



PJM Interconnection
2750 Monroe Boulevard
Norristown, PA 19403-2497

Steven R. Pincus
Associate General Counsel
610.666.4370 | fax 610.666.8211
steven.pincus@pjm.com

January 30, 2018

Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Re: *PJM Interconnection, L.L.C.*, Docket No. ER18-750-000
Transmission Service Requests and Upgrade Requests Feasibility Studies
Revisions to PJM Open Access Transmission Tariff

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act (“FPA”)¹ and the Commission’s Regulations,² PJM Interconnection, L.L.C. (“PJM”) submits for filing proposed revisions to the PJM Open Access Transmission Tariff (“Tariff”) to align the study processes for all New Service Requests including Long Term Firm Transmission Service requests, Interconnection requests and Upgrade Requests.³ The proposed revisions provide that all New Service Requests which pay for Customer-Funded Upgrades pursuant to Tariff, Part VI are subject to the same study requirements and procedures to review the specification and cost of upgrades prior to the need to commit to a Facility Study. More specifically, the purpose of this filing is to add a process for

¹ 16 U.S.C. § 824d.

² 18 C.F.R. Part 35.

³ New Service Request is defined as: “An Interconnection Request, Completed Application, or an Upgrade Request.” An Interconnection Request is a Generation Interconnection Request, a Transmission Interconnection Request and/or an Incremental Deliverability Rights (“IDR”) Transfer Agreement. A Completed Application is required for any Eligible Customer seeking Firm Point-to-Point Transmission Service requests pursuant to Part II of the Tariff or Network Integration Service requests pursuant to Part III of the Tariff (All references to “Transmission Service Requests” or “Transmission Service Customers” in this transmittal letter shall include Firm Transmission Service under Part II and Part III of the Tariff). An Upgrade Request is a request for a Merchant Network Upgrade or the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue (“IARR”))

Transmission Service requests and Upgrades Requests to receive a Feasibility Study to align such requests with other Customer-Funded Projects in the queue (*e.g.* Generation Interconnection Requests and Transmission Interconnection Requests).

PJM requests an effective date of April 1, 2018, for the Tariff revisions proposed in this filing. As discussed further in section IV below, PJM’s objective is to implement the rules proposed in this filing on the date a queue opens to ensure all projects in a queue are treated in an equitable manner. April 1, 2018, coincides with the date the next queue opens. If the Commission does not grant an effective date of April 1, 2018, PJM and its stakeholders will be forced to wait until October 1, 2018, the date the next new interconnection queue opens, to implement and realize the benefits of the Tariff revisions proposed in this filing.

I. INTRODUCTION

One of the purposes of the PJM queue process is to coordinate and evaluate the impact of all New Services Requests in a single integrated queue. Under the current Tariff, New Service Requests is defined as: “An Interconnection Request, Completed Application, or an Upgrade Request.”⁴ The objective under the Tariff is to collectively study all Customer-Funded Upgrade projects for New Service Requests, including requests for Transmission Service and all Upgrade Requests, in a single queue so that planning of Transmission System reinforcements is efficient and the potential for overbuilding is reduced. Nevertheless, under the current Tariff processes,

⁴ An Interconnection Request is a Generation Interconnection Request, a Transmission Interconnection Request and/or an Incremental Deliverability Rights Transfer Agreement. A Completed Application applies to any Eligible Customer seeking Firm Point-to-Point Transmission Service pursuant to Part II of the Tariff or Network Integration Service pursuant to Tariff, Part III (all references herein to “Transmission Service Requests” or “Transmission Service Customers” in this transmittal letter shall apply the Long-Term Firm Transmission Service under Tariff Part II and Part III). An Upgrade Request is a request for a Merchant Network Upgrade or the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights (“IARRs”) under the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”), Schedule 1, section 7.8.Tariff (Attachment K-Appendix and Operating Agreement, Schedule 1 and are identical and where PJM refers herein to the Operating Agreement, Schedule 1, those references also encompass the corresponding provisions of Tariff, Attachment K-Appendix).

there are multiple study process rules under which PJM determines the amount of Local Upgrades and Network Upgrades required to ensure reliability criteria violations caused by a proposed project are resolved.

Specifically, Transmission Service requests and Upgrade Requests do not currently receive a Feasibility Study while other Customer-Funded Projects (*e.g.* Generation Interconnection Requests and Transmission Interconnection Requests) receive a Feasibility Study providing multiple studies to review the specifications and cost of upgrades prior to committing to a Facilities Study. This study process divergence for different Customer-Funded Upgrade projects dates back to December 2006 when PJM added Part VI to the Tariff. Part VI was added to consolidate all Tariff provisions regarding the studies, agreements, and rights pertaining to Customer Funded Upgrade projects and New Service Requests that could result in participant-funded upgrades to the PJM Transmission System.⁵ In the 2006 Filing, PJM added Tariff, Part VI to (i) apply to all Interconnection Requests requiring a System Impact Study, all requests for long-term Transmission Service and all Upgrade Requests for IARRs; (ii) consolidate procedures for System Impact Studies and Facilities Studies for all New Service Requests; (iii) incorporate existing terms regarding service agreements and add a new Upgrade Construction Service Agreement; and (iv) include rights available to New Service Customers who pay for Customer-Funded Upgrades.⁶

At that time of the 2006 filing, PJM and its stakeholders retained the existing Initial Study process for long-term Transmission Service requests and did not add a feasibility study

⁵ *PJM Interconnection, L.L.C.*, Docket No. ER07-344-000 (Dec. 18, 2006) (“2006 Filing”).

⁶ *See* December 18 Filing at 15.

process for Upgrade Requests. Since then, PJM has identified unintended consequences related to these multiple study rules. Specifically, when Upgrade Requests and Transmission Service requests projects are given Facilities Study Agreements, PJM and the affected Transmission Owners have not had an opportunity to refine or attempt to optimize the reinforcements specified through a feasibility study. This results in the need to perform a review of the upgrades during the Facilities Study which may delay other projects in the queue.

Additionally, without feasibility studies the current process does not present the same opportunity for Transmission Service requests and Upgrade Requests customers to review mitigations during multiple studies and there is little opportunity to discuss possible options for system reinforcement. As a result, the current process does not this give Transmission Service requests and Upgrade Requests customers the opportunity to exit the process at an earlier point when the deposits for these studies are of lower cost.

Finally, as a result of the inability to withdraw at an earlier point in the process, the Transmission Service requests and Upgrade Requests customers may withdraw after the System Impact Study is provided with costs. While customer withdrawals after the System Impact Study do occur, there is greater risk of these Transmission Service requests and Upgrade Requests customers to withdraw at this point as they were not apprised of the potential costs of the upgrades required until the completion of the System Impact Study. This may result in the need to restudy other projects in the study process at a point when refinement of the estimates is occurring, as opposed to determining the required upgrades.

To address these issues, PJM now proposes to amend the Tariff to provide that all Customer-Funded Projects in the New Services Queues be receive a Feasibility Study.

II. DESCRIPTION OF PROPOSED TARIFF REVISION

As stated above, PJM and its stakeholders have identified issues which, once corrected, will address unintended consequences related to multiple rules applicable to Customer-Funded Projects. The proposed Tariff revisions described below will make Upgrade Requests and Transmission Services requests projects subject to the same multiple studies (including a Feasibility Study) applicable to other Customer-Funded Projects in the queue (*e.g.* Generation Interconnection Requests and Transmission Interconnection Requests). By adding a Feasibility Study to the study process for Upgrade Requests and Transmission Services requests these projects will be aligned with other projects in the New Services Queues and will now have an opportunity to refine or optimize the specified reinforcements. This will in turn eliminate the need to perform a review of upgrades during the Facilities Study which may delay the process and negatively impact other projects in the queue.

In order to implement the rule changes described above, PJM proposes revisions to existing Tariff: Part I (Definitions);⁷ Part II (Point-to-Point Transmission Service); Part III (Network Integration Transmission Service); Part IV (Interconnection with the Transmission System); Part VI (Study of New Service Request; Rights Associated with Customer-Funded Upgrades); Attachment N-1 (Form of System Impact Study; and Attachment EE (Form of Upgrade Request). In addition, PJM proposes to delete entirely Attachment FF (Form of Initial Study Agreement) and replace it with a new Attachment PP⁸ (Form of Firm Transmission

⁷ PJM also includes a proposed Tariff revision to the definition of “IDR Transfer Agreement” to make a ministerial change correcting an outdated reference from “section 49B” to “section 237.” This ministerial Tariff revision was approved by the PJM Members Committee on March 31, 2016, as part of a larger Tariff clean-up proposal but not filed until now due to administrative oversight.

⁸ The new “Form of Firm Transmission Feasibility Study Agreement” when posted and reviewed by the PJM members was designated as Attachment MM; however, while this matter was pending, Attachment MM was used as a Tariff designation for an unrelated matter. Thus, the filed version of the new “Form of Firm Transmission Feasibility Study Agreement” is designated as Attachment PP. The substance and wording of the Firm

Feasibility Study Agreement) applicable to long-term firm transmission service under Tariff, Part II and Part III.

PJM is an independent regional transmission organization (“RTO”) that does not own or control any generation nor is PJM affiliated with a generation owner or other market participant. Therefore, the appropriate standard of review for this proposal is the “independent entity” standard.⁹ Moreover, this filing will facilitate the goals of Order No. 2003,¹⁰ because it is non-discriminatory and will improve the efficiency of PJM’s interconnection procedures.¹¹

A. Proposed Revisions For Transmission Service Requests.

To align Transmission Service requests with other projects in the New Services Queues, PJM proposes to add a Feasibility Study to replace the current Initial Study applicable to Long-Term Firm Transmission Service under Tariff, Part II and Part III. As a result of this study process change, PJM proposes revisions to several areas of the Tariff as follows:

1. Revisions to Tariff, Part II.

PJM proposes to revise Tariff, Part II, sections 15.2 (Determination of Available Transfer Capability), 17.5 (Response to Completed Application), 17.6 (Execution of Service Agreement),

Transmission Facility Study Agreement is the exactly the same as it was when presented to and approved by the PJM members.

⁹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,233, at P 28 (2012) (stating “independent entities, such as RTOs and ISOs, are entitled to more flexibility in proposing variations than are non-independent entities, primarily because they do not have affiliated generation and thus are less likely than non-independent entities to favor one generator over another”); *Calif. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,223, at P 73 (2010) (“because CAISO is an independent entity with no generation of its own, it does not have an incentive to unduly discriminate against small generators. The Commission has previously recognized this special nature of ISOs and RTOs by providing them the opportunity to seek an independent entity variation”).

¹⁰ Standardization of Generator Interconnection Agreements and Procedures, Order No. 2003, 68 FR 49845 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 31,146 (2003) (Order No. 2003), order on reh'g, Order No. 2003-A, 69 FR 15932 (Mar. 26, 2004), FERC Stats. & Regs. ¶ 31,160 (2004) (Order No. 2003-A), order on reh'g, Order No. 2003-B, 70 FR 265 (Jan. 4, 2005), FERC Stats. & Regs. ¶ 31,171 (2005), reh'g pending (Order No. 2003-B). See also Notice Clarifying Compliance Procedures, 106 FERC ¶ 61,009 (2004).

¹¹ See *Calif. Indep. Sys. Operator Corp.*, 140 FERC at PP 44, 61 (2012) (accepting tariff revisions, stating proposed changes “are just and reasonable and not unduly discriminatory or preferential and meet the objectives of *Order No. 2003* by increasing the efficiency of CAISO's interconnection procedures.”)

19 (Firm Transmission Feasibility Study Procedures for Long-Term Firm Point-to-Point Transmission Service Requests), 19.1 (Notice of Need for Firm Transmission Feasibility Study), 19.2 (Firm Transmission Feasibility Study Agreement and Cost Reimbursement), 19.3 (Firm Transmission Feasibility Study Procedures), 19.4 (Retaining Queue Position) and 19.8 (Penalties for Failure to Meet Deadlines) to replace all references to “Initial Study” with “Firm Transmission Feasibility Study”.

a. Section 15.2 (Determination of Available Transfer Capability).

PJM’s proposed revisions to Tariff, section 15.2 includes revising the language stating that when sufficient available transfer capability (“ATC”) “may not exist to accommodate a request for Long-Term Firm Point-to-Point Transmission Service, ... (PJM) will respond by performing (in coordination with the affected Transmission owner or Transmission Owners to the extent necessary) a Firm Transmission Feasibility Study (formally ‘an Initial Study’) as described in Section 19” by adding “and such request does not commence within the 18 month ATC horizon”. In addition, PJM proposes to add a new sentence to section 15.2 as follows: “If a request for Firm Point-to-Point Transmission Service fall entirely within the ATC horizon, the request will be evaluated based on the posted ATC.”

These proposed revisions to section 15.2 make it clear that removing the Initial Study will not change the process under which ATC is used in determining the capability of the transmission network pursuant to Tariff, Attachment C (Methodology to Assess Available Transfer Capability). ATC will continue to be calculated pursuant to Tariff, Attachment C and a Transmission Service request that commences and terminates within the ATC horizon will continue to be evaluated based on the posted ATC pursuant to Tariff, Attachment C. However,

Transmission Service requests which do not commence within the ATC horizon will be now subject to a Firm Transmission Feasibility Study.

b. Section 19.3 (Firm Transmission Feasibility Study).

The proposed revisions to Tariff, section 19.3, replaces the Initial Study procedures with the Firm Transmission Feasibility Study procedures using language consistent with the current Interconnection Feasibility Study procedures conducted pursuant to Tariff, section 36.2, which is specifically referenced in the proposed revision to section 19.3. The new proposed Firm Transmission Feasibility Study procedures includes a requirement to submit a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000 which is a requirement set forth in proposed new Attachment PP (Form of Firm Transmission Feasibility Study Agreement) discussed below. This deposit requirement was reviewed with the PJM stakeholders, discussed as being consistent with past studies performed for many Interconnection Feasibility Studies, and should provide sufficient protections to the PJM membership in regards to funding of the required studies.

The current language in section 19.3 pertaining to the obligation for PJM to use due diligence in competing the applicable study is retained. Thus, PJM is required to use the same due diligence in completing the studies (Firm Transmission Feasibility Study) as it uses when completing studies for a Transmission Owner. There remains a requirement to notify a transmission service customer immediately upon completing the Firm Transmission Feasibility Study whenever a System Impact Study will be needed to more fully assess and identify required Network Upgrades and/or Local Upgrades.

c. New section 19.3.1 (Meeting with Transmission Provider).

In order to align the Firm Transmission Feasibility Study procedures with the Interconnection Study procedures, a proposed new Tariff, section 19.3.1 (Meeting with Transmission Provider) is added. This is identical to the option given to Interconnection Customer requests in Tariff, section 36.2.2.¹²

2. *Revisions to Tariff, Part III.*

PJM proposes to revise Tariff, Part III, which in most respects parallels the proposed revisions to Tariff, Part II discussed above. PJM employs a form of Network Integration Transmission Service (“NITS”) under Tariff, Part III known as Network External Designated Transmission Service (“NEDTS”) which is another form of Long-Term Firm Transmission Service which needs to be studied in a manner and process similar to requests for Long-Term Firm Point-to-Point Transmission Service under Tariff, Part II. NEDTS is defined in the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as follows:

“Network External Designated Transmission Service” shall mean the quantity of network transmission service confirmed by PJM for use by a market participant to import power and energy from an identified Generation Capacity Resource located outside the PJM Region, upon demonstration by such market participant that it owns such Generation Capacity Resource, has an executed contract to purchase power and energy from such Generation Capacity Resource, or has a contract to purchase power and energy from such Generation Capacity Resource contingent upon securing firm transmission service from such resource.

¹² The version of new section 19.3.1 erroneously stated that the subject of the meeting is to discuss the “Interconnection Feasibility Study”; however, the intent and purpose for adding this new Tariff section is to provide the opportunity for an Eligible Customer to meet with PJM and the affected Transmission Owner to discuss the Firm Transmission Feasibility Study. The references to the “Interconnected Transmission Owner” and “Interconnection Feasibility Study” was an error and out of context with the purposes of the Tariff revisions.

NEDTS is another form of Transmission Service for which PJM determines the Local Upgrades and Network Upgrades required to ensure all reliability criteria violations as a result of a proposed project are resolved. Thus, the same study procedures applicable to Transmission Service requests under Tariff, Part II apply to NEDTS requests under Tariff, Part III.

Therefore, PJM proposes to revise Tariff, Part III, by adding a new section 29.2A (Determination of Available Transfer Capability), and by amending sections 32 (Firm Transmission Feasibility Study Procedures for Network Integration Transmission Service Requests), 32.1 (Notice of Need for Firm Transmission Feasibility Study), 32.2 (Firm Transmission Feasibility Study Agreement and Cost Reimbursement), 32.3 (Firm Transmission Feasibility Study Procedures), 32.4 (Retaining Queue Position) and 32.5 (Penalties for Failure to Meet Deadlines) to replace all references to “Initial Study” with “Firm Transmission Feasibility Study”.

- a. New section 29.2A (Determination of Available Transfer Capability).

In parallel with the proposed revisions to Tariff, section 15.2, PJM proposes to add a new section 29.2A to apply the same procedures for determining ATC as set for in section 15.2 for Transmission Service under Part II of the Tariff. These changes clarify the process under which PJM uses ATC to determine the capability of the transmission network pursuant to Tariff, Attachment C (Methodology to Assess Available Transfer Capability). ATC will continue to be calculated pursuant to Tariff, Attachment C. A Transmission Service request that commences and terminates within the ATC horizon will continue to be evaluated based on the posted ATC pursuant to Tariff, Attachment C. However, Transmission Service requests which do not commence within the ATC horizon will now be subject to a Firm Transmission Feasibility Study.

b. Section 32.3 (Firm Transmission Feasibility Study Procedures).

As in the proposed revisions to Tariff, section 32.3, PJM proposes revisions to Tariff, section 19.3, to replace the Initial Study procedures with the Firm Transmission Feasibility Study procedures using language consistent with the Interconnection Feasibility Study procedures conducted under Tariff, section 36.2, which is specifically referenced in the proposed revision to section 32.3. The new proposed Firm Transmission Feasibility Study procedures includes a requirement to submit a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000 which is a requirement set forth in the proposed new Attachment PP (Form of Firm Transmission Feasibility Study Agreement) discussed below.¹³

The current language in section 32.3 pertaining to the obligation for PJM to use due diligence in competing the applicable study is retained. Thus PJM is required to use the same due diligence in completing the studies (Firm Transmission Feasibility Study) as it uses when completing studies for a Transmission Owner. There remains a requirement to notify a transmission service customer immediately upon completing the Firm Transmission Feasibility Study whenever a System Impact Study will be needed to more fully assess and identify required Network Upgrades and/or Local Upgrades.

c. New section 32.3.1 (Meeting with Transmission Provider).

In order to align the Firm Transmission Feasibility Study procedures with the Interconnection Study procedures, a proposed new Tariff, section 32.3.1 (Meeting with Transmission Provider) is added. This is identical new Tariff section 19.3.1 discussed above and

¹³ See discussion regarding the \$20,000 deposit in 1.b. above.

also gives the same option to meet with PJM to discuss the results of the Feasibility Study given to Interconnection Customer requests in Tariff, section 36.2.2.¹⁴

d. New Attachment PP (Form of Firm Transmission Feasibility Agreement).

PJM proposes a new Attachment PP (Form of Firm Transmission Feasibility Study Agreement) which replaces Attachment FF (Form of Initial Study Agreement). This form of Firm Transmission Feasibility Study Agreement is applicable to long-term firm transmission service under Tariff, Part II and Part III. While it is similar in many respects to the Form of Initial Study Agreement (currently Attachment FF), it's provisions align with revised Transmission Feasibility Study procedures proposed herein and clearly specifies the Firm Transmission Feasibility Study work used to determine whether or not the Transmission System is adequate to accommodate a request for long-term firm transmission service under Tariff, Part II or Part III.

3. *Revisions to Definitions*

PJM proposes to delete the definition of Initial Study and add the new defined term Firm Transmission Feasibility Study as follows: “Firm Transmission Feasibility Study shall mean a study conducted by the Transmission Provider in accordance with Sections 19.3 and 32.3 of the Tariff.

¹⁴ The version of new section 32.3.1 erroneously stated that the purpose of the meeting is to discuss the “Interconnection Feasibility Study”; however, the intent and purpose for adding this new Tariff section is to provide the opportunity for an Eligible Customer to meet with PJM and the affected Transmission Owner to discuss the Firm Transmission Feasibility Study. The references to the “Interconnected Transmission Owner” and “Interconnection Feasibility Study” was an error and out of context with the purposes of the Tariff revisions.

4. *Revisions to Tariff Study Agreements.*

The proposed Tariff revisions discussed above require revisions to Tariff, Attachment N1 (Form of System Impact Study Agreement) to reference the new Transmission Feasibility Study pursuant to the revised Tariff, sections 19 and 32. In addition, PJM proposes to replace Attachment FF (Form of Initial Study Agreement) with a new Tariff, Attachment PP (Form of Firm Transmission Feasibility Study Agreement). Form PP will apply to Transmission Feasibility Studies to determine whether or not the Transmission System is adequate to accommodate all or part of a request for Transmission Service under Tariff, Part II or Part III.

5. *Revisions to Tariff, Part VI.*

PJM proposes revisions to Tariff, Part VI, Sections 200 (Applicability), 203.1 (Cost Responsibility), and 204.1 (Completed Application). In each of these Tariff sections the reference to Initial Study is changed to Firm Transmission Feasibility Study.

B. Proposed Revisions For Upgrade Requests.

As discussed above, PJM proposed Tariff revisions to meet the objective to collectively study all Customer-Funded Upgrade projects, including requests for Transmission Service and all Upgrade Requests, in a single queue. Because Upgrade Requests do not currently receive a Feasibility Study while other Customer-Funded Projects (*i.e.* Generation Interconnection Request, a Transmission Interconnection Request and an Incremental Deliverability Rights Transfer Agreement) receive a Feasibility Study, PJM proposes the following Tariff revisions. These proposed revisions will apply the Feasibility Study procedures to Upgrade Requests.

1. *Revisions to Tariff, Part IV (Interconnections with the Transmission System).*

a. Preamble

PJM proposes to amend the preamble to add a sentence which makes it clear that the terms and conditions of Tariff, Part IV apply to Upgrade Requests seeking IARRs.¹⁵

b. New Section 36.3 (Upgrade Feasibility Study).

PJM proposes to add a new Section 36.3 setting forth the terms conditions and requirements for Upgrade Feasibility Studies applicable to IARR Upgrade Requests. The new process will require Upgrade Customers seeking IARRs to submit to PJM a signed Attachment EE (Form of Upgrade Request) and a \$20,000 deposit.¹⁶ PJM will then be required to conduct an Upgrade Facility Study to make a preliminary determination of the type and scope of any Local Upgrades or Network Upgrades that will be necessary to accommodate the Upgrade Request and an estimated time to construct the necessary facilities. The Upgrade Customer can then choose to proceed to a System Impact Study or drop out of the queue. This new Tariff section requires PJM to conduct Upgrade Feasibility Studies two times per year in conjunction with the Interconnection Feasibility Studies conducted under Tariff, section 36.2. Thus the objective of aligning the study procedures is achieved.

¹⁵ The draft revisions to the Preamble to Tariff, Part IV reviewed by the PJM members included “Eligible Customer;” however, Eligible Customers are not required to comply with the terms and conditions of Tariff, Part IV because the Firm Transmission Feasibility Study procedures applicable to Eligible Customers are in Tariff, Parts II and III. Thus, the filed version of this new Tariff language does not include “Eligible Customer”.

¹⁶ See discussion regarding the \$20,000 deposit in 1.b. above.

2. *Revisions to Tariff, Part VI.*

a. Section 200 (Applicability).

Part VI of the Tariff sets forth the procedures and other terms governing PJM's administration of the New Services Queue and the procedures and other terms regarding studies and other processing of New Service Requests. PJM proposes to amend Tariff, section 200, to revise the language describing the applicability of the Part VI when Upgrade Requests for both Merchant Network Upgrade and Upgrade Requests seeking IARRs when PJM determines in an Upgrade Feasibility Study that System Impact Study is needed.

b. Section 204.2.1 (Upgrade Requests Pursuant to Section 7.8).

PJM proposes to amend the System Impact Study procedures under Tariff, section 204.2.1 applicable to IARR Upgrade Requests. The revisions state that completion of the Upgrade Facility Study triggers the obligation to tender to the Upgrade Customer a System Impact Study Agreement. The revisions among other things add to the requirements for a Upgrade Customer to retain its Queue Position, the obligation to remit to PJM all past due amounts of the actual Upgrade Feasibility Study costs exceeding the Upgrade Feasibly Study deposit fee contained in Tariff, section 36.3.

c. Attachment EE (Form of Upgrade Request).

PJM proposes and amendment to the Attachment EE, Form of Upgrade Request, to add a new paragraph 4 which specifies the requirement for the Upgrade Customer to provide a refundable deposit in the amount of \$20,000 to PJM with its request. The deposit is applied to the Upgrade Customer's cost responsibility for an Upgrade Feasibility Study.

d. Definitions

PJM proposes to add a new defined term as follows: “‘Upgrade Feasibility Study’ shall mean a study conducted by the Transmission provider in accordance with Section 36.3 of the Tariff.”

C. Proposed Revisions For Merchant Network Upgrade Requests.

PJM proposes to revise Tariff, Section 204.2.2.6 to make clear the System Impact Study requirements in that section of the Tariff apply only to Upgrade Requests for Merchant Transmission Upgrades.

III. STAKEHOLDER PROCESS

PJM received unanimous stakeholder support for the proposed PJM Tariff revisions described herein. The proposed Tariff revisions were endorsed by PJM’s Planning Committee (“PC”) on November 9, 2017, Markets and Reliability Committee (“MRC”) on December 21, 2017, and PJM’s Members Committee (“MC”) on January 25, 2018, with no objections or abstentions.

IV. EFFECTIVE DATE

PJM requests an effective date of April 1, 2018, for the proposed Tariff revisions a date at least 60 days after the filing date. April 1, 2018, coincides with the beginning of a new interconnection queue. Implementing on a date other than the effective date of a new queue would subject PJM projects in the same queue to different procedures, which complicates the process to study the queue and results in inequitable treatment of the same projects in a queue. An April 1, 2018 effective date also ensures that all prospective new service request customers within their respective queues are treated similarly. Moreover, if the Commission does not grant

an effective date of April 1, 2018, PJM and its stakeholders will be forced to wait until October 1, 2018, which is the date the next new interconnection queue opens, to implement the revisions proposed in this filing.

V. DOCUMENTS ENCLOSED

Along with this transmittal letter, PJM submits the following attachments:

1. Attachment 1: an electronic version of the redlined sections of the Tariff with the revisions proposed herein; and
2. Attachment 2: an electronic version of the clean sections of the Tariff with the revisions proposed herein.

VI. CORRESPONDENCE AND COMMUNICATIONS

Steven R. Pincus
Assistant General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Norristown, PA 19403
(610) 666-4370
steven.pincus@pjm.com

Craig Glazer
Vice President, Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W, Suite 600
Washington, D.C. 20005
(202) 423-4743
craig.glazer@pjm.com

VII. SERVICE

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,¹⁷ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory

¹⁷ See 18C.F.R. §§ 35.2(e) and 385.2010(f)(3).

commissions in the PJM Region¹⁸ alerting them this filing has been made 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 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

Respectfully submitted,

/s/ Steven R. Pincus

Craig Glazer
Vice President – Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W.
Suite 600
Washington, D.C. 20005
(202) 202-423-4743
Craig.Glazer@pjm.com

Steven Pincus
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403
(610) 666-4370
Steven.Pincus@pjm.com

¹⁸ PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.

Attachment A

Revisions to the PJM Open Access Transmission Tariff

(Marked / Redline Format)

TABLE OF CONTENTS

I. COMMON SERVICE PROVISIONS

- 1 Definitions
 - OATT Definitions – A – B
 - OATT Definitions – C – D
 - OATT Definitions – E – F
 - OATT Definitions – G – H
 - OATT Definitions – I – J – K
 - OATT Definitions – L – M – N
 - OATT Definitions – O – P – Q
 - OATT Definitions – R – S
 - OATT Definitions - T – U – V
 - OATT Definitions – W – X – Y - Z
- 2 Initial Allocation and Renewal Procedures
- 3 Ancillary Services
- 3B PJM Administrative Service
- 3C Mid-Atlantic Area Council Charge
- 3D Transitional Market Expansion Charge
- 3E Transmission Enhancement Charges
- 3F Transmission Losses
- 4 Open Access Same-Time Information System (OASIS)
- 5 Local Furnishing Bonds
- 6 Reciprocity
- 6A Counterparty
- 7 Billing and Payment
- 8 Accounting for a Transmission Owner’s Use of the Tariff
- 9 Regulatory Filings
- 10 Force Majeure and Indemnification
- 11 Creditworthiness
- 12 Dispute Resolution Procedures
- 12A PJM Compliance Review

II. POINT-TO-POINT TRANSMISSION SERVICE

Preamble

- 13 Nature of Firm Point-To-Point Transmission Service
- 14 Nature of Non-Firm Point-To-Point Transmission Service
- 15 Service Availability
- 16 Transmission Customer Responsibilities
- 17 Procedures for Arranging Firm Point-To-Point Transmission Service
- 18 Procedures for Arranging Non-Firm Point-To-Point Transmission Service
- 19 Initial Firm Transmission Feasibility Study Procedures For Long-Term Firm Point-To-Point
Transmission Service Requests

- 20 [Reserved]
- 21 [Reserved]
- 22 Changes in Service Specifications
- 23 Sale or Assignment of Transmission Service
- 24 Metering and Power Factor Correction at Receipt and Delivery Points(s)
- 25 Compensation for Transmission Service
- 26 Stranded Cost Recovery
- 27 Compensation for New Facilities and Redispatch Costs
- 27A Distribution of Revenues from Non-Firm Point-to-Point Transmission Service

III. NETWORK INTEGRATION TRANSMISSION SERVICE

Preamble

- 28 Nature of Network Integration Transmission Service
- 29 Initiating Service
- 30 Network Resources
- 31 Designation of Network Load
- 32 Initial Firm Transmission Feasibility Study Procedures For Network Integration Transmission Service Requests
- 33 Load Shedding and Curtailments
- 34 Rates and Charges
- 35 Operating Arrangements

IV. INTERCONNECTIONS WITH THE TRANSMISSION SYSTEM

Preamble

Subpart A –INTERCONNECTION PROCEDURES

- 36 Interconnection Requests
- 37 Additional Procedures
- 38 Service on Merchant Transmission Facilities
- 39 Local Furnishing Bonds

40-108 [Reserved]

Subpart B – [Reserved]

Subpart C – [Reserved]

Subpart D – [Reserved]

Subpart E – [Reserved]

Subpart F – [Reserved]

Subpart G – SMALL GENERATION INTERCONNECTION PROCEDURE

Preamble

- 109 Pre-application Process
- 110 Permanent Capacity Resource Additions Of 20 MW Or Less
- 111 Permanent Energy Resource Additions Of 20 MW Or Less but Greater than 2 MW (Synchronous) or Greater than 5 MW(Inverter-based)
- 112 Temporary Energy Resource Additions Of 20 MW Or Less But Greater Than 2 MW

112A Screens Process for Permanent or Temporary Energy Resources of 2 MW or less (Synchronous) or 5 MW (Inverter-based)

112B Certified Inverter-Based Small Generating Facilities No Larger than 10 kW

112C [Reserved]

V. **GENERATION DEACTIVATION**

Preamble

113 Notices

114 Deactivation Avoidable Cost Credit

115 Deactivation Avoidable Cost Rate

116 Filing and Updating of Deactivation Avoidable Cost Rate

117 Excess Project Investment Required

118 Refund of Project Investment Reimbursement

118A Recovery of Project Investment

119 Cost of Service Recovery Rate

120 Cost Allocation

121 Performance Standards

122 Black Start Units

123-199 [Reserved]

VI. **ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; RIGHTS ASSOCIATED WITH CUSTOMER-FUNDED UPGRADES**

Preamble

200 Applicability

201 Queue Position

Subpart A – SYSTEM IMPACT STUDIES AND FACILITIES STUDIES FOR NEW SERVICE REQUESTS

202 Coordination with Affected Systems

203 System Impact Study Agreement

204 Tender of System Impact Study Agreement

205 System Impact Study Procedures

206 Facilities Study Agreement

207 Facilities Study Procedures

208 Expedited Procedures for Part II Requests

209 Optional Interconnection Studies

210 Responsibilities of the Transmission Provider and Transmission Owners

Subpart B– AGREEMENTS AND COST REPONSIBILITY FOR CUSTOMER- FUNDED UPGRADES

211 Interim Interconnection Service Agreement

212 Interconnection Service Agreement

213 Upgrade Construction Service Agreement

214 Filing/Reporting of Agreement

215 Transmission Service Agreements

216 Interconnection Requests Designated as Market Solutions

217 Cost Responsibility for Necessary Facilities and Upgrades

- 218 New Service Requests Involving Affected Systems
- 219 Inter-queue Allocation of Costs of Transmission Upgrades
- 220 Advance Construction of Certain Network Upgrades
- 221 Transmission Owner Construction Obligation for Necessary Facilities
And Upgrades
- 222 Confidentiality
- 223 Confidential Information
- 224 – 229 [Reserved]
- Subpart C – RIGHTS RELATED TO CUSTOMER-FUNDED UPGRADES
- 230 Capacity Interconnection Rights
- 231 Incremental Auction Revenue Rights
- 232 Transmission Injection Rights and Transmission Withdrawal
Rights
- 233 Incremental Available Transfer Capability Revenue Rights
- 234 Incremental Capacity Transfer Rights
- 235 Incremental Deliverability Rights
- 236 Interconnection Rights for Certain Transmission Interconnections
- 237 IDR Transfer Agreements

SCHEDULE 1

Scheduling, System Control and Dispatch Service

SCHEDULE 1A

Transmission Owner Scheduling, System Control and Dispatch Service

SCHEDULE 2

Reactive Supply and Voltage Control from Generation Sources Service

SCHEDULE 3

Regulation and Frequency Response Service

SCHEDULE 4

Energy Imbalance Service

SCHEDULE 5

Operating Reserve – Synchronized Reserve Service

SCHEDULE 6

Operating Reserve - Supplemental Reserve Service

SCHEDULE 6A

Black Start Service

SCHEDULE 7

Long-Term Firm and Short-Term Firm Point-To-Point Transmission Service

SCHEDULE 8

Non-Firm Point-To-Point Transmission Service

SCHEDULE 9

PJM Interconnection L.L.C. Administrative Services

SCHEDULE 9-1

Control Area Administration Service

SCHEDULE 9-2

Financial Transmission Rights Administration Service

SCHEDULE 9-3

Market Support Service
SCHEDULE 9-4
Regulation and Frequency Response Administration Service
SCHEDULE 9-5
Capacity Resource and Obligation Management Service
SCHEDULE 9-6
Management Service Cost
SCHEDULE 9-FERC
FERC Annual Charge Recovery
SCHEDULE 9-OPSI
OPSI Funding
SCHEDULE 9-CAPS
CAPS Funding
SCHEDULE 9-FINCON
Finance Committee Retained Outside Consultant
SCHEDULE 9-MMU
MMU Funding
SCHEDULE 9 – PJM SETTLEMENT
SCHEDULE 10 - [Reserved]
SCHEDULE 10-NERC
North American Electric Reliability Corporation Charge
SCHEDULE 10-RFC
Reliability First Corporation Charge
SCHEDULE 11
[Reserved for Future Use]
SCHEDULE 11A
Additional Secure Control Center Data Communication Links and Formula Rate
SCHEDULE 12
Transmission Enhancement Charges
SCHEDULE 12 APPENDIX
SCHEDULE 12-A
SCHEDULE 13
Expansion Cost Recovery Change (ECRC)
SCHEDULE 14
Transmission Service on the Neptune Line
SCHEDULE 14 - Exhibit A
SCHEDULE 15
Non-Retail Behind The Meter Generation Maximum Generation Emergency
Obligations
SCHEDULE 16
Transmission Service on the Linden VFT Facility
SCHEDULE 16 Exhibit A
SCHEDULE 16 – A
Transmission Service for Imports on the Linden VFT Facility
SCHEDULE 17
Transmission Service on the Hudson Line

SCHEDULE 17 - Exhibit A

ATTACHMENT A

Form of Service Agreement For Firm Point-To-Point Transmission Service

ATTACHMENT A-1

Form of Service Agreement For The Resale, Reassignment or Transfer of Point-to-Point Transmission Service

ATTACHMENT B

Form of Service Agreement For Non-Firm Point-To-Point Transmission Service

ATTACHMENT C

Methodology To Assess Available Transfer Capability

ATTACHMENT C-1

Conversion of Service in the Dominion and Duquesne Zones

ATTACHMENT C-2

Conversion of Service in the Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc. ("DEOK") Zone

ATTACHMENT D

Methodology for Completing a System Impact Study

ATTACHMENT E

Index of Point-To-Point Transmission Service Customers

ATTACHMENT F

Service Agreement For Network Integration Transmission Service

ATTACHMENT F-1

Form of Umbrella Service Agreement for Network Integration Transmission Service Under State Required Retail Access Programs

ATTACHMENT G

Network Operating Agreement

ATTACHMENT H-1

Annual Transmission Rates -- Atlantic City Electric Company for Network Integration Transmission Service

ATTACHMENT H-1A

Atlantic City Electric Company Formula Rate Appendix A

ATTACHMENT H-1B

Atlantic City Electric Company Formula Rate Implementation Protocols

ATTACHMENT H-2

Annual Transmission Rates -- Baltimore Gas and Electric Company for Network Integration Transmission Service

ATTACHMENT H-2A

Baltimore Gas and Electric Company Formula Rate

ATTACHMENT H-2B

Baltimore Gas and Electric Company Formula Rate Implementation Protocols

ATTACHMENT H-3

Annual Transmission Rates -- Delmarva Power & Light Company for Network Integration Transmission Service

ATTACHMENT H-3A

Delmarva Power & Light Company Load Power Factor Charge Applicable to Service the Interconnection Points

ATTACHMENT H-3B

Delmarva Power & Light Company Load Power Factor Charge Applicable to Service the Interconnection Points

ATTACHMENT H-3C

Delmarva Power & Light Company Under-Frequency Load Shedding Charge

ATTACHMENT H-3D

Delmarva Power & Light Company Formula Rate – Appendix A

ATTACHMENT H-3E

Delmarva Power & Light Company Formula Rate Implementation Protocols

ATTACHMENT H-3F

Old Dominion Electric Cooperative Formula Rate – Appendix A

ATTACHMENT H-3G

Old Dominion Electric Cooperative Formula Rate Implementation Protocols

ATTACHMENT H-4

Annual Transmission Rates -- Jersey Central Power & Light Company for Network Integration Transmission Service

ATTACHMENT H-4A

Other Supporting Facilities - Jersey Central Power & Light Company

ATTACHMENT H-4B

Jersey Central Power & Light Company – *[Reserved]*

ATTACHMENT H-5

Annual Transmission Rates -- Metropolitan Edison Company for Network Integration Transmission Service

ATTACHMENT H-5A

Other Supporting Facilities -- Metropolitan Edison Company

ATTACHMENT H-6

Annual Transmission Rates -- Pennsylvania Electric Company for Network Integration Transmission Service

ATTACHMENT H-6A

Other Supporting Facilities Charges -- Pennsylvania Electric Company

ATTACHMENT H-7

Annual Transmission Rates -- PECO Energy Company for Network Integration Transmission Service

ATTACHMENT H-7A

PECO Energy Company Formula Rate Template

ATTACHMENT H-7B

PECO Energy Company Monthly Deferred Tax Adjustment Charge

ATTACHMENT H-7C

PECO Energy Company Formula Rate Implementation Protocols

ATTACHMENT H-8

Annual Transmission Rates – PPL Group for Network Integration Transmission Service

ATTACHMENT H-8A

Other Supporting Facilities Charges -- PPL Electric Utilities Corporation

ATTACHMENT 8C

UGI Utilities, Inc. Formula Rate – Appendix A

ATTACHMENT 8D

UGI Utilities, Inc. Formula Rate Implementation Protocols

ATTACHMENT 8E

UGI Utilities, Inc. Formula Rate – Appendix A

ATTACHMENT H-8G

Annual Transmission Rates – PPL Electric Utilities Corp.

ATTACHMENT H-8H

Formula Rate Implementation Protocols – PPL Electric Utilities Corp.

ATTACHMENT H-9

Annual Transmission Rates -- Potomac Electric Power Company for Network Integration Transmission Service

ATTACHMENT H-9A

Potomac Electric Power Company Formula Rate – Appendix A

ATTACHMENT H-9B

Potomac Electric Power Company Formula Rate Implementation Protocols

ATTACHMENT H-10

Annual Transmission Rates -- Public Service Electric and Gas Company for Network Integration Transmission Service

ATTACHMENT H-10A

Formula Rate -- Public Service Electric and Gas Company

ATTACHMENT H-10B

Formula Rate Implementation Protocols – Public Service Electric and Gas Company

ATTACHMENT H-11

Annual Transmission Rates -- Allegheny Power for Network Integration Transmission Service

ATTACHMENT 11A

Other Supporting Facilities Charges - Allegheny Power

ATTACHMENT H-12

Annual Transmission Rates -- Rockland Electric Company for Network Integration Transmission Service

ATTACHMENT H-13

Annual Transmission Rates – Commonwealth Edison Company for Network Integration Transmission Service

ATTACHMENT H-13A

Commonwealth Edison Company Formula Rate – Appendix A

ATTACHMENT H-13B

Commonwealth Edison Company Formula Rate Implementation Protocols

ATTACHMENT H-14

Annual Transmission Rates – AEP East Operating Companies for Network Integration Transmission Service

ATTACHMENT H-14A

AEP East Operating Companies Formula Rate Implementation Protocols

ATTACHMENT H-14B Part 1

ATTACHMENT H-14B Part 2

ATTACHMENT H-15

**Annual Transmission Rates -- The Dayton Power and Light Company
for Network Integration Transmission Service**
ATTACHMENT H-16
**Annual Transmission Rates -- Virginia Electric and Power Company
for Network Integration Transmission Service**
ATTACHMENT H-16A
Formula Rate - Virginia Electric and Power Company
ATTACHMENT H-16B
Formula Rate Implementation Protocols - Virginia Electric and Power Company
ATTACHMENT H-16C
**Virginia Retail Administrative Fee Credit for Virginia Retail Load Serving
Entities in the Dominion Zone**
ATTACHMENT H-16D – [Reserved]
ATTACHMENT H-16E – [Reserved]
ATTACHMENT H-16AA
Virginia Electric and Power Company
ATTACHMENT H-17
**Annual Transmission Rates -- Duquesne Light Company for Network Integration
Transmission Service**
ATTACHMENT H-17A
Duquesne Light Company Formula Rate – Appendix A
ATTACHMENT H-17B
Duquesne Light Company Formula Rate Implementation Protocols
ATTACHMENT H-17C
Duquesne Light Company Monthly Deferred Tax Adjustment Charge
ATTACHMENT H-18
Annual Transmission Rates – Trans-Allegheny Interstate Line Company
ATTACHMENT H-18A
Trans-Allegheny Interstate Line Company Formula Rate – Appendix A
ATTACHMENT H-18B
Trans-Allegheny Interstate Line Company Formula Rate Implementation Protocols
ATTACHMENT H-19
Annual Transmission Rates – Potomac-Appalachian Transmission Highline, L.L.C.
ATTACHMENT H-19A
Potomac-Appalachian Transmission Highline, L.L.C. Summary
ATTACHMENT H-19B
**Potomac-Appalachian Transmission Highline, L.L.C. Formula Rate
Implementation Protocols**
ATTACHMENT H-20
**Annual Transmission Rates – AEP Transmission Companies (AEPTCo) in the AEP
Zone**
ATTACHMENT H-20A
**AEP Transmission Companies (AEPTCo) in the AEP Zone - Formula Rate
Implementation Protocols**
ATTACHMENT H-20A APPENDIX A
Transmission Formula Rate Settlement for AEPTCo

ATTACHMENT H-20B - Part I

AEP Transmission Companies (AEPTCo) in the AEP Zone – Blank Formula Rate Template

ATTACHMENT H-20B - Part II

AEP Transmission Companies (AEPTCo) in the AEP Zone – Blank Formula Rate Template

**ATTACHMENT H-21
Annual Transmission Rates – American Transmission Systems, Inc. for Network Integration Transmission Service**

ATTACHMENT H-21A - ATSI

ATTACHMENT H-21A Appendix A - ATSI

ATTACHMENT H-21A Appendix B - ATSI

ATTACHMENT H-21A Appendix C - ATSI

ATTACHMENT H-21A Appendix C - ATSI [Reserved]

ATTACHMENT H-21A Appendix D – ATSI

ATTACHMENT H-21A Appendix E - ATSI

ATTACHMENT H-21A Appendix F – ATSI [Reserved]

ATTACHMENT H-21A Appendix G - ATSI

ATTACHMENT H-21A Appendix G – ATSI (Credit Adj)

ATTACHMENT H-21B ATSI Protocol

ATTACHMENT H-22

Annual Transmission Rates – DEOK for Network Integration Transmission Service and Point-to-Point Transmission Service

ATTACHMENT H-22A

Duke Energy Ohio and Duke Energy Kentucky (DEOK) Formula Rate Template

ATTACHMENT H-22B

DEOK Formula Rate Implementation Protocols

ATTACHMENT H-22C

Additional provisions re DEOK and Indiana

ATTACHMENT H-23

EP Rock springs annual transmission Rate

ATTACHMENT H-24

EKPC Annual Transmission Rates

ATTACHMENT H-24A APPENDIX A

EKPC Schedule 1A

ATTACHMENT H-24A APPENDIX B

EKPC RTEP

ATTACHMENT H-24A APPENDIX C

EKPC True-up

ATTACHMENT H-24A APPENDIX D

EKPC Depreciation Rates

ATTACHMENT H-24-B

EKPC Implementation Protocols

ATTACHMENT H-25

Annual Transmission Rates – Rochelle Municipal Utiliites for Network Integration Transmission Service and Point-to-Point Transmission Service in the ComEd Zone

ATTACHMENT H-25A

	Formula Rate Protocols for Rochelle Municipal Utilities Using a Historical Formula Rate Template
ATTACHMENT H-25B	Rochelle Municipal Utilities Transmission Cost of Service Formula Rate – Appendix A – Transmission Service Revenue Requirement
ATTACHMENT H-26	Transource West Virginia, LLC Formula Rate Template
ATTACHMENT H-26A	Transource West Virginia, LLC Formula Rate Implementation Protocols
ATTACHMENT H-27	Annual Transmission Rates – Northeast Transmission Development, LLC
ATTACHMENT H-27A	Northeast Transmission Development, LLC Formula Rate Template
ATTACHMENT H-27B	Northeast Transmission Development, LLC Formula Rate Implementation Protocols
ATTACHMENT H-28	Annual Transmission Rates – Mid-Atlantic Interstate Transmission, LLC for Network Integration Transmission Service
ATTACHMENT H-28A	Mid-Atlantic Interstate Transmission, LLC Formula Rate Template
ATTACHMENT H-28B	Mid-Atlantic Interstate Transmission, LLC Formula Rate Implementation Protocols
ATTACHMENT H-29	Annual Transmission Rates – Transource Pennsylvania, LLC
ATTACHMENT H-29A	Transource Pennsylvania, LLC Formula Rate Template
ATTACHMENT H-29B	Transource Pennsylvania, LLC Formula Rate Implementation Protocols
ATTACHMENT H-30	Annual Transmission Rates – Transource Maryland, LLC
ATTACHMENT H-30A	Transource Maryland, LLC Formula Rate Template
ATTACHMENT H-30B	Transource Maryland, LLC Formula Rate Implementation Protocols
ATTACHMENT H-A	Annual Transmission Rates -- Non-Zone Network Load for Network Integration Transmission Service
ATTACHMENT I	Index of Network Integration Transmission Service Customers
ATTACHMENT J	PJM Transmission Zones
ATTACHMENT K	Transmission Congestion Charges and Credits
	Preface

ATTACHMENT K -- APPENDIX

Preface

- 1. MARKET OPERATIONS**
 - 1.1 Introduction
 - 1.2 Cost-Based Offers
 - 1.2A Transmission Losses
 - 1.3 [Reserved for Future Use]
 - 1.4 Market Buyers
 - 1.5 Market Sellers
 - 1.5A Economic Load Response Participant
 - 1.6 Office of the Interconnection
 - 1.6A PJM Settlement
 - 1.7 General
 - 1.8 Selection, Scheduling and Dispatch Procedure Adjustment Process
 - 1.9 Prescheduling
 - 1.10 Scheduling
 - 1.11 Dispatch
 - 1.12 Dynamic Transfers
- 2. CALCULATION OF LOCATIONAL MARGINAL PRICES**
 - 2.1 Introduction
 - 2.2 General
 - 2.3 Determination of System Conditions Using the State Estimator
 - 2.4 Determination of Energy Offers Used in Calculating
 - 2.5 Calculation of Real-time Prices
 - 2.6 Calculation of Day-ahead Prices
 - 2.6A Interface Prices
 - 2.7 Performance Evaluation
- 3. ACCOUNTING AND BILLING**
 - 3.1 Introduction
 - 3.2 Market Buyers
 - 3.3 Market Sellers
 - 3.3A Economic Load Response Participants
 - 3.4 Transmission Customers
 - 3.5 Other Control Areas
 - 3.6 Metering Reconciliation
 - 3.7 Inadvertent Interchange
- 4. [Reserved For Future Use]**
- 5. CALCULATION OF CHARGES AND CREDITS FOR TRANSMISSION CONGESTION AND LOSSES**
 - 5.1 Transmission Congestion Charge Calculation
 - 5.2 Transmission Congestion Credit Calculation
 - 5.3 Unscheduled Transmission Service (Loop Flow)
 - 5.4 Transmission Loss Charge Calculation
 - 5.5 Distribution of Total Transmission Loss Charges
- 6. "MUST-RUN" FOR RELIABILITY GENERATION**
 - 6.1 Introduction
 - 6.2 Identification of Facility Outages

- 6.3 Dispatch for Local Reliability
- 6.4 Offer Price Caps
- 6.5 [Reserved]
- 6.6 Minimum Generator Operating Parameters –
Parameter-Limited Schedules
- 6A. [Reserved]**
 - 6A.1 [Reserved]
 - 6A.2 [Reserved]
 - 6A.3 [Reserved]
- 7. FINANCIAL TRANSMISSION RIGHTS AUCTIONS**
 - 7.1 Auctions of Financial Transmission Rights
 - 7.1A Long-Term Financial Transmission Rights Auctions
 - 7.2 Financial Transmission Rights Characteristics
 - 7.3 Auction Procedures
 - 7.4 Allocation of Auction Revenues
 - 7.5 Simultaneous Feasibility
 - 7.6 New Stage 1 Resources
 - 7.7 Alternate Stage 1 Resources
 - 7.8 Elective Upgrade Auction Revenue Rights
 - 7.9 Residual Auction Revenue Rights
 - 7.10 Financial Settlement
 - 7.11 PJMSettlement as Counterparty
- 8. EMERGENCY AND PRE-EMERGENCY LOAD RESPONSE PROGRAM**
 - 8.1 Emergency Load Response and Pre-Emergency Load Response Program Options
 - 8.2 Participant Qualifications
 - 8.3 Metering Requirements
 - 8.4 Registration
 - 8.5 Pre-Emergency Operations
 - 8.6 Emergency Operations
 - 8.7 Verification
 - 8.8 Market Settlements
 - 8.9 Reporting and Compliance
 - 8.10 Non-Hourly Metered Customer Pilot
 - 8.11 Emergency Load Response and Pre-Emergency Load Response Participant
Aggregation

ATTACHMENT L

List of Transmission Owners

ATTACHMENT M

PJM Market Monitoring Plan

ATTACHMENT M – APPENDIX

PJM Market Monitor Plan Attachment M Appendix

- I Confidentiality of Data and Information
- II Development of Inputs for Prospective Mitigation
- III Black Start Service
- IV Deactivation Rates
- V Opportunity Cost Calculation

VI	FTR Forfeiture Rule
VII	Forced Outage Rule
VIII	Data Collection and Verification
ATTACHMENT M-1 (FirstEnergy)	Energy Procedure Manual for Determining Supplier Total Hourly Energy Obligation
ATTACHMENT M-2 (First Energy)	Energy Procedure Manual for Determining Supplier Peak Load Share Procedures for Load Determination
ATTACHMENT M-2 (ComEd)	Determination of Capacity Peak Load Contributions and Network Service Peak Load Contributions
ATTACHMENT M-2 (PSE&G)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Atlantic City Electric Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Delmarva Power & Light Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Delmarva Power & Light Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Duke Energy Ohio, Inc.)	Procedures for Determination of Peak Load Contributions, Network Service Peak Load and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Virginia Electric and Power Company)	<i>Procedure for Determining Load Serving Entity Network Service Peak Load (NSPL) Contributions</i>
ATTACHMENT M-3	<i>Additional Procedures for Planning of Supplemental Projects</i>
ATTACHMENT N	Form of Generation Interconnection Feasibility Study Agreement
ATTACHMENT N-1	Form of System Impact Study Agreement
ATTACHMENT N-2	Form of Facilities Study Agreement
ATTACHMENT N-3	Form of Optional Interconnection Study Agreement
ATTACHMENT O	Form of Interconnection Service Agreement
1.0	Parties
2.0	Authority
3.0	Customer Facility Specifications
4.0	Effective Date

- 5.0 Security
- 6.0 Project Specific Milestones
- 7.0 Provision of Interconnection Service
- 8.0 Assumption of Tariff Obligations
- 9.0 Facilities Study
- 10.0 Construction of Transmission Owner Interconnection Facilities
- 11.0 Interconnection Specifications
- 12.0 Power Factor Requirement
- 12.0A RTU
- 13.0 Charges
- 14.0 Third Party Benefits
- 15.0 Waiver
- 16.0 Amendment
- 17.0 Construction With Other Parts Of The Tariff
- 18.0 Notices
- 19.0 Incorporation Of Other Documents
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 22.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 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

Specifications for Interconnection Service Agreement

- 1.0 Description of [generating unit(s)] [Merchant Transmission Facilities] (the Customer Facility) to be Interconnected with the Transmission System in the PJM Region
- 2.0 Rights
- 3.0 Construction Responsibility and Ownership of Interconnection Facilities
- 4.0 Subject to Modification Pursuant to the Negotiated Contract Option
- 4.1 Attachment Facilities Charge
- 4.2 Network Upgrades Charge
- 4.3 Local Upgrades Charge
- 4.4 Other Charges
- 4.5 Cost of Merchant Network Upgrades
- 4.6 Cost breakdown
- 4.7 Security Amount Breakdown

ATTACHMENT O APPENDIX 1: Definitions

ATTACHMENT O APPENDIX 2: Standard Terms and Conditions for Interconnections

- 1 Commencement, Term of and Conditions Precedent to Interconnection Service**
 - 1.1 Commencement Date
 - 1.2 Conditions Precedent
 - 1.3 Term
 - 1.4 Initial Operation
 - 1.4A Limited Operation

- 1.5 Survival
- 2 Interconnection Service**
 - 2.1 Scope of Service
 - 2.2 Non-Standard Terms
 - 2.3 No Transmission Services
 - 2.4 Use of Distribution Facilities
 - 2.5 Election by Behind The Meter Generation
- 3 Modification Of Facilities**
 - 3.1 General
 - 3.2 Interconnection Request
 - 3.3 Standards
 - 3.4 Modification Costs
- 4 Operations**
 - 4.1 General
 - 4.2 Operation of Merchant Network Upgrades
 - 4.3 Interconnection Customer Obligations
 - 4.4 [Reserved.]
 - 4.5 Permits and Rights-of-Way
 - 4.6 No Ancillary Services
 - 4.7 Reactive Power
 - 4.8 Under- and Over-Frequency Conditions
 - 4.9 Protection and System Quality
 - 4.10 Access Rights
 - 4.11 Switching and Tagging Rules
 - 4.12 Communications and Data Protocol
 - 4.13 Nuclear Generating Facilities
- 5 Maintenance**
 - 5.1 General
 - 5.2 Maintenance of Merchant Network Upgrades
 - 5.3 Outage Authority and Coordination
 - 5.4 Inspections and Testing
 - 5.5 Right to Observe Testing
 - 5.6 Secondary Systems
 - 5.7 Access Rights
 - 5.8 Observation of Deficiencies
- 6 Emergency Operations**
 - 6.1 Obligations
 - 6.2 Notice
 - 6.3 Immediate Action
 - 6.4 Record-Keeping Obligations
- 7 Safety**
 - 7.1 General
 - 7.2 Environmental Releases
- 8 Metering**
 - 8.1 General
 - 8.2 Standards

- 8.3 Testing of Metering Equipment
- 8.4 Metering Data
- 8.5 Communications
- 9 Force Majeure**
 - 9.1 Notice
 - 9.2 Duration of Force Majeure
 - 9.3 Obligation to Make Payments
 - 9.4 Definition of Force Majeure
- 10 Charges**
 - 10.1 Specified Charges
 - 10.2 FERC Filings
- 11 Security, Billing And Payments**
 - 11.1 Recurring Charges Pursuant to Section 10
 - 11.2 Costs for Transmission Owner Interconnection Facilities and/or Merchant Network Upgrades
 - 11.3 No Waiver
 - 11.4 Interest
- 12 Assignment**
 - 12.1 Assignment with Prior Consent
 - 12.2 Assignment Without Prior Consent
 - 12.3 Successors and Assigns
- 13 Insurance**
 - 13.1 Required Coverages for Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
 - 13.1A Required Coverages for Generation Resources Of 20 Megawatts Or Less
 - 13.2 Additional Insureds
 - 13.3 Other Required Terms
 - 13.3A No Limitation of Liability
 - 13.4 Self-Insurance
 - 13.5 Notices; Certificates of Insurance
 - 13.6 Subcontractor Insurance
 - 13.7 Reporting Incidents
- 14 Indemnity**
 - 14.1 Indemnity
 - 14.2 Indemnity Procedures
 - 14.3 Indemnified Person
 - 14.4 Amount Owing
 - 14.5 Limitation on Damages
 - 14.6 Limitation of Liability in Event of Breach
 - 14.7 Limited Liability in Emergency Conditions
- 15 Breach, Cure And Default**
 - 15.1 Breach
 - 15.2 Continued Operation
 - 15.3 Notice of Breach
 - 15.4 Cure and Default

- 15.5 Right to Compel Performance
- 15.6 Remedies Cumulative
- 16 Termination**
 - 16.1 Termination
 - 16.2 Disposition of Facilities Upon Termination
 - 16.3 FERC Approval
 - 16.4 Survival of Rights
- 17 Confidentiality**
 - 17.1 Term
 - 17.2 Scope
 - 17.3 Release of Confidential Information
 - 17.4 Rights
 - 17.5 No Warranties
 - 17.6 Standard of Care
 - 17.7 Order of Disclosure
 - 17.8 Termination of Interconnection Service Agreement
 - 17.9 Remedies
 - 17.10 Disclosure to FERC or its Staff
 - 17.11 No Interconnection Party Shall Disclose Confidential Information
 - 17.12 Information that is Public Domain
 - 17.13 Return or Destruction of Confidential Information
- 18 Subcontractors**
 - 18.1 Use of Subcontractors
 - 18.2 Responsibility of Principal
 - 18.3 Indemnification by Subcontractors
 - 18.4 Subcontractors Not Beneficiaries
- 19 Information Access And Audit Rights**
 - 19.1 Information Access
 - 19.2 Reporting of Non-Force Majeure Events
 - 19.3 Audit Rights
- 20 Disputes**
 - 20.1 Submission
 - 20.2 Rights Under The Federal Power Act
 - 20.3 Equitable Remedies
- 21 Notices**
 - 21.1 General
 - 21.2 Emergency Notices
 - 21.3 Operational Contacts
- 22 Miscellaneous**
 - 22.1 Regulatory Filing
 - 22.2 Waiver
 - 22.3 Amendments and Rights Under the Federal Power Act
 - 22.4 Binding Effect
 - 22.5 Regulatory Requirements
- 23 Representations And Warranties**
 - 23.1 General

- 24 Tax Liability**
 - 24.1 Safe Harbor Provisions
 - 24.2 Tax Indemnity
 - 24.3 Taxes Other Than Income Taxes
 - 24.4 Income Tax Gross-Up
 - 24.5 Tax Status

ATTACHMENT O - SCHEDULE A

Customer Facility Location/Site Plan

ATTACHMENT O - SCHEDULE B

Single-Line Diagram

ATTACHMENT O - SCHEDULE C

List of Metering Equipment

ATTACHMENT O - SCHEDULE D

Applicable Technical Requirements and Standards

ATTACHMENT O - SCHEDULE E

Schedule of Charges

ATTACHMENT O - SCHEDULE F

Schedule of Non-Standard Terms & Conditions

ATTACHMENT O - SCHEDULE G

Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status

ATTACHMENT O - SCHEDULE H

Interconnection Requirements for a Wind Generation Facility

ATTACHMENT O-1

Form of Interim Interconnection Service Agreement

ATTACHMENT P

Form of Interconnection Construction Service Agreement

- 1.0 Parties
- 2.0 Authority
- 3.0 Customer Facility
- 4.0 Effective Date and Term
 - 4.1 Effective Date
 - 4.2 Term
 - 4.3 Survival
- 5.0 Construction Responsibility
- 6.0 [Reserved.]
- 7.0 Scope of Work
- 8.0 Schedule of Work
- 9.0 [Reserved.]
- 10.0 Notices
- 11.0 Waiver
- 12.0 Amendment
- 13.0 Incorporation Of Other Documents
- 14.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 15.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service

- 16.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 17.0 Infrastructure Security of Electric System Equipment and Operations and Control Hardware and Software is Essential to Ensure Day-to-Day Reliability and Operational Security

ATTACHMENT P - APPENDIX 1 – DEFINITIONS

ATTACHMENT P - APPENDIX 2 – STANDARD CONSTRUCTION TERMS AND CONDITIONS

Preamble

1 Facilitation by Transmission Provider

2 Construction Obligations

- 2.1 Interconnection Customer Obligations
- 2.2 Transmission Owner Interconnection Facilities and Merchant Network Upgrades
- 2.2A Scope of Applicable Technical Requirements and Standards
- 2.3 Construction By Interconnection Customer
- 2.4 Tax Liability
- 2.5 Safety
- 2.6 Construction-Related Access Rights
- 2.7 Coordination Among Constructing Parties

3 Schedule of Work

- 3.1 Construction by Interconnection Customer
- 3.2 Construction by Interconnected Transmission Owner
 - 3.2.1 Standard Option
 - 3.2.2 Negotiated Contract Option
 - 3.2.3 Option to Build
- 3.3 Revisions to Schedule of Work
- 3.4 Suspension
 - 3.4.1 Costs
 - 3.4.2 Duration of Suspension
- 3.5 Right to Complete Transmission Owner Interconnection Facilities
- 3.6 Suspension of Work Upon Default
- 3.7 Construction Reports
- 3.8 Inspection and Testing of Completed Facilities
- 3.9 Energization of Completed Facilities
- 3.10 Interconnected Transmission Owner's Acceptance of Facilities Constructed by Interconnection Customer

4 Transmission Outages

- 4.1 Outages; Coordination

5 Land Rights; Transfer of Title

- 5.1 Grant of Easements and Other Land Rights
- 5.2 Construction of Facilities on Interconnection Customer Property
- 5.3 Third Parties
- 5.4 Documentation
- 5.5 Transfer of Title to Certain Facilities Constructed By Interconnection Customer

- 5.6 Liens
- 6 Warranties**
 - 6.1 Interconnection Customer Warranty
 - 6.2 Manufacturer Warranties
- 7 [Reserved.]**
- 8 [Reserved.]**
- 9 Security, Billing And Payments**
 - 9.1 Adjustments to Security
 - 9.2 Invoice
 - 9.3 Final Invoice
 - 9.4 Disputes
 - 9.5 Interest
 - 9.6 No Waiver
- 10 Assignment**
 - 10.1 Assignment with Prior Consent
 - 10.2 Assignment Without Prior Consent
 - 10.3 Successors and Assigns
- 11 Insurance**
 - 11.1 Required Coverages For Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
 - 11.1A Required Coverages For Generation Resources of 20 Megawatts Or Less
 - 11.2 Additional Insureds
 - 11.3 Other Required Terms
 - 11.3A No Limitation of Liability
 - 11.4 Self-Insurance
 - 11.5 Notices; Certificates of Insurance
 - 11.6 Subcontractor Insurance
 - 11.7 Reporting Incidents
- 12 Indemnity**
 - 12.1 Indemnity
 - 12.2 Indemnity Procedures
 - 12.3 Indemnified Person
 - 12.4 Amount Owing
 - 12.5 Limitation on Damages
 - 12.6 Limitation of Liability in Event of Breach
 - 12.7 Limited Liability in Emergency Conditions
- 13 Breach, Cure And Default**
 - 13.1 Breach
 - 13.2 Notice of Breach
 - 13.3 Cure and Default
 - 13.3.1 Cure of Breach
 - 13.4 Right to Compel Performance
 - 13.5 Remedies Cumulative
- 14 Termination**
 - 14.1 Termination

- 14.2 [Reserved.]
- 14.3 Cancellation By Interconnection Customer
- 14.4 Survival of Rights
- 15 Force Majeure**
 - 15.1 Notice
 - 15.2 Duration of Force Majeure
 - 15.3 Obligation to Make Payments
 - 15.4 Definition of Force Majeure
- 16 Subcontractors**
 - 16.1 Use of Subcontractors
 - 16.2 Responsibility of Principal
 - 16.3 Indemnification by Subcontractors
 - 16.4 Subcontractors Not Beneficiaries
- 17 Confidentiality**
 - 17.1 Term
 - 17.2 Scope
 - 17.3 Release of Confidential Information
 - 17.4 Rights
 - 17.5 No Warranties
 - 17.6 Standard of Care
 - 17.7 Order of Disclosure
 - 17.8 Termination of Construction Service Agreement
 - 17.9 Remedies
 - 17.10 Disclosure to FERC or its Staff
 - 17.11 No Construction Party Shall Disclose Confidential Information of Another Construction Party 17.12 Information that is Public Domain
 - 17.13 Return or Destruction of Confidential Information
- 18 Information Access And Audit Rights**
 - 18.1 Information Access
 - 18.2 Reporting of Non-Force Majeure Events
 - 18.3 Audit Rights
- 19 Disputes**
 - 19.1 Submission
 - 19.2 Rights Under The Federal Power Act
 - 19.3 Equitable Remedies
- 20 Notices**
 - 20.1 General
 - 20.2 Operational Contacts
- 21 Miscellaneous**
 - 21.1 Regulatory Filing
 - 21.2 Waiver
 - 21.3 Amendments and Rights under the Federal Power Act
 - 21.4 Binding Effect
 - 21.5 Regulatory Requirements
- 22 Representations and Warranties**
 - 22.1 General

ATTACHMENT P - SCHEDULE A
Site Plan

ATTACHMENT P - SCHEDULE B
Single-Line Diagram of Interconnection Facilities

ATTACHMENT P - SCHEDULE C
**Transmission Owner Interconnection Facilities to be Built by Interconnected
Transmission Owner**

ATTACHMENT P - SCHEDULE D
**Transmission Owner Interconnection Facilities to be Built by Interconnection
Customer Pursuant to Option to Build**

ATTACHMENT P - SCHEDULE E
Merchant Network Upgrades to be Built by Interconnected Transmission Owner

ATTACHMENT P - SCHEDULE F
**Merchant Network Upgrades to be Built by Interconnection Customer
Pursuant to Option to Build**

ATTACHMENT P - SCHEDULE G
Customer Interconnection Facilities

ATTACHMENT P - SCHEDULE H
Negotiated Contract Option Terms

ATTACHMENT P - SCHEDULE I
Scope of Work

ATTACHMENT P - SCHEDULE J
Schedule of Work

ATTACHMENT P - SCHEDULE K
Applicable Technical Requirements and Standards

ATTACHMENT P - SCHEDULE L
**Interconnection Customer's Agreement to Confirm with IRS Safe Harbor
Provisions For Non-Taxable Status**

ATTACHMENT P - SCHEDULE M
Schedule of Non-Standard Terms and Conditions

ATTACHMENT P - SCHEDULE N
Interconnection Requirements for a Wind Generation Facility

ATTACHMENT Q
PJM Credit Policy

ATTACHMENT R
**Lost Revenues Of PJM Transmission Owners And Distribution of Revenues
Remitted By MISO, SECA Rates to Collect PJM Transmission Owner Lost
Revenues Under Attachment X, And Revenues From PJM Existing Transactions**

ATTACHMENT S
Form of Transmission Interconnection Feasibility Study Agreement

ATTACHMENT T
Identification of Merchant Transmission Facilities

ATTACHMENT U
Independent Transmission Companies

ATTACHMENT V
Form of ITC Agreement

ATTACHMENT W

COMMONWEALTH EDISON COMPANY

ATTACHMENT X

Seams Elimination Cost Assignment Charges

NOTICE OF ADOPTION OF NERC TRANSMISSION LOADING RELIEF PROCEDURES

NOTICE OF ADOPTION OF LOCAL TRANSMISSION LOADING RELIEF PROCEDURES

SCHEDULE OF PARTIES ADOPTING LOCAL TRANSMISSION LOADING RELIEF PROCEDURES

ATTACHMENT Y

Forms of Screens Process Interconnection Request (For Generation Facilities of 2 MW or less)

ATTACHMENT Z

Certification Codes and Standards

ATTACHMENT AA

Certification of Small Generator Equipment Packages

ATTACHMENT BB

Form of Certified Inverter-Based Generating Facility No Larger Than 10 kW Interconnection Service Agreement

ATTACHMENT CC

Form of Certificate of Completion (Small Generating Inverter Facility No Larger Than 10 kW)

ATTACHMENT DD

Reliability Pricing Model

ATTACHMENT EE

Form of Upgrade Request

ATTACHMENT FF

~~Form of Initial Study Agreement~~[Reserved]

ATTACHMENT GG

Form of Upgrade Construction Service Agreement

Article 1 – Definitions And Other Documents

1.0 Defined Terms

1.1 Incorporation of Other Documents

Article 2 – Responsibility for Direct Assignment Facilities or Customer-Funded Upgrades

2.0 New Service Customer Financial Responsibilities

2.1 Obligation to Provide Security

2.2 Failure to Provide Security

2.3 Costs

2.4 Transmission Owner Responsibilities

Article 3 – Rights To Transmission Service

3.0 No Transmission Service

Article 4 – Early Termination

4.0 Termination by New Service Customer

Article 5 – Rights

- 5.0 Rights
- 5.1 Amount of Rights Granted
- 5.2 Availability of Rights Granted
- 5.3 Credits
- Article 6 – Miscellaneous
 - 6.0 Notices
 - 6.1 Waiver
 - 6.2 Amendment
 - 6.3 No Partnership
 - 6.4 Counterparts

ATTACHMENT GG - APPENDIX I –

**SCOPE AND SCHEDULE OF WORK FOR DIRECT ASSIGNMENT
FACILITIES OR CUSTOMER-FUNDED UPGRADES TO BE BUILT BY
TRANSMISSION OWNER**

