In addition, PJM shall have the right to terminate this Agreement, upon sixty (60) days' notice to Company and Native Balancing Authority, and the filing of a notice of cancellation with the Commission if required, if PJM experiences an emergency or other unforeseen condition which may impair or degrade the reliability of the Transmission System, a transmission constraint that impairs the reliability of PJM's or another transmission provider's system, or any adverse condition(s) or if the emergency condition causes the Facility to become undeliverable or unable to be restored, such as a major long-term transmission outage for example, and as a result in each case reliability issues arise such that the referenced Pseudo-Tie of the Facility raises concerns with regional reliability coordinators or NERC, or if Company no longer satisfies the PJM Governing Document requirements for Pseudo-Ties, criteria for participation in PJM's markets as an external resource, or other applicable regulatory, legal or reliability requirements, or Company commits a material default under this Agreement or has failed to cure any breach of this Agreement in accordance with section 14 above, upon acceptance of such notice of cancellation by the Commission if required. If PJM suspends this Agreement for failure of the Company to provide real-time Pseudo-Tie MW values in a timely manner two times within a thirty (30) day period, as addressed in section 17 above, upon mutual agreement, PJM and Native Balancing Authority shall have the right to terminate this Agreement, upon sixty (60) days' notice to each Party, and the filing of a notice of cancellation with, and acceptance by, the Commission if required; provided, however, that the Party seeking to exercise this right to terminate must provide notice of such termination within one hundred eighty (180) days of the second suspension. The termination of this Agreement shall not relieve the Company of any of its obligations owed to PJM, specifically including but not limited to, any energy market or RPM must-offer requirements or any capacity obligations for which it has committed the Facility to PJM in an RPM Auction or FRR Capacity Plan.

19. Liability. In no event shall PJM ~~or Native Balancing Authority~~ be liable to any Party or any third party or other person under any provision of this Agreement for any claims, demands, losses, damages, costs, or expenses for any special, indirect, incidental, consequential,

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or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability related to this Agreement, except to the extent the damages are direct damages that arise or result from or result from gross negligence or willful misconduct of ~~PJM or Native Balancing Authority~~. PJM. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any person or entity that is not a Party or a permitted successor or assign.

20. Indemnification and Consequential Damages. **[Include the following for any Company for which there is a law that prohibits that entity from indemnifying other parties:]** To the extent permitted by applicable law, including but not limited to state law governing the activities of municipalities or political subdivisions,] Company shall at all times indemnify, defend, and save all other Parties to this Agreement harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from such Party's performance of its respective obligations under this Agreement, except in cases of gross negligence or intentional wrongdoing by the other Party.

21. Assignments. No Party may assign or transfer any of its rights and/or obligations under this Agreement without the written consent of the other Parties, which consent shall not be unreasonably withheld.

22. Waivers. Any waiver at any time by a Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, (1) must be in writing and executed by a duly authorized official of the waiving Party, and (2) shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement.

23. Interpretation. In this Agreement:

- (a) the words "include," "includes" and "including" shall mean "including without limitation;"
- (b) references to contracts, agreements and other documents and instruments shall be references to the same as amended, supplemented, restated or otherwise modified from time to time;
- (c) unless the context otherwise requires, references to laws or standards and to terms defined in, and other provisions of, laws or standards shall be references to the same (or a successor to the same) as amended, supplemented or otherwise modified from time to time;
- (d) references to a "Party" shall include its permitted successors and assigns, unless the context requires otherwise;

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(e) references to a section, article or schedule shall mean a section, article or schedule of this Agreement, as the case may be, unless the context otherwise requires; and

(f) references to a person shall include any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, and, in the case of a governmental or other authority (including PJM and NERC), any person succeeding to its functions and capacities, unless the context requires otherwise.

24. Severability. If any provision of this Agreement is held invalid, illegal or unenforceable in any jurisdiction by the Commission or a court having authority to make such a determination, then, the Parties agree, to the fullest extent permitted by law, that the validity, legality and enforceability of the remaining provisions hereof in such or any other jurisdiction and of such provision in any other jurisdiction shall not in any way be affected or impaired thereby and shall remain in full force and effect. With respect to the provision held invalid, illegal or unenforceable, the Parties will amend this Agreement as necessary to effectuate the original intent of the Parties as closely as possible.

25. Representations and Warranties. Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law. Company represents and warrants that it 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.

26. Notices. Any notice or request made to or by either Party regarding this Agreement shall be made to the representatives as indicated below. A notice shall be effective only if in writing and delivered by hand; reputable overnight courier; electronic mail; or United States mail. Notice shall be deemed to have been given: (a) when delivered to the recipient by hand, overnight courier or electronic mail, or (b) if delivered by United States mail, on the postmark date.

PJM Balancing Authority
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403
Attn: General Counsel
Email: _____@pjm.com

~~Native Balancing Authority~~
Company
[Entity Name]
[Address]
Attn: _____
Email: _____

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Company

[Entity Name]

[Address]

Attn: _____

Email: _____

[Include the following when applicable:

Native Transmission Operator

[Entity Name]

[Address]

Attn: _____

Email: _____

Native Reliability Coordinator

[Entity Name]

[Address]

Attn: _____

Email: _____

Third Party Reliability Coordinator

[Entity Name]

[Address]

Attn: _____

Email: _____

Additional Third Party Reliability Coordinator

[Entity Name]

[Address]

Attn: _____

Email: _____]

27. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be an original but all of which, taken together, shall constitute only one legal instrument. It shall not be necessary in making proof of this Agreement to produce or account for more than one counterpart. The delivery of an executed counterpart of this Agreement by facsimile shall be deemed to be valid delivery thereof.

28. Governing Law. 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. The Parties irrevocably consent (to the extent permitted by law) that any legal action or proceeding arising under or related to this Agreement to which the PJM Dispute Resolution Procedures do not apply shall be brought in any of the following forums, as appropriate – any

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court of the State of Delaware, any federal court of the United States of America located in the State of Delaware, or, where subject to its jurisdiction, before the Commission.

29. Entire Agreement; Amendments. This Agreement constitutes the entire agreement among the Parties with respect to the subject matter of this Agreement and supersedes other prior agreements and understandings, both written and oral, among the Parties with respect to the subject matter of this Agreement. This Agreement may be amended, supplemented or otherwise modified only by an instrument in writing signed by all Parties. Amendments that require Commission approval shall not take effect until the Commission has accepted such amendment. If the amendment does not require Commission approval, the amendment will not be filed with the Commission and shall become effective as of the date indicated in the written instrument signed by all Parties.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized representatives on the dates reflected below.

Company: -[Insert Name]

By: _____
[Insert Name] Title Date

Native Balancing Authority: [Insert Name]

By: _____
[Insert Name] Title Date

[Include the following when applicable:
Native Transmission Operator: [Insert Name]

By: _____
[Insert Name] Title Date

Native Reliability Coordinator: [Insert Name]

By: _____
[Insert Name] Title Date

Third Party Reliability Coordinator: [Insert Name]

By: _____

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[Insert Name]

Title

Date

Additional Third Party Reliability Coordinator: [Insert Name]

By:

 [Insert Name]

 Title

 Date]

PJM Interconnection, L.L.C.:

By:

 [Insert Name]

 Title

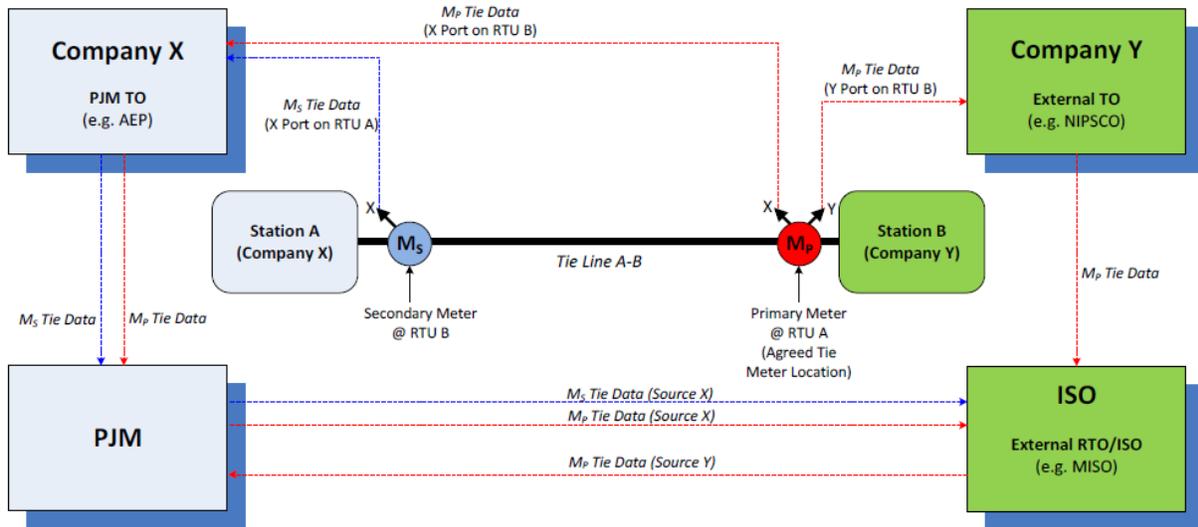
 Date

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APPENDIX 1
BLOCK DIAGRAM

External Tie Line Metering
Primary Metering at External End of Tie Line



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APPENDIX 2
SPECIFICATIONS FOR
PSEUDO-TIE AGREEMENT

By and Among
PJM Interconnection, L.L.C.

And

[Name of Company]

[Use as/when applicable:

And

~~[Name of Native Balancing Authority]~~

And

[Name of Native Transmission Operator]

And

[Name of Native Reliability Coordinator]

And

Name of Third Party Reliability Coordinator]

And

[Name of Additional Third Party Reliability Coordinator]

For Pseudo-Ties Into the PJM Region

To be completed by PJM
To be completed by Member

A. Request Information

Generator/Load(s) Name(s)	
Generator/Load(s) Location	
Requesting Member Name	
Native Balancing Authority Area	
Maximum Facility Output Capability of Generator	
MW Amount to be Transferred Into PJM	
Source Transmission Zone	
Request Type (Dynamic Schedule, Full Pseudo-Tie or Partial Pseudo-Tie)	
Pnode ID	
Point of Interconnection	
Pseudo-Tie Point	
Implementation Target Date and Time at which the Dynamic Transfer will begin	
Seeking Capacity Import Limit Exception?(Yes or No)	
First RPM Auction for which CIL	

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Exception Applies	
RPM External Source Zone	
Transmission Service/OASIS ID	
Member Point of Contact Information	

B. Current Operation

Dynamically Transferring a Generator or a Load?	
PJM Generator or Load Name	
How is the Unit Currently Scheduled in PJM (e.g. Block Schedule, Dynamically Schedule, Real-Time, N/A)?	
How are losses handled (Financially or Physically)?	
Which ancillary services does the unit currently provide and in which Balancing Authority?	
Who is the Market Participant for the generator/load?	
Who is the Markets Operations Center (MOC)?	
Is any portion of the generator Behind the Meter generation?	
Is Net or Gross metering used? (if applicable)	
Notes	

C. Approach to Implement

Will the generator/load be pseudo tied, dynamically scheduled or block scheduled?	
How will losses be handled (Financially or Physically)?	
Which ancillary services will this unit provide and in which Balancing Authority?	
Settlement check out details (i.e. – check out contact, preferences, decimal precision)	
Who will be the Market Participant?	
Will this be modeled in PJM EMS?	

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Is there intent for the generator(s) to participate in Native Balancing Authority’s Capacity Market? Yes or No?	
If Yes, indicate the amount of MWs	
How will Behind-the-Meter generation be modeled (if applicable)?	
Will net or gross metering be used (if applicable)?	
Notes	

D. Transmission Service
Native Balancing Authority

Owner of Service	
Transmission Provider	
Path (POR/POD)	
Source	
Sink	
MW	
Start Date	
Stop Date	
Product Type	
NAESB Registry Complete	
Notes	

PJM Balancing Authority

Owner of Service	
Transmission Provider	
Path (POR/POD)	
Source	
Sink	
MW	
Start Date	
Stop Date	
Product Type	
NAESB Registry Completion Date	
Notes	

NERC Tagging Information

Tagging Required? (Yes/No)	
PJM Transmission Service and/or	

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Tagging Rules	
Neighboring BA Transmission Service and/or Tagging Rules	

E. Energy Market Overview

Generator/Load ID/Name	
Pnode ID/Name	
Energy Market Account(s)	
Energy Market Owner(s)	
How should the generator/load be modeled in the Day-ahead Energy Market?	
How should the generator/load be modeled in the Real-time Energy Market?	
What will the PowerMeter modeling be?	
Will inSchedules be transacted?	
Notes	

F. Capacity Market Overview

eSuite Account where the capacity import and capacity commitment reside (Long name & short name)	[This is confidential info and will not be in the public version filed with the Commission]
Total amount of capacity import(ICAP MWs)	
Total amount of capacity commitments (UCAP MWs)	

G. Billing & Settlements

Spot Market	
Congestion (1215)	
Losses (1225)	
Regulation (yes or no)	
Day Ahead Scheduling Reserve	
Synch Reserve Market (yes or no)	
Operating Reserves	
RPM	

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FTRs/FTR Auction	
Meter Correction	
Schedule 9-1 Control Area Admin (1301, 1308)	
Schedule 9-2 FTR Admin (1302, 1309)	
Schedule 9-3 Market Support (1303, 1307, 1310)	
Schedule 9-4 Reg Admin (1304, 1311)	
Schedule 9-5 RPM Admin (1305, 1312)	
Schedule 9-AC2 (1306)	
Schedule 9-FERC (1315)	
Schedule 9-OPSI (1316)	
Schedule 9-MMU (1314)	
Schedule 9 – PJM Settlements (1313)	
Schedule 9 – CAPS	
Schedule 10-NERC	
Schedule 10-RFC	
Schedule 1A TO Control Center (1320)	
Reactive (Schedule 2) (1330)	
Black Start (Schedule 6A) (1380)	
Network Service (load only)	
Point-to-Point Service (1130)	
RTO Startup Cost Recovery	
Expansion Cost Recovery	
Schedule 12 (Transmission Enhancement)	

Contact Information

Name	Company	Role	E-Mail Address	Phone

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