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June 29, 2018

The 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-____-000
Governing Document Standard Naming Convention and Formatting Revisions*

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d (2010), and the Federal Energy Regulatory Commission's ("Commission") Regulations, 18 C.F.R. Part 35 (2011), PJM Interconnection, L.L.C. ("PJM") hereby submits for filing numerous non-substantive, clerical and ministerial revisions to correct, clarify and/or make consistent certain provisions contained within the PJM Open Access Transmission Tariff ("Tariff"), Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement") and Reliability Assurance Agreement Among Load Serving Entities in the PJM Region ("RAA") (collectively, the "Governing Documents"). PJM requests that the Commission issue its order accepting the enclosed revisions by no later than August 28, 2018, sixty (60) days from the date of this filing, with an effective date of September 1, 2018 for all revisions.

I. BACKGROUND AND NEED FOR FILING

A few years ago, PJM created a standard naming convention for reference to its Governing Documents. The standard naming convention is: [Agreement name, i.e. Tariff/Operating Agreement/ RAA], [subpart, i.e. Attachment/Appendix/ Part/Schedule, if applicable], [section number]. For example: Tariff, Attachment DD, section 5.14. The standard

naming convention was developed so that PJM's Governing Documents would have consistency in the references within each document. Given the Governing Documents predate the standard naming convention, many provisions have cross references in the text that do not adhere to the standard. For example, there are numerous references that are in the format of Section 7 of the RAA, Section 3.4 of Attachment K-Appendix of the Tariff and section 5 of Tariff, Attachment DD.

While those non-standard format references are not wrong, PJM is taking the time now to make them standard to coincide with and support another effort that it has undertaken to create a user-friendly version of its Governing Documents that will have links to defined terms and cross references throughout its Governing Documents. This effort requires significant behind-the-scenes work of PJM's information technology ("IT") personnel to create the user-friendly product. During PJM's work on this project, it became evident that using the standard naming convention consistently will be of utmost importance for PJM to achieve the best result. That is because for each variation on naming convention, PJM's IT personnel have to create a unique code. Thus, standardizing the naming convention for references to provisions in the Governing Documents will limit the number of variations that IT has to code for, because doing so will reduce the chances of the software not recognizing a reference that should be linked for the user-friendly product to work as intended. Because there has been inconsistency in the use of this standard naming convention, PJM will need to submit a number of "clean-up" filings to conform its existing provisions so that they utilize this standard format as well. PJM has begun making these "clean-up" revisions as part of some its more substantive filings over the past few months. This filing is the first in what will be a series of such filings that only includes the "clean-ups" needed to incorporate the standard naming convention and format discussed herein.

II. PROPOSED REVISIONS

The proposed revisions consistently incorporate the use of the standard naming convention, and other references, and standard formatting in a manner that eliminates confusion regarding which provisions are being referenced and in which Governing Document, Attachment, Schedule, Appendix, Part or Subpart the referenced provisions can be found.

The first universal revision PJM will be making is to change the word Section to section (making the s lower case). Second, for purposes of clarification, PJM proposes to insert the words “above,” “below,” “in this section,” “in this Agreement,” and similar revisions to make clear which provision, section, part, schedule, appendix or attachment of the Governing Document is being referenced. The third universal revision is to utilize the standard naming convention for Governing Document provisions as follows: [Agreement name, i.e. Tariff/Operating Agreement/ RAA], [subpart, i.e. Attachment/Appendix/ Part/Schedule, if applicable], [section number].

By way of further explanation, PJM provides the following basic rules it is applying for making these revisions, examples of the same and further explanations. The red language red font in the examples reflects revisions that need to be made in order to conform existing language to the standard naming convention and format.

Change From This	Change To This	Examples
in subsection (f) of subsection (f) this section 7.4.2 this section 7.4.2(j)	When used in the <u>same section</u> , or in <u>another subsection</u> of the <u>same section</u> , change to: in/of subsection (f) <u>of this section</u> , in/of subsection (f) <u>above</u> , or in/of subsection (f) <u>below</u> . Or change to: <u>of this section</u> [insert section number], or	7.4.2 Auction Revenue Rights. (d) . . . The stage 2 allocation to Transmission Customers shall be as set forth in subsection (f) <u>below</u> . (d) . . . The stage 2 allocation to Transmission Customers shall be as set forth in subsection (f) <u>of this section</u> .