ATTACHMENT GG - APPENDIX II - DEFINITIONS

- 1 Definitions
 - 1.1 Affiliate
 - 1.2 Applicable Laws and Regulations
 - 1.3 Applicable Regional Reliability Council
 - 1.4 Applicable Standards
 - 1.5 Breach
 - 1.6 Breaching Party
 - 1.7 Cancellation Costs
 - 1.8 Commission
 - 1.9 Confidential Information
 - 1.10 Constructing Entity
 - 1.11 Control Area
 - 1.12 Costs
 - 1.13 Default
 - 1.14 Delivering Party
 - 1.15 Emergency Condition
 - 1.16 Environmental Laws
 - 1.17 Facilities Study
 - 1.18 Federal Power Act
 - 1.19 FERC
 - 1.20 Firm Point-To-Point
 - 1.21 Force Majeure
 - 1.22 Good Utility Practice
 - 1.23 Governmental Authority
 - 1.24 Hazardous Substances
 - 1.25 Incidental Expenses
 - 1.26 Local Upgrades
 - 1.27 Long-Term Firm Point-To-Point Transmission Service
 - 1.28 MAAC
 - 1.29 MAAC Control Zone
 - 1.30 NERC

- 1.31 Network Upgrades
- 1.32 Office of the Interconnection
- 1.33 Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement
- 1.34 Part I
- 1.35 Part II
- 1.36 Part III
- 1.37 Part IV
- 1.38 Part VI
- 1.39 PJM Interchange Energy Market
- 1.40 PJM Manuals
- 1.41 PJM Region
- 1.42 PJM West Region
- 1.43 Point(s) of Delivery
- 1.44 Point(s) of Receipt
- 1.45 Project Financing
- 1.46 Project Finance Entity
- 1.47 Reasonable Efforts
- 1.48 Receiving Party
- 1.49 Regional Transmission Expansion Plan
- 1.50 Schedule and Scope of Work
- 1.51 Security
- 1.52 Service Agreement
- 1.53 State
- 1.54 Transmission System
- 1.55 VACAR

ATTACHMENT GG - APPENDIX III – GENERAL TERMS AND CONDITIONS

- 1.0 Effective Date and Term
 - 1.1 Effective Date
 - 1.2 Term
 - 1.3 Survival
- 2.0 Facilitation by Transmission Provider
- 3.0 Construction Obligations
 - 3.1 Direct Assignment Facilities or Customer-Funded Upgrades
 - 3.2 Scope of Applicable Technical Requirements and Standards
- 4.0 Tax Liability
 - 4.1 New Service Customer Payments Taxable
 - 4.2 Income Tax Gross-Up
 - 4.3 Private Letter Ruling
 - 4.4 Refund
 - 4.5 Contests
 - 4.6 Taxes Other Than Income Taxes
 - 4.7 Tax Status
- 5.0 Safety
 - 5.1 General
 - 5.2 Environmental Releases

- 6.0 Schedule Of Work
 - 6.1 Standard Option
 - 6.2 Option to Build
 - 6.3 Revisions to Schedule and Scope of Work
 - 6.4 Suspension
- 7.0 Suspension of Work Upon Default
 - 7.1 Notification and Correction of Defects
- 8.0 Transmission Outages
 - 8.1 Outages; Coordination
- 9.0 Security, Billing and Payments
 - 9.1 Adjustments to Security
 - 9.2 Invoice
 - 9.3 Final Invoice
 - 9.4 Disputes
 - 9.5 Interest
 - 9.6 No Waiver
- 10.0 Assignment
 - 10.1 Assignment with Prior Consent
 - 10.2 Assignment Without Prior Consent
 - 10.3 Successors and Assigns
- 11.0 Insurance
 - 11.1 Required Coverages
 - 11.2 Additional Insureds
 - 11.3 Other Required Terms
 - 11.4 No Limitation of Liability
 - 11.5 Self-Insurance
 - 11.6 Notices: Certificates of Insurance
 - 11.7 Subcontractor Insurance
 - 11.8 Reporting Incidents
- 12.0 Indemnity
 - 12.1 Indemnity
 - 12.2 Indemnity Procedures
 - 12.3 Indemnified Person
 - 12.4 Amount Owing
 - 12.5 Limitation on Damages
 - 12.6 Limitation of Liability in Event of Breach
 - 12.7 Limited Liability in Emergency Conditions
- 13.0 Breach, Cure And Default
 - 13.1 Breach
 - 13.2 Notice of Breach
 - 13.3 Cure and Default
 - 13.4 Right to Compel Performance
 - 13.5 Remedies Cumulative
- 14.0 Termination
 - 14.1 Termination
 - 14.2 Cancellation By New Service Customer

- 14.3 Survival of Rights
- 14.4 Filing at FERC
- 15.0 Force Majeure
 - 15.1 Notice
 - 15.2 Duration of Force Majeure
 - 15.3 Obligation to Make Payments
- 16.0 Confidentiality
 - 16.1 Term
 - 16.2 Scope
 - 16.3 Release of Confidential Information
 - 16.4 Rights
 - 16.5 No Warranties
 - 16.6 Standard of Care
 - 16.7 Order of Disclosure
 - 16.8 Termination of Upgrade Construction Service Agreement
 - 16.9 Remedies
 - 16.10 Disclosure to FERC or its Staff
 - 16.11 No Party Shall Disclose Confidential Information of Party 16.12
Information that is Public Domain
 - 16.13 Return or Destruction of Confidential Information
- 17.0 Information Access And Audit Rights
 - 17.1 Information Access
 - 17.2 Reporting of Non-Force Majeure Events
 - 17.3 Audit Rights
 - 17.4 Waiver
 - 17.5 Amendments and Rights under the Federal Power Act
 - 17.6 Regulatory Requirements
- 18.0 Representation and Warranties
 - 18.1 General
- 19.0 Inspection and Testing of Completed Facilities
 - 19.1 Coordination
 - 19.2 Inspection and Testing
 - 19.3 Review of Inspection and Testing by Transmission Owner
 - 19.4 Notification and Correction of Defects
 - 19.5 Notification of Results
- 20.0 Energization of Completed Facilities
- 21.0 Transmission Owner's Acceptance of Facilities Constructed
by New Service Customer
- 22.0 Transfer of Title to Certain Facilities Constructed By New Service Customer
- 23.0 Liens

ATTACHMENT HH – RATES, TERMS, AND CONDITIONS OF SERVICE FOR PJMSETTLEMENT, INC.

ATTACHMENT II – MTEP PROJECT COST RECOVERY FOR ATSI ZONE

ATTACHMENT JJ – MTEP PROJECT COST RECOVERY FOR DEOK ZONE

ATTACHMENT KK - FORM OF DESIGNATED ENTITY AGREEMENT

ATTACHMENT LL - FORM OF INTERCONNECTION COORDINATION AGREEMENT

ATTACHMENT MM – FORM OF PSEUDO-TIE AGREEMENT – WITH NATIVE BA AS PARTY

ATTACHMENT MM-1 – FORM OF SYSTEM MODIFICATION COST REIMBURSEMENT AGREEMENT – PSEUDO-TIE INTO PJM

ATTACHMENT NN – FORM OF PSEUDO-TIE AGREEMENT WITHOUT NATIVE BA AS PARTY

ATTACHMENT OO – FORM OF DYNAMIC SCHEDULE AGREEMENT INTO THE PJM REGION

ATTACHMENT PP – FORM OF FIRM TRANSMISSION FEASIBILITY STUDY AGREEMENT

Definitions – E - F

Economic-based Enhancement or Expansion:

“Economic-based Enhancement or Expansion” shall have the same meaning provided in the Operating Agreement.

Economic Load Response Participant:

“Economic Load Response Participant” shall mean a Member or Special Member that qualifies under Operating Agreement, Schedule 1, section 1.5A, and the parallel provisions of Tariff, Attachment K-Appendix, to participate in the PJM Interchange Energy Market and/or Ancillary Services markets through reductions in demand.

Economic Maximum:

“Economic Minimum” shall mean the lowest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

Effective FTR Holder:

“Effective FTR Holder” shall mean:

- (i) For an FTR Holder that is either a (a) privately held company, or (b) a municipality or electric cooperative, as defined in the Federal Power Act, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other entity that is under common ownership, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (ii) For an FTR Holder that is a publicly traded company including a wholly owned subsidiary of a publicly traded company, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other PJM Member has over 10% common ownership with the FTR Holder, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (iii) an FTR Holder together with any other PJM Member, including also any Affiliate, subsidiary or parent of such other PJM Member, with which it shares common ownership, wholly or partly, directly or indirectly, in any third entity which is a PJM Member (e.g., a joint venture).

EFORd:

“EFORd” shall have the meaning specified in the PJM Reliability Assurance Agreement.

Electrical Distance:

“Electrical Distance” shall mean, for a Generation Capacity Resource geographically located outside the metered boundaries of the PJM Region, the measure of distance, based on impedance and in accordance with the PJM Manuals, from the Generation Capacity Resource to the PJM Region.

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 VI, Eligible Customer shall mean only those Eligible Customers that have submitted a Completed Application.

Emergency Action:

“Emergency Action” shall mean any emergency action for locational or system-wide capacity shortages that either utilizes pre-emergency mandatory load management reductions or other emergency capacity, or initiates a more severe action including, but not limited to, a Voltage Reduction Warning, Voltage Reduction Action, Manual Load Dump Warning, or Manual Load Dump Action.

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 Interconnected 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 Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not

obligated by an Interconnection Service 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.

Emergency Load Response Program:

“Emergency Load Response Program” shall mean the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix.

Energy Efficiency Resource:

“Energy Efficiency Resource” shall have the meaning specified in the PJM Reliability Assurance Agreement.

Energy Market Opportunity Cost:

“Energy Market Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of available run hours due to limitations imposed on the unit by Applicable Laws and Regulations, and (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Energy Market Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same compliance period, which compliance period is determined by the applicable regulatory authority and is reflected in the rules set forth in PJM Manual 15. Energy Market Opportunity Costs shall be limited to those resources which are specifically delineated in Schedule 2 of the Operating Agreement.

Energy Resource:

“Energy Resource” shall mean a generating facility that is not a Capacity Resource.

Energy Settlement Area:

“Energy Settlement Area” shall mean the bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

Energy Storage Resource:

“Energy Storage Resource” shall mean flywheel or battery storage facility solely used for short term storage and injection of energy at a later time to participate in the PJM energy and/or Ancillary Services markets as a Market Seller.

Energy Transmission Injection Rights:

“Energy Transmission Injection Rights” shall mean the rights to schedule energy deliveries at a specified point on the Transmission System. Energy Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Deliveries scheduled using Energy Transmission Injection Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

Environmental Laws:

“Environmental Laws” shall mean applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

Environmentally-Limited Resource:

“Environmentally-Limited Resource” shall mean a resource which has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited by a governmental authority to operating only during declared PJM capacity emergencies.

Equivalent Load:

“Equivalent Load” shall mean the sum of a Market Participant’s net system requirements to serve its customer load in the PJM Region, if any, plus its net bilateral transactions.

Existing Generation Capacity Resource:

“Existing Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

Export Credit Exposure:

“Export Credit Exposure” is determined for each Market Participant for a given Operating Day, and shall mean the sum of credit exposures for the Market Participant’s Export Transactions for that Operating Day and for the preceding Operating Day.

Export Nodal Reference Price:

“Export Nodal Reference Price” at each location is the 97th percentile, shall be, the real-time hourly integrated price experienced over the corresponding two-month period in the preceding calendar year, calculated separately for peak and off-peak time periods. The two-month time periods used in this calculation shall be January and February, March and April, May and June, July and August, September and October, and November and December.

Export Transaction:

“Export Transaction” shall be a transaction by a Market Participant that results in the transfer of energy from within the PJM Control Area to outside the PJM Control Area. Coordinated External Transactions that result in the transfer of energy from the PJM Control Area to an adjacent Control Area are one form of Export Transaction.

Export Transaction Price Factor:

“Export Transaction Price Factor” for a prospective time interval shall be the greater of (i) PJM’s forecast price for the time interval, if available, or (ii) the Export Nodal Reference Price, but shall not exceed the Export Transaction’s dispatch ceiling price cap, if any, for that time interval. The Export Transaction Price Factor for a past time interval shall be calculated in the same manner as for a prospective time interval, except that the Export Transaction Price Factor may use a tentative or final settlement price, as available. If an Export Nodal Reference Price is not available for a particular time interval, PJM may use an Export Transaction Price Factor for that time interval based on an appropriate alternate reference price.

Export Transaction Screening:

“Export Transaction Screening” shall be the process PJM uses to review the Export Credit Exposure of Export Transactions against the Credit Available for Export Transactions, and deny or curtail all or a portion of an Export Transaction, if the credit required for such transactions is greater than the credit available for the transactions.

Export Transactions Net Activity:

“Export Transactions Net Activity” shall mean the aggregate net total, resulting from Export Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Operating Agreement, Schedule 1 and the parallel provisions of Tariff, Attachment K-Appendix. Export Transactions Net Activity may be positive or negative.

Extended Primary Reserve Requirement:

“Extended Primary Reserve Requirement” shall equal the Primary Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

Extended Summer Demand Resource:

“Extended Summer Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

Extended Summer Resource Price Adder:

“Extended Summer Resource Price Adder” shall mean, for Delivery Years through May 31, 2018, an addition to the marginal value of Unforced Capacity as necessary to reflect the price of Annual Resources and Extended Summer Demand Resources required to meet the applicable Minimum Extended Summer Resource Requirement.

Extended Synchronized Reserve Requirement:

“Extended Synchronized Reserve Requirement” shall equal the Synchronized Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals.

External Market Buyer:

“External Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for consumption by end-users outside the PJM Region, or for load in the PJM Region that is not served by Network Transmission Service.

External Resource:

“External Resource” shall mean a generation resource located outside the metered boundaries of the PJM Region.

Facilities Study:

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider’s Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses documented in the System Impact Study or required by PJM Manuals, and determine the required modifications to the Transmission Provider’s Transmission System based on the conclusions of such additional studies. The Facilities Study shall include the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate a New Service Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Customer Funded Upgrades necessary to accommodate the New Service Customer’s New Service Request in accordance with Tariff, Part VI, section 207.

Federal Power Act:

“Federal Power Act” shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

FERC:

“FERC” shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

FERC Market Rules:

“FERC Market Rules” mean the market behavior rules and the prohibition against electric energy market manipulation codified by the Commission in its Rules and Regulations at 18 CFR §§ 1c.2 and 35.37, respectively; the Commission-approved PJM Market Rules and any related proscriptions or any successor rules that the Commission from time to time may issue, approve or otherwise establish.

Final Offer:

“Final Offer” shall mean the offer on which a resource was dispatched by the Office of the Interconnection for a particular clock hour for the Operating Day.

Final RTO Unforced Capacity Obligation:

“Final RTO Unforced Capacity Obligation” shall mean the capacity obligation for the PJM Region, determined in accordance with Schedule 8 of the Reliability Assurance Agreement.

Financial Close:

“Financial Close” shall mean the Capacity Market Seller has demonstrated that the Capacity Market Seller or its agent has completed the act of executing the material contracts and/or other documents necessary to (1) authorize construction of the project and (2) establish the necessary funding for the project under the control of an independent third-party entity. A sworn, notarized certification of an independent engineer certifying to such facts, and that the engineer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration. For resources that do not have external financing, Financial Close shall mean the project has full funding available, and that the project has been duly authorized to proceed with full construction of the material portions of the project by the appropriate governing body of the company funding such project. A sworn, notarized certification by an officer of such company certifying to such facts, and that the officer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration.

Financial Transmission Right:

“Financial Transmission Right” or “FTR” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2 and the parallel provisions of Tariff, Attachment K-Appendix.

Financial Transmission Right Obligation:

“Financial Transmission Right Obligation” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(b), and the parallel provisions of Tariff, Attachment K-Appendix.

Financial Transmission Right Option:

“Financial Transmission Right Option” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(c), and the parallel provisions of Tariff, Attachment K-Appendix.

Firm Point-To-Point Transmission Service:

“Firm Point-To-Point Transmission Service” shall mean Transmission Service under the Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Tariff, Part II.

Firm Transmission Feasibility Study:

“Firm Transmission Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with sections 19.3 and 32.3 of the Tariff.

Firm Transmission Withdrawal Rights:

“Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy and capacity withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System with another control area. Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.

First Incremental Auction:

“First Incremental Auction” shall mean an Incremental Auction conducted 20 months prior to the start of the Delivery Year to which it relates.

Flexible Resource:

“Flexible Resource” shall mean a generating resource that must have a combined Start-up Time and Notification Time of less than or equal to two hours; and a Minimum Run Time of less than or equal to two hours.

Forecast Pool Requirement:

“Forecast Pool Requirement” shall have the meaning specified in the Reliability Assurance Agreement.

Foreign Guaranty:

“Foreign Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in a foreign country, and meets all of the provisions of Tariff, Attachment Q.

Form 715 Planning Criteria:

“Form 715 Planning Criteria” shall have the same meaning provided in the Operating Agreement.

FTR Credit Limit:

“FTR Credit Limit” shall mean the amount of credit established with PJMSettlement that an FTR Participant has specifically designated to be used for FTR activity in a specific customer account. Any such credit so set aside shall not be considered available to satisfy any other credit requirement the FTR Participant may have with PJMSettlement.

FTR Credit Requirement:

“FTR Credit Requirement” shall mean the amount of credit that a Participant must provide in order to support the FTR positions that it holds and/or for which it is bidding. The FTR Credit Requirement shall not include months for which the invoicing has already been completed, provided that PJMSettlement shall have up to two Business Days following the date of the invoice completion to make such adjustments in its credit systems. FTR Credit Requirements are calculated and applied separately for each separate customer account.

FTR Flow Undiversified:

“FTR Flow Undiversified” shall have the meaning established in Tariff, Attachment Q, section V.G.

FTR Historical Value:

For each FTR for each month, “FTR Historical Value” shall mean the *weighted average of* historical values over three years for the FTR path using the following weightings: 50% - most recent year; 30% - second year; 20% - third year.

FTR Holder:

“FTR Holder” shall mean the PJM Member that has acquired and possesses an FTR.

FTR Monthly Credit Requirement Contribution:

For each FTR, for each month, “FTR Monthly Credit Requirement Contribution” shall mean the total FTR cost for the month, prorated on a daily basis, less the FTR Historical Value for the

month. For cleared FTRs, this contribution may be negative; prior to clearing, FTRs with negative contribution shall be deemed to have zero contribution.

FTR Net Activity:

“FTR Net Activity” shall mean the aggregate net value of the billing line items for auction revenue rights credits, FTR auction charges, FTR auction credits, and FTR congestion credits, and shall also include day-ahead and balancing/real-time congestion charges up to a maximum net value of the sum of the foregoing auction revenue rights credits, FTR auction charges, FTR auction credits and FTR congestion credits.

FTR Participant:

“FTR Participant” shall mean any Market Participant that provides or is required to provide Collateral in order to participate in PJM’s FTR auctions.

FTR Portfolio Auction Value:

“FTR Portfolio Auction Value” shall mean for each customer account of a Market Participant, the sum, calculated on a monthly basis, across all FTRs, of the FTR price times the FTR volume in MW.

Fuel Cost Policy:

“Fuel Cost Policy” shall mean the document provided by a Market Seller to PJM and the Market Monitoring Unit in accordance with PJM Manual 15 and Operating Agreement, Schedule 2, which documents the Market Seller’s method used to price fuel for calculation of the Market Seller’s cost-based offers for a generation resource.

Full Notice to Proceed:

“Full Notice to Proceed” shall mean that all material third party contractors have been given the notice to proceed with construction by the Capacity Market Seller or its agent, with a guaranteed completion date backed by liquidated damages.

Definitions – I – J - K

IDR Transfer Agreement:

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, section ~~49B237~~, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

Immediate-need Reliability Project:

“Immediate-need Reliability Project” shall have the same meaning provided in the Operating Agreement.

Inadvertent Interchange:

“Inadvertent Interchange” shall mean the difference between net actual energy flow and net scheduled energy flow into or out of the individual Control Areas operated by PJM.

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:

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction), shall be held for the purposes of:

(i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORd increase, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and

(ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed

circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

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 Available Transfer Capability Revenue Rights:

“Incremental Available Transfer Capability Revenue Rights” shall mean the rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

Incremental Capacity Transfer Right:

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer 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 Schedule 12A of the Tariff.

Incremental Deliverability Rights (IDRs):

“Incremental Deliverability Rights” or “IDRs” 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 Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

Incremental Multi-Driver Project:

“Incremental Multi-Driver Project” shall have the same meaning provided in the Operating Agreement.

Incremental Rights-Eligible Required Transmission Enhancements:

“Incremental Rights-Eligible Required Transmission Enhancements” shall mean Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Schedule 12 of the Tariff) and meet one of the following criteria: (1) cost responsibility is

assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

Increment Offer:

“Increment Offer” shall mean a type of Virtual Transaction that is an offer to sell energy at a specified location in the Day-ahead Energy Market. A cleared Increment Offer results in scheduled generation at the specified location in the Day-ahead Energy Market.

Initial Operation:

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Section 1.4 of Appendix 2 of an Interconnection Service Agreement.

Initial Study:

~~“Initial Study” shall mean a study of a Completed Application conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 19 or Section 32 of the Tariff.~~

Interconnected Entity:

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

Interconnected Transmission Owner:

“Interconnected Transmission Owner” shall mean the Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

Interconnection Construction Service Agreement:

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Tariff, Part VI, Subpart B and in the form set forth in Attachment P of the Tariff, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

Interconnection Customer:

“Interconnection Customer” shall mean a Generation Interconnection Customer and/or a Transmission Interconnection Customer.

Interconnection Facilities:

“Interconnection Facilities” shall mean the Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

Interconnection Feasibility Study:

“Interconnection Feasibility Study” shall mean either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

Interconnection Party:

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected 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 Customer Facility with the Transmission System pursuant to the terms of Part IV and Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

Interconnection Service Agreement:

“Interconnection Service Agreement” shall mean an agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Tariff, Part IV and Part VI.

Interconnection Studies:

“Interconnection Studies” shall mean the Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Tariff, Part IV and Part VI.

Interface Pricing Point:

“Interface Pricing Point” shall have the meaning specified in Operating Agreement, Schedule 1, section 2.6A, and the parallel provisions of Tariff, Attachment K-Appendix.

Intermittent Resource:

“Intermittent Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources.

Internal Market Buyer:

“Internal Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for ultimate consumption by end-users inside the PJM Region that are served by Network Transmission Service.

Interregional Transmission Project:

“Interregional Transmission Project” shall mean transmission facilities that would be located within two or more neighboring transmission planning regions and are determined by each of those regions to be a more efficient or cost effective solution to regional transmission needs.

Interruption:

“Interruption” shall mean a reduction in non-firm transmission service due to economic reasons pursuant to Tariff, Part II, section 14.7.

Definitions – T – U - V

Tangible Net Worth:

“Tangible Net Worth” shall mean all assets (not including any intangible assets such as goodwill) less all liabilities. Any such calculation may be reduced by PJM Settlement upon review of the available financial information.

Target Allocation:

“Target Allocation” shall mean the allocation of Transmission Congestion Credits as set forth in Operating Agreement, Schedule 1, section 5.2.3, and the parallel provisions of Tariff, Attachment K-Appendix, or the allocation of Auction Revenue Rights Credits as set forth in Operating Agreement, Schedule 1, section 7.4.3, and the parallel provisions of Tariff, Attachment K-Appendix.

Third Incremental Auction:

“Third Incremental Auction” shall mean an Incremental Auction conducted three months before the Delivery Year to which it relates.

Third-Party Sale:

“Third-Party Sale” shall mean any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

Tie Line:

“Tie Line” shall mean a circuit connecting two balancing authority areas, Control Areas or fully metered electric system regions. Tie Lines may be classified as external or internal as set forth in the PJM Manuals.

Total Lost Opportunity Cost Offer:

“Total Lost Opportunity Cost Offer” shall mean the applicable offer used to calculate lost opportunity cost credits. For pool-scheduled resources specified in PJM Operating Agreement, Schedule 1, section 3.2.3(f-1), the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, as determined by the greater of the Committed Offer or last Real-Time Offer submitted for the offer on which the resource was committed in the Day-ahead Energy Market for each hour in an Operating Day. For all other pool-scheduled resources, the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, as determined by the offer curve associated with the greater of the Committed Offer or Final Offer for each hour in an Operating Day. For self-scheduled

generation resources, the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, where for self-scheduled generation resources (a) operating pursuant to a cost-based offer, the applicable offer curve shall be the greater of the originally submitted cost-based offer or the cost-based offer that the resource was dispatched on in real-time; or (b) operating pursuant to a market-based offer, the applicable offer curve shall be determined in accordance with the following process: (1) select the greater of the cost-based day-ahead offer and updated costbased Real-time Offer; (2) for resources with multiple cost-based offers, first, for each cost-based offer select the greater of the day-ahead offer and updated Real-time Offer, and then select the lesser of the resulting cost-based offers; and (3) compare the offer selected in (1), or for resources with multiple cost-based offers the offer selected in (2), with the market-based day-ahead offer and the market-based Real-time Offer and select the highest offer.

Total Net Obligation:

“Total Net Obligation” shall mean all unpaid billed Net Obligations plus any unbilled Net Obligation incurred to date, as determined by PJMSettlement on a daily basis, plus any other Obligations owed to PJMSettlement at the time.

Total Net Sell Position:

“Total Net Sell Position” shall mean all unpaid billed Net Sell Positions plus any unbilled Net Sell Positions accrued to date, as determined by PJMSettlement on a daily basis.

Total Operating Reserve Offer:

“Total Operating Reserve Offer” shall mean the applicable offer used to calculate Operating Reserve credits. The Total Operating Reserve Offer shall equal the sum of all individual *Real-time Settlement Interval* energy offers, inclusive of Start-Up Costs (shut-down costs for Demand Resources) and No-load Costs, for every *Real-time Settlement Interval* in a Segment, integrated under the applicable offer curve up to the applicable megawatt output as further described in the PJM Manuals. The applicable offer used to calculate day-ahead Operating Reserve credits shall be the Committed Offer, and the applicable offer used to calculate balancing Operating Reserve credits shall be lesser of the Committed Offer or Final Offer for each hour in an Operating Day.

Transmission Congestion Charge:

“Transmission Congestion Charge” shall mean a charge attributable to the increased cost of energy delivered at a given load bus when the transmission system serving that load bus is operating under constrained conditions, or as necessary to provide energy for third-party transmission losses which shall be calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.1 and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Congestion Credit:

“Transmission Congestion Credit” shall mean the allocated share of total Transmission Congestion Charges credited to each FTR Holder, calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.2, and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Customer:

“Transmission Customer” shall mean any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission a proposed unexecuted Service Agreement, to receive transmission service under Tariff, Part II. This term is used in Tariff, Part I and Part VI to include customers receiving transmission service under Tariff, Part II and Part III.

Where used in Tariff, Attachment K-Appendix and the parallel provisions of Operating Agreement, Schedule 1, Transmission Customer shall mean an entity using Point-to-Point Transmission Service.

Transmission Facilities:

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

Transmission Forced Outage:

“Transmission Forced Outage” shall mean an immediate removal from service of a transmission facility by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the transmission facility, as specified in the relevant portions of the PJM Manuals. A removal from service of a transmission facility at the request of the Office of the Interconnection to improve transmission capability shall not constitute a Forced Transmission Outage.

Transmission Injection Rights:

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

Transmission Interconnection Customer:

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection 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 or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Schedule 6 of the Operating Agreement).

Transmission Interconnection Facilities Study:

“Transmission Interconnection Facilities Study” shall mean a Facilities Study related to a Transmission Interconnection Request.

Transmission Interconnection Feasibility Study:

“Transmission Interconnection Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Section 36.2 of the Tariff.

Transmission Interconnection Request:

“Transmission Interconnection Request” shall mean a request by a Transmission Interconnection Customer pursuant to Tariff, Part IV 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 Loading Relief:

“Transmission Loading Relief” shall mean NERC’s procedures for preventing operating security limit violations, as implemented by PJM as the security coordinator responsible for maintaining transmission security for the PJM Region.

Transmission Loading Relief Customer:

“Transmission Loading Relief Customer” shall mean an entity that, in accordance with Operating Agreement, Schedule 1, section 1.10.6A and the parallel provisions of Tariff, Attachment K-Appendix, has elected to pay Transmission Congestion Charges during Transmission Loading Relief in order to continue energy schedules over contract paths outside the PJM Region that are increasing the cost of energy in the PJM Region.

Transmission Loss Charge:

“Transmission Loss Charge” shall mean the charges to each Market Participant, Network Customer, or Transmission Customer for the cost of energy lost in the transmission of electricity from a generation resource to load as specified in Operating Agreement, Schedule 1, section 5, and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Owner:

“Transmission Owner” shall mean each entity that owns, leases or otherwise has a possessory interest in facilities used for the transmission of electric energy in interstate commerce under the Tariff. The Transmission Owners are listed in Tariff, Attachment L.

Transmission Owner Attachment Facilities:

“Transmission Owner Attachment Facilities” shall mean that portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

Transmission Owner Interconnection Facilities:

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Section 5.5 of Appendix 2 to Attachment P of the PJM Tariff to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner’s side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to 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 Customer Facility with the Transmission System or interconnected distribution facilities.

Transmission Owner Upgrade:

“Transmission Owner Upgrade” shall have the same meaning provided in the Operating Agreement.

Transmission Planned Outage:

“Transmission Planned Outage” shall mean any transmission outage scheduled in advance for a pre-determined duration and which meets the notification requirements for such outages specified in Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K-Appendix or the PJM Manuals.

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 Provider’s Monthly Transmission System Peak:

“Transmission Provider’s Monthly Transmission System Peak” shall mean the maximum firm usage of the Transmission Provider’s Transmission System in a calendar month.

Transmission Service:

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

Transmission Service Request:

“Transmission Service Request” shall mean a request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

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.

Turn Down Ratio:

“Turn Down Ratio” shall mean the ratio of a generating unit’s economic maximum megawatts to its economic minimum megawatts.

Unconstrained LDA Group:

“Unconstrained LDA Group” shall mean a combined group of LDAs that form an electrically contiguous area and for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10. Any LDA for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10 shall be combined with all other such LDAs that form an electrically contiguous area.

Unforced Capacity:

“Unforced Capacity” shall have the meaning specified in the Reliability Assurance Agreement.

Unsecured Credit:

“Unsecured Credit” shall mean any credit granted by PJMSettlement to a Participant that is not secured by Collateral.

Unsecured Credit Allowance:

“Unsecured Credit Allowance” shall mean Unsecured Credit extended by PJMSettlement in an amount determined by PJMSettlement’s evaluation of the creditworthiness of a Participant. This is also defined as the amount of credit that a Participant qualifies for based on the strength of its own financial condition without having to provide Collateral. See also: “Working Credit Limit.”

Updated VRR Curve:

“Updated VRR Curve” shall mean the Variable Resource Requirement Curve for use in the Base Residual Auction of the relevant Delivery Year, updated to reflect any change in the Reliability Requirement from the Base Residual Auction to such Incremental Auction, and for Delivery Years through May 31, 2018, the Short-term Resource Procurement Target applicable to the relevant Incremental Auction.

Updated VRR Curve Decrement:

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year (excluding net Unforced Capacity committed to the PJM Region associated with the transition provisions of Tariff Attachment DD, section 5.14D as related to the 2017/2018 Delivery Year) and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, sections 5.14C, 5.14D (as related to the 2016/2017 Delivery Year), 5.14E, and 5.5A(c)(i)(B).

Updated VRR Curve Increment:

“Updated VRR Curve Increment” shall mean the portion of the Updated VRR Curve to the right of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year (excluding net Unforced Capacity committed to the PJM Region associated with the transition provision of Tariff, Attachment DD, section 5.14D as related to the 2017/2018 Delivery Year) and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, sections 5.14C, 5.14D (as related to the 2016/2017 Delivery Year), 5.14E and 5.5A(c)(i)(B).

Upgrade Construction Service Agreement:

“Upgrade Construction Service Agreement” shall mean that agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant

Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Tariff, Part VI, Subpart B, and in the form set forth in Attachment GG of the Tariff.

Upgrade Customer:

“Upgrade Customer” shall mean a customer that submits an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement.

Upgrade Feasibility Study:

“Upgrade Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with section 36.3 of the Tariff.

Upgrade-Related Rights:

“Upgrade-Related Rights” shall mean Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights.

Upgrade Request:

“Upgrade Request” shall mean a request submitted in the form prescribed in Attachment EE of the Tariff, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement.

Up-to Congestion Counterflow Transaction:

“Up-to Congestion Counterflow Transaction” shall mean an Up-to Congestion Transaction will be deemed an Up-to Congestion Counterflow Transaction if the following value is negative: (a) when bidding, the lower of the bid price and the prior Up-to Congestion Historical Month’s average real-time value for the transaction; or (b) for cleared Virtual Transactions, the cleared day-ahead price of the Virtual Transactions.

Up-to Congestion Historical Month:

“Up-to Congestion Historical Month” shall mean a consistently-defined historical period nominally one month long that is as close to a calendar month as PJM determines is practical.

Up-to Congestion Prevailing Flow Transaction:

An Up-to Congestion Transaction shall mean an “Up-to Congestion Prevailing Flow Transaction” if it is not an Up-to Congestion Counterflow Transaction.

Up-to Congestion Reference Price:

“Up-to Congestion Reference Price” for an Up-to Congestion Transaction, shall be the specified percentile price differential between source and sink (defined as sink price minus source price) for real-time prices experienced over the prior Up-to Congestion Historical Month, averaged with the same percentile value calculated for the second prior Up-to Congestion Historical Month. Up-to Congestion Reference Prices shall be calculated using the following historical percentiles:

For Up-to Congestion Prevailing Flow Transactions: 30th percentile

For Up-to Congestion Counterflow Transactions when bid: 20th percentile

For Up-to Congestion Counterflow Transactions when cleared: 5th percentile

Up-to Congestion Transaction:

“Up-to Congestion Transaction” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.10.1A, and the parallel provisions of Tariff, Attachment K-Appendix.

Variable Loads:

“Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix.

Variable Resource Requirement Curve:

“Variable Resource Requirement Curve” shall mean a series of maximum prices that can be cleared in a Base Residual Auction for Unforced Capacity, corresponding to a series of varying resource requirements based on varying installed reserve margins, as determined by the Office of the Interconnection for the PJM Region and for certain Locational Deliverability Areas in accordance with the methodology provided in Tariff, Attachment DD, section 5.

Virtual Credit Exposure:

“Virtual Credit Exposure” shall mean the amount of potential credit exposure created by a market participant’s bid submitted into the Day-ahead market, as defined in Tariff, Attachment Q.

Virtual Transaction:

“Virtual Transaction” shall mean a Decrement Bid, Increment Offer and/or Up-to Congestion Transaction.

Virtual Transaction Screening:

“Virtual Transaction Screening” shall be the process of reviewing the Virtual Credit Exposure of submitted Virtual Transactions against the Credit Available for Virtual Transactions. If the credit required is greater than credit available, then the Virtual Transactions will not be accepted.

Virtual Transactions Net Activity:

“Virtual Transactions Net Activity” shall mean the aggregate net total, resulting from Virtual Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Tariff, Attachment K-Appendix. Virtual Transactions Net Activity may be positive or negative.

Voltage Reduction Action:

“Voltage Reduction Action” shall mean a notification during capacity deficient conditions in which PJM notifies Members to reduce voltage on the distribution system in order to reduce demand and therefore provide a sufficient amount of reserves, maintain tie flow schedules and preserve limited energy sources.

Voltage Reduction Alert:

“Voltage Reduction Alert” shall mean a notification from PJM to alert Members that a voltage reduction may be required during a future critical period.

Voltage Reduction Warning:

“Voltage Reduction Warning” shall mean a notification from PJM to warn Members that PJM’s available Synchronized Reserve is less than the Synchronized Reserve Requirement and that present operations have deteriorated such that a voltage reduction may be required.

15.2 Determination of Available Transfer Capability:

A description of the Transmission Provider's specific methodology for assessing available transfer capability posted on the Transmission Provider's OASIS (Section 4) is contained in Attachment C of the Tariff. The Transmission Provider will not provide Short-Term Firm Point-To-Point Transmission Service in excess of the transfer capability posted on OASIS pursuant to Section 17.9. In the event sufficient transfer capability may not exist to accommodate a request for Long-Term Firm Point-To-Point Transmission Service, and such request does not commence and terminate within the 18 month ATC horizon, the Transmission Provider will respond by performing (in coordination with the affected Transmission Owner or Transmission Owners to the extent necessary) a ~~Initial Firm Transmission Feasibility~~ Study as described in Section 19. If a request for Long-Term Firm Point-to-Point Transmission Service falls entirely within the ATC horizon, the request will be evaluated based on the posted ATC.

17.5 Response to a Completed Application:

Following receipt of a Completed Application for Firm Point-To-Point Transmission Service, the Transmission Provider shall make a determination of available transfer capability as required in Section 15.2. With respect to Short-Term Firm Point-To-Point Transmission Service, the Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application, whether it will be able to provide service. With respect to Long-Term Firm Point-To-Point Transmission Service, the Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application either (i) if it will be able to provide service without performing an ~~Initial Firm Transmission Feasibility~~ Study or (ii) if such a study is needed to evaluate the impact of the Application pursuant to Section 19.1; provided that, if, in connection with the request, Transmission Provider must provide notification to an existing customer pursuant to Section 2.3 of the Tariff, the foregoing deadline shall be extended to forty-five (45) days after the date of receipt of a Completed Application. Responses by the Transmission Provider must be made as soon as practicable to all completed applications and the timing of such responses must be made on a non-discriminatory basis.

17.6 Execution of Service Agreement:

| Whenever the Transmission Provider determines that an ~~Initial Firm Transmission Feasibility~~ Study is not required and that the service can be provided, it shall notify the Eligible Customer as soon as practicable but no later than thirty (30) days after receipt of the Completed Application.

| Where an ~~Initial Firm Transmission Feasibility~~ Study is required, the provisions of Section 19 will govern the execution of a Service Agreement. Failure of an Eligible Customer to execute and return the Service Agreement or request the filing of an unexecuted service agreement pursuant to Section 15.3, within fifteen (15) days after it is tendered by the Transmission Provider will be deemed a withdrawal and termination of the Application and any deposit submitted shall be refunded with interest. Nothing herein limits the right of an Eligible Customer to file another Application after such withdrawal and termination.

19 **Firm Transmission Feasibility**~~**Initial**~~ **Study Procedures For Long-Term Firm Point-To-Point Transmission Service Requests**

19.1 Notice of Need for Firm Transmission Feasibility~~Initial~~ Study:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether an ~~an Initial Firm Transmission Feasibility~~ Study is needed. The purpose of the Initial Study shall be to assess whether the Transmission System has sufficient available capability to provide the requested service. If the Transmission Provider determines that an ~~an Initial Firm Transmission Feasibility~~ Study is necessary to evaluate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, the Transmission Provider shall within thirty (30) days of receipt of a Completed Application, tender an ~~an Initial Firm Transmission Feasibility~~ Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required Initial Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the ~~Initial Firm Transmission Feasibility~~ Study Agreement and return it to the Transmission Provider within fifteen (15) days. If the Eligible Customer elects not to execute the ~~Initial Firm Transmission Feasibility~~ Study Agreement, its application shall be deemed withdrawn and its deposit, pursuant to Section 17.3, shall be returned with interest.

19.2 Firm Transmission Feasibility~~Initial~~ Study Agreement and Cost Reimbursement:

- (i) The Firm Transmission Feasibility~~Initial~~ Study Agreement will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the actual cost, and time for completion of the Firm Transmission Feasibility~~Initial~~ Study. The charge shall not exceed the actual cost of the study. In performing the Firm Transmission Feasibility~~Initial~~ Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.
- (ii) If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single Firm Transmission Feasibility~~Initial~~ Study is sufficient for the Transmission Provider to accommodate the requests for service, the costs of that study shall be pro-rated among the Eligible Customers.
- (iii) The Transmission Provider shall reimburse the affected Transmission Owner(s) for their study costs, if any, in connection with an ~~an Initial~~Firm Transmission Feasibility Study.
- (iv) For ~~Initial~~Firm Transmission Feasibility Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the ~~Initial~~Firm Transmission Feasibility Studies pursuant to Section 8.

19.3

Initial Firm Transmission Feasibility Study Procedures:

~~Upon receipt of an executed Initial Study Agreement, the Transmission Provider will use due diligence to complete the required Initial Study within a sixty (60) day period. The Initial Study shall generally assess any system constraints to evaluate whether the Transmission System has sufficient available capability to provide the requested service. In the event that the Transmission Provider is unable to complete the required Initial Study within such time period, it shall so notify the Eligible Customer and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed Initial Study and related work papers shall be made available to the Eligible Customer as soon as the Initial Study is complete. The Transmission Provider will use the same due diligence in completing the Initial Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Initial Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the Eligible Customer's request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that Transmission Provider determines that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.~~

After receiving a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000, the Transmission Provider shall conduct a Firm Transmission Service Feasibility Study to make a preliminary determination of the type and scope of and Direct Assignment Facilities, Local Upgrades, and Network Upgrades that will be necessary to accommodate the Completed Application and provide the Eligible Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Eligible Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Transmission Service Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Transmission Service Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Eligible Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Transmission Service Feasibility Study publicly available. The Transmission Provider shall conduct Transmission Service Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

The Transmission Provider will use the same due diligence in completing the Firm Transmission Feasibility Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Firm Transmission Feasibility Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the Eligible Customer's request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that Transmission Provider determines that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.

19.3.1 Meeting with Transmission Provider:

At the Eligible Customer's request, Transmission Provider, the Eligible Customer and the affected Transmission Owner shall meet at a mutually agreeable time to discuss the results of the Firm Transmission Feasibility Study. Such meeting may occur in person or by telephone or video conference.

19.4 Retaining Queue Position:

Except when the Transmission Provider determines that a System Impact Study is needed, in order for a request to remain a Completed Application, within thirty (30) days after its receipt of the completed Firm Transmission Feasibility~~Initial~~ Study, the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement pursuant to Section 15.3, or the Completed Application shall be deemed terminated and withdrawn.

19.8 Penalties for Failure to Meet Deadlines:

Sections 19.3, 205, and 206 require a Transmission Provider to use due diligence to meet study completion deadlines for ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers.

(i) The Transmission Provider is required to file a notice with the Commission in the event that more than twenty (20) percent of non-Affiliates' ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers completed by the Transmission Provider in any two consecutive calendar quarters are not completed within the completion deadlines, consistent with sections 19.3, 205, and 206. Such notice must be filed within thirty (30) days of the end of the calendar quarter triggering the notice requirement.

(ii) For the purposes of calculating the percent of non-Affiliates' ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers processed outside of the study completion deadlines set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers, the Transmission Provider shall consider all ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers that it completes for non-Affiliates during the calendar quarter. The percentage should be calculated by dividing the number of those studies which are completed on time by the total number of completed studies. The Transmission Provider may provide an explanation in its notification filing to the Commission if it believes there are extenuating circumstances that prevented it from meeting the study completion deadlines.

(iii) The Transmission Provider is subject to an operational penalty if it completes ten (10) percent or more of non-Affiliates' ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers outside of the study completion deadlines set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers, for each of the two calendar quarters immediately following the quarter that triggered its notification filing to the Commission. The operational penalty will be assessed for each calendar quarter for which an operational penalty applies, starting with the calendar quarter immediately following the quarter that triggered the Transmission Provider's notification filing to the Commission. The operational penalty will continue to be assessed each quarter until the Transmission Provider completes at least ninety (90) percent of all non-Affiliates' ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies and Facilities Studies for Eligible Customers within the study completion deadlines, set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers.

(iv) For penalties assessed in accordance with subsection (iii) above, the penalty amount for each ~~Initial~~ Firm Transmission Feasibility Study, System Impact Study, or Facilities Study for Eligible Customers shall be equal to \$500 for each day the Transmission Provider takes to complete that study beyond the study completion deadline.

29.2A Determination of Available Transfer Capability:

A description of the Transmission Provider's specific methodology for assessing available transfer capability posted on the Transmission Provider's OASIS (Section 4) is contained in Attachment C of the Tariff. In the event sufficient transfer capability may not exist to accommodate a request for Network Integration Transmission Service, and such request does not commence and terminate within the 18 month ATC horizon, the Transmission Provider will respond by performing (in coordination with the affected Transmission Owner or Transmission Owners to the extent necessary) a Firm Transmission Feasibility Study as described in Section 32. If a request for Long-Term Firm Network Integration Transmission Service falls entirely within the ATC horizon, the request will be evaluated based on the posted ATC.

| 32 **Initial Firm Transmission Feasibility Study Procedures For Network Integration
Transmission Service Requests**

32.1 Notice of Need for ~~Initial~~Firm Transmission Feasibility Study:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether an ~~Initial Firm Transmission Feasibility~~ Study is needed. The purpose of the ~~Initial~~Firm Transmission Feasibility Study shall be to assess whether the Transmission System has sufficient available capability to provide the requested service. If the Transmission Provider determines that an ~~Initial Firm Transmission Feasibility~~ Study is necessary to evaluate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, the Transmission Provider shall within thirty (30) days of receipt of a Completed Application, tender an ~~Initial~~Firm Transmission Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required ~~Initial~~Firm Transmission Feasibility Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the ~~Initial~~Firm Transmission Study Agreement and return it to the Transmission Provider within fifteen (15) days. If the Eligible Customer elects not to execute the ~~Initial~~Firm Transmission Feasibility Study Agreement, its Application shall be deemed withdrawn and its deposit shall be returned with interest.

32.2 Firm Transmission Feasibility~~Initial~~ Study Agreement and Cost Reimbursement:

- (i) The ~~Initial~~Firm Transmission Feasibility Study Agreement will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the actual cost, and time for completion of the ~~Initial~~Firm Transmission Feasibility Study. The charge shall not exceed the actual cost of the study. In performing the ~~Initial~~Firm Transmission Feasibility Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.
- (ii) If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single ~~Initial~~Firm Transmission Feasibility Study is sufficient for the Transmission Provider to accommodate the service requests, the costs of that study shall be pro-rated among the Eligible Customers.
- (iii) The Transmission Provider shall reimburse the affected Transmission Owner(s) for their study costs, if any, in connection with a ~~Initial~~Firm Transmission Feasibility Study.
- (iv) For ~~Initial~~Firm Transmission Feasibility Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the ~~Initial~~Firm Transmission Feasibility Studies pursuant to Section 8.

Initial Firm Transmission Feasibility Study Procedures:

~~Upon receipt of an executed Initial Study Agreement, the Transmission Provider will use due diligence to complete the required Initial Study within a sixty (60) day period. The Initial Study shall generally assess any system constraints to evaluate whether the Transmission System has sufficient capability to provide the requested service and redispatch options, additional Direct Assignment Facilities or Network Upgrades required to provide the requested service. In the event that the Transmission Provider is unable to complete the required Initial Study within such time period, it shall so notify the Eligible Customer and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed Initial Study and related work papers shall be made available to the Eligible Customer as soon as the Initial Study is complete. The Transmission Provider will use the same due diligence in completing the Initial Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Initial Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.~~

After receiving a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000, the Transmission Provider shall conduct a Firm Transmission Service Feasibility Study to make a preliminary determination of the type and scope of and Direct Assignment Facilities, Local Upgrades, and Network Upgrades that will be necessary to accommodate the Completed Application and provide the Eligible Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Eligible Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Transmission Service Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Transmission Service Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Eligible Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Transmission Service Feasibility Study publicly available. The Transmission Provider shall conduct Transmission Service Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

The Transmission Provider will use the same due diligence in completing the Firm Transmission Feasibility Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Firm Transmission Feasibility Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the Eligible Customer's request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that Transmission Provider determines that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.

32.3.1 Meeting with Transmission Provider:

At the Eligible Customer's request, Transmission Provider, the Eligible Customer and the affected Transmission Owner shall meet at a mutually agreeable time to discuss the results of the Firm Transmission Feasibility Study. Such meeting may occur in person or by telephone or video conference.

32.4 Retaining Queue Position:

Except when the Transmission Provider determines that a System Impact Study is needed, in order for a request to remain a Completed Application, within thirty (30) days after its receipt of the completed ~~Initial~~ Firm Transmission Feasibility Study, the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement, or the Application shall be deemed terminated and withdrawn.

32.5 Penalties for Failure to Meet Study Deadlines:

Section 19.8 defines penalties that apply for failure to meet the study completion due diligence deadlines for ~~Initial~~ Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers. These same requirements and penalties apply to service under Part III of the Tariff.

IV. INTERCONNECTIONS WITH THE TRANSMISSION SYSTEM

References to section numbers in this Part IV refer to sections of this Part IV, unless otherwise specified.

Preamble

An Interconnection Customer that proposes to (i) interconnect a generating unit to the Transmission System in the PJM Region, (ii) increase the capacity of a generating unit in the PJM Region, (iii) interconnect Merchant Transmission Facilities with the Transmission System, (iv) increase the capacity of existing Merchant Transmission Facilities interconnected to the Transmission System, or (v) interconnect a generating unit 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 unit shall request interconnection with the Transmission System pursuant to, and shall comply with, the terms, conditions, and procedures set forth in Part IV of the Tariff. Subpart G of Part IV of the Tariff and related portions of the PJM Manuals apply to Interconnection Requests involving new Small Generation Resources or increases of 20 MW or less to the capability of existing generation resources over any consecutive 24-month period. Upgrade Customers that propose Upgrade Requests seeking Incremental Auction Revenue Rights shall also comply with the terms, conditions, and procedures set forth in Part VI of the Tariff. Part VI of the Tariff contains procedures, terms and conditions governing the Transmission Provider's administration of the New Services Queue, System Impact Studies and Facilities Studies of Interconnection Requests (as well as other New Service Requests), and agreements related to such studies and Interconnection Service. Each Interconnection Customer must pay for any Attachment Facilities, Local Upgrades, and Network Upgrades necessary to accommodate the requested interconnection. Notwithstanding the foregoing, by August 31 of each calendar year, PJM shall solicit requests from Generation Owners of Intermittent Resources and Environmentally Limited Resources which seek to obtain additional Capacity Interconnection Rights related to the winter period (defined as November through April of a Delivery Year) for the purposes of aggregation under the Tariff, Attachment DD. Such additional Capacity Interconnection Rights would be for a one-year period as specified by PJM in the solicitation. Responses to such solicitation must be submitted by such interested Generation Owners by October 31 prior to the upcoming Base Residual Auction. Such requests shall be studied for deliverability similar to any Generation Interconnection Customer seeking to enter the New Services Queue; however, such requests shall not be required to enter the New Services Queue. PJM shall study such requests in a manner so as to prevent infringement on available system capabilities of any resource which is already in service, or which has an executed Interconnection Service Agreement, Transmission Service Agreement, Upgrade Construction Service Agreement, or has obtained a Queue Position in the New Services Queue.

36.3 Upgrade Feasibility Study:

After receiving a signed Upgrade Request, pursuant to Attachment EE of the PJM Tariff, seeking Incremental Auction Revenue Rights and the applicable deposit of \$20,000, the Transmission Provider shall conduct an Upgrade Feasibility Study to make a preliminary determination of the type and scope of any Local Upgrades or Network Upgrades that will be necessary to accommodate the Upgrade Request and provide the Upgrade Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Upgrade Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Upgrade Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Upgrade Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Upgrade Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Upgrade Feasibility Study publicly available. The Transmission Provider shall conduct Upgrade Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

200 Applicability:

Part VI of the Tariff applies (a) to an Interconnection Request, upon the Transmission Provider's determination in an Interconnection Feasibility Study that a System Impact Study is needed to evaluate the facilities required to accommodate the requested interconnection; (b) to a Completed Application for new transmission service, upon the Transmission Provider's determination in an Firm Transmission Feasibility~~Initial~~ Study that a System Impact Study is needed to evaluate the facilities required to provide the requested service; and (c) to Upgrade Requests, upon the Transmission Provider's receipt of a completed request containing all applicable information in the form required by Attachment EE to the Tariff in which a customer is seeking to propose a Merchant Network Upgrade or to advance construction of Regional Transmission Expansion Plan project; and (d) to Upgrade Requests seeking Incremental Auction Revenue Rights, upon the Transmission Provider's determination in an Upgrade Feasibility Study that a System Impact Study is needed to evaluate the facilities required to accommodate the Upgrade Request. Notwithstanding the foregoing sentence, however, the provisions of Subpart G of Part IV shall govern with respect to Generation Interconnection Requests that involve (i) proposed new generation resources having capability of 20 MW or less, or (ii) increases of 20 MW or less to the capability of existing generation resources, except where, and only to the extent, otherwise expressly provided herein.

203.1 Cost Responsibility:

The System Impact Study Agreement tendered by the Transmission Provider will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the cost and time required for completion of the study in which the New Service Request is being evaluated and the New Service Customer's cost responsibility for that study. The charges to all affected New Service Customers shall not exceed the actual cost of the System Impact Study. In performing the System Impact Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. New Service Customers will not be assessed a charge for such existing studies; however, a New Service Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of such customer's New Service Request. In the event more than one New Service Request is evaluated in a single System Impact Study, the cost of such study shall be allocated among the participating New Service Customers such that (i) each Interconnection Customer pays 100 percent of the study costs associated with evaluating the Attachment Facilities necessary to accommodate its Interconnection Request; (ii) each Eligible Customer pays 100 percent of the study costs associated with evaluating the Direct Assignment Facilities necessary to accommodate its Completed Application for new transmission service; and (iii) each New Service Customer pays the study costs associated with evaluating the Local Upgrades and/or Network Upgrades necessary to accommodate its New Service Request in proportion to its projected cost responsibility (as determined in the Interconnection Feasibility Study or the ~~Initial~~Firm Transmission Feasibility Study) for such upgrades. In the event that a New Service Customer's responsibility for the actual cost of the System Impact Study under this section is less than the deposit provided with its executed System Impact Study Agreement, the unexpended balance of its deposit shall be refunded, with interest determined at the applicable rate under the Commission's regulations.

203.1.1 Transmission Owners:

For System Impact Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the System Impact Studies pursuant to Section 8.

204.1 Completed Applications:

After completing an ~~Initial Firm Transmission Feasibility~~ Study regarding a Completed Application for new transmission service, the Transmission Provider shall determine on a non-discriminatory basis whether a System Impact Study is required to accommodate the requested transmission service. If the Transmission Provider determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer as soon as practicable. In such cases, the Transmission Provider shall, upon completion of the ~~Initial Firm Transmission Feasibility~~ Study, tender a System Impact Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required System Impact Study. For a Completed Application to retain its Queue Position, the Eligible Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider within thirty (30) days, and (ii) shall pay the Transmission Provider a \$50,000 deposit which will be applied to the Eligible Customer's study cost responsibility. If the Eligible Customer elects not to execute the System Impact Study Agreement, its Completed Application shall be deemed terminated and withdrawn, and its deposit provided pursuant to Section 17.3 shall be returned, with interest.

204.2 Upgrade Requests:

204.2.1 Upgrade Requests pursuant to Section 7.8 of Schedule 1 of the Operating Agreement

Upon completion of the Upgrade Feasibility Study, the Transmission Provider shall tender to the affected Upgrade Customer a System Impact Study Agreement. For an Upgrade Request to retain its assigned Queue Position pursuant to Section 201, within 30 days of receiving the tendered System Impact Study Agreement, the Upgrade Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider, (ii) shall remit to Transmission Provider all past due amounts of the actual Upgrade Feasibility Study costs exceeding the Upgrade Feasibility Study deposit fee contained in Sections 36.3 of the Tariff, if any, and (iii) shall pay the Transmission Provider a deposit of \$50,000. If a terminated and withdrawn Upgrade Request was to be included in a System Impact Study evaluating more than one New Service Request, then the costs of the System Impact Study shall be redetermined and reallocated among the remaining participating New Service Customers as specified in this Section 204.

~~After receiving an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement, the Transmission Provider shall determine on a non-discriminatory basis whether a System Impact Study is required to evaluate the request. If the Transmission Provider determines that a System Impact Study is necessary, it shall so inform the Upgrade Customer as soon as practicable. In such cases, the Transmission Provider shall, within thirty (30) days of receipt of a valid and complete Upgrade Request, tender a System Impact Study Agreement pursuant to which the Upgrade Customer shall agree to reimburse the Transmission Provider for the required System Impact Study. For an Upgrade Request to retain its Queue Position, the Upgrade Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider within thirty (30) days, and (ii) the Transmission Provider shall apply the \$50,000 deposit supplied with the Upgrade Request towards the Upgrade Customer's study cost responsibility. If the Upgrade Customer elects not to execute the System Impact Study Agreement, its Upgrade Request shall be deemed terminated and withdrawn.~~

204.2.2 Upgrade Requests for Merchant Network Upgrades

After receiving an Upgrade Request for a Merchant Network Upgrade, the Transmission Provider shall acknowledge receipt of the Upgrade Request, pursuant to Section 204.2.2.1. The Transmission Provider shall determine whether the Upgrade Request includes: (i) the substation or transmission line or lines where the upgrade(s) will be made; (ii) the nominal capability or increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade; and (iii) the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven (7) years from the date the request is received by the Transmission Provider, unless the Interconnection Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven (7) years.

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests that identifies (A) in megawatts the potential nominal capability or increase in capability; (B) the station or transmission line or lines where the upgrade(s) will be made; (C) the

proposed in-service date; (D) the status of the Upgrade Request, including its Queue Position; (E) the availability of any studies related to the Upgrade Request; (F) the date of the Upgrade Request; and (G) for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed. This list will not disclose the identity of the Interconnection Customer, except as otherwise provided in Part VI of the Tariff. The list and the priority of Upgrade Requests shall be included on the website as part of the New Services Queue.

204.2.2.1 Acknowledgement of Upgrade Request for Merchant Network Upgrades

The Transmission Provider shall acknowledge receipt (electronically when available to all parties, otherwise written) of the Upgrade Request within five (5) Business Days after receipt of the request and shall attach a copy of the received Upgrade Request to the acknowledgement.

204.2.2.2 Deficiencies in Upgrade Request for Merchant Network Upgrades

An Upgrade Request will not be considered a valid request if Interconnection Customer has failed to pay any outstanding invoices related to prior Queue Requests submitted pursuant to Part IV or VI by the Interconnection Customer and until all information required under Attachment EE is able to be studied by the Transmission Provider. If an Upgrade Request fails to meet the requirements, except as provided below regarding the deposit, or is in arrears as described above, the Transmission Provider shall so notify the Interconnection Customer (electronically when available to all parties, otherwise written) within five (5) Business Days of receipt of the initial Upgrade Request. Such notice shall explain that the Upgrade Request does not constitute a valid request and the reasons for such failure to meet the applicable requirements. Interconnection Customer shall provide the additional information that the Transmission Provider's notice identifies as needed to constitute a valid request and shall make any payments on any outstanding invoices within ten (10) Business Days after receipt of such notice. Upon timely correction of the deficiency, the Upgrade Request shall be assigned a Queue Position under Section 201 as of the date that the Transmission Provider first received the request. In the event the Interconnection Customer fails to provide the further information and make payments on any outstanding invoices required by the Transmission Provider's deficiency notice under this Section 204.2.2.2, its Upgrade Request shall be deemed to be terminated and withdrawn. Notwithstanding the above, the Interconnection Customer must submit its deposit at the time it submits its Upgrade Request. Failure to do so will result in rejection of the Upgrade Request.

204.2.2.3 Scoping Meeting

Transmission Provider shall provide each Interconnection Customer proposing Merchant Network Upgrades with an opportunity for a scoping meeting among the Transmission Provider, the prospective Interconnected Transmission Owner(s) and the Interconnection Customer. The purpose of the scoping meeting will be to confirm all parties' understanding of the proposed

Upgrade Request and confirm the expectation for project completion or, if for acceleration of a Regional Transmission Expansion Plan Network Upgrade, the feasibility of the acceleration. After receipt of a valid Upgrade Request proposing Merchant Network Upgrades, the Transmission Provider shall offer to arrange for the scoping meeting, and shall provide a minimum of three (3) suggested meeting dates and times for the scoping meeting. The scoping meeting shall be held, or waived by mutual agreement of the parties within forty-five (45) days after receipt of a valid Upgrade Request, if the Upgrade Request is received in the first four calendar months of the current New Services Queue; or within thirty (30) days if the Upgrade Request is received within the fifth calendar month of the current New Services Queue; or within twenty (20) days if the Upgrade Request is received in the sixth calendar month of the date of the beginning of the current New Services Queue. The Interconnection Customer may choose to divide the scoping meeting into two sessions, one between the Transmission Provider and Interconnection Customer and one among the Transmission Provider, the Interconnection Customer and the prospective Interconnected Transmission Owner. Such meetings may be held consecutively on the same day. Scoping meetings may be held in person, by telephone or video conference. In the event the Interconnection Customer fails to waive or complete the scoping meeting requirement, its Upgrade Request shall be deemed terminated or withdrawn. Interconnection Customer may reduce its Upgrade Request within ten (10) Business Days after the scoping meeting. Any reduction made within this ten (10) Business Day period shall not be a Material Modification; however, the reduction may not result in the project's MW capability being equal to or less than zero.

204.2.2.4 Coordination with Affected Systems

Section 36.1.6 shall apply to Upgrade Requests for Merchant Network Upgrades.

204.2.2.5 Base Case Data

Section 36.1.7 shall apply to Upgrade Requests for Merchant Network Upgrades.

204.2.2.6 System Impact Study Agreement

Upon the Transmission Provider assigning the Upgrade Request a Queue Position per Section 204.2.2, for Upgrade Requests proposing Merchant Network Upgrades, and, if required, completing a scoping meeting per Section 204.2.2.3, Transmission Provider shall tender a System Impact Study Agreement. For an Upgrade Request associated with a Merchant Network Upgrade request to retain its Queue Position, the Interconnection Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider within thirty (30) days, and (ii) the \$50,000 deposit provided with Attachment EE will be applied to the Interconnection Customer's study cost responsibility. If the Interconnection Customer elects not to execute the System Impact Study Agreement, its Upgrade Request shall be deemed terminated and withdrawn. Any remaining Attachment EE deposit will be refunded.

204.2.2.7 Modifications of Upgrade Requests for Merchant Network Upgrades After the System Impact Study Agreement, but Prior to Executing an Upgrade Construction Service Agreement

After the System Impact Study Agreement is executed and prior to execution of the Upgrade Construction Service Agreement, an Interconnection Customer proposing Merchant Network Upgrades may modify its project to reduce the size of the project as provided in Section 36.2A.2.

205.2 Scope of Studies:

The System Impact Study is a comprehensive regional analysis of the effect of adding to the Transmission System the new facilities and services contemporaneously proposed by New Service Customers and an evaluation of their impact on deliverability to the aggregate of PJM Network Load. The System Impact Study identifies the system constraints, identified with specificity by transmission element or flowgate, relating to each proposed new project and service included therein and the Attachment Facilities, Merchant Network Upgrades, Direct Assignment Facilities, Local Upgrades, and/or Network Upgrades required to accommodate such projects. The System Impact Study provides refined and comprehensive estimates of cost responsibility and construction lead times for new facilities and system upgrades. The Transmission Provider, in its sole discretion, may determine to evaluate in the same System Impact Study two or more New Service Requests relating to interconnections, Upgrade Requests, or proposed new transmission services where the associated increases in service or capability are in electrical proximity to each other. Each System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests being evaluated in the study and, as applicable to each included request, the redispatch options, additional Direct Assignment Facilities, necessary Merchant Network Upgrades, Attachment Facilities, Local Upgrades, and/or Network Upgrades necessary to accommodate such request. The System Impact Study shall refine and more comprehensively estimate each New Service Customer's cost responsibility (determined in accordance with Section 217 of the Tariff) for necessary facilities and upgrades than the estimates provided in the Interconnection Feasibility Study or the Initial Firm Transmission Feasibility Study, if applicable. In the event that more than one New Service Request is evaluated in a study, the Transmission Provider may provide a series of estimates to each participating New Service Customer to reflect the customer's estimated cost responsibility based on varying assumptions regarding the number of New Service Customers that decide to continue their New Service Requests after completion of the System Impact Study. A description of the Transmission Provider's methodology for completing a System Impact Study for Completed Applications is provided in Attachment D of the Tariff. If applicable, the System Impact Study for a Transmission Interconnection Customer shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the customer's proposed Merchant Transmission Facilities.

**ATTACHMENT N-1
FORM OF
SYSTEM IMPACT STUDY AGREEMENT**

(PJM Queue Position #____)

RECITALS

1. This System Impact Study Agreement, dated as of _____, is entered into, by and between _____ ("New Service Customer") and PJM Interconnection, L.L.C. ("Transmission Provider") pursuant to Part VI of the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("PJM Tariff").
2. The Transmission Provider has: (i) pursuant to Section 36.2 of the PJM Tariff, completed an Interconnection Feasibility Study and provided the results of that study to the New Service Customer; (ii) received a valid Upgrade Request; or (iii) pursuant to Section 19 or Section 32, as applicable, of the PJM Tariff, the Transmission Provider has completed an ~~Initial~~ **Firm Transmission Feasibility** Study and provided the results of that study to the New Service Customer.
3. Pursuant to Sections 19.1, 32.1, 37, 110.2, 111.2, 204.2, or 204.3, as applicable, of the PJM Tariff, the New Service Customer (i) requests that the Transmission Provider perform a System Impact Study, and (ii) agrees to submit a deposit to the Transmission Provider which will be applied to the New Service Customer's cost responsibility for the System Impact Study, as set forth in Section 204.3A of the PJM Tariff.

PREVIOUS SUBMISSIONS

{For Interconnection Customers, use the following paragraph 4}

4. Except as otherwise specifically set forth in an attachment to this agreement, New Service Customer represents and warrants that the information provided in Section 3 of the Interconnection Feasibility Study Agreement dated _____, for the project designated _____ {insert Queue Position} by and between the New Service Customer and the Transmission Provider is accurate and complete as of the date of execution of this System Impact Study Agreement. New Service Customer further provides the following information and represents and warrants that said information is true and correct:

{For Generation Facilities, use the following paragraphs a through c}

- a. Specify whether the generation to be interconnected to the Transmission System is to be a Capacity Resource or an Energy Resource.

- b. Identification of evidence of initial application for the necessary air permits (attach documentation separately):

- c. Other information not previously provided that may be relevant to the study being conducted hereunder (attach generator data for stability study analysis):

{For Merchant Transmission Facilities, use the following paragraphs a through c}

- a. Provide evidence of ownership in, or right to acquire or control the site(s) where New Service Customer intends to install its major equipment, in the form of a deed, option agreement, lease or other similar document acceptable to PJM:

- b. Provide evidence of the rights or option to obtain such rights to use any existing transmission facilities within PJM that are necessary for construction of the proposed project.

- c. Other information not previously provided that may be relevant to the study being conducted hereunder:

{For New Service Customer other than Interconnection Customers, use the following paragraph 4}

- 4. Except as otherwise specifically set forth in an attachment to this agreement, New Service Customer represents and warrants that the information provided in Section ____ {insert applicable section number} of the New Service Request dated _____, for the request designated _____ {insert Queue Position} is accurate and complete as of the date of execution of this System Impact Study Agreement. New Service Customer

further provides the following information and represents and warrants that said information is true and correct:

PURPOSE OF THE SYSTEM IMPACT STUDY

5. Consistent with Section 205 of the PJM Tariff, the Transmission Provider, in consultation with the affected Transmission Owner(s), shall conduct a System Impact Study that identifies the system constraints relating to the New Service Requests being evaluated in the study and the Attachment Facilities, Local Upgrades, and Network Upgrades necessary to accommodate such New Service Requests. It is expected that the System Impact Study will be completed by {insert date}. In the event that the Transmission Provider is unable to complete the System Impact Study by that date, the Transmission Provider shall notify the New Service Customer and explain the reasons for the delay.

6. The System Impact Study conducted hereunder will provide more comprehensive estimates of the cost and length of time required to accommodate the New Service Customer's New Service Request than those developed through the Interconnection Feasibility Study, Upgrade Feasibility Study or ~~Initial Firm Transmission Feasibility Study~~, if applicable, performed for the New Service Customer. These estimates shall represent a good faith attempt to determine the cost of necessary facilities and upgrades to accommodate the New Service Customer's New Service Request, and the New Service Customer's cost responsibility for them, but shall not be deemed final or binding. The scope of the System Impact Study {include for Merchant Transmission Facilities: may depend in part on the interconnection rights elected by the New Service Customer under Section 36.1.03 of the PJM Tariff and} 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, (d) an assessment of project related short circuit duty issues, (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria, (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. Final estimates will be developed only upon execution of a Facilities Study Agreement in accordance with Part VI of the PJM Tariff. The System Impact Study necessarily will employ various assumptions regarding the New Service Request, other pending requests, and PJM's Regional Transmission Expansion Plan at the time of the study. **IN NO EVENT SHALL THE SYSTEM IMPACT STUDY IN ANY WAY BE DEEMED TO OBLIGATE THE TRANSMISSION PROVIDER OR THE TRANSMISSION OWNERS THAT MAY INTERCONNECT WITH THE NEW SERVICE CUSTOMER TO CONSTRUCT ANY FACILITIES OR UPGRADES.**

CONFIDENTIALITY

7. The New Service Customer agrees to provide all information requested by the Transmission Provider necessary to complete the System Impact Study. Subject to paragraph 8 of this System Impact Study Agreement and to the extent required by Section

222 of the PJM Tariff, information provided pursuant to this Section 7 shall be and remain confidential.

8. Until completion of the System Impact Study, the Transmission Provider shall keep confidential all information provided to it by the New Service Customer. Pursuant to Section 205.4 of the PJM Tariff, upon completion of the System Impact Study, the Transmission Provider shall provide a copy of the System Impact Study to all New Service Customers whose New Service Requests were evaluated in the System Impact Study along with all related work papers. Additionally, Transmission Provider shall post on Transmission Provider's website (i) the existence of the System Impact Study, (ii) the New Service Customers that had New Service Requests evaluated in the System Impact Study, (iii) the location and size in megawatts of each New Service Customer's generation project, if applicable, and (iv) each New Service Customer's Queue Position. Additionally, New Service Customer acknowledges and consents to such other disclosures as may be required under the PJM Tariff or the FERC's rules and regulations.
9. New Service Customer acknowledges that, consistent with Part VI of the PJM Tariff, the Transmission Owners will participate in the System Impact Study process and that the Transmission Provider may disseminate information to the Transmission Owners and rely upon them to conduct part or all of the System Impact Study.

COST RESPONSIBILITY

10. The New Service Customer shall reimburse the Transmission Provider for the actual cost of the System Impact Study in accordance with its cost responsibility as determined under Sections 110.2, 111.2, 112.2, or 203 of the PJM Tariff. The refundable portion of the deposit described in Section 3 of this Agreement, paid by the New Service Customer pursuant to Sections 110.2, 111.2, 112.2, or 204.3A of the PJM Tariff, shall be applied toward the New Service Customer's System Impact Study cost responsibility. Pursuant to Section 204.3 of the PJM Tariff, during the acceptance review of this Agreement, in the event that the Transmission Provider anticipates that the New Service Customer's study cost responsibility will substantially exceed the refundable portion of the deposit, the Transmission Provider shall provide the New Service Customer with an estimate of the additional study costs and the New Service Customer's cost responsibility. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the New Service Customer with notification of estimated additional study costs, the New Service Customer is responsible for and must pay all actual study costs. If the Transmission Provider provides the New Service Customer with notification of estimated additional study costs, the New Service Customer must pay such estimated additional study costs within ten business days of Transmission Provider sending the New Service Customer notification of such estimated additional study costs. If the New Service Customer fails to pay such estimated additional study costs within ten business days of Transmission Provider sending the New Service Customer notification of such estimated additional

study costs, then the New Service Request shall be deemed to be withdrawn and terminated.

DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY

11. In analyzing and preparing the System Impact Study, the Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by the Transmission Provider shall have to rely on information provided by the New Service Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY THE TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY. The New Service Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this System Impact Study Agreement nor the System Impact Study prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by the Transmission Provider or the Transmission Owner(s) to provide any transmission or interconnection service to or on behalf of the New Service Customer either at this point in time or in the future.
12. In no event will the Transmission Provider, Transmission Owner(s) or other subcontractors employed by the Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether arising under this System Impact Study Agreement or otherwise, even if the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider have been advised of the possibility of such a loss. Nor shall the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of the Transmission Provider's obligations under this System Impact Study Agreement.

Without limitation of the foregoing, the New Service Customer further agrees that Transmission Owner(s) and other subcontractors employed by the Transmission Provider to prepare or assist in the preparation of any System Impact Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty/Limitation of Liability."

MISCELLANEOUS

13. Any notice or request made to or by either party regarding this System Impact Study Agreement shall be made to the representative of the other party as indicated below.

Transmission Provider

PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403

New Service Customer

14. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this System Impact Study Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
15. This System Impact Study Agreement or any part thereof, may not be amended, modified, or waived other than by a writing signed by all parties hereto.
16. This System Impact Study Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
17. Neither this System Impact Study Agreement nor the System Impact Study performed hereunder shall be construed as an application for service under Part II or Part III of the PJM Tariff.
18. The provisions of Part VI of the PJM Tariff are incorporated herein and made a part hereof.
19. Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to them in the PJM Tariff.
20. This System Impact Study Agreement shall be effective as of the date of the New Service Customer's execution of it and shall remain in effect until the earlier of (a) the date on which the Transmission Provider tenders the completed System Impact Study and a proposed Facilities Study Agreement to New Service Customer pursuant to Section 206 of the PJM Tariff, or (b) termination and withdrawal of the New Service Request(s) to which the System Impact Study hereunder relates.
21. **No Third-Party Beneficiaries**
This System Impact Study 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.

22. Multiple Counterparts

This System Impact Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

23. No Partnership

This System Impact Study 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.

24. Severability

If any provision or portion of this System Impact Study 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 System Impact Study Agreement shall remain in full force and effect.

25. Governing Law, Regulatory Authority, and Rules

For Interconnection Requests, the validity, interpretation and enforcement of this System Impact Study Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This System Impact Study 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.

26. Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this System Impact Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this System Impact Study 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 System Impact Study 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 Transmission Provider and the New Service Customer have caused this System Impact Study Agreement to be executed by their respective authorized officials.

Transmission Provider: PJM Interconnection, L.L.C.

By: _____
Name Title Date

Printed Name

New Service Customer: [Name of Party]

By: _____
Name Title Date

Printed Name

ATTACHMENT EE

**Form of
Upgrade Request**

[To be completed by Upgrade Customers]:

1. The undersigned Upgrade Customer submits this Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement and Part VI of the PJM Tariff. This Upgrade Request is for Incremental Auction Revenue Rights in accordance with the specifications:

Source location: _____

Sink location: _____

MW: _____

Desired Commencement Date: _____

[To be completed by Interconnection Customers requesting Merchant Network Upgrades]:

1. The undersigned Interconnection Customer submits this Upgrade Request for Merchant Network Upgrades pursuant to Parts IV and VI of the PJM Tariff.
2. This request is for the required Merchant Network Upgrades to increase the ____ normal ____ emergency rating of the _____ circuit (or other Transmission System element) by ____ MVA or ____ MW.

Desired In-Service Date: _____

OR

This request is to advance construction of Regional Transmission Expansion Plan project number _____ from _____ (planned date) to _____ (requested date).

3. The ~~Upgrade Customer or~~ Interconnection Customer shall provide a refundable deposit in the amount of \$50,000 to Transmission Provider with this request, which deposit shall be applied against the New Service Customer's cost responsibility for a System Impact Study including this request.

4. The Upgrade Customer shall provide a refundable deposit in the amount of \$20,000 to Transmission Provider with this request, which deposit shall be applied against the New

Service Customer's cost responsibility for an Upgrade Feasibility Study including this request.

45. Representative of New Service Customer to contact:

56. This Upgrade Request is submitted by:

Name of New Service Customer: _____

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

[RESERVED]ATTACHMENT FF

**Form of
Initial Study Agreement**

Company name: _____

OASIS Request	Start	Stop	Amount	Path	Date & Time of Request

PURPOSE

~~An Initial Study is used to determine whether or not the Transmission System is adequate to accommodate all or part of a request for long term firm transmission service under both Part II (POINT TO POINT TRANSMISSION SERVICE) or Part III (NETWORK INTEGRATION TRANSMISSION SERVICE) of the PJM Open Access Transmission Tariff (the “Tariff”) (together referred to as “long term firm transmission service”). The FERC comparability standard is applied in evaluating the impact of all requests.~~

SCOPE OF WORK

~~The Initial Study will determine if the PJM network has sufficient capability to grant the transmission service.~~

~~The Initial Study is required for all long term firm transmission service requests. The Initial Study indicates whether or not the request for service can be granted based on expected system conditions and topology. Pursuant to Section 19.3 or Section 32.2 of the Tariff, upon completion of the Initial Study, PJM will notify the transmission customer that (a) the transmission service request is accepted, or (b) additional analysis is required. Pursuant to Part VI of the Tariff, additional analysis will only commence if the customer elects to continue to the System Impact Study within 30 days of notification.~~

General

~~Initial Studies are performed on transmission service requests in the order in which they are received. Multiple requests for overlapping periods and similar paths are evaluated until a limit is reached. Transmission service requests are held in “Study” status until requests received earlier have been confirmed or withdrawn. If the study demonstrates that the requested service can be accepted, the status of the request is changed to “Accepted” on the PJM OASIS. As soon as possible after notification of acceptance, the Transmission Customer should “Confirm” the transmission request. If accepted service is not confirmed within 15 days, the request is deemed “Withdrawn,” and other requests waiting in the queue can then be studied.~~

Available Transmission Capability (ATC)

ATC indicates the transfer capability that is expected to be available on the transmission system during a given period. An initial screening of ATC is required for all firm transmission service requests. This screening is used to evaluate the impact of the requested service on the transmission contingencies that limit available transfer capability. The screening is based on the latest available information regarding existing firm service.

Network Analysis and Deliverability Test

In addition to ATC screening, PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating generation interconnection requests. The energy from generating facilities 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 generator interconnections and long-term firm transmission service in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.

Rollover Rights

Pursuant to section 2.2 of the PJM Tariff, : Existing firm service customers of any Transmission Owner (wholesale requirements and transmission only, with a contract term of five years or more), may request rollover/reservation priority rights at the end of the term of the service. However, rollover rights may be limited in some cases. For instance, if the System Impact Study identifies limits caused by reliability problems (unless Direct Assignment Facilities or Network Upgrades are constructed to provide the requested service), the Transmission Customer will be notified of the limitation. The Service Agreement will include language which will reserve to PJM the right to limit rollovers in such circumstances. Therefore, the Transmission Customer may not be able to exercise reservation/rollover priority rights, in whole or in part, which it may otherwise have pursuant to Section 2.2 of the Tariff upon the initial termination date of the Transmission Service unless the Direct Assignment Facilities and/or Network Upgrades identified in the System Impact Study and/or Facilities Studies are completed pursuant to Part VI.

Reliability problems which may be identified by the System Impact Study and which may require additional Direct Assignment Facilities or Network Upgrades to provide the requested service include the following:

Limiting rollover rights for ATC.

If there is not enough ATC to accommodate rollover rights beyond the initial term PJM may explicitly state in the transmission service agreement that rollover rights for the requested service will be limited.

Limiting rollover rights for earlier queued transmission or generation interconnections.

~~As a part of the Initial Study, the request is tested to verify that the service can co-exist with generators whose interconnection request predates the transmission service request. If the transmission service can not co-exist with a planned generator whose interconnection request predates the transmission service request, and the original transmission service request does not conflict with the generator in service date, the request will be approved. However, the transmission customer will be notified that the service has limited rollover rights. If the customer requests to renew the transmission service, another Initial Study may be required.~~

Estimated Elapsed Time and Cost to Complete the Initial Study

~~The Initial Study analysis to determine if the request can be accommodated will take approximately 10 man-days of effort. The study is estimated to take approximately 14 calendar days to complete but may take as long as 60 days to complete. The cost to complete the Initial Study is estimated at \$_____.~~

**~~ADDITIONAL TERMS AND CONDITIONS
INITIAL STUDY AGREEMENT
FOR LONG-TERM FIRM TRANSMISSION SERVICE REQUESTS~~**

- ~~1.0 This Agreement for an Initial Study for Long Term Firm Transmission Service Requests (“Initial Study Agreement”) is entered into, by and between PJM Interconnection, L.L.C. (“PJM”) and _____ (“Customer”).~~
- ~~2.0 PJM has determined that the Transmission Customer has completed the Application for Firm Point To Point Transmission Service or Network Service under the PJM Open Access Transmission Tariff (“Tariff”) and has provided an Application deposit in accordance with the provisions of the Tariff. The Tariff is accessible through the PJM OASIS.~~
- ~~3.0 PJM has determined that an Initial Study for Transmission Service needs to be conducted to evaluate the request.~~
- ~~4.0 PJM will conduct the Initial Study in accordance with the procedures described in the PJM Manual for Transmission Service Request, which is accessible through the PJM OASIS, the Tariff and this Initial Study Agreement.~~
- ~~5.0 This Initial Study Agreement indicates the Scope of the Work required to evaluate the request and provides an estimated cost and schedule for completing the subject Initial Study for Transmission Service. The Customer shall be responsible for actual charges associated with the Initial Study.~~

~~6.0 Any notice or request made to or by either PJM or the Transmission Customer, regarding this Initial Study Agreement shall be made to the representatives listed below.~~

~~7.0 This Initial Study Agreement **must be executed** by the Transmission Customer **and returned to PJM within (fifteen) 15 days** of the Date stated below, or this Agreement will be void.~~

~~8.0 In accordance with Part II, (POINT TO POINT TRANSMISSION SERVICE), Section 19 (Initial Study Procedures for Long Term Firm Point to Point Transmission Service Requests) Section 19.1 (Notice of Need for Initial Study) and Part III, (NETWORK INTEGRATION TRANSMISSION SERVICE), Section 32 (Initial Study Procedures for Network Integration Transmission Service Requests), and Section 32.1 (Notice of Need for Initial Study) of the Tariff, the Eligible Customer shall agree to reimburse the Transmission Provider for performing the required Initial Study.~~

~~In some cases, the requested service cannot be granted upon completion of the Initial Study. If the Customer has withdrawn its New Service Request or has not requested completion of a System Impact Study within 30 days of completion of the Initial Study, its New Service Request will be deemed to be withdrawn and terminated.~~

~~_____ Transmission Provider _____ Transmission Customer
_____ PJM Interconnection, L.L.C.
_____ 2750 Monroe Blvd.
_____ Audubon, PA 19403~~

~~_____
_____ Agent: _____ Agent: _____~~

~~_____
_____ Date: _____ Date: _____~~

ATTACHMENT PP

Form of

Firm Transmission Feasibility Study Agreement

Company name:

<u>OASIS Request</u>	<u>Start</u>	<u>Stop</u>	<u>Amount</u>	<u>Path</u>	<u>Date & Time of Request</u>

PURPOSE

A Firm Transmission Feasibility Study is used to determine whether or not the Transmission System is adequate to accommodate all or part of a request for long-term firm transmission service under both Part II (POINT-TO-POINT TRANSMISSION SERVICE) or Part III (NETWORK INTEGRATION TRANSMISSION SERVICE) of the PJM Open Access Transmission Tariff (the “Tariff) (together referred to as “long-term firm transmission service”). The FERC comparability standard is applied in evaluating the impact of all requests.

SCOPE OF WORK

The Firm Transmission Feasibility Study will determine if the PJM network has sufficient capability to grant the transmission service.

The Firm Transmission Feasibility Study indicates whether or not the request for service can be granted based on expected system conditions and topology. Pursuant to Section 19.3 or Section 32.3 of the Tariff, upon completion of the Firm Transmission Feasibility Study, PJM will notify the transmission customer that (a) the transmission service request is accepted, or (b) additional analysis is required. Pursuant to Part VI of the Tariff, additional analysis will only commence if the customer elects to continue to the System Impact Study within 30 days of notification.

General

Firm Transmission Feasibility Studies are performed on transmission service requests in the order in which they are received. Multiple requests for overlapping periods and similar paths are evaluated until a limit is reached. Transmission service requests are held in “Study” status until requests received earlier have been confirmed or withdrawn. If the study demonstrates that the requested service can be accepted, the status of the request is changed to “Accepted” on the PJM OASIS. As soon as possible after notification of acceptance, the Transmission Customer should “Confirm” the transmission request. If accepted service is not confirmed within 15 days, the request is deemed “Withdrawn,” and other requests waiting in the queue can then be studied.

Network Analysis and Deliverability Test

PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating generation interconnection requests. The energy from generating facilities 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 generator interconnections and long-term firm transmission service in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.

Rollover Rights

Pursuant to section 2.2 of the PJM Tariff:

Existing firm service customers of any Transmission Owner (wholesale requirements and transmission-only, with a contract term of five-years or more), may request rollover/reservation priority rights at the end of the term of the service. However, rollover rights may be limited in some cases. For instance, if the System Impact Study identifies limits caused by reliability problems (unless Direct Assignment Facilities or Network Upgrades are constructed to provide the requested service), the Transmission Customer will be notified of the limitation. The Service Agreement will include language which will reserve to PJM the right to limit rollovers in such circumstances. Therefore, the Transmission Customer may not be able to exercise reservation/rollover priority rights, in whole or in part, which it may otherwise have pursuant to Section 2.2 of the Tariff upon the initial termination date of the Transmission Service unless the Direct Assignment Facilities and/or Network Upgrades identified in the System Impact Study and/or Facilities Studies are completed pursuant to Part VI.

Reliability problems which may be identified by the System Impact Study and which may require additional Direct Assignment Facilities or Network Upgrades to provide the requested service include the following:

Limiting rollover rights for Deliverability.

If there is not enough system capability to accommodate rollover rights beyond the initial term PJM may explicitly state in the transmission service agreement that rollover rights for the requested service will be limited.

Limiting rollover rights for earlier queued transmission or generation interconnections.

As a part of the Firm Transmission Feasibility Study, the request is tested to verify that the service can co-exist with generators whose interconnection request predates the transmission service request. If the transmission service cannot co-exist with a planned

generator whose interconnection request predates the transmission service request, and the original transmission service request does not conflict with the generator in service date, the request will be approved. However, the transmission customer will be notified that the service has limited rollover rights. If the customer requests to renew the transmission service, another Firm Transmission Feasibility Study may be required.

Estimated Time and Cost to Complete the Firm Transmission Feasibility Study

In the event that the Transmission Provider is unable to complete the Firm Transmission Feasibility Study within the timeframe prescribed in Section 36.2 of the PJM Tariff, the Transmission Provider shall notify the Interconnection Customer and explain the reasons for the delay. The cost to complete the Firm Transmission Feasibility Study is estimated at \$20,000.

ADDITIONAL TERMS AND CONDITIONS **FIRM TRANSMISSION FEASIBILITY STUDY AGREEMENT** **FOR LONG-TERM FIRM TRANSMISSION SERVICE REQUESTS**

- 1.0 This Agreement for a Firm Transmission Feasibility Study for Long-Term Firm Transmission Service Requests (“Firm Transmission Feasibility Study Agreement”) is entered into, by and between PJM Interconnection, L.L.C. (“PJM”) and _____ (“Customer”).
- 2.0 PJM has determined that the Transmission Customer has completed the Application for Firm Point-To-Point Transmission Service or Network Service under the PJM Open Access Transmission Tariff (“Tariff”) and has provided an Application deposit in accordance with the provisions of the Tariff. The Tariff is accessible through the PJM OASIS.
- 3.0 PJM has determined that a Firm Transmission Feasibility Study for Transmission Service needs to be conducted to evaluate the request.
- 4.0 PJM will conduct the Firm Transmission Feasibility Study in accordance with the procedures described in the PJM Manuals, the Tariff and this Firm Transmission Feasibility Study Agreement.
- 5.0 This Firm Transmission Feasibility Study Agreement indicates the Scope of the Work required to evaluate the request and provides an estimated cost and schedule for completing the subject Firm Transmission Feasibility Study for Transmission Service. The Customer shall be responsible for actual charges associated with the Firm Transmission Feasibility Study.
- 6.0 Any notice or request made to or by either PJM or the Transmission Customer, regarding this Firm Transmission Feasibility Study Agreement shall be made to the representatives listed below.

Attachment B

Revisions to the
PJM Open Access Transmission Tariff

(Clean Format)

TABLE OF CONTENTS

I. COMMON SERVICE PROVISIONS

- 1** **Definitions**
 - OATT Definitions – A – B**
 - OATT Definitions – C – D**
 - OATT Definitions – E – F**
 - OATT Definitions – G – H**
 - OATT Definitions – I – J – K**
 - OATT Definitions – L – M – N**
 - OATT Definitions – O – P – Q**
 - OATT Definitions – R – S**
 - OATT Definitions - T – U – V**
 - OATT Definitions – W – X – Y - Z**
- 2** **Initial Allocation and Renewal Procedures**
- 3** **Ancillary Services**
- 3B** **PJM Administrative Service**
- 3C** **Mid-Atlantic Area Council Charge**
- 3D** **Transitional Market Expansion Charge**
- 3E** **Transmission Enhancement Charges**
- 3F** **Transmission Losses**
- 4** **Open Access Same-Time Information System (OASIS)**
- 5** **Local Furnishing Bonds**
- 6** **Reciprocity**
- 6A** **Counterparty**
- 7** **Billing and Payment**
- 8** **Accounting for a Transmission Owner’s Use of the Tariff**
- 9** **Regulatory Filings**
- 10** **Force Majeure and Indemnification**
- 11** **Creditworthiness**
- 12** **Dispute Resolution Procedures**
- 12A** **PJM Compliance Review**

II. POINT-TO-POINT TRANSMISSION SERVICE

Preamble

- 13** **Nature of Firm Point-To-Point Transmission Service**
- 14** **Nature of Non-Firm Point-To-Point Transmission Service**
- 15** **Service Availability**
- 16** **Transmission Customer Responsibilities**
- 17** **Procedures for Arranging Firm Point-To-Point Transmission Service**
- 18** **Procedures for Arranging Non-Firm Point-To-Point Transmission Service**
- 19** **Firm Transmission Feasibility Study Procedures For Long-Term Firm Point-To-Point Transmission Service Requests**
- 20** **[Reserved]**

- 21 [Reserved]
- 22 Changes in Service Specifications
- 23 Sale or Assignment of Transmission Service
- 24 Metering and Power Factor Correction at Receipt and Delivery Points(s)
- 25 Compensation for Transmission Service
- 26 Stranded Cost Recovery
- 27 Compensation for New Facilities and Redispatch Costs
- 27A Distribution of Revenues from Non-Firm Point-to-Point Transmission Service

III. NETWORK INTEGRATION TRANSMISSION SERVICE

Preamble

- 28 Nature of Network Integration Transmission Service
- 29 Initiating Service
- 30 Network Resources
- 31 Designation of Network Load
- 32 Firm Transmission Feasibility Study Procedures For Network Integration Transmission Service Requests
- 33 Load Shedding and Curtailments
- 34 Rates and Charges
- 35 Operating Arrangements

IV. INTERCONNECTIONS WITH THE TRANSMISSION SYSTEM

Preamble

Subpart A –INTERCONNECTION PROCEDURES

- 36 Interconnection Requests
- 37 Additional Procedures
- 38 Service on Merchant Transmission Facilities
- 39 Local Furnishing Bonds

40-108 [Reserved]

Subpart B – [Reserved]

Subpart C – [Reserved]

Subpart D – [Reserved]

Subpart E – [Reserved]

Subpart F – [Reserved]

Subpart G – SMALL GENERATION INTERCONNECTION PROCEDURE

Preamble

- 109 Pre-application Process
- 110 Permanent Capacity Resource Additions Of 20 MW Or Less
- 111 Permanent Energy Resource Additions Of 20 MW Or Less but Greater than 2 MW (Synchronous) or Greater than 5 MW(Inverter-based)
- 112 Temporary Energy Resource Additions Of 20 MW Or Less But Greater Than 2 MW
- 112A Screens Process for Permanent or Temporary Energy Resources of 2 MW or less (Synchronous) or 5 MW (Inverter-based)

- 112B Certified Inverter-Based Small Generating Facilities No Larger than 10 kW
- 112C [Reserved]

V. GENERATION DEACTIVATION

Preamble

- 113 Notices
- 114 Deactivation Avoidable Cost Credit
- 115 Deactivation Avoidable Cost Rate
- 116 Filing and Updating of Deactivation Avoidable Cost Rate
 - 117 Excess Project Investment Required
 - 118 Refund of Project Investment Reimbursement
 - 118A Recovery of Project Investment
 - 119 Cost of Service Recovery Rate
 - 120 Cost Allocation
 - 121 Performance Standards
 - 122 Black Start Units
 - 123-199 [Reserved]

VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; RIGHTS ASSOCIATED WITH CUSTOMER-FUNDED UPGRADES

Preamble

- 200 Applicability
- 201 Queue Position
 - Subpart A – SYSTEM IMPACT STUDIES AND FACILITIES STUDIES FOR NEW SERVICE REQUESTS**
 - 202 Coordination with Affected Systems
 - 203 System Impact Study Agreement
 - 204 Tender of System Impact Study Agreement
 - 205 System Impact Study Procedures
 - 206 Facilities Study Agreement
 - 207 Facilities Study Procedures
 - 208 Expedited Procedures for Part II Requests
 - 209 Optional Interconnection Studies
 - 210 Responsibilities of the Transmission Provider and Transmission Owners
 - Subpart B– AGREEMENTS AND COST REPONSIBILITY FOR CUSTOMER- FUNDED UPGRADES**
 - 211 Interim Interconnection Service Agreement
 - 212 Interconnection Service Agreement
 - 213 Upgrade Construction Service Agreement
 - 214 Filing/Reporting of Agreement
 - 215 Transmission Service Agreements
 - 216 Interconnection Requests Designated as Market Solutions
 - 217 Cost Responsibility for Necessary Facilities and Upgrades
 - 218 New Service Requests Involving Affected Systems
 - 219 Inter-queue Allocation of Costs of Transmission Upgrades

- 220 Advance Construction of Certain Network Upgrades
- 221 Transmission Owner Construction Obligation for Necessary Facilities
And Upgrades
- 222 Confidentiality
- 223 Confidential Information
- 224 – 229 [Reserved]
- Subpart C – RIGHTS RELATED TO CUSTOMER-FUNDED UPGRADES
- 230 Capacity Interconnection Rights
- 231 Incremental Auction Revenue Rights
- 232 Transmission Injection Rights and Transmission Withdrawal
Rights
- 233 Incremental Available Transfer Capability Revenue Rights
- 234 Incremental Capacity Transfer Rights
- 235 Incremental Deliverability Rights
- 236 Interconnection Rights for Certain Transmission Interconnections
- 237 IDR Transfer Agreements

SCHEDULE 1

Scheduling, System Control and Dispatch Service

SCHEDULE 1A

Transmission Owner Scheduling, System Control and Dispatch Service

SCHEDULE 2

Reactive Supply and Voltage Control from Generation Sources Service

SCHEDULE 3

Regulation and Frequency Response Service

SCHEDULE 4

Energy Imbalance Service

SCHEDULE 5

Operating Reserve – Synchronized Reserve Service

SCHEDULE 6

Operating Reserve - Supplemental Reserve Service

SCHEDULE 6A

Black Start Service

SCHEDULE 7

Long-Term Firm and Short-Term Firm Point-To-Point Transmission Service

SCHEDULE 8

Non-Firm Point-To-Point Transmission Service

SCHEDULE 9

PJM Interconnection L.L.C. Administrative Services

SCHEDULE 9-1

Control Area Administration Service

SCHEDULE 9-2

Financial Transmission Rights Administration Service

SCHEDULE 9-3

Market Support Service

SCHEDULE 9-4

Regulation and Frequency Response Administration Service
SCHEDULE 9-5
Capacity Resource and Obligation Management Service
SCHEDULE 9-6
Management Service Cost
SCHEDULE 9-FERC
FERC Annual Charge Recovery
SCHEDULE 9-OPSI
OPSI Funding
SCHEDULE 9-CAPS
CAPS Funding
SCHEDULE 9-FINCON
Finance Committee Retained Outside Consultant
SCHEDULE 9-MMU
MMU Funding
SCHEDULE 9 – PJM SETTLEMENT
SCHEDULE 10 - [Reserved]
SCHEDULE 10-NERC
North American Electric Reliability Corporation Charge
SCHEDULE 10-RFC
Reliability First Corporation Charge
SCHEDULE 11
[Reserved for Future Use]
SCHEDULE 11A
Additional Secure Control Center Data Communication Links and Formula Rate
SCHEDULE 12
Transmission Enhancement Charges
SCHEDULE 12 APPENDIX
SCHEDULE 12-A
SCHEDULE 13
Expansion Cost Recovery Change (ECRC)
SCHEDULE 14
Transmission Service on the Neptune Line
SCHEDULE 14 - Exhibit A
SCHEDULE 15
Non-Retail Behind The Meter Generation Maximum Generation Emergency
Obligations
SCHEDULE 16
Transmission Service on the Linden VFT Facility
SCHEDULE 16 Exhibit A
SCHEDULE 16 – A
Transmission Service for Imports on the Linden VFT Facility
SCHEDULE 17
Transmission Service on the Hudson Line
SCHEDULE 17 - Exhibit A
ATTACHMENT A

Form of Service Agreement For Firm Point-To-Point Transmission Service
ATTACHMENT A-1
Form of Service Agreement For The Resale, Reassignment or Transfer of Point-to-Point Transmission Service
ATTACHMENT B
Form of Service Agreement For Non-Firm Point-To-Point Transmission Service
ATTACHMENT C
Methodology To Assess Available Transfer Capability
ATTACHMENT C-1
Conversion of Service in the Dominion and Duquesne Zones
ATTACHMENT C-2
Conversion of Service in the Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc, (“DEOK”) Zone
ATTACHMENT D
Methodology for Completing a System Impact Study
ATTACHMENT E
Index of Point-To-Point Transmission Service Customers
ATTACHMENT F
Service Agreement For Network Integration Transmission Service
ATTACHMENT F-1
Form of Umbrella Service Agreement for Network Integration Transmission Service Under State Required Retail Access Programs
ATTACHMENT G
Network Operating Agreement
ATTACHMENT H-1
Annual Transmission Rates -- Atlantic City Electric Company for Network Integration Transmission Service
ATTACHMENT H-1A
Atlantic City Electric Company Formula Rate Appendix A
ATTACHMENT H-1B
Atlantic City Electric Company Formula Rate Implementation Protocols
ATTACHMENT H-2
Annual Transmission Rates -- Baltimore Gas and Electric Company for Network Integration Transmission Service
ATTACHMENT H-2A
Baltimore Gas and Electric Company Formula Rate
ATTACHMENT H-2B
Baltimore Gas and Electric Company Formula Rate Implementation Protocols
ATTACHMENT H-3
Annual Transmission Rates -- Delmarva Power & Light Company for Network Integration Transmission Service
ATTACHMENT H-3A
Delmarva Power & Light Company Load Power Factor Charge Applicable to Service the Interconnection Points
ATTACHMENT H-3B

Delmarva Power & Light Company Load Power Factor Charge Applicable to Service the Interconnection Points
ATTACHMENT H-3C
Delmarva Power & Light Company Under-Frequency Load Shedding Charge
ATTACHMENT H-3D
Delmarva Power & Light Company Formula Rate – Appendix A
ATTACHMENT H-3E
Delmarva Power & Light Company Formula Rate Implementation Protocols
ATTACHMENT H-3F
Old Dominion Electric Cooperative Formula Rate – Appendix A
ATTACHMENT H-3G
Old Dominion Electric Cooperative Formula Rate Implementation Protocols
ATTACHMENT H-4
Annual Transmission Rates -- Jersey Central Power & Light Company for Network Integration Transmission Service
ATTACHMENT H-4A
Other Supporting Facilities - Jersey Central Power & Light Company
ATTACHMENT H-4B
Jersey Central Power & Light Company – *[Reserved]*
ATTACHMENT H-5
Annual Transmission Rates -- Metropolitan Edison Company for Network Integration Transmission Service
ATTACHMENT H-5A
Other Supporting Facilities -- Metropolitan Edison Company
ATTACHMENT H-6
Annual Transmission Rates -- Pennsylvania Electric Company for Network Integration Transmission Service
ATTACHMENT H-6A
Other Supporting Facilities Charges -- Pennsylvania Electric Company
ATTACHMENT H-7
Annual Transmission Rates -- PECO Energy Company for Network Integration Transmission Service
ATTACHMENT H-7A
PECO Energy Company Formula Rate Template
ATTACHMENT H-7B
PECO Energy Company Monthly Deferred Tax Adjustment Charge
ATTACHMENT H-7C
PECO Energy Company Formula Rate Implementation Protocols
ATTACHMENT H-8
Annual Transmission Rates – PPL Group for Network Integration Transmission Service
ATTACHMENT H-8A
Other Supporting Facilities Charges -- PPL Electric Utilities Corporation
ATTACHMENT 8C
UGI Utilities, Inc. Formula Rate – Appendix A
ATTACHMENT 8D

UGI Utilities, Inc. Formula Rate Implementation Protocols
ATTACHMENT 8E
UGI Utilities, Inc. Formula Rate – Appendix A
ATTACHMENT H-8G
Annual Transmission Rates – PPL Electric Utilities Corp.
ATTACHMENT H-8H
Formula Rate Implementation Protocols – PPL Electric Utilities Corp.
ATTACHMENT H-9
Annual Transmission Rates -- Potomac Electric Power Company for Network
Integration Transmission Service
ATTACHMENT H-9A
Potomac Electric Power Company Formula Rate – Appendix A
ATTACHMENT H-9B
Potomac Electric Power Company Formula Rate Implementation Protocols
ATTACHMENT H-10
Annual Transmission Rates -- Public Service Electric and Gas Company
for Network Integration Transmission Service
ATTACHMENT H-10A
Formula Rate -- Public Service Electric and Gas Company
ATTACHMENT H-10B
Formula Rate Implementation Protocols – Public Service Electric and Gas
Company
ATTACHMENT H-11
Annual Transmission Rates -- Allegheny Power for Network Integration
Transmission Service
ATTACHMENT 11A
Other Supporting Facilities Charges - Allegheny Power
ATTACHMENT H-12
Annual Transmission Rates -- Rockland Electric Company for Network Integration
Transmission Service
ATTACHMENT H-13
Annual Transmission Rates – Commonwealth Edison Company for Network
Integration Transmission Service
ATTACHMENT H-13A
Commonwealth Edison Company Formula Rate – Appendix A
ATTACHMENT H-13B
Commonwealth Edison Company Formula Rate Implementation Protocols
ATTACHMENT H-14
Annual Transmission Rates – AEP East Operating Companies for Network
Integration Transmission Service
ATTACHMENT H-14A
AEP East Operating Companies Formula Rate Implementation Protocols
ATTACHMENT H-14B Part 1
ATTACHMENT H-14B Part 2
ATTACHMENT H-15

**Annual Transmission Rates -- The Dayton Power and Light Company
for Network Integration Transmission Service**
ATTACHMENT H-16
**Annual Transmission Rates -- Virginia Electric and Power Company
for Network Integration Transmission Service**
ATTACHMENT H-16A
Formula Rate - Virginia Electric and Power Company
ATTACHMENT H-16B
Formula Rate Implementation Protocols - Virginia Electric and Power Company
ATTACHMENT H-16C
**Virginia Retail Administrative Fee Credit for Virginia Retail Load Serving
Entities in the Dominion Zone**
ATTACHMENT H-16D – [Reserved]
ATTACHMENT H-16E – [Reserved]
ATTACHMENT H-16AA
Virginia Electric and Power Company
ATTACHMENT H-17
**Annual Transmission Rates -- Duquesne Light Company for Network Integration
Transmission Service**
ATTACHMENT H-17A
Duquesne Light Company Formula Rate – Appendix A
ATTACHMENT H-17B
Duquesne Light Company Formula Rate Implementation Protocols
ATTACHMENT H-17C
Duquesne Light Company Monthly Deferred Tax Adjustment Charge
ATTACHMENT H-18
Annual Transmission Rates – Trans-Allegheny Interstate Line Company
ATTACHMENT H-18A
Trans-Allegheny Interstate Line Company Formula Rate – Appendix A
ATTACHMENT H-18B
Trans-Allegheny Interstate Line Company Formula Rate Implementation Protocols
ATTACHMENT H-19
Annual Transmission Rates – Potomac-Appalachian Transmission Highline, L.L.C.
ATTACHMENT H-19A
Potomac-Appalachian Transmission Highline, L.L.C. Summary
ATTACHMENT H-19B
**Potomac-Appalachian Transmission Highline, L.L.C. Formula Rate
Implementation Protocols**
ATTACHMENT H-20
**Annual Transmission Rates – AEP Transmission Companies (AEPTCo) in the AEP
Zone**
ATTACHMENT H-20A
**AEP Transmission Companies (AEPTCo) in the AEP Zone - Formula Rate
Implementation Protocols**
ATTACHMENT H-20A APPENDIX A
Transmission Formula Rate Settlement for AEPTCo

ATTACHMENT H-20B - Part I

AEP Transmission Companies (AEPTCo) in the AEP Zone – Blank Formula Rate Template

ATTACHMENT H-20B - Part II

AEP Transmission Companies (AEPTCo) in the AEP Zone – Blank Formula Rate Template

**ATTACHMENT H-21
Annual Transmission Rates – American Transmission Systems, Inc. for Network Integration Transmission Service**

ATTACHMENT H-21A - ATSI

ATTACHMENT H-21A Appendix A - ATSI

ATTACHMENT H-21A Appendix B - ATSI

ATTACHMENT H-21A Appendix C - ATSI

ATTACHMENT H-21A Appendix C - ATSI [Reserved]

ATTACHMENT H-21A Appendix D – ATSI

ATTACHMENT H-21A Appendix E - ATSI

ATTACHMENT H-21A Appendix F – ATSI [Reserved]

ATTACHMENT H-21A Appendix G - ATSI

ATTACHMENT H-21A Appendix G – ATSI (Credit Adj)

ATTACHMENT H-21B ATSI Protocol

ATTACHMENT H-22

Annual Transmission Rates – DEOK for Network Integration Transmission Service and Point-to-Point Transmission Service

ATTACHMENT H-22A

Duke Energy Ohio and Duke Energy Kentucky (DEOK) Formula Rate Template

ATTACHMENT H-22B

DEOK Formula Rate Implementation Protocols

ATTACHMENT H-22C

Additional provisions re DEOK and Indiana

ATTACHMENT H-23

EP Rock springs annual transmission Rate

ATTACHMENT H-24

EKPC Annual Transmission Rates

ATTACHMENT H-24A APPENDIX A

EKPC Schedule 1A

ATTACHMENT H-24A APPENDIX B

EKPC RTEP

ATTACHMENT H-24A APPENDIX C

EKPC True-up

ATTACHMENT H-24A APPENDIX D

EKPC Depreciation Rates

ATTACHMENT H-24-B

EKPC Implementation Protocols

ATTACHMENT H-25

Annual Transmission Rates – Rochelle Municipal Utiliites for Network Integration Transmission Service and Point-to-Point Transmission Service in the ComEd Zone

ATTACHMENT H-25A

	Formula Rate Protocols for Rochelle Municipal Utilities Using a Historical Formula Rate Template
ATTACHMENT H-25B	Rochelle Municipal Utilities Transmission Cost of Service Formula Rate – Appendix A – Transmission Service Revenue Requirement
ATTACHMENT H-26	Transource West Virginia, LLC Formula Rate Template
ATTACHMENT H-26A	Transource West Virginia, LLC Formula Rate Implementation Protocols
ATTACHMENT H-27	Annual Transmission Rates – Northeast Transmission Development, LLC
ATTACHMENT H-27A	Northeast Transmission Development, LLC Formula Rate Template
ATTACHMENT H-27B	Northeast Transmission Development, LLC Formula Rate Implementation Protocols
ATTACHMENT H-28	Annual Transmission Rates – Mid-Atlantic Interstate Transmission, LLC for Network Integration Transmission Service
ATTACHMENT H-28A	Mid-Atlantic Interstate Transmission, LLC Formula Rate Template
ATTACHMENT H-28B	Mid-Atlantic Interstate Transmission, LLC Formula Rate Implementation Protocols
ATTACHMENT H-29	Annual Transmission Rates – Transource Pennsylvania, LLC
ATTACHMENT H-29A	Transource Pennsylvania, LLC Formula Rate Template
ATTACHMENT H-29B	Transource Pennsylvania, LLC Formula Rate Implementation Protocols
ATTACHMENT H-30	Annual Transmission Rates – Transource Maryland, LLC
ATTACHMENT H-30A	Transource Maryland, LLC Formula Rate Template
ATTACHMENT H-30B	Transource Maryland, LLC Formula Rate Implementation Protocols
ATTACHMENT H-A	Annual Transmission Rates -- Non-Zone Network Load for Network Integration Transmission Service
ATTACHMENT I	Index of Network Integration Transmission Service Customers
ATTACHMENT J	PJM Transmission Zones
ATTACHMENT K	Transmission Congestion Charges and Credits
	Preface

ATTACHMENT K -- APPENDIX

Preface

- 1. MARKET OPERATIONS**
 - 1.1 Introduction
 - 1.2 Cost-Based Offers
 - 1.2A Transmission Losses
 - 1.3 [Reserved for Future Use]
 - 1.4 Market Buyers
 - 1.5 Market Sellers
 - 1.5A Economic Load Response Participant
 - 1.6 Office of the Interconnection
 - 1.6A PJM Settlement
 - 1.7 General
 - 1.8 Selection, Scheduling and Dispatch Procedure Adjustment Process
 - 1.9 Prescheduling
 - 1.10 Scheduling
 - 1.11 Dispatch
 - 1.12 Dynamic Transfers
- 2. CALCULATION OF LOCATIONAL MARGINAL PRICES**
 - 2.1 Introduction
 - 2.2 General
 - 2.3 Determination of System Conditions Using the State Estimator
 - 2.4 Determination of Energy Offers Used in Calculating
 - 2.5 Calculation of Real-time Prices
 - 2.6 Calculation of Day-ahead Prices
 - 2.6A Interface Prices
 - 2.7 Performance Evaluation
- 3. ACCOUNTING AND BILLING**
 - 3.1 Introduction
 - 3.2 Market Buyers
 - 3.3 Market Sellers
 - 3.3A Economic Load Response Participants
 - 3.4 Transmission Customers
 - 3.5 Other Control Areas
 - 3.6 Metering Reconciliation
 - 3.7 Inadvertent Interchange
- 4. [Reserved For Future Use]**
- 5. CALCULATION OF CHARGES AND CREDITS FOR TRANSMISSION CONGESTION AND LOSSES**
 - 5.1 Transmission Congestion Charge Calculation
 - 5.2 Transmission Congestion Credit Calculation
 - 5.3 Unscheduled Transmission Service (Loop Flow)
 - 5.4 Transmission Loss Charge Calculation
 - 5.5 Distribution of Total Transmission Loss Charges
- 6. "MUST-RUN" FOR RELIABILITY GENERATION**
 - 6.1 Introduction
 - 6.2 Identification of Facility Outages

- 6.3 Dispatch for Local Reliability
- 6.4 Offer Price Caps
- 6.5 [Reserved]
- 6.6 Minimum Generator Operating Parameters –
Parameter-Limited Schedules
- 6A. [Reserved]**
 - 6A.1 [Reserved]
 - 6A.2 [Reserved]
 - 6A.3 [Reserved]
- 7. FINANCIAL TRANSMISSION RIGHTS AUCTIONS**
 - 7.1 Auctions of Financial Transmission Rights
 - 7.1A Long-Term Financial Transmission Rights Auctions
 - 7.2 Financial Transmission Rights Characteristics
 - 7.3 Auction Procedures
 - 7.4 Allocation of Auction Revenues
 - 7.5 Simultaneous Feasibility
 - 7.6 New Stage 1 Resources
 - 7.7 Alternate Stage 1 Resources
 - 7.8 Elective Upgrade Auction Revenue Rights
 - 7.9 Residual Auction Revenue Rights
 - 7.10 Financial Settlement
 - 7.11 PJMSettlement as Counterparty
- 8. EMERGENCY AND PRE-EMERGENCY LOAD RESPONSE PROGRAM**
 - 8.1 Emergency Load Response and Pre-Emergency Load Response Program Options
 - 8.2 Participant Qualifications
 - 8.3 Metering Requirements
 - 8.4 Registration
 - 8.5 Pre-Emergency Operations
 - 8.6 Emergency Operations
 - 8.7 Verification
 - 8.8 Market Settlements
 - 8.9 Reporting and Compliance
 - 8.10 Non-Hourly Metered Customer Pilot
 - 8.11 Emergency Load Response and Pre-Emergency Load Response Participant
Aggregation

ATTACHMENT L

List of Transmission Owners

ATTACHMENT M

PJM Market Monitoring Plan

ATTACHMENT M – APPENDIX

PJM Market Monitor Plan Attachment M Appendix

- I Confidentiality of Data and Information
- II Development of Inputs for Prospective Mitigation
- III Black Start Service
- IV Deactivation Rates
- V Opportunity Cost Calculation

VI	FTR Forfeiture Rule
VII	Forced Outage Rule
VIII	Data Collection and Verification
ATTACHMENT M-1 (FirstEnergy)	Energy Procedure Manual for Determining Supplier Total Hourly Energy Obligation
ATTACHMENT M-2 (First Energy)	Energy Procedure Manual for Determining Supplier Peak Load Share Procedures for Load Determination
ATTACHMENT M-2 (ComEd)	Determination of Capacity Peak Load Contributions and Network Service Peak Load Contributions
ATTACHMENT M-2 (PSE&G)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Atlantic City Electric Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Delmarva Power & Light Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Delmarva Power & Light Company)	Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Duke Energy Ohio, Inc.)	Procedures for Determination of Peak Load Contributions, Network Service Peak Load and Hourly Load Obligations for Retail Customers
ATTACHMENT M-2 (Virginia Electric and Power Company)	<i>Procedure for Determining Load Serving Entity Network Service Peak Load (NSPL) Contributions</i>
ATTACHMENT M-3	<i>Additional Procedures for Planning of Supplemental Projects</i>
ATTACHMENT N	Form of Generation Interconnection Feasibility Study Agreement
ATTACHMENT N-1	Form of System Impact Study Agreement
ATTACHMENT N-2	Form of Facilities Study Agreement
ATTACHMENT N-3	Form of Optional Interconnection Study Agreement
ATTACHMENT O	Form of Interconnection Service Agreement
1.0	Parties
2.0	Authority
3.0	Customer Facility Specifications
4.0	Effective Date

- 5.0 Security
- 6.0 Project Specific Milestones
- 7.0 Provision of Interconnection Service
- 8.0 Assumption of Tariff Obligations
- 9.0 Facilities Study
- 10.0 Construction of Transmission Owner Interconnection Facilities
- 11.0 Interconnection Specifications
- 12.0 Power Factor Requirement
- 12.0A RTU
- 13.0 Charges
- 14.0 Third Party Benefits
- 15.0 Waiver
- 16.0 Amendment
- 17.0 Construction With Other Parts Of The Tariff
- 18.0 Notices
- 19.0 Incorporation Of Other Documents
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 22.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 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

Specifications for Interconnection Service Agreement

- 1.0 Description of [generating unit(s)] [Merchant Transmission Facilities] (the Customer Facility) to be Interconnected with the Transmission System in the PJM Region
- 2.0 Rights
- 3.0 Construction Responsibility and Ownership of Interconnection Facilities
- 4.0 Subject to Modification Pursuant to the Negotiated Contract Option
- 4.1 Attachment Facilities Charge
- 4.2 Network Upgrades Charge
- 4.3 Local Upgrades Charge
- 4.4 Other Charges
- 4.5 Cost of Merchant Network Upgrades
- 4.6 Cost breakdown
- 4.7 Security Amount Breakdown

ATTACHMENT O APPENDIX 1: Definitions

ATTACHMENT O APPENDIX 2: Standard Terms and Conditions for Interconnections

- 1 Commencement, Term of and Conditions Precedent to Interconnection Service**
 - 1.1 Commencement Date
 - 1.2 Conditions Precedent
 - 1.3 Term
 - 1.4 Initial Operation
 - 1.4A Limited Operation

- 1.5 Survival
- 2 Interconnection Service**
 - 2.1 Scope of Service
 - 2.2 Non-Standard Terms
 - 2.3 No Transmission Services
 - 2.4 Use of Distribution Facilities
 - 2.5 Election by Behind The Meter Generation
- 3 Modification Of Facilities**
 - 3.1 General
 - 3.2 Interconnection Request
 - 3.3 Standards
 - 3.4 Modification Costs
- 4 Operations**
 - 4.1 General
 - 4.2 Operation of Merchant Network Upgrades
 - 4.3 Interconnection Customer Obligations
 - 4.4 [Reserved.]
 - 4.5 Permits and Rights-of-Way
 - 4.6 No Ancillary Services
 - 4.7 Reactive Power
 - 4.8 Under- and Over-Frequency Conditions
 - 4.9 Protection and System Quality
 - 4.10 Access Rights
 - 4.11 Switching and Tagging Rules
 - 4.12 Communications and Data Protocol
 - 4.13 Nuclear Generating Facilities
- 5 Maintenance**
 - 5.1 General
 - 5.2 Maintenance of Merchant Network Upgrades
 - 5.3 Outage Authority and Coordination
 - 5.4 Inspections and Testing
 - 5.5 Right to Observe Testing
 - 5.6 Secondary Systems
 - 5.7 Access Rights
 - 5.8 Observation of Deficiencies
- 6 Emergency Operations**
 - 6.1 Obligations
 - 6.2 Notice
 - 6.3 Immediate Action
 - 6.4 Record-Keeping Obligations
- 7 Safety**
 - 7.1 General
 - 7.2 Environmental Releases
- 8 Metering**
 - 8.1 General
 - 8.2 Standards

- 8.3 Testing of Metering Equipment
- 8.4 Metering Data
- 8.5 Communications
- 9 Force Majeure**
 - 9.1 Notice
 - 9.2 Duration of Force Majeure
 - 9.3 Obligation to Make Payments
 - 9.4 Definition of Force Majeure
- 10 Charges**
 - 10.1 Specified Charges
 - 10.2 FERC Filings
- 11 Security, Billing And Payments**
 - 11.1 Recurring Charges Pursuant to Section 10
 - 11.2 Costs for Transmission Owner Interconnection Facilities and/or Merchant Network Upgrades
 - 11.3 No Waiver
 - 11.4 Interest
- 12 Assignment**
 - 12.1 Assignment with Prior Consent
 - 12.2 Assignment Without Prior Consent
 - 12.3 Successors and Assigns
- 13 Insurance**
 - 13.1 Required Coverages for Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
 - 13.1A Required Coverages for Generation Resources Of 20 Megawatts Or Less
 - 13.2 Additional Insureds
 - 13.3 Other Required Terms
 - 13.3A No Limitation of Liability
 - 13.4 Self-Insurance
 - 13.5 Notices; Certificates of Insurance
 - 13.6 Subcontractor Insurance
 - 13.7 Reporting Incidents
- 14 Indemnity**
 - 14.1 Indemnity
 - 14.2 Indemnity Procedures
 - 14.3 Indemnified Person
 - 14.4 Amount Owing
 - 14.5 Limitation on Damages
 - 14.6 Limitation of Liability in Event of Breach
 - 14.7 Limited Liability in Emergency Conditions
- 15 Breach, Cure And Default**
 - 15.1 Breach
 - 15.2 Continued Operation
 - 15.3 Notice of Breach
 - 15.4 Cure and Default

- 15.5 Right to Compel Performance
- 15.6 Remedies Cumulative
- 16 Termination**
 - 16.1 Termination
 - 16.2 Disposition of Facilities Upon Termination
 - 16.3 FERC Approval
 - 16.4 Survival of Rights
- 17 Confidentiality**
 - 17.1 Term
 - 17.2 Scope
 - 17.3 Release of Confidential Information
 - 17.4 Rights
 - 17.5 No Warranties
 - 17.6 Standard of Care
 - 17.7 Order of Disclosure
 - 17.8 Termination of Interconnection Service Agreement
 - 17.9 Remedies
 - 17.10 Disclosure to FERC or its Staff
 - 17.11 No Interconnection Party Shall Disclose Confidential Information
 - 17.12 Information that is Public Domain
 - 17.13 Return or Destruction of Confidential Information
- 18 Subcontractors**
 - 18.1 Use of Subcontractors
 - 18.2 Responsibility of Principal
 - 18.3 Indemnification by Subcontractors
 - 18.4 Subcontractors Not Beneficiaries
- 19 Information Access And Audit Rights**
 - 19.1 Information Access
 - 19.2 Reporting of Non-Force Majeure Events
 - 19.3 Audit Rights
- 20 Disputes**
 - 20.1 Submission
 - 20.2 Rights Under The Federal Power Act
 - 20.3 Equitable Remedies
- 21 Notices**
 - 21.1 General
 - 21.2 Emergency Notices
 - 21.3 Operational Contacts
- 22 Miscellaneous**
 - 22.1 Regulatory Filing
 - 22.2 Waiver
 - 22.3 Amendments and Rights Under the Federal Power Act
 - 22.4 Binding Effect
 - 22.5 Regulatory Requirements
- 23 Representations And Warranties**
 - 23.1 General

- 24 Tax Liability**
 - 24.1 Safe Harbor Provisions
 - 24.2 Tax Indemnity
 - 24.3 Taxes Other Than Income Taxes
 - 24.4 Income Tax Gross-Up
 - 24.5 Tax Status

ATTACHMENT O - SCHEDULE A

Customer Facility Location/Site Plan

ATTACHMENT O - SCHEDULE B

Single-Line Diagram

ATTACHMENT O - SCHEDULE C

List of Metering Equipment

ATTACHMENT O - SCHEDULE D

Applicable Technical Requirements and Standards

ATTACHMENT O - SCHEDULE E

Schedule of Charges

ATTACHMENT O - SCHEDULE F

Schedule of Non-Standard Terms & Conditions

ATTACHMENT O - SCHEDULE G

Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status

ATTACHMENT O - SCHEDULE H

Interconnection Requirements for a Wind Generation Facility

ATTACHMENT O-1

Form of Interim Interconnection Service Agreement

ATTACHMENT P

Form of Interconnection Construction Service Agreement

- 1.0 Parties
- 2.0 Authority
- 3.0 Customer Facility
- 4.0 Effective Date and Term
 - 4.1 Effective Date
 - 4.2 Term
 - 4.3 Survival
- 5.0 Construction Responsibility
- 6.0 [Reserved.]
- 7.0 Scope of Work
- 8.0 Schedule of Work
- 9.0 [Reserved.]
- 10.0 Notices
- 11.0 Waiver
- 12.0 Amendment
- 13.0 Incorporation Of Other Documents
- 14.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 15.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service

- 16.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 17.0 Infrastructure Security of Electric System Equipment and Operations and Control Hardware and Software is Essential to Ensure Day-to-Day Reliability and Operational Security

ATTACHMENT P - APPENDIX 1 – DEFINITIONS

ATTACHMENT P - APPENDIX 2 – STANDARD CONSTRUCTION TERMS AND CONDITIONS

Preamble

1 Facilitation by Transmission Provider

2 Construction Obligations

- 2.1 Interconnection Customer Obligations
- 2.2 Transmission Owner Interconnection Facilities and Merchant Network Upgrades
- 2.2A Scope of Applicable Technical Requirements and Standards
- 2.3 Construction By Interconnection Customer
- 2.4 Tax Liability
- 2.5 Safety
- 2.6 Construction-Related Access Rights
- 2.7 Coordination Among Constructing Parties

3 Schedule of Work

- 3.1 Construction by Interconnection Customer
- 3.2 Construction by Interconnected Transmission Owner
 - 3.2.1 Standard Option
 - 3.2.2 Negotiated Contract Option
 - 3.2.3 Option to Build
- 3.3 Revisions to Schedule of Work
- 3.4 Suspension
 - 3.4.1 Costs
 - 3.4.2 Duration of Suspension
- 3.5 Right to Complete Transmission Owner Interconnection Facilities
- 3.6 Suspension of Work Upon Default
- 3.7 Construction Reports
- 3.8 Inspection and Testing of Completed Facilities
- 3.9 Energization of Completed Facilities
- 3.10 Interconnected Transmission Owner’s Acceptance of Facilities Constructed by Interconnection Customer

4 Transmission Outages

- 4.1 Outages; Coordination

5 Land Rights; Transfer of Title

- 5.1 Grant of Easements and Other Land Rights
- 5.2 Construction of Facilities on Interconnection Customer Property
- 5.3 Third Parties
- 5.4 Documentation
- 5.5 Transfer of Title to Certain Facilities Constructed By Interconnection Customer

- 5.6 Liens
- 6 Warranties**
 - 6.1 Interconnection Customer Warranty
 - 6.2 Manufacturer Warranties
- 7 [Reserved.]**
- 8 [Reserved.]**
- 9 Security, Billing And Payments**
 - 9.1 Adjustments to Security
 - 9.2 Invoice
 - 9.3 Final Invoice
 - 9.4 Disputes
 - 9.5 Interest
 - 9.6 No Waiver
- 10 Assignment**
 - 10.1 Assignment with Prior Consent
 - 10.2 Assignment Without Prior Consent
 - 10.3 Successors and Assigns
- 11 Insurance**
 - 11.1 Required Coverages For Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
 - 11.1A Required Coverages For Generation Resources of 20 Megawatts Or Less
 - 11.2 Additional Insureds
 - 11.3 Other Required Terms
 - 11.3A No Limitation of Liability
 - 11.4 Self-Insurance
 - 11.5 Notices; Certificates of Insurance
 - 11.6 Subcontractor Insurance
 - 11.7 Reporting Incidents
- 12 Indemnity**
 - 12.1 Indemnity
 - 12.2 Indemnity Procedures
 - 12.3 Indemnified Person
 - 12.4 Amount Owing
 - 12.5 Limitation on Damages
 - 12.6 Limitation of Liability in Event of Breach
 - 12.7 Limited Liability in Emergency Conditions
- 13 Breach, Cure And Default**
 - 13.1 Breach
 - 13.2 Notice of Breach
 - 13.3 Cure and Default
 - 13.3.1 Cure of Breach
 - 13.4 Right to Compel Performance
 - 13.5 Remedies Cumulative
- 14 Termination**
 - 14.1 Termination

- 14.2 [Reserved.]
- 14.3 Cancellation By Interconnection Customer
- 14.4 Survival of Rights
- 15 Force Majeure**
 - 15.1 Notice
 - 15.2 Duration of Force Majeure
 - 15.3 Obligation to Make Payments
 - 15.4 Definition of Force Majeure
- 16 Subcontractors**
 - 16.1 Use of Subcontractors
 - 16.2 Responsibility of Principal
 - 16.3 Indemnification by Subcontractors
 - 16.4 Subcontractors Not Beneficiaries
- 17 Confidentiality**
 - 17.1 Term
 - 17.2 Scope
 - 17.3 Release of Confidential Information
 - 17.4 Rights
 - 17.5 No Warranties
 - 17.6 Standard of Care
 - 17.7 Order of Disclosure
 - 17.8 Termination of Construction Service Agreement
 - 17.9 Remedies
 - 17.10 Disclosure to FERC or its Staff
 - 17.11 No Construction Party Shall Disclose Confidential Information of Another Construction Party 17.12 Information that is Public Domain
 - 17.13 Return or Destruction of Confidential Information
- 18 Information Access And Audit Rights**
 - 18.1 Information Access
 - 18.2 Reporting of Non-Force Majeure Events
 - 18.3 Audit Rights
- 19 Disputes**
 - 19.1 Submission
 - 19.2 Rights Under The Federal Power Act
 - 19.3 Equitable Remedies
- 20 Notices**
 - 20.1 General
 - 20.2 Operational Contacts
- 21 Miscellaneous**
 - 21.1 Regulatory Filing
 - 21.2 Waiver
 - 21.3 Amendments and Rights under the Federal Power Act
 - 21.4 Binding Effect
 - 21.5 Regulatory Requirements
- 22 Representations and Warranties**
 - 22.1 General

ATTACHMENT P - SCHEDULE A
Site Plan

ATTACHMENT P - SCHEDULE B
Single-Line Diagram of Interconnection Facilities

ATTACHMENT P - SCHEDULE C
**Transmission Owner Interconnection Facilities to be Built by Interconnected
Transmission Owner**

ATTACHMENT P - SCHEDULE D
**Transmission Owner Interconnection Facilities to be Built by Interconnection
Customer Pursuant to Option to Build**

ATTACHMENT P - SCHEDULE E
Merchant Network Upgrades to be Built by Interconnected Transmission Owner

ATTACHMENT P - SCHEDULE F
**Merchant Network Upgrades to be Built by Interconnection Customer
Pursuant to Option to Build**

ATTACHMENT P - SCHEDULE G
Customer Interconnection Facilities

ATTACHMENT P - SCHEDULE H
Negotiated Contract Option Terms

ATTACHMENT P - SCHEDULE I
Scope of Work

ATTACHMENT P - SCHEDULE J
Schedule of Work

ATTACHMENT P - SCHEDULE K
Applicable Technical Requirements and Standards

ATTACHMENT P - SCHEDULE L
**Interconnection Customer's Agreement to Confirm with IRS Safe Harbor
Provisions For Non-Taxable Status**

ATTACHMENT P - SCHEDULE M
Schedule of Non-Standard Terms and Conditions

ATTACHMENT P - SCHEDULE N
Interconnection Requirements for a Wind Generation Facility

ATTACHMENT Q
PJM Credit Policy

ATTACHMENT R
**Lost Revenues Of PJM Transmission Owners And Distribution of Revenues
Remitted By MISO, SECA Rates to Collect PJM Transmission Owner Lost
Revenues Under Attachment X, And Revenues From PJM Existing Transactions**

ATTACHMENT S
Form of Transmission Interconnection Feasibility Study Agreement

ATTACHMENT T
Identification of Merchant Transmission Facilities

ATTACHMENT U
Independent Transmission Companies

ATTACHMENT V
Form of ITC Agreement

ATTACHMENT W	
	COMMONWEALTH EDISON COMPANY
ATTACHMENT X	Seams Elimination Cost Assignment Charges
NOTICE OF ADOPTION OF NERC TRANSMISSION LOADING RELIEF PROCEDURES	
NOTICE OF ADOPTION OF LOCAL TRANSMISSION LOADING RELIEF PROCEDURES	
SCHEDULE OF PARTIES ADOPTING LOCAL TRANSMISSION LOADING RELIEF PROCEDURES	
ATTACHMENT Y	Forms of Screens Process Interconnection Request (For Generation Facilities of 2 MW or less)
ATTACHMENT Z	Certification Codes and Standards
ATTACHMENT AA	Certification of Small Generator Equipment Packages
ATTACHMENT BB	Form of Certified Inverter-Based Generating Facility No Larger Than 10 kW Interconnection Service Agreement
ATTACHMENT CC	Form of Certificate of Completion (Small Generating Inverter Facility No Larger Than 10 kW)
ATTACHMENT DD	Reliability Pricing Model
ATTACHMENT EE	Form of Upgrade Request
ATTACHMENT FF	[Reserved]
ATTACHMENT GG	Form of Upgrade Construction Service Agreement
	Article 1 – Definitions And Other Documents
	1.0 Defined Terms
	1.1 Incorporation of Other Documents
	Article 2 – Responsibility for Direct Assignment Facilities or Customer-Funded Upgrades
	2.0 New Service Customer Financial Responsibilities
	2.1 Obligation to Provide Security
	2.2 Failure to Provide Security
	2.3 Costs
	2.4 Transmission Owner Responsibilities
	Article 3 – Rights To Transmission Service
	3.0 No Transmission Service
	Article 4 – Early Termination
	4.0 Termination by New Service Customer
	Article 5 – Rights

- 5.0 Rights
- 5.1 Amount of Rights Granted
- 5.2 Availability of Rights Granted
- 5.3 Credits
- Article 6 – Miscellaneous
 - 6.0 Notices
 - 6.1 Waiver
 - 6.2 Amendment
 - 6.3 No Partnership
 - 6.4 Counterparts

ATTACHMENT GG - APPENDIX I –

**SCOPE AND SCHEDULE OF WORK FOR DIRECT ASSIGNMENT
FACILITIES OR CUSTOMER-FUNDED UPGRADES TO BE BUILT BY
TRANSMISSION OWNER**

ATTACHMENT GG - APPENDIX II - DEFINITIONS

- 1 Definitions
 - 1.1 Affiliate
 - 1.2 Applicable Laws and Regulations
 - 1.3 Applicable Regional Reliability Council
 - 1.4 Applicable Standards
 - 1.5 Breach
 - 1.6 Breaching Party
 - 1.7 Cancellation Costs
 - 1.8 Commission
 - 1.9 Confidential Information
 - 1.10 Constructing Entity
 - 1.11 Control Area
 - 1.12 Costs
 - 1.13 Default
 - 1.14 Delivering Party
 - 1.15 Emergency Condition
 - 1.16 Environmental Laws
 - 1.17 Facilities Study
 - 1.18 Federal Power Act
 - 1.19 FERC
 - 1.20 Firm Point-To-Point
 - 1.21 Force Majeure
 - 1.22 Good Utility Practice
 - 1.23 Governmental Authority
 - 1.24 Hazardous Substances
 - 1.25 Incidental Expenses
 - 1.26 Local Upgrades
 - 1.27 Long-Term Firm Point-To-Point Transmission Service
 - 1.28 MAAC
 - 1.29 MAAC Control Zone
 - 1.30 NERC

- 1.31 Network Upgrades
- 1.32 Office of the Interconnection
- 1.33 Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement
- 1.34 Part I
- 1.35 Part II
- 1.36 Part III
- 1.37 Part IV
- 1.38 Part VI
- 1.39 PJM Interchange Energy Market
- 1.40 PJM Manuals
- 1.41 PJM Region
- 1.42 PJM West Region
- 1.43 Point(s) of Delivery
- 1.44 Point(s) of Receipt
- 1.45 Project Financing
- 1.46 Project Finance Entity
- 1.47 Reasonable Efforts
- 1.48 Receiving Party
- 1.49 Regional Transmission Expansion Plan
- 1.50 Schedule and Scope of Work
- 1.51 Security
- 1.52 Service Agreement
- 1.53 State
- 1.54 Transmission System
- 1.55 VACAR

ATTACHMENT GG - APPENDIX III – GENERAL TERMS AND CONDITIONS

- 1.0 Effective Date and Term
 - 1.1 Effective Date
 - 1.2 Term
 - 1.3 Survival
- 2.0 Facilitation by Transmission Provider
- 3.0 Construction Obligations
 - 3.1 Direct Assignment Facilities or Customer-Funded Upgrades
 - 3.2 Scope of Applicable Technical Requirements and Standards
- 4.0 Tax Liability
 - 4.1 New Service Customer Payments Taxable
 - 4.2 Income Tax Gross-Up
 - 4.3 Private Letter Ruling
 - 4.4 Refund
 - 4.5 Contests
 - 4.6 Taxes Other Than Income Taxes
 - 4.7 Tax Status
- 5.0 Safety
 - 5.1 General
 - 5.2 Environmental Releases

- 6.0 Schedule Of Work
 - 6.1 Standard Option
 - 6.2 Option to Build
 - 6.3 Revisions to Schedule and Scope of Work
 - 6.4 Suspension
- 7.0 Suspension of Work Upon Default
 - 7.1 Notification and Correction of Defects
- 8.0 Transmission Outages
 - 8.1 Outages; Coordination
- 9.0 Security, Billing and Payments
 - 9.1 Adjustments to Security
 - 9.2 Invoice
 - 9.3 Final Invoice
 - 9.4 Disputes
 - 9.5 Interest
 - 9.6 No Waiver
- 10.0 Assignment
 - 10.1 Assignment with Prior Consent
 - 10.2 Assignment Without Prior Consent
 - 10.3 Successors and Assigns
- 11.0 Insurance
 - 11.1 Required Coverages
 - 11.2 Additional Insureds
 - 11.3 Other Required Terms
 - 11.4 No Limitation of Liability
 - 11.5 Self-Insurance
 - 11.6 Notices: Certificates of Insurance
 - 11.7 Subcontractor Insurance
 - 11.8 Reporting Incidents
- 12.0 Indemnity
 - 12.1 Indemnity
 - 12.2 Indemnity Procedures
 - 12.3 Indemnified Person
 - 12.4 Amount Owing
 - 12.5 Limitation on Damages
 - 12.6 Limitation of Liability in Event of Breach
 - 12.7 Limited Liability in Emergency Conditions
- 13.0 Breach, Cure And Default
 - 13.1 Breach
 - 13.2 Notice of Breach
 - 13.3 Cure and Default
 - 13.4 Right to Compel Performance
 - 13.5 Remedies Cumulative
- 14.0 Termination
 - 14.1 Termination
 - 14.2 Cancellation By New Service Customer

- 14.3 Survival of Rights
- 14.4 Filing at FERC
- 15.0 Force Majeure
 - 15.1 Notice
 - 15.2 Duration of Force Majeure
 - 15.3 Obligation to Make Payments
- 16.0 Confidentiality
 - 16.1 Term
 - 16.2 Scope
 - 16.3 Release of Confidential Information
 - 16.4 Rights
 - 16.5 No Warranties
 - 16.6 Standard of Care
 - 16.7 Order of Disclosure
 - 16.8 Termination of Upgrade Construction Service Agreement
 - 16.9 Remedies
 - 16.10 Disclosure to FERC or its Staff
 - 16.11 No Party Shall Disclose Confidential Information of Party 16.12
Information that is Public Domain
 - 16.13 Return or Destruction of Confidential Information
- 17.0 Information Access And Audit Rights
 - 17.1 Information Access
 - 17.2 Reporting of Non-Force Majeure Events
 - 17.3 Audit Rights
 - 17.4 Waiver
 - 17.5 Amendments and Rights under the Federal Power Act
 - 17.6 Regulatory Requirements
- 18.0 Representation and Warranties
 - 18.1 General
- 19.0 Inspection and Testing of Completed Facilities
 - 19.1 Coordination
 - 19.2 Inspection and Testing
 - 19.3 Review of Inspection and Testing by Transmission Owner
 - 19.4 Notification and Correction of Defects
 - 19.5 Notification of Results
- 20.0 Energization of Completed Facilities
- 21.0 Transmission Owner's Acceptance of Facilities Constructed
by New Service Customer
- 22.0 Transfer of Title to Certain Facilities Constructed By New Service Customer
- 23.0 Liens

ATTACHMENT HH – RATES, TERMS, AND CONDITIONS OF SERVICE FOR PJMSETTLEMENT, INC.

ATTACHMENT II – MTEP PROJECT COST RECOVERY FOR ATSI ZONE

ATTACHMENT JJ – MTEP PROJECT COST RECOVERY FOR DEOK ZONE

ATTACHMENT KK - FORM OF DESIGNATED ENTITY AGREEMENT

ATTACHMENT LL - FORM OF INTERCONNECTION COORDINATION AGREEMENT

ATTACHMENT MM – FORM OF PSEUDO-TIE AGREEMENT – WITH NATIVE BA AS PARTY

ATTACHMENT MM-1 – FORM OF SYSTEM MODIFICATION COST REIMBURSEMENT AGREEMENT – PSEUDO-TIE INTO PJM

ATTACHMENT NN – FORM OF PSEUDO-TIE AGREEMENT WITHOUT NATIVE BA AS PARTY

ATTACHMENT OO – FORM OF DYNAMIC SCHEDULE AGREEMENT INTO THE PJM REGION

ATTACHMENT PP – FORM OF FIRM TRANSMISSION FEASIBILITY STUDY AGREEMENT

Definitions – E - F

Economic-based Enhancement or Expansion:

“Economic-based Enhancement or Expansion” shall have the same meaning provided in the Operating Agreement.

Economic Load Response Participant:

“Economic Load Response Participant” shall mean a Member or Special Member that qualifies under Operating Agreement, Schedule 1, section 1.5A, and the parallel provisions of Tariff, Attachment K-Appendix, to participate in the PJM Interchange Energy Market and/or Ancillary Services markets through reductions in demand.

Economic Maximum:

“Economic Minimum” shall mean the lowest incremental MW output level, submitted to PJM market systems by a Market Participant, that a unit can achieve while following economic dispatch.

Effective FTR Holder:

“Effective FTR Holder” shall mean:

- (i) For an FTR Holder that is either a (a) privately held company, or (b) a municipality or electric cooperative, as defined in the Federal Power Act, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other entity that is under common ownership, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (ii) For an FTR Holder that is a publicly traded company including a wholly owned subsidiary of a publicly traded company, such FTR Holder, together with any Affiliate, subsidiary or parent of the FTR Holder, any other PJM Member has over 10% common ownership with the FTR Holder, wholly or partly, directly or indirectly, or has the ability to influence, directly or indirectly, the management or policies of the FTR Holder; or
- (iii) an FTR Holder together with any other PJM Member, including also any Affiliate, subsidiary or parent of such other PJM Member, with which it shares common ownership, wholly or partly, directly or indirectly, in any third entity which is a PJM Member (e.g., a joint venture).

EFORd:

“EFORd” shall have the meaning specified in the PJM Reliability Assurance Agreement.

Electrical Distance:

“Electrical Distance” shall mean, for a Generation Capacity Resource geographically located outside the metered boundaries of the PJM Region, the measure of distance, based on impedance and in accordance with the PJM Manuals, from the Generation Capacity Resource to the PJM Region.

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 VI, Eligible Customer shall mean only those Eligible Customers that have submitted a Completed Application.

Emergency Action:

“Emergency Action” shall mean any emergency action for locational or system-wide capacity shortages that either utilizes pre-emergency mandatory load management reductions or other emergency capacity, or initiates a more severe action including, but not limited to, a Voltage Reduction Warning, Voltage Reduction Action, Manual Load Dump Warning, or Manual Load Dump Action.

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 Interconnected 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 Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not

obligated by an Interconnection Service 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.

Emergency Load Response Program:

“Emergency Load Response Program” shall mean the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by PJM during emergency conditions, and is described in Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix.

Energy Efficiency Resource:

“Energy Efficiency Resource” shall have the meaning specified in the PJM Reliability Assurance Agreement.

Energy Market Opportunity Cost:

“Energy Market Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of available run hours due to limitations imposed on the unit by Applicable Laws and Regulations, and (b) the forecasted future Locational Marginal Price at which the generating unit could run while not violating such limitations. Energy Market Opportunity Cost therefore is the value associated with a specific generating unit’s lost opportunity to produce energy during a higher valued period of time occurring within the same compliance period, which compliance period is determined by the applicable regulatory authority and is reflected in the rules set forth in PJM Manual 15. Energy Market Opportunity Costs shall be limited to those resources which are specifically delineated in Schedule 2 of the Operating Agreement.

Energy Resource:

“Energy Resource” shall mean a generating facility that is not a Capacity Resource.

Energy Settlement Area:

“Energy Settlement Area” shall mean the bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

Energy Storage Resource:

“Energy Storage Resource” shall mean flywheel or battery storage facility solely used for short term storage and injection of energy at a later time to participate in the PJM energy and/or Ancillary Services markets as a Market Seller.

Energy Transmission Injection Rights:

“Energy Transmission Injection Rights” shall mean the rights to schedule energy deliveries at a specified point on the Transmission System. Energy Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Deliveries scheduled using Energy Transmission Injection Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

Environmental Laws:

“Environmental Laws” shall mean applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

Environmentally-Limited Resource:

“Environmentally-Limited Resource” shall mean a resource which has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited by a governmental authority to operating only during declared PJM capacity emergencies.

Equivalent Load:

“Equivalent Load” shall mean the sum of a Market Participant’s net system requirements to serve its customer load in the PJM Region, if any, plus its net bilateral transactions.

Existing Generation Capacity Resource:

“Existing Generation Capacity Resource” shall have the meaning specified in the Reliability Assurance Agreement.

Export Credit Exposure:

“Export Credit Exposure” is determined for each Market Participant for a given Operating Day, and shall mean the sum of credit exposures for the Market Participant’s Export Transactions for that Operating Day and for the preceding Operating Day.

Export Nodal Reference Price:

“Export Nodal Reference Price” at each location is the 97th percentile, shall be, the real-time hourly integrated price experienced over the corresponding two-month period in the preceding calendar year, calculated separately for peak and off-peak time periods. The two-month time periods used in this calculation shall be January and February, March and April, May and June, July and August, September and October, and November and December.

Export Transaction:

“Export Transaction” shall be a transaction by a Market Participant that results in the transfer of energy from within the PJM Control Area to outside the PJM Control Area. Coordinated External Transactions that result in the transfer of energy from the PJM Control Area to an adjacent Control Area are one form of Export Transaction.

Export Transaction Price Factor:

“Export Transaction Price Factor” for a prospective time interval shall be the greater of (i) PJM’s forecast price for the time interval, if available, or (ii) the Export Nodal Reference Price, but shall not exceed the Export Transaction’s dispatch ceiling price cap, if any, for that time interval. The Export Transaction Price Factor for a past time interval shall be calculated in the same manner as for a prospective time interval, except that the Export Transaction Price Factor may use a tentative or final settlement price, as available. If an Export Nodal Reference Price is not available for a particular time interval, PJM may use an Export Transaction Price Factor for that time interval based on an appropriate alternate reference price.

Export Transaction Screening:

“Export Transaction Screening” shall be the process PJM uses to review the Export Credit Exposure of Export Transactions against the Credit Available for Export Transactions, and deny or curtail all or a portion of an Export Transaction, if the credit required for such transactions is greater than the credit available for the transactions.

Export Transactions Net Activity:

“Export Transactions Net Activity” shall mean the aggregate net total, resulting from Export Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Operating Agreement, Schedule 1 and the parallel provisions of Tariff, Attachment K-Appendix. Export Transactions Net Activity may be positive or negative.

Extended Primary Reserve Requirement:

“Extended Primary Reserve Requirement” shall equal the Primary Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

Extended Summer Demand Resource:

“Extended Summer Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

Extended Summer Resource Price Adder:

“Extended Summer Resource Price Adder” shall mean, for Delivery Years through May 31, 2018, an addition to the marginal value of Unforced Capacity as necessary to reflect the price of Annual Resources and Extended Summer Demand Resources required to meet the applicable Minimum Extended Summer Resource Requirement.

Extended Synchronized Reserve Requirement:

“Extended Synchronized Reserve Requirement” shall equal the Synchronized Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals.

External Market Buyer:

“External Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for consumption by end-users outside the PJM Region, or for load in the PJM Region that is not served by Network Transmission Service.

External Resource:

“External Resource” shall mean a generation resource located outside the metered boundaries of the PJM Region.

Facilities Study:

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider’s Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses documented in the System Impact Study or required by PJM Manuals, and determine the required modifications to the Transmission Provider’s Transmission System based on the conclusions of such additional studies. The Facilities Study shall include the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate a New Service Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Customer Funded Upgrades necessary to accommodate the New Service Customer’s New Service Request in accordance with Tariff, Part VI, section 207.

Federal Power Act:

“Federal Power Act” shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

FERC:

“FERC” shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

FERC Market Rules:

“FERC Market Rules” mean the market behavior rules and the prohibition against electric energy market manipulation codified by the Commission in its Rules and Regulations at 18 CFR §§ 1c.2 and 35.37, respectively; the Commission-approved PJM Market Rules and any related proscriptions or any successor rules that the Commission from time to time may issue, approve or otherwise establish.

Final Offer:

“Final Offer” shall mean the offer on which a resource was dispatched by the Office of the Interconnection for a particular clock hour for the Operating Day.

Final RTO Unforced Capacity Obligation:

“Final RTO Unforced Capacity Obligation” shall mean the capacity obligation for the PJM Region, determined in accordance with Schedule 8 of the Reliability Assurance Agreement.

Financial Close:

“Financial Close” shall mean the Capacity Market Seller has demonstrated that the Capacity Market Seller or its agent has completed the act of executing the material contracts and/or other documents necessary to (1) authorize construction of the project and (2) establish the necessary funding for the project under the control of an independent third-party entity. A sworn, notarized certification of an independent engineer certifying to such facts, and that the engineer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration. For resources that do not have external financing, Financial Close shall mean the project has full funding available, and that the project has been duly authorized to proceed with full construction of the material portions of the project by the appropriate governing body of the company funding such project. A sworn, notarized certification by an officer of such company certifying to such facts, and that the officer has personal knowledge of, or has engaged in a diligent inquiry to determine, such facts, shall be sufficient to make such demonstration.

Financial Transmission Right:

“Financial Transmission Right” or “FTR” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2 and the parallel provisions of Tariff, Attachment K-Appendix.

Financial Transmission Right Obligation:

“Financial Transmission Right Obligation” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(b), and the parallel provisions of Tariff, Attachment K-Appendix.

Financial Transmission Right Option:

“Financial Transmission Right Option” shall mean a right to receive Transmission Congestion Credits as specified in Operating Agreement, Schedule 1, section 5.2.2(c), and the parallel provisions of Tariff, Attachment K-Appendix.

Firm Point-To-Point Transmission Service:

“Firm Point-To-Point Transmission Service” shall mean Transmission Service under the Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Tariff, Part II.

Firm Transmission Feasibility Study:

“Firm Transmission Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with sections 19.3 and 32.3 of the Tariff.

Firm Transmission Withdrawal Rights:

“Firm Transmission Withdrawal Rights” shall mean the rights to schedule energy and capacity withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System with another control area. Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.

First Incremental Auction:

“First Incremental Auction” shall mean an Incremental Auction conducted 20 months prior to the start of the Delivery Year to which it relates.

Flexible Resource:

“Flexible Resource” shall mean a generating resource that must have a combined Start-up Time and Notification Time of less than or equal to two hours; and a Minimum Run Time of less than or equal to two hours.

Forecast Pool Requirement:

“Forecast Pool Requirement” shall have the meaning specified in the Reliability Assurance Agreement.

Foreign Guaranty:

“Foreign Guaranty” shall mean a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in a foreign country, and meets all of the provisions of Tariff, Attachment Q.

Form 715 Planning Criteria:

“Form 715 Planning Criteria” shall have the same meaning provided in the Operating Agreement.

FTR Credit Limit:

“FTR Credit Limit” shall mean the amount of credit established with PJMSettlement that an FTR Participant has specifically designated to be used for FTR activity in a specific customer account. Any such credit so set aside shall not be considered available to satisfy any other credit requirement the FTR Participant may have with PJMSettlement.

FTR Credit Requirement:

“FTR Credit Requirement” shall mean the amount of credit that a Participant must provide in order to support the FTR positions that it holds and/or for which it is bidding. The FTR Credit Requirement shall not include months for which the invoicing has already been completed, provided that PJMSettlement shall have up to two Business Days following the date of the invoice completion to make such adjustments in its credit systems. FTR Credit Requirements are calculated and applied separately for each separate customer account.

FTR Flow Undiversified:

“FTR Flow Undiversified” shall have the meaning established in Tariff, Attachment Q, section V.G.

FTR Historical Value:

For each FTR for each month, “FTR Historical Value” shall mean the *weighted average of* historical values over three years for the FTR path using the following weightings: 50% - most recent year; 30% - second year; 20% - third year.

FTR Holder:

“FTR Holder” shall mean the PJM Member that has acquired and possesses an FTR.

FTR Monthly Credit Requirement Contribution:

For each FTR, for each month, “FTR Monthly Credit Requirement Contribution” shall mean the total FTR cost for the month, prorated on a daily basis, less the FTR Historical Value for the

month. For cleared FTRs, this contribution may be negative; prior to clearing, FTRs with negative contribution shall be deemed to have zero contribution.

FTR Net Activity:

“FTR Net Activity” shall mean the aggregate net value of the billing line items for auction revenue rights credits, FTR auction charges, FTR auction credits, and FTR congestion credits, and shall also include day-ahead and balancing/real-time congestion charges up to a maximum net value of the sum of the foregoing auction revenue rights credits, FTR auction charges, FTR auction credits and FTR congestion credits.

FTR Participant:

“FTR Participant” shall mean any Market Participant that provides or is required to provide Collateral in order to participate in PJM’s FTR auctions.

FTR Portfolio Auction Value:

“FTR Portfolio Auction Value” shall mean for each customer account of a Market Participant, the sum, calculated on a monthly basis, across all FTRs, of the FTR price times the FTR volume in MW.

Fuel Cost Policy:

“Fuel Cost Policy” shall mean the document provided by a Market Seller to PJM and the Market Monitoring Unit in accordance with PJM Manual 15 and Operating Agreement, Schedule 2, which documents the Market Seller’s method used to price fuel for calculation of the Market Seller’s cost-based offers for a generation resource.

Full Notice to Proceed:

“Full Notice to Proceed” shall mean that all material third party contractors have been given the notice to proceed with construction by the Capacity Market Seller or its agent, with a guaranteed completion date backed by liquidated damages.

Definitions – I – J - K

IDR Transfer Agreement:

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, section 237, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

Immediate-need Reliability Project:

“Immediate-need Reliability Project” shall have the same meaning provided in the Operating Agreement.

Inadvertent Interchange:

“Inadvertent Interchange” shall mean the difference between net actual energy flow and net scheduled energy flow into or out of the individual Control Areas operated by PJM.

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:

“Incremental Auction” shall mean any of several auctions conducted for a Delivery Year after the Base Residual Auction for such Delivery Year and before the first day of such Delivery Year, including the First Incremental Auction, Second Incremental Auction, Third Incremental Auction or Conditional Incremental Auction. Incremental Auctions (other than the Conditional Incremental Auction), shall be held for the purposes of:

(i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORd increase, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and

(ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed

circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

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 Available Transfer Capability Revenue Rights:

“Incremental Available Transfer Capability Revenue Rights” shall mean the rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

Incremental Capacity Transfer Right:

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer 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 Schedule 12A of the Tariff.

Incremental Deliverability Rights (IDRs):

“Incremental Deliverability Rights” or “IDRs” 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 Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

Incremental Multi-Driver Project:

“Incremental Multi-Driver Project” shall have the same meaning provided in the Operating Agreement.

Incremental Rights-Eligible Required Transmission Enhancements:

“Incremental Rights-Eligible Required Transmission Enhancements” shall mean Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Schedule 12 of the Tariff) and meet one of the following criteria: (1) cost responsibility is

assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

Increment Offer:

“Increment Offer” shall mean a type of Virtual Transaction that is an offer to sell energy at a specified location in the Day-ahead Energy Market. A cleared Increment Offer results in scheduled generation at the specified location in the Day-ahead Energy Market.

Initial Operation:

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Section 1.4 of Appendix 2 of an Interconnection Service Agreement.

Interconnected Entity:

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

Interconnected Transmission Owner:

“Interconnected Transmission Owner” shall mean the Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

Interconnection Construction Service Agreement:

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Tariff, Part VI, Subpart B and in the form set forth in Attachment P of the Tariff, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

Interconnection Customer:

“Interconnection Customer” shall mean a Generation Interconnection Customer and/or a Transmission Interconnection Customer.

Interconnection Facilities:

“Interconnection Facilities” shall mean the Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

Interconnection Feasibility Study:

“Interconnection Feasibility Study” shall mean either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

Interconnection Party:

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected 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 Customer Facility with the Transmission System pursuant to the terms of Part IV and Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

Interconnection Service Agreement:

“Interconnection Service Agreement” shall mean an agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Tariff, Part IV and Part VI.

Interconnection Studies:

“Interconnection Studies” shall mean the Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Tariff, Part IV and Part VI.

Interface Pricing Point:

“Interface Pricing Point” shall have the meaning specified in Operating Agreement, Schedule 1, section 2.6A, and the parallel provisions of Tariff, Attachment K-Appendix.

Intermittent Resource:

“Intermittent Resource” shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources.

Internal Market Buyer:

“Internal Market Buyer” shall mean a Market Buyer making purchases of energy from the PJM Interchange Energy Market for ultimate consumption by end-users inside the PJM Region that are served by Network Transmission Service.

Interregional Transmission Project:

“Interregional Transmission Project” shall mean transmission facilities that would be located within two or more neighboring transmission planning regions and are determined by each of those regions to be a more efficient or cost effective solution to regional transmission needs.

Interruption:

“Interruption” shall mean a reduction in non-firm transmission service due to economic reasons pursuant to Tariff, Part II, section 14.7.

Definitions – T – U - V

Tangible Net Worth:

“Tangible Net Worth” shall mean all assets (not including any intangible assets such as goodwill) less all liabilities. Any such calculation may be reduced by PJM Settlement upon review of the available financial information.

Target Allocation:

“Target Allocation” shall mean the allocation of Transmission Congestion Credits as set forth in Operating Agreement, Schedule 1, section 5.2.3, and the parallel provisions of Tariff, Attachment K-Appendix, or the allocation of Auction Revenue Rights Credits as set forth in Operating Agreement, Schedule 1, section 7.4.3, and the parallel provisions of Tariff, Attachment K-Appendix.

Third Incremental Auction:

“Third Incremental Auction” shall mean an Incremental Auction conducted three months before the Delivery Year to which it relates.

Third-Party Sale:

“Third-Party Sale” shall mean any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

Tie Line:

“Tie Line” shall mean a circuit connecting two balancing authority areas, Control Areas or fully metered electric system regions. Tie Lines may be classified as external or internal as set forth in the PJM Manuals.

Total Lost Opportunity Cost Offer:

“Total Lost Opportunity Cost Offer” shall mean the applicable offer used to calculate lost opportunity cost credits. For pool-scheduled resources specified in PJM Operating Agreement, Schedule 1, section 3.2.3(f-1), the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, as determined by the greater of the Committed Offer or last Real-Time Offer submitted for the offer on which the resource was committed in the Day-ahead Energy Market for each hour in an Operating Day. For all other pool-scheduled resources, the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, as determined by the offer curve associated with the greater of the Committed Offer or Final Offer for each hour in an Operating Day. For self-scheduled

generation resources, the Total Lost Opportunity Cost Offer shall equal the *Real-time Settlement Interval* offer integrated under the applicable offer curve for the LOC Deviation, where for self-scheduled generation resources (a) operating pursuant to a cost-based offer, the applicable offer curve shall be the greater of the originally submitted cost-based offer or the cost-based offer that the resource was dispatched on in real-time; or (b) operating pursuant to a market-based offer, the applicable offer curve shall be determined in accordance with the following process: (1) select the greater of the cost-based day-ahead offer and updated costbased Real-time Offer; (2) for resources with multiple cost-based offers, first, for each cost-based offer select the greater of the day-ahead offer and updated Real-time Offer, and then select the lesser of the resulting cost-based offers; and (3) compare the offer selected in (1), or for resources with multiple cost-based offers the offer selected in (2), with the market-based day-ahead offer and the market-based Real-time Offer and select the highest offer.

Total Net Obligation:

“Total Net Obligation” shall mean all unpaid billed Net Obligations plus any unbilled Net Obligation incurred to date, as determined by PJMSettlement on a daily basis, plus any other Obligations owed to PJMSettlement at the time.

Total Net Sell Position:

“Total Net Sell Position” shall mean all unpaid billed Net Sell Positions plus any unbilled Net Sell Positions accrued to date, as determined by PJMSettlement on a daily basis.

Total Operating Reserve Offer:

“Total Operating Reserve Offer” shall mean the applicable offer used to calculate Operating Reserve credits. The Total Operating Reserve Offer shall equal the sum of all individual *Real-time Settlement Interval* energy offers, inclusive of Start-Up Costs (shut-down costs for Demand Resources) and No-load Costs, for every *Real-time Settlement Interval* in a Segment, integrated under the applicable offer curve up to the applicable megawatt output as further described in the PJM Manuals. The applicable offer used to calculate day-ahead Operating Reserve credits shall be the Committed Offer, and the applicable offer used to calculate balancing Operating Reserve credits shall be lesser of the Committed Offer or Final Offer for each hour in an Operating Day.

Transmission Congestion Charge:

“Transmission Congestion Charge” shall mean a charge attributable to the increased cost of energy delivered at a given load bus when the transmission system serving that load bus is operating under constrained conditions, or as necessary to provide energy for third-party transmission losses which shall be calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.1 and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Congestion Credit:

“Transmission Congestion Credit” shall mean the allocated share of total Transmission Congestion Charges credited to each FTR Holder, calculated and allocated as specified in Operating Agreement, Schedule 1, section 5.2, and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Customer:

“Transmission Customer” shall mean any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission a proposed unexecuted Service Agreement, to receive transmission service under Tariff, Part II. This term is used in Tariff, Part I and Part VI to include customers receiving transmission service under Tariff, Part II and Part III.

Where used in Tariff, Attachment K-Appendix and the parallel provisions of Operating Agreement, Schedule 1, Transmission Customer shall mean an entity using Point-to-Point Transmission Service.

Transmission Facilities:

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

Transmission Forced Outage:

“Transmission Forced Outage” shall mean an immediate removal from service of a transmission facility by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the transmission facility, as specified in the relevant portions of the PJM Manuals. A removal from service of a transmission facility at the request of the Office of the Interconnection to improve transmission capability shall not constitute a Forced Transmission Outage.

Transmission Injection Rights:

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

Transmission Interconnection Customer:

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection 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 or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Schedule 6 of the Operating Agreement).

Transmission Interconnection Facilities Study:

“Transmission Interconnection Facilities Study” shall mean a Facilities Study related to a Transmission Interconnection Request.

Transmission Interconnection Feasibility Study:

“Transmission Interconnection Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Section 36.2 of the Tariff.

Transmission Interconnection Request:

“Transmission Interconnection Request” shall mean a request by a Transmission Interconnection Customer pursuant to Tariff, Part IV 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 Loading Relief:

“Transmission Loading Relief” shall mean NERC’s procedures for preventing operating security limit violations, as implemented by PJM as the security coordinator responsible for maintaining transmission security for the PJM Region.

Transmission Loading Relief Customer:

“Transmission Loading Relief Customer” shall mean an entity that, in accordance with Operating Agreement, Schedule 1, section 1.10.6A and the parallel provisions of Tariff, Attachment K-Appendix, has elected to pay Transmission Congestion Charges during Transmission Loading Relief in order to continue energy schedules over contract paths outside the PJM Region that are increasing the cost of energy in the PJM Region.

Transmission Loss Charge:

“Transmission Loss Charge” shall mean the charges to each Market Participant, Network Customer, or Transmission Customer for the cost of energy lost in the transmission of electricity from a generation resource to load as specified in Operating Agreement, Schedule 1, section 5, and the parallel provisions of Tariff, Attachment K-Appendix.

Transmission Owner:

“Transmission Owner” shall mean each entity that owns, leases or otherwise has a possessory interest in facilities used for the transmission of electric energy in interstate commerce under the Tariff. The Transmission Owners are listed in Tariff, Attachment L.

Transmission Owner Attachment Facilities:

“Transmission Owner Attachment Facilities” shall mean that portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

Transmission Owner Interconnection Facilities:

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Section 5.5 of Appendix 2 to Attachment P of the PJM Tariff to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner’s side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to 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 Customer Facility with the Transmission System or interconnected distribution facilities.

Transmission Owner Upgrade:

“Transmission Owner Upgrade” shall have the same meaning provided in the Operating Agreement.

Transmission Planned Outage:

“Transmission Planned Outage” shall mean any transmission outage scheduled in advance for a pre-determined duration and which meets the notification requirements for such outages specified in Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K-Appendix or the PJM Manuals.

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 Provider’s Monthly Transmission System Peak:

“Transmission Provider’s Monthly Transmission System Peak” shall mean the maximum firm usage of the Transmission Provider’s Transmission System in a calendar month.

Transmission Service:

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

Transmission Service Request:

“Transmission Service Request” shall mean a request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

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.

Turn Down Ratio:

“Turn Down Ratio” shall mean the ratio of a generating unit’s economic maximum megawatts to its economic minimum megawatts.

Unconstrained LDA Group:

“Unconstrained LDA Group” shall mean a combined group of LDAs that form an electrically contiguous area and for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10. Any LDA for which a separate Variable Resource Requirement Curve has not been established under Tariff, Attachment DD, section 5.10 shall be combined with all other such LDAs that form an electrically contiguous area.

Unforced Capacity:

“Unforced Capacity” shall have the meaning specified in the Reliability Assurance Agreement.

Unsecured Credit:

“Unsecured Credit” shall mean any credit granted by PJMSettlement to a Participant that is not secured by Collateral.

Unsecured Credit Allowance:

“Unsecured Credit Allowance” shall mean Unsecured Credit extended by PJMSettlement in an amount determined by PJMSettlement’s evaluation of the creditworthiness of a Participant. This is also defined as the amount of credit that a Participant qualifies for based on the strength of its own financial condition without having to provide Collateral. See also: “Working Credit Limit.”

Updated VRR Curve:

“Updated VRR Curve” shall mean the Variable Resource Requirement Curve for use in the Base Residual Auction of the relevant Delivery Year, updated to reflect any change in the Reliability Requirement from the Base Residual Auction to such Incremental Auction, and for Delivery Years through May 31, 2018, the Short-term Resource Procurement Target applicable to the relevant Incremental Auction.

Updated VRR Curve Decrement:

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year (excluding net Unforced Capacity committed to the PJM Region associated with the transition provisions of Tariff Attachment DD, section 5.14D as related to the 2017/2018 Delivery Year) and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, sections 5.14C, 5.14D (as related to the 2016/2017 Delivery Year), 5.14E, and 5.5A(c)(i)(B).

Updated VRR Curve Increment:

“Updated VRR Curve Increment” shall mean the portion of the Updated VRR Curve to the right of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year (excluding net Unforced Capacity committed to the PJM Region associated with the transition provision of Tariff, Attachment DD, section 5.14D as related to the 2017/2018 Delivery Year) and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, sections 5.14C, 5.14D (as related to the 2016/2017 Delivery Year), 5.14E and 5.5A(c)(i)(B).

Upgrade Construction Service Agreement:

“Upgrade Construction Service Agreement” shall mean that agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant

Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Tariff, Part VI, Subpart B, and in the form set forth in Attachment GG of the Tariff.

Upgrade Customer:

“Upgrade Customer” shall mean a customer that submits an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement.

Upgrade Feasibility Study:

“Upgrade Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with section 36.3 of the Tariff.

Upgrade-Related Rights:

“Upgrade-Related Rights” shall mean Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights.

Upgrade Request:

“Upgrade Request” shall mean a request submitted in the form prescribed in Attachment EE of the Tariff, for evaluation by the Transmission Provider of the feasibility and estimated costs of (a) a Merchant Network Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide Incremental Auction Revenue Rights specified in a request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement.

Up-to Congestion Counterflow Transaction:

“Up-to Congestion Counterflow Transaction” shall mean an Up-to Congestion Transaction will be deemed an Up-to Congestion Counterflow Transaction if the following value is negative: (a) when bidding, the lower of the bid price and the prior Up-to Congestion Historical Month’s average real-time value for the transaction; or (b) for cleared Virtual Transactions, the cleared day-ahead price of the Virtual Transactions.

Up-to Congestion Historical Month:

“Up-to Congestion Historical Month” shall mean a consistently-defined historical period nominally one month long that is as close to a calendar month as PJM determines is practical.

Up-to Congestion Prevailing Flow Transaction:

An Up-to Congestion Transaction shall mean an “Up-to Congestion Prevailing Flow Transaction” if it is not an Up-to Congestion Counterflow Transaction.

Up-to Congestion Reference Price:

“Up-to Congestion Reference Price” for an Up-to Congestion Transaction, shall be the specified percentile price differential between source and sink (defined as sink price minus source price) for real-time prices experienced over the prior Up-to Congestion Historical Month, averaged with the same percentile value calculated for the second prior Up-to Congestion Historical Month. Up-to Congestion Reference Prices shall be calculated using the following historical percentiles:

For Up-to Congestion Prevailing Flow Transactions: 30th percentile

For Up-to Congestion Counterflow Transactions when bid: 20th percentile

For Up-to Congestion Counterflow Transactions when cleared: 5th percentile

Up-to Congestion Transaction:

“Up-to Congestion Transaction” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.10.1A, and the parallel provisions of Tariff, Attachment K-Appendix.

Variable Loads:

“Variable Loads” shall have the meaning specified in Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix.

Variable Resource Requirement Curve:

“Variable Resource Requirement Curve” shall mean a series of maximum prices that can be cleared in a Base Residual Auction for Unforced Capacity, corresponding to a series of varying resource requirements based on varying installed reserve margins, as determined by the Office of the Interconnection for the PJM Region and for certain Locational Deliverability Areas in accordance with the methodology provided in Tariff, Attachment DD, section 5.

Virtual Credit Exposure:

“Virtual Credit Exposure” shall mean the amount of potential credit exposure created by a market participant’s bid submitted into the Day-ahead market, as defined in Tariff, Attachment Q.

Virtual Transaction:

“Virtual Transaction” shall mean a Decrement Bid, Increment Offer and/or Up-to Congestion Transaction.

Virtual Transaction Screening:

“Virtual Transaction Screening” shall be the process of reviewing the Virtual Credit Exposure of submitted Virtual Transactions against the Credit Available for Virtual Transactions. If the credit required is greater than credit available, then the Virtual Transactions will not be accepted.

Virtual Transactions Net Activity:

“Virtual Transactions Net Activity” shall mean the aggregate net total, resulting from Virtual Transactions, of (i) Spot Market Energy charges, (ii) Transmission Congestion Charges, and (iii) Transmission Loss Charges, calculated as set forth in Tariff, Attachment K-Appendix. Virtual Transactions Net Activity may be positive or negative.

Voltage Reduction Action:

“Voltage Reduction Action” shall mean a notification during capacity deficient conditions in which PJM notifies Members to reduce voltage on the distribution system in order to reduce demand and therefore provide a sufficient amount of reserves, maintain tie flow schedules and preserve limited energy sources.

Voltage Reduction Alert:

“Voltage Reduction Alert” shall mean a notification from PJM to alert Members that a voltage reduction may be required during a future critical period.

Voltage Reduction Warning:

“Voltage Reduction Warning” shall mean a notification from PJM to warn Members that PJM’s available Synchronized Reserve is less than the Synchronized Reserve Requirement and that present operations have deteriorated such that a voltage reduction may be required.

15.2 Determination of Available Transfer Capability:

A description of the Transmission Provider's specific methodology for assessing available transfer capability posted on the Transmission Provider's OASIS (Section 4) is contained in Attachment C of the Tariff. The Transmission Provider will not provide Short-Term Firm Point-To-Point Transmission Service in excess of the transfer capability posted on OASIS pursuant to Section 17.9. In the event sufficient transfer capability may not exist to accommodate a request for Long-Term Firm Point-To-Point Transmission Service, and such request does not commence and terminate within the 18 month ATC horizon, the Transmission Provider will respond by performing (in coordination with the affected Transmission Owner or Transmission Owners to the extent necessary) a Firm Transmission Feasibility Study as described in Section 19. If a request for Long-Term Firm Point-to-Point Transmission Service falls entirely within the ATC horizon, the request will be evaluated based on the posted ATC.

17.5 Response to a Completed Application:

Following receipt of a Completed Application for Firm Point-To-Point Transmission Service, the Transmission Provider shall make a determination of available transfer capability as required in Section 15.2. With respect to Short-Term Firm Point-To-Point Transmission Service, the Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application, whether it will be able to provide service. With respect to Long-Term Firm Point-To-Point Transmission Service, the Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application either (i) if it will be able to provide service without performing a Firm Transmission Feasibility Study or (ii) if such a study is needed to evaluate the impact of the Application pursuant to Section 19.1; provided that, if, in connection with the request, Transmission Provider must provide notification to an existing customer pursuant to Section 2.3 of the Tariff, the foregoing deadline shall be extended to forty-five (45) days after the date of receipt of a Completed Application. Responses by the Transmission Provider must be made as soon as practicable to all completed applications and the timing of such responses must be made on a non-discriminatory basis.

17.6 Execution of Service Agreement:

Whenever the Transmission Provider determines that a Firm Transmission Feasibility Study is not required and that the service can be provided, it shall notify the Eligible Customer as soon as practicable but no later than thirty (30) days after receipt of the Completed Application. Where a Firm Transmission Feasibility Study is required, the provisions of Section 19 will govern the execution of a Service Agreement. Failure of an Eligible Customer to execute and return the Service Agreement or request the filing of an unexecuted service agreement pursuant to Section 15.3, within fifteen (15) days after it is tendered by the Transmission Provider will be deemed a withdrawal and termination of the Application and any deposit submitted shall be refunded with interest. Nothing herein limits the right of an Eligible Customer to file another Application after such withdrawal and termination.

19 Firm Transmission Feasibility Study Procedures For Long-Term Firm Point-To-Point Transmission Service Requests

19.1 Notice of Need for Firm Transmission Feasibility Study:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether a Firm Transmission Feasibility Study is needed. The purpose of the Initial Study shall be to assess whether the Transmission System has sufficient available capability to provide the requested service. If the Transmission Provider determines that a Firm Transmission Feasibility Study is necessary to evaluate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, the Transmission Provider shall within thirty (30) days of receipt of a Completed Application, tender a Firm Transmission Feasibility Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required Initial Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the Firm Transmission Feasibility Study Agreement and return it to the Transmission Provider within fifteen (15) days. If the Eligible Customer elects not to execute the Firm Transmission Feasibility Study Agreement, its application shall be deemed withdrawn and its deposit, pursuant to Section 17.3, shall be returned with interest.

19.2 Firm Transmission Feasibility Study Agreement and Cost Reimbursement:

- (i) The Firm Transmission Feasibility Study Agreement will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the actual cost, and time for completion of the Firm Transmission Feasibility Study. The charge shall not exceed the actual cost of the study. In performing the Firm Transmission Feasibility Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.
- (ii) If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single Firm Transmission Feasibility Study is sufficient for the Transmission Provider to accommodate the requests for service, the costs of that study shall be pro-rated among the Eligible Customers.
- (iii) The Transmission Provider shall reimburse the affected Transmission Owner(s) for their study costs, if any, in connection with a Firm Transmission Feasibility Study.
- (iv) For Firm Transmission Feasibility Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the Firm Transmission Feasibility Studies pursuant to Section 8.

19.3 Firm Transmission Feasibility Study Procedures:

After receiving a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000, the Transmission Provider shall conduct a Firm Transmission Service Feasibility Study to make a preliminary determination of the type and scope of and Direct Assignment Facilities, Local Upgrades, and Network Upgrades that will be necessary to accommodate the Completed Application and provide the Eligible Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Eligible Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Transmission Service Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Transmission Service Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Eligible Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Transmission Service Feasibility Study publicly available. The Transmission Provider shall conduct Transmission Service Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

The Transmission Provider will use the same due diligence in completing the Firm Transmission Feasibility Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Firm Transmission Feasibility Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the Eligible Customer's request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that Transmission Provider determines that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.

19.3.1 Meeting with Transmission Provider:

At the Eligible Customer's request, Transmission Provider, the Eligible Customer and the affected Transmission Owner shall meet at a mutually agreeable time to discuss the results of the Firm Transmission Feasibility Study. Such meeting may occur in person or by telephone or video conference.

19.4 Retaining Queue Position:

Except when the Transmission Provider determines that a System Impact Study is needed, in order for a request to remain a Completed Application, within thirty (30) days after its receipt of the completed Firm Transmission Feasibility Study, the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement pursuant to Section 15.3, or the Completed Application shall be deemed terminated and withdrawn.

19.8 Penalties for Failure to Meet Deadlines:

Sections 19.3, 205, and 206 require a Transmission Provider to use due diligence to meet study completion deadlines for Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers.

(i) The Transmission Provider is required to file a notice with the Commission in the event that more than twenty (20) percent of non-Affiliates' Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers completed by the Transmission Provider in any two consecutive calendar quarters are not completed within the completion deadlines, consistent with sections 19.3, 205, and 206. Such notice must be filed within thirty (30) days of the end of the calendar quarter triggering the notice requirement.

(ii) For the purposes of calculating the percent of non-Affiliates' Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers processed outside of the study completion deadlines set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers, the Transmission Provider shall consider all Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers that it completes for non-Affiliates during the calendar quarter. The percentage should be calculated by dividing the number of those studies which are completed on time by the total number of completed studies. The Transmission Provider may provide an explanation in its notification filing to the Commission if it believes there are extenuating circumstances that prevented it from meeting the study completion deadlines.

(iii) The Transmission Provider is subject to an operational penalty if it completes ten (10) percent or more of non-Affiliates' Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers outside of the study completion deadlines set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers, for each of the two calendar quarters immediately following the quarter that triggered its notification filing to the Commission. The operational penalty will be assessed for each calendar quarter for which an operational penalty applies, starting with the calendar quarter immediately following the quarter that triggered the Transmission Provider's notification filing to the Commission. The operational penalty will continue to be assessed each quarter until the Transmission Provider completes at least ninety (90) percent of all non-Affiliates' Firm Transmission Feasibility Studies, System Impact Studies and Facilities Studies for Eligible Customers within the study completion deadlines, set forth in sections 19.3, 205, and 206 for such studies for Eligible Customers.

(iv) For penalties assessed in accordance with subsection (iii) above, the penalty amount for each Firm Transmission Feasibility Study, System Impact Study, or Facilities Study for Eligible Customers shall be equal to \$500 for each day the Transmission Provider takes to complete that study beyond the study completion deadline.

29.2A Determination of Available Transfer Capability:

A description of the Transmission Provider's specific methodology for assessing available transfer capability posted on the Transmission Provider's OASIS (Section 4) is contained in Attachment C of the Tariff. In the event sufficient transfer capability may not exist to accommodate a request for Network Integration Transmission Service, and such request does not commence and terminate within the 18 month ATC horizon, the Transmission Provider will respond by performing (in coordination with the affected Transmission Owner or Transmission Owners to the extent necessary) a Firm Transmission Feasibility Study as described in Section 32. If a request for Long-Term Firm Network Integration Transmission Service falls entirely within the ATC horizon, the request will be evaluated based on the posted ATC.

**32 Firm Transmission Feasibility Study Procedures For Network Integration
Transmission Service Requests**

32.1 Notice of Need for Firm Transmission Feasibility Study:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether a Firm Transmission Feasibility Study is needed. The purpose of the Firm Transmission Feasibility Study shall be to assess whether the Transmission System has sufficient available capability to provide the requested service. If the Transmission Provider determines that a Firm Transmission Feasibility Study is necessary to evaluate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, the Transmission Provider shall within thirty (30) days of receipt of a Completed Application, tender a Firm Transmission Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required Firm Transmission Feasibility Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the Firm Transmission Study Agreement and return it to the Transmission Provider within fifteen (15) days. If the Eligible Customer elects not to execute the Firm Transmission Feasibility Study Agreement, its Application shall be deemed withdrawn and its deposit shall be returned with interest.

32.2 Firm Transmission Feasibility Study Agreement and Cost Reimbursement:

- (i) The Firm Transmission Feasibility Study Agreement will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the actual cost, and time for completion of the Firm Transmission Feasibility Study. The charge shall not exceed the actual cost of the study. In performing the Firm Transmission Feasibility Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.
- (ii) If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single Firm Transmission Feasibility Study is sufficient for the Transmission Provider to accommodate the service requests, the costs of that study shall be pro-rated among the Eligible Customers.
- (iii) The Transmission Provider shall reimburse the affected Transmission Owner(s) for their study costs, if any, in connection with a Firm Transmission Feasibility Study.
- (iv) For Firm Transmission Feasibility Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the Firm Transmission Feasibility Studies pursuant to Section 8.

32.3 Firm Transmission Feasibility Study Procedures:

After receiving a signed Firm Transmission Feasibility Study Agreement and the applicable deposit of \$20,000, the Transmission Provider shall conduct a Firm Transmission Service Feasibility Study to make a preliminary determination of the type and scope of and Direct Assignment Facilities, Local Upgrades, and Network Upgrades that will be necessary to accommodate the Completed Application and provide the Eligible Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Eligible Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Transmission Service Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Transmission Service Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Eligible Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Transmission Service Feasibility Study publicly available. The Transmission Provider shall conduct Transmission Service Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

The Transmission Provider will use the same due diligence in completing the Firm Transmission Feasibility Study for an Eligible Customer as it uses when completing studies for a Transmission Owner. The Transmission Provider shall notify the Eligible Customer immediately upon completion of the Firm Transmission Feasibility Study whether a System Impact Study will be needed to more fully assess and identify the Network Upgrades and/or Local Upgrades that will be needed to accommodate all or part of the Eligible Customer's request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In the event that Transmission Provider determines that a System Impact Study will be needed, the procedures and other terms of Part VI shall apply to the Completed Application.

32.3.1 Meeting with Transmission Provider:

At the Eligible Customer's request, Transmission Provider, the Eligible Customer and the affected Transmission Owner shall meet at a mutually agreeable time to discuss the results of the Firm Transmission Feasibility Study. Such meeting may occur in person or by telephone or video conference.

32.4 Retaining Queue Position:

Except when the Transmission Provider determines that a System Impact Study is needed, in order for a request to remain a Completed Application, within thirty (30) days after its receipt of the completed Firm Transmission Feasibility Study, the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement, or the Application shall be deemed terminated and withdrawn.

32.5 Penalties for Failure to Meet Study Deadlines:

Section 19.8 defines penalties that apply for failure to meet the study completion due diligence deadlines for Firm Transmission Feasibility Studies, System Impact Studies, and Facilities Studies for Eligible Customers. These same requirements and penalties apply to service under Part III of the Tariff.

IV. INTERCONNECTIONS WITH THE TRANSMISSION SYSTEM

References to section numbers in this Part IV refer to sections of this Part IV, unless otherwise specified.

Preamble

An Interconnection Customer that proposes to (i) interconnect a generating unit to the Transmission System in the PJM Region, (ii) increase the capacity of a generating unit in the PJM Region, (iii) interconnect Merchant Transmission Facilities with the Transmission System, (iv) increase the capacity of existing Merchant Transmission Facilities interconnected to the Transmission System, or (v) interconnect a generating unit 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 unit shall request interconnection with the Transmission System pursuant to, and shall comply with, the terms, conditions, and procedures set forth in Part IV of the Tariff. Subpart G of Part IV of the Tariff and related portions of the PJM Manuals apply to Interconnection Requests involving new Small Generation Resources or increases of 20 MW or less to the capability of existing generation resources over any consecutive 24-month period. Upgrade Customers that propose Upgrade Requests seeking Incremental Auction Revenue Rights shall also comply with the terms, conditions, and procedures set forth in Part VI of the Tariff. Part VI of the Tariff contains procedures, terms and conditions governing the Transmission Provider's administration of the New Services Queue, System Impact Studies and Facilities Studies of Interconnection Requests (as well as other New Service Requests), and agreements related to such studies and Interconnection Service. Each Interconnection Customer must pay for any Attachment Facilities, Local Upgrades, and Network Upgrades necessary to accommodate the requested interconnection. Notwithstanding the foregoing, by August 31 of each calendar year, PJM shall solicit requests from Generation Owners of Intermittent Resources and Environmentally Limited Resources which seek to obtain additional Capacity Interconnection Rights related to the winter period (defined as November through April of a Delivery Year) for the purposes of aggregation under the Tariff, Attachment DD. Such additional Capacity Interconnection Rights would be for a one-year period as specified by PJM in the solicitation. Responses to such solicitation must be submitted by such interested Generation Owners by October 31 prior to the upcoming Base Residual Auction. Such requests shall be studied for deliverability similar to any Generation Interconnection Customer seeking to enter the New Services Queue; however, such requests shall not be required to enter the New Services Queue. PJM shall study such requests in a manner so as to prevent infringement on available system capabilities of any resource which is already in service, or which has an executed Interconnection Service Agreement, Transmission Service Agreement, Upgrade Construction Service Agreement, or has obtained a Queue Position in the New Services Queue.

36.3 Upgrade Feasibility Study:

After receiving a signed Upgrade Request, pursuant to Attachment EE of the PJM Tariff, seeking Incremental Auction Revenue Rights and the applicable deposit of \$20,000, the Transmission Provider shall conduct an Upgrade Feasibility Study to make a preliminary determination of the type and scope of any Local Upgrades or Network Upgrades that will be necessary to accommodate the Upgrade Request and provide the Upgrade Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Upgrade Customer's cost responsibility, estimated consistent with Section 217 of the Tariff. The Upgrade Feasibility Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall provide a copy of the Upgrade Feasibility Study and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Section 18.17 of the Operating Agreement, related work papers to the Upgrade Customer and the affected Transmission Owner(s). Upon completion, the Transmission Provider shall make the completed Upgrade Feasibility Study publicly available. The Transmission Provider shall conduct Upgrade Feasibility Studies two times each year in conjunction with the Interconnection Feasibility Studies conducted under Section 36.2.

200 Applicability:

Part VI of the Tariff applies (a) to an Interconnection Request, upon the Transmission Provider's determination in an Interconnection Feasibility Study that a System Impact Study is needed to evaluate the facilities required to accommodate the requested interconnection; (b) to a Completed Application for new transmission service, upon the Transmission Provider's determination in an Firm Transmission Feasibility Study that a System Impact Study is needed to evaluate the facilities required to provide the requested service; and (c) to Upgrade Requests, upon the Transmission Provider's receipt of a completed request containing all applicable information in the form required by Attachment EE to the Tariff in which a customer is seeking to propose a Merchant Network Upgrade or to advance construction of Regional Transmission Expansion Plan project; and (d) to Upgrade Requests seeking Incremental Auction Revenue Rights, upon the Transmission Provider's determination in an Upgrade Feasibility Study that a System Impact Study is needed to evaluate the facilities required to accommodate the Upgrade Request. Notwithstanding the foregoing sentence, however, the provisions of Subpart G of Part IV shall govern with respect to Generation Interconnection Requests that involve (i) proposed new generation resources having capability of 20 MW or less, or (ii) increases of 20 MW or less to the capability of existing generation resources, except where, and only to the extent, otherwise expressly provided herein.

203.1 Cost Responsibility:

The System Impact Study Agreement tendered by the Transmission Provider will clearly specify the Transmission Provider's estimate (determined in coordination with the affected Transmission Owner(s)) of the cost and time required for completion of the study in which the New Service Request is being evaluated and the New Service Customer's cost responsibility for that study. The charges to all affected New Service Customers shall not exceed the actual cost of the System Impact Study. In performing the System Impact Study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. New Service Customers will not be assessed a charge for such existing studies; however, a New Service Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of such customer's New Service Request. In the event more than one New Service Request is evaluated in a single System Impact Study, the cost of such study shall be allocated among the participating New Service Customers such that (i) each Interconnection Customer pays 100 percent of the study costs associated with evaluating the Attachment Facilities necessary to accommodate its Interconnection Request; (ii) each Eligible Customer pays 100 percent of the study costs associated with evaluating the Direct Assignment Facilities necessary to accommodate its Completed Application for new transmission service; and (iii) each New Service Customer pays the study costs associated with evaluating the Local Upgrades and/or Network Upgrades necessary to accommodate its New Service Request in proportion to its projected cost responsibility (as determined in the Interconnection Feasibility Study or the Firm Transmission Feasibility Study) for such upgrades. In the event that a New Service Customer's responsibility for the actual cost of the System Impact Study under this section is less than the deposit provided with its executed System Impact Study Agreement, the unexpended balance of its deposit shall be refunded, with interest determined at the applicable rate under the Commission's regulations.

203.1.1 Transmission Owners:

For System Impact Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the System Impact Studies pursuant to Section 8.

204.1 Completed Applications:

After completing a Firm Transmission Feasibility Study regarding a Completed Application for new transmission service, the Transmission Provider shall determine on a non-discriminatory basis whether a System Impact Study is required to accommodate the requested transmission service. If the Transmission Provider determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer as soon as practicable. In such cases, the Transmission Provider shall, upon completion of the Firm Transmission Feasibility Study, tender a System Impact Study Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required System Impact Study. For a Completed Application to retain its Queue Position, the Eligible Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider within thirty (30) days, and (ii) shall pay the Transmission Provider a \$50,000 deposit which will be applied to the Eligible Customer's study cost responsibility. If the Eligible Customer elects not to execute the System Impact Study Agreement, its Completed Application shall be deemed terminated and withdrawn, and its deposit provided pursuant to Section 17.3 shall be returned, with interest.

204.2 Upgrade Requests:

204.2.1 Upgrade Requests pursuant to Section 7.8 of Schedule 1 of the Operating Agreement

Upon completion of the Upgrade Feasibility Study, the Transmission Provider shall tender to the affected Upgrade Customer a System Impact Study Agreement. For an Upgrade Request to retain its assigned Queue Position pursuant to Section 201, within 30 days of receiving the tendered System Impact Study Agreement, the Upgrade Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider, (ii) shall remit to Transmission Provider all past due amounts of the actual Upgrade Feasibility Study costs exceeding the Upgrade Feasibility Study deposit fee contained in Sections 36.3 of the Tariff, if any, and (iii) shall pay the Transmission Provider a deposit of \$50,000. If a terminated and withdrawn Upgrade Request was to be included in a System Impact Study evaluating more than one New Service Request, then the costs of the System Impact Study shall be redetermined and reallocated among the remaining participating New Service Customers as specified in this Section 204.

204.2.2 Upgrade Requests for Merchant Network Upgrades

After receiving an Upgrade Request for a Merchant Network Upgrade, the Transmission Provider shall acknowledge receipt of the Upgrade Request, pursuant to Section 204.2.2.1. The Transmission Provider shall determine whether the Upgrade Request includes: (i) the substation or transmission line or lines where the upgrade(s) will be made; (ii) the nominal capability or increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade; and (iii) the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven (7) years from the date the request is received by the Transmission Provider, unless the Interconnection Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven (7) years.

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests that identifies (A) in megawatts the potential nominal capability or increase in capability; (B) the station or transmission line or lines where the upgrade(s) will be made; (C) the proposed in-service date; (D) the status of the Upgrade Request, including its Queue Position; (E) the availability of any studies related to the Upgrade Request; (F) the date of the Upgrade Request; and (G) for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed. This list will not disclose the identity of the Interconnection Customer, except as otherwise provided in Part VI of the Tariff. The list and the priority of Upgrade Requests shall be included on the website as part of the New Services Queue.

204.2.2.1 Acknowledgement of Upgrade Request for Merchant Network Upgrades

The Transmission Provider shall acknowledge receipt (electronically when available to all parties, otherwise written) of the Upgrade Request within five (5) Business Days after receipt of the request and shall attach a copy of the received Upgrade Request to the acknowledgement.

204.2.2.2 Deficiencies in Upgrade Request for Merchant Network Upgrades

An Upgrade Request will not be considered a valid request if Interconnection Customer has failed to pay any outstanding invoices related to prior Queue Requests submitted pursuant to Part IV or VI by the Interconnection Customer and until all information required under Attachment EE is able to be studied by the Transmission Provider. If an Upgrade Request fails to meet the requirements, except as provided below regarding the deposit, or is in arrears as described above, the Transmission Provider shall so notify the Interconnection Customer (electronically when available to all parties, otherwise written) within five (5) Business Days of receipt of the initial Upgrade Request. Such notice shall explain that the Upgrade Request does not constitute a valid request and the reasons for such failure to meet the applicable requirements. Interconnection Customer shall provide the additional information that the Transmission Provider's notice identifies as needed to constitute a valid request and shall make any payments on any outstanding invoices within ten (10) Business Days after receipt of such notice. Upon timely correction of the deficiency, the Upgrade Request shall be assigned a Queue Position under Section 201 as of the date that the Transmission Provider first received the request. In the event the Interconnection Customer fails to provide the further information and make payments on any outstanding invoices required by the Transmission Provider's deficiency notice under this Section 204.2.2.2, its Upgrade Request shall be deemed to be terminated and withdrawn. Notwithstanding the above, the Interconnection Customer must submit its deposit at the time it submits its Upgrade Request. Failure to do so will result in rejection of the Upgrade Request.

204.2.2.3 Scoping Meeting

Transmission Provider shall provide each Interconnection Customer proposing Merchant Network Upgrades with an opportunity for a scoping meeting among the Transmission Provider, the prospective Interconnected Transmission Owner(s) and the Interconnection Customer. The purpose of the scoping meeting will be to confirm all parties' understanding of the proposed Upgrade Request and confirm the expectation for project completion or, if for acceleration of a Regional Transmission Expansion Plan Network Upgrade, the feasibility of the acceleration. After receipt of a valid Upgrade Request proposing Merchant Network Upgrades, the Transmission Provider shall offer to arrange for the scoping meeting, and shall provide a minimum of three (3) suggested meeting dates and times for the scoping meeting. The scoping meeting shall be held, or waived by mutual agreement of the parties within forty-five (45) days after receipt of a valid Upgrade Request, if the Upgrade Request is received in the first four calendar months of the current New Services Queue; or within thirty (30) days if the Upgrade Request is received within the fifth calendar month of the current New Services Queue; or within twenty (20) days if the Upgrade Request is received in the sixth calendar month of the date of the beginning of the current New Services Queue. The Interconnection Customer may choose to divide the scoping meeting into two sessions, one between the Transmission Provider and Interconnection Customer and one among the Transmission Provider, the Interconnection Customer and the prospective Interconnected Transmission Owner. Such meetings may be held consecutively on the same day. Scoping meetings may be held in person, by telephone or video conference. In the event the Interconnection Customer fails to waive or complete the scoping meeting requirement, its Upgrade Request shall be deemed terminated or withdrawn.

Interconnection Customer may reduce its Upgrade Request within ten (10) Business Days after the scoping meeting. Any reduction made within this ten (10) Business Day period shall not be a Material Modification; however, the reduction may not result in the project's MW capability being equal to or less than zero.

204.2.2.4 Coordination with Affected Systems

Section 36.1.6 shall apply to Upgrade Requests for Merchant Network Upgrades.

204.2.2.5 Base Case Data

Section 36.1.7 shall apply to Upgrade Requests for Merchant Network Upgrades.

204.2.2.6 System Impact Study Agreement

Upon the Transmission Provider assigning the Upgrade Request a Queue Position per Section 204.2.2, for Upgrade Requests proposing Merchant Network Upgrades, and, if required, completing a scoping meeting per Section 204.2.2.3, Transmission Provider shall tender a System Impact Study Agreement. For an Upgrade Request associated with a Merchant Network Upgrade request to retain its Queue Position, the Interconnection Customer (i) shall execute the System Impact Study Agreement and return it to the Transmission Provider within thirty (30) days, and (ii) the \$50,000 deposit provided with Attachment EE will be applied to the Interconnection Customer's study cost responsibility. If the Interconnection Customer elects not to execute the System Impact Study Agreement, its Upgrade Request shall be deemed terminated and withdrawn. Any remaining Attachment EE deposit will be refunded.

204.2.2.7 Modifications of Upgrade Requests for Merchant Network Upgrades After the System Impact Study Agreement, but Prior to Executing an Upgrade Construction Service Agreement

After the System Impact Study Agreement is executed and prior to execution of the Upgrade Construction Service Agreement, an Interconnection Customer proposing Merchant Network Upgrades may modify its project to reduce the size of the project as provided in Section 36.2A.2.

205.2 Scope of Studies:

The System Impact Study is a comprehensive regional analysis of the effect of adding to the Transmission System the new facilities and services contemporaneously proposed by New Service Customers and an evaluation of their impact on deliverability to the aggregate of PJM Network Load. The System Impact Study identifies the system constraints, identified with specificity by transmission element or flowgate, relating to each proposed new project and service included therein and the Attachment Facilities, Merchant Network Upgrades, Direct Assignment Facilities, Local Upgrades, and/or Network Upgrades required to accommodate such projects. The System Impact Study provides refined and comprehensive estimates of cost responsibility and construction lead times for new facilities and system upgrades. The Transmission Provider, in its sole discretion, may determine to evaluate in the same System Impact Study two or more New Service Requests relating to interconnections, Upgrade Requests, or proposed new transmission services where the associated increases in service or capability are in electrical proximity to each other. Each System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the New Service Requests being evaluated in the study and, as applicable to each included request, the redispatch options, additional Direct Assignment Facilities, necessary Merchant Network Upgrades, Attachment Facilities, Local Upgrades, and/or Network Upgrades necessary to accommodate such request. The System Impact Study shall refine and more comprehensively estimate each New Service Customer's cost responsibility (determined in accordance with Section 217 of the Tariff) for necessary facilities and upgrades than the estimates provided in the Interconnection Feasibility Study or the Firm Transmission Feasibility Study, if applicable. In the event that more than one New Service Request is evaluated in a study, the Transmission Provider may provide a series of estimates to each participating New Service Customer to reflect the customer's estimated cost responsibility based on varying assumptions regarding the number of New Service Customers that decide to continue their New Service Requests after completion of the System Impact Study. A description of the Transmission Provider's methodology for completing a System Impact Study for Completed Applications is provided in Attachment D of the Tariff. If applicable, the System Impact Study for a Transmission Interconnection Customer shall also include a preliminary estimate of the Incremental Deliverability Rights associated with the customer's proposed Merchant Transmission Facilities.

**ATTACHMENT N-1
FORM OF
SYSTEM IMPACT STUDY AGREEMENT**

(PJM Queue Position #____)

RECITALS

1. This System Impact Study Agreement, dated as of _____, is entered into, by and between _____ ("New Service Customer") and PJM Interconnection, L.L.C. ("Transmission Provider") pursuant to Part VI of the PJM Interconnection, L.L.C. Open Access Transmission Tariff ("PJM Tariff").
2. The Transmission Provider has: (i) pursuant to Section 36.2 of the PJM Tariff, completed an Interconnection Feasibility Study and provided the results of that study to the New Service Customer; (ii) received a valid Upgrade Request; or (iii) pursuant to Section 19 or Section 32, as applicable, of the PJM Tariff, the Transmission Provider has completed a Firm Transmission Feasibility Study and provided the results of that study to the New Service Customer.
3. Pursuant to Sections 19.1, 32.1, 37, 110.2, 111.2, 204.2, or 204.3, as applicable, of the PJM Tariff, the New Service Customer (i) requests that the Transmission Provider perform a System Impact Study, and (ii) agrees to submit a deposit to the Transmission Provider which will be applied to the New Service Customer's cost responsibility for the System Impact Study, as set forth in Section 204.3A of the PJM Tariff.

PREVIOUS SUBMISSIONS

{For Interconnection Customers, use the following paragraph 4}

4. Except as otherwise specifically set forth in an attachment to this agreement, New Service Customer represents and warrants that the information provided in Section 3 of the Interconnection Feasibility Study Agreement dated _____, for the project designated _____ {insert Queue Position} by and between the New Service Customer and the Transmission Provider is accurate and complete as of the date of execution of this System Impact Study Agreement. New Service Customer further provides the following information and represents and warrants that said information is true and correct:

{For Generation Facilities, use the following paragraphs a through c}

- a. Specify whether the generation to be interconnected to the Transmission System is to be a Capacity Resource or an Energy Resource.

- b. Identification of evidence of initial application for the necessary air permits (attach documentation separately):

- c. Other information not previously provided that may be relevant to the study being conducted hereunder (attach generator data for stability study analysis):

{For Merchant Transmission Facilities, use the following paragraphs a through c}

- a. Provide evidence of ownership in, or right to acquire or control the site(s) where New Service Customer intends to install its major equipment, in the form of a deed, option agreement, lease or other similar document acceptable to PJM:

- b. Provide evidence of the rights or option to obtain such rights to use any existing transmission facilities within PJM that are necessary for construction of the proposed project.

- c. Other information not previously provided that may be relevant to the study being conducted hereunder:

{For New Service Customer other than Interconnection Customers, use the following paragraph 4}

- 4. Except as otherwise specifically set forth in an attachment to this agreement, New Service Customer represents and warrants that the information provided in Section ____ {insert applicable section number} of the New Service Request dated _____, for the request designated _____ {insert Queue Position} is accurate and complete as of the date of execution of this System Impact Study Agreement. New Service Customer

further provides the following information and represents and warrants that said information is true and correct:

PURPOSE OF THE SYSTEM IMPACT STUDY

5. Consistent with Section 205 of the PJM Tariff, the Transmission Provider, in consultation with the affected Transmission Owner(s), shall conduct a System Impact Study that identifies the system constraints relating to the New Service Requests being evaluated in the study and the Attachment Facilities, Local Upgrades, and Network Upgrades necessary to accommodate such New Service Requests. It is expected that the System Impact Study will be completed by {insert date}. In the event that the Transmission Provider is unable to complete the System Impact Study by that date, the Transmission Provider shall notify the New Service Customer and explain the reasons for the delay.

6. The System Impact Study conducted hereunder will provide more comprehensive estimates of the cost and length of time required to accommodate the New Service Customer's New Service Request than those developed through the Interconnection Feasibility Study, Upgrade Feasibility Study or Firm Transmission Feasibility Study, if applicable, performed for the New Service Customer. These estimates shall represent a good faith attempt to determine the cost of necessary facilities and upgrades to accommodate the New Service Customer's New Service Request, and the New Service Customer's cost responsibility for them, but shall not be deemed final or binding. The scope of the System Impact Study {include for Merchant Transmission Facilities: may depend in part on the interconnection rights elected by the New Service Customer under Section 36.1.03 of the PJM Tariff and} 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, (d) an assessment of project related short circuit duty issues, (e) a contingency analysis consistent with NERC's and each Applicable Regional Entity's reliability criteria, (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. Final estimates will be developed only upon execution of a Facilities Study Agreement in accordance with Part VI of the PJM Tariff. The System Impact Study necessarily will employ various assumptions regarding the New Service Request, other pending requests, and PJM's Regional Transmission Expansion Plan at the time of the study. **IN NO EVENT SHALL THE SYSTEM IMPACT STUDY IN ANY WAY BE DEEMED TO OBLIGATE THE TRANSMISSION PROVIDER OR THE TRANSMISSION OWNERS THAT MAY INTERCONNECT WITH THE NEW SERVICE CUSTOMER TO CONSTRUCT ANY FACILITIES OR UPGRADES.**

CONFIDENTIALITY

7. The New Service Customer agrees to provide all information requested by the Transmission Provider necessary to complete the System Impact Study. Subject to paragraph 8 of this System Impact Study Agreement and to the extent required by Section

222 of the PJM Tariff, information provided pursuant to this Section 7 shall be and remain confidential.

8. Until completion of the System Impact Study, the Transmission Provider shall keep confidential all information provided to it by the New Service Customer. Pursuant to Section 205.4 of the PJM Tariff, upon completion of the System Impact Study, the Transmission Provider shall provide a copy of the System Impact Study to all New Service Customers whose New Service Requests were evaluated in the System Impact Study along with all related work papers. Additionally, Transmission Provider shall post on Transmission Provider's website (i) the existence of the System Impact Study, (ii) the New Service Customers that had New Service Requests evaluated in the System Impact Study, (iii) the location and size in megawatts of each New Service Customer's generation project, if applicable, and (iv) each New Service Customer's Queue Position. Additionally, New Service Customer acknowledges and consents to such other disclosures as may be required under the PJM Tariff or the FERC's rules and regulations.
9. New Service Customer acknowledges that, consistent with Part VI of the PJM Tariff, the Transmission Owners will participate in the System Impact Study process and that the Transmission Provider may disseminate information to the Transmission Owners and rely upon them to conduct part or all of the System Impact Study.

COST RESPONSIBILITY

10. The New Service Customer shall reimburse the Transmission Provider for the actual cost of the System Impact Study in accordance with its cost responsibility as determined under Sections 110.2, 111.2, 112.2, or 203 of the PJM Tariff. The refundable portion of the deposit described in Section 3 of this Agreement, paid by the New Service Customer pursuant to Sections 110.2, 111.2, 112.2, or 204.3A of the PJM Tariff, shall be applied toward the New Service Customer's System Impact Study cost responsibility. Pursuant to Section 204.3 of the PJM Tariff, during the acceptance review of this Agreement, in the event that the Transmission Provider anticipates that the New Service Customer's study cost responsibility will substantially exceed the refundable portion of the deposit, the Transmission Provider shall provide the New Service Customer with an estimate of the additional study costs and the New Service Customer's cost responsibility. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the New Service Customer with notification of estimated additional study costs, the New Service Customer is responsible for and must pay all actual study costs. If the Transmission Provider provides the New Service Customer with notification of estimated additional study costs, the New Service Customer must pay such estimated additional study costs within ten business days of Transmission Provider sending the New Service Customer notification of such estimated additional study costs. If the New Service Customer fails to pay such estimated additional study costs within ten business days of Transmission Provider sending the New Service Customer notification of such estimated additional

study costs, then the New Service Request shall be deemed to be withdrawn and terminated.

DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY

11. In analyzing and preparing the System Impact Study, the Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by the Transmission Provider shall have to rely on information provided by the New Service Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER THE TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY THE TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY. The New Service Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this System Impact Study Agreement nor the System Impact Study prepared hereunder is intended, nor shall either be interpreted, to constitute agreement by the Transmission Provider or the Transmission Owner(s) to provide any transmission or interconnection service to or on behalf of the New Service Customer either at this point in time or in the future.
12. In no event will the Transmission Provider, Transmission Owner(s) or other subcontractors employed by the Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether arising under this System Impact Study Agreement or otherwise, even if the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider have been advised of the possibility of such a loss. Nor shall the Transmission Provider, Transmission Owner(s), or other subcontractors employed by the Transmission Provider be liable for any delay in delivery or of the non-performance or delay in performance of the Transmission Provider's obligations under this System Impact Study Agreement.

Without limitation of the foregoing, the New Service Customer further agrees that Transmission Owner(s) and other subcontractors employed by the Transmission Provider to prepare or assist in the preparation of any System Impact Study shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty/Limitation of Liability."

MISCELLANEOUS

13. Any notice or request made to or by either party regarding this System Impact Study Agreement shall be made to the representative of the other party as indicated below.

Transmission Provider

PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403

New Service Customer

14. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this System Impact Study Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
15. This System Impact Study Agreement or any part thereof, may not be amended, modified, or waived other than by a writing signed by all parties hereto.
16. This System Impact Study Agreement shall be binding upon the parties hereto, their heirs, executors, administrators, successors, and assigns.
17. Neither this System Impact Study Agreement nor the System Impact Study performed hereunder shall be construed as an application for service under Part II or Part III of the PJM Tariff.
18. The provisions of Part VI of the PJM Tariff are incorporated herein and made a part hereof.
19. Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to them in the PJM Tariff.
20. This System Impact Study Agreement shall be effective as of the date of the New Service Customer's execution of it and shall remain in effect until the earlier of (a) the date on which the Transmission Provider tenders the completed System Impact Study and a proposed Facilities Study Agreement to New Service Customer pursuant to Section 206 of the PJM Tariff, or (b) termination and withdrawal of the New Service Request(s) to which the System Impact Study hereunder relates.
21. **No Third-Party Beneficiaries**
This System Impact Study 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.

22. Multiple Counterparts

This System Impact Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

23. No Partnership

This System Impact Study 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.

24. Severability

If any provision or portion of this System Impact Study 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 System Impact Study Agreement shall remain in full force and effect.

25. Governing Law, Regulatory Authority, and Rules

For Interconnection Requests, the validity, interpretation and enforcement of this System Impact Study Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This System Impact Study 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.

26. Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this System Impact Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this System Impact Study 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 System Impact Study 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 Transmission Provider and the New Service Customer have caused this System Impact Study Agreement to be executed by their respective authorized officials.

Transmission Provider: PJM Interconnection, L.L.C.

By: _____
Name Title Date

Printed Name

New Service Customer: [Name of Party]

By: _____
Name Title Date

Printed Name

ATTACHMENT EE

**Form of
Upgrade Request**

[To be completed by Upgrade Customers]:

1. The undersigned Upgrade Customer submits this Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement and Part VI of the PJM Tariff. This Upgrade Request is for Incremental Auction Revenue Rights in accordance with the specifications:

Source location: _____

Sink location: _____

MW: _____

Desired Commencement Date: _____

[To be completed by Interconnection Customers requesting Merchant Network Upgrades]:

1. The undersigned Interconnection Customer submits this Upgrade Request for Merchant Network Upgrades pursuant to Parts IV and VI of the PJM Tariff.
2. This request is for the required Merchant Network Upgrades to increase the ____ normal ____ emergency rating of the _____ circuit (or other Transmission System element) by ____ MVA or ____ MW.

Desired In-Service Date: _____

OR

This request is to advance construction of Regional Transmission Expansion Plan project number _____ from _____ (planned date) to _____ (requested date).

3. The Interconnection Customer shall provide a refundable deposit in the amount of \$50,000 to Transmission Provider with this request, which deposit shall be applied against the New Service Customer's cost responsibility for a System Impact Study including this request.
4. The Upgrade Customer shall provide a refundable deposit in the amount of \$20,000 to Transmission Provider with this request, which deposit shall be applied against the New

Service Customer's cost responsibility for an Upgrade Feasibility Study including this request.

5. Representative of New Service Customer to contact:

6. This Upgrade Request is submitted by:

Name of New Service Customer: _____

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

[RESERVED]

ATTACHMENT PP

Form of

Firm Transmission Feasibility Study Agreement

Company name:

OASIS Request	Start	Stop	Amount	Path	Date & Time of Request

PURPOSE

A Firm Transmission Feasibility Study is used to determine whether or not the Transmission System is adequate to accommodate all or part of a request for long-term firm transmission service under both Part II (POINT-TO-POINT TRANSMISSION SERVICE) or Part III (NETWORK INTEGRATION TRANSMISSION SERVICE) of the PJM Open Access Transmission Tariff (the “Tariff”) (together referred to as “long-term firm transmission service”). The FERC comparability standard is applied in evaluating the impact of all requests.

SCOPE OF WORK

The Firm Transmission Feasibility Study will determine if the PJM network has sufficient capability to grant the transmission service.

The Firm Transmission Feasibility Study indicates whether or not the request for service can be granted based on expected system conditions and topology. Pursuant to Section 19.3 or Section 32.3 of the Tariff, upon completion of the Firm Transmission Feasibility Study, PJM will notify the transmission customer that (a) the transmission service request is accepted, or (b) additional analysis is required. Pursuant to Part VI of the Tariff, additional analysis will only commence if the customer elects to continue to the System Impact Study within 30 days of notification.

General

Firm Transmission Feasibility Studies are performed on transmission service requests in the order in which they are received. Multiple requests for overlapping periods and similar paths are evaluated until a limit is reached. Transmission service requests are held in “Study” status until requests received earlier have been confirmed or withdrawn. If the study demonstrates that the requested service can be accepted, the status of the request is changed to “Accepted” on the PJM OASIS. As soon as possible after notification of acceptance, the Transmission Customer should “Confirm” the transmission request. If accepted service is not confirmed within 15 days, the request is deemed “Withdrawn,” and other requests waiting in the queue can then be studied.

Network Analysis and Deliverability Test

PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating generation interconnection requests. The energy from generating facilities 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 generator interconnections and long-term firm transmission service in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.

Rollover Rights

Pursuant to section 2.2 of the PJM Tariff:

Existing firm service customers of any Transmission Owner (wholesale requirements and transmission-only, with a contract term of five-years or more), may request rollover/reservation priority rights at the end of the term of the service. However, rollover rights may be limited in some cases. For instance, if the System Impact Study identifies limits caused by reliability problems (unless Direct Assignment Facilities or Network Upgrades are constructed to provide the requested service), the Transmission Customer will be notified of the limitation. The Service Agreement will include language which will reserve to PJM the right to limit rollovers in such circumstances. Therefore, the Transmission Customer may not be able to exercise reservation/rollover priority rights, in whole or in part, which it may otherwise have pursuant to Section 2.2 of the Tariff upon the initial termination date of the Transmission Service unless the Direct Assignment Facilities and/or Network Upgrades identified in the System Impact Study and/or Facilities Studies are completed pursuant to Part VI.

Reliability problems which may be identified by the System Impact Study and which may require additional Direct Assignment Facilities or Network Upgrades to provide the requested service include the following:

Limiting rollover rights for Deliverability.

If there is not enough system capability to accommodate rollover rights beyond the initial term PJM may explicitly state in the transmission service agreement that rollover rights for the requested service will be limited.

Limiting rollover rights for earlier queued transmission or generation interconnections.

As a part of the Firm Transmission Feasibility Study, the request is tested to verify that the service can co-exist with generators whose interconnection request predates the transmission service request. If the transmission service cannot co-exist with a planned

generator whose interconnection request predates the transmission service request, and the original transmission service request does not conflict with the generator in service date, the request will be approved. However, the transmission customer will be notified that the service has limited rollover rights. If the customer requests to renew the transmission service, another Firm Transmission Feasibility Study may be required.

Estimated Time and Cost to Complete the Firm Transmission Feasibility Study

In the event that the Transmission Provider is unable to complete the Firm Transmission Feasibility Study within the timeframe prescribed in Section 36.2 of the PJM Tariff, the Transmission Provider shall notify the Interconnection Customer and explain the reasons for the delay. The cost to complete the Firm Transmission Feasibility Study is estimated at \$20,000.

**ADDITIONAL TERMS AND CONDITIONS
FIRM TRANSMISSION FEASIBILITY STUDY AGREEMENT
FOR LONG-TERM FIRM TRANSMISSION SERVICE REQUESTS**

- 1.0 This Agreement for a Firm Transmission Feasibility Study for Long-Term Firm Transmission Service Requests (“Firm Transmission Feasibility Study Agreement”) is entered into, by and between PJM Interconnection, L.L.C. (“PJM”) and _____ (“Customer”).
- 2.0 PJM has determined that the Transmission Customer has completed the Application for Firm Point-To-Point Transmission Service or Network Service under the PJM Open Access Transmission Tariff (“Tariff”) and has provided an Application deposit in accordance with the provisions of the Tariff. The Tariff is accessible through the PJM OASIS.
- 3.0 PJM has determined that a Firm Transmission Feasibility Study for Transmission Service needs to be conducted to evaluate the request.
- 4.0 PJM will conduct the Firm Transmission Feasibility Study in accordance with the procedures described in the PJM Manuals, the Tariff and this Firm Transmission Feasibility Study Agreement.
- 5.0 This Firm Transmission Feasibility Study Agreement indicates the Scope of the Work required to evaluate the request and provides an estimated cost and schedule for completing the subject Firm Transmission Feasibility Study for Transmission Service. The Customer shall be responsible for actual charges associated with the Firm Transmission Feasibility Study.
- 6.0 Any notice or request made to or by either PJM or the Transmission Customer, regarding this Firm Transmission Feasibility Study Agreement shall be made to the representatives listed below.

- 7.0 This Firm Transmission Feasibility Study Agreement **must be executed** by the Transmission Customer **and returned to PJM within (fifteen) 15 days** of the Date stated below, or this Agreement will be void.

- 8.0 In accordance with Part II, (POINT-TO-POINT TRANSMISSION SERVICE), Section 19 (Initial Study Procedures for Long-Term Firm Point-to-Point Transmission Service Requests) Section 19.1 (Notice of Need for Initial Study) and Part III, (NETWORK INTEGRATION TRANSMISSION SERVICE), Section 32 (Initial Study Procedures for Network Integration Transmission Service Requests), and Section 32.1 (Notice of Need for Initial Study) of the Tariff, the Eligible Customer shall agree to reimburse the Transmission Provider for performing the required Firm Transmission Feasibility Study.

In some cases, the requested service cannot be granted upon completion of the Firm Transmission Feasibility Study. If the Customer has withdrawn its New Service Request or has not requested completion of a System Impact Study within 30 days of completion of the Firm Transmission Feasibility Study, its New Service Request will be deemed to be withdrawn and terminated.

Transmission Provider
 PJM Interconnection, L.L.C.
 2750 Monroe Blvd.
 Audubon, PA 19403

Transmission Customer

Agent: _____

Agent:

Date: _____

Date: _____