<p>in section 7.4.2 pursuant to Section 7.4.2(b)</p>	<p>of this subsection [insert subsection letter]. No need to insert the reference to the agreement or subpart because there will be no other section to which a user-friendly link will take the reader.</p> <p>No change is needed if the reference to subsection (j) is in subsection (j), for example, or the reference to section 7.4.2 is in section 7.4.2, because there will be no other section to which a link will take the reader.</p>	<p>(g) PJM Transmission Customers that serve load in the Midwest ISO may participate in stage 1 of the allocation to the extent permitted by, and in accordance with, this section 7.4.2 and other applicable provisions of this Schedule 1.</p> <p>(g) PJM Transmission Customers that serve load in the Midwest ISO may participate in stage 1 of the allocation to the extent permitted by, and in accordance with, this section 7.4.2 and other applicable provisions of this Schedule 1.</p> <p>(h) Subject to subsection (i) of this section, all Auction Revenue Rights must be simultaneously feasible. . . .</p> <p>(j) Long-Term Firm Point-to-Point Transmission Service customers that are not Qualifying Transmission Customers and Network Service Users serving Non-Zone Network Load may participate in stage 1 of the annual allocation of Auction Revenue Rights pursuant to sSection 7.4.2(a)-(c) above of Schedule 1 of this Agreement, subject to the following conditions:</p>
<p>Section 7.4.2 Section 7.4.2 hereof of/in/pursuant to section 5</p>	<p>When used in <u>another section</u> of the governing document other than the referenced section change to: of [insert Agreement name.], [insert subpart, if applicable], [insert section number]</p>	<p>7.4.1 Eligibility.</p> <p>(f) For Network Service Users and Firm Transmission Customers that take service that sinks in, sources in, or is transmitted through new PJM zones, that elect to receive direct allocations of Financial Transmission Rights, Financial Transmission Rights shall be allocated using the same allocation methodology as is specified for the allocation of Auction Revenue Rights in Operating Agreement, Schedule 1, sSection 7.4.2 and in accordance with the following:</p> <p>7.4.2 Auction Revenue Rights.</p> <p>(b) . . . Qualified Replacement Resources shall be either from a (1) capacity resource that has been included in the rate base of a specific</p>

		<p>Load Serving Entity in a particular Zone, using criteria for rate-based as specified in <u>Tariff, Attachment K-Appendix</u>, section 7.6 hereof concerning New Stage 1 Resources and Alternative Stage 1 Resources; or (2) from a non-rate-based capacity resource.</p> <p>...</p> <p>(c) In stage 1B of the allocation process each Network Service User may request Auction Revenue Rights from the subset of the resources determined pursuant to <u>RAA, sSection 7.4.2(b)</u> that were not allocated in stage 1A of the allocation process, ...</p> <p>1.10.1A Day-ahead Energy Market Scheduling.</p> <p>(f) . . . Such resources committed by the Office of the Interconnection will not receive Operating Reserve Credits nor otherwise be made whole for its hours of operation for the duration of any portion of such commitment that exceeds the maximum start-up and notification times for such resources during Hot Weather Alerts and Cold Weather Alerts, consistent with <u>Operating Agreement, Schedule 1, sSections 3.2.3 and Operating Agreement, Schedule 1, section 6.6 hereof.</u></p>
<p>Section 7 of this Schedule</p> <p>Section 7 of this Schedule 1 of this Agreement</p> <p>Section 31.7 of Part III of the Tariff</p> <p>Section 34.1 of the Tariff</p> <p>Section VI of Attachment M-</p>	<p>When used in <u>another</u> section, i.e. not in section 7 in this example, change to: [insert Agreement name,], [insert subpart, if applicable], [insert section number]</p>	<p>7.4.2 Auction Revenue Rights.</p> <p>(b) ... Each Auction Revenue Right allocated to a Network Service User shall be to the Energy Settlement Area of such Network Service User as described in <u>Tariff, Part III, sSection 31.7 of Part III of the Tariff</u>, unless the Network Service User's Energy Settlement Area represents the Residual Metered Load of an electric distribution company's fully metered franchise area(s) or service territory(ies) and the Network Service User elects to have its Auction Revenue Rights allocated at the aggregate load buses in a Zone. . . . The sum of each Network Service User's Auction Revenue Rights for Non-Zone</p>

Appendix		<p>Network Load must be equal to or less than fifty percent (50%) of the Network Service User's transmission responsibility for Non-Zone Network Load as determined under <u>Tariff, Part III, sSection 34.1 of the Tariff</u>.</p> <p>(i) ... For the purposes of this subsection (i), extraordinary circumstances shall mean an event of force majeure that reduces the capability of existing or planned transmission facilities and such reduction in capability is the cause of the infeasibility of such Auction Revenue Rights. Extraordinary circumstances do not include those system conditions and assumptions modeled in simultaneous feasibility analyses conducted pursuant to <u>Operating Agreement, Schedule 1, section 7.5 of Schedule 1 of this Agreement</u>.</p>
sections 5 and 7 hereof	For references to two sections change the first reference to: [insert Agreement name,], [insert subpart, if applicable] before the first section reference and delete the "s" at the end of "sections," and for the second section reference, [insert Agreement name,], [insert subpart, if applicable], [insert the word section] before the second section reference. These changes are needed because there is another section to which a link will take the reader.	<p>Operating Agreement, Schedule 1, Section 5.2.2</p> <p>(d) Prior to the effective date of the initial allocation of FTRs in a new PJM Zone, PJM shall file with FERC, under section 205 of the Federal Power Act, the FTRs and ARRs allocated in accordance with <u>Operating Agreement, Schedule 1, sections 5 and Operating Agreement, Schedule 1, section 7 hereof</u>.</p>
Operating Agreement, Schedules 1 and 2 Parts IV and V of the Tariff Attachments DD	For references to two subparts change the first reference to: [insert Agreement name, if not in the language already] before the subpart reference and delete the "s" at the end of the subpart name (and for	<p>(g) Notwithstanding the foregoing, PJMSettlement shall not be the Counterparty with respect to agreements and transactions regarding the LLC's administration of <u>Tariff, Parts IV and Tariff, Part VI, Tariff, Schedules 1, Tariff, Schedule 9</u> (excluding Schedule 9-PJMSettlement), <u>Tariff, Schedule 10-NERC, Tariff, Schedule 10-RFC, Tariff, Schedule 14, Tariff, Schedule 16, Tariff, Schedule 16-A,</u></p>

and DD-1	<p>Appendices change to Appendix, and before the second subpart reference, [insert Agreement name,] and [insert subpart] because there is another section to which a link will take the reader.</p>	and <u>Tariff, Schedule 17</u> of the PJM Tariff .
<p>Schedules 1 through 6</p> <p>sections 3 through 5</p>	<p>For references to more than two subparts, change to: [insert Agreement name,] before the subpart reference.</p> <p>For references to more than two sections, change to: [insert Agreement name,], [insert subpart, if applicable] before the word “sections.”</p> <p><i>Note: This rule applicable to this construct is different from the general rule because the way the software for the user friendly tariff was created, there is no way to write code that would capture what “through” means since it means different things depending on how many sections or subparts there are between the first reference and the second reference. Thus, the link will only take the reader to the first referenced section or schedule.</i></p>	<p>3 Ancillary Services</p> <p>...</p> <p>The Transmission Provider is required to offer to provide (or offer to arrange with the local Control Area operator as discussed below) the following Ancillary Services only to the Transmission Customer serving load within the Transmission Provider’s Control Area (i) Regulation and Frequency Response, (ii) Energy Imbalance, (iii) Operating Reserve - Synchronized, and (iv) Operating Reserve - Supplemental. Subject to the provisions of <u>Tariff</u>, Schedules 1 through 6, the Transmission Customer serving load within the Transmission Provider’s Control Area is required to acquire these Ancillary Services, whether from the Transmission Provider, from a third party, or by self-supply.</p>
<p>Schedule or section names</p> <p>Which is attached to and made part of this</p>	<p>Per the Law Department standard, section/schedule/subpart titles are not used.</p> <p>“Which is attached to and</p>	<p>3B PJM Administrative Service</p> <p>The Transmission Provider shall recover the costs of the operation of PJM Interconnection, L.L.C. and the Office of the Interconnection from Transmission Customers, and from other users of the various PJM services, under</p>

Tariff/OA/RAA	made a part of this XXX” is not consistent with the standard and needs to be revised to be consistent with standard format: [insert Agreement name,], [insert subpart, if applicable], [insert the word section, if applicable]	Tariff, Schedule 9 “PJM—Interconnection, L.L.C. Administrative Services,” which is attached to and made part of this Tariff.
Tariff, Attachment K-Appendix, section 4.2, and the parallel provisions of the Operating Agreement Tariff, Attachment K-Appendix, section 4.2, and the parallel provisions of Operating Agreement, Schedule 1	The parallel reference needs to be “spelled out” in full so that it follows the standard naming convention of: [insert Agreement name,], [insert subpart, if applicable], [insert section numbers]. Also there should be no “the” before Operating Agreement.	b) an approved 60 minute lead time, pursuant to Tariff, Section A.2 of Attachment DD-1, section A.2 of the Tariff and the parallel provision of RAA, Schedule 6, section A.2 of the RAA, \$1,000/megawatt-hour, plus [the applicable Reserve Penalty Factor for the Primary Reserve Requirement divided by 2]; Auction Revenue Rights Credits: “Auction Revenue Rights Credits” shall mean the allocated share of total FTR auction revenues or costs credited to each holder of Auction Revenue Rights, calculated and allocated as specified in Operating Agreement, Schedule 1, section 7.4.3, and the parallel provisions of Tariff, Attachment K-Appendix, <u>section 7.4.3.</u>

III. STAKEHOLDER PROCESS

PJM has used its Governing Documents Enhancement Subcommittee (“GDECS”) stakeholder process to review these proposed revisions. In establishing GDECS, PJM and its stakeholders intended to utilize the GDECS stakeholder process as a means through which to continually review and make non-controversial, substantive and non-substantive revisions to the Governing Documents.¹

¹ See PJM, GDECS Charter, at <http://www.pjm.com/~media/committees-groups/subcommittees/gdecs/20151023/20151023-charter.ashx> (indicating that meetings will be held as needed and that expected duration of the work of the subcommittee to be “indefinite.”).

PJM worked with its stakeholders through the GDECS between May and June 2018 to review changes that were needed to PJM's Governing Documents provisions. PJM provided the proposed revisions and rationale for each proposed revision to stakeholders in the GDECS during this timeframe. The proposed revisions were then presented to, and discussed with, the Markets and Reliability Committee ("MRC") and the Members Committee ("MC") in May and June 2018 as well. The MRC and the MC both endorsed the revisions by acclamation with no objections and no abstentions at their June 21, 2018 meetings.

IV. PROPOSED EFFECTIVE DATES

PJM proposes an effective date of September 1, 2018 for the proposed Tariff revisions referenced herein. PJM requests that the Commission issue an order on this filing by August 28, 2018.

V. DOCUMENTS ENCLOSED

This filing consists of the following:

1. This transmittal letter:
2. Electronic versions of the revisions to the Tariff in marked (showing the changes) form (as Attachment A); and
3. Electronic versions of the revisions to the Tariff in clean form (as Attachment B).

VI. CORRESPONDENCE AND COMMUNICATIONS

Correspondence and communications regarding this filing should be sent to the following individuals:

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VII. SERVICE

PJM has served a copy of this filing on all PJM members and on all state utility regulatory commissions in the PJM region by posting this filing electronically. In accordance with the Commission's regulations,² PJM will post a copy of this filing to the FERC filings section of its internet site, 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 commissions in the PJM region³ 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 twenty-four hours of the filing. A copy of this filing will be available on the Commission's eLibrary website at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.


² See 18C.F.R §§ 35.2(e) and 385.2010(f)(3).

³ PJM already maintains, updates, and regularly uses e-mail lists for all PJM Members and affected state commissions.

VIII. CONCLUSION

Accordingly, PJM requests that the Commission accept the revisions to the Tariff, as described herein, and issue an order by no later than August 28, 2018, effective September 1, 2018, as discussed herein.

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Respectfully submitted,

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Attachment A

Revisions to the PJM Open Access Transmission Tariff

(Marked / Redline Format)

Definitions – I – J - K

IDR Transfer Agreement:

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, [Part VI](#), 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 Tariff, 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 Energy Offer:

“Incremental Energy Offer” shall mean offer segments comprised of a pairing of price (in dollars per MWh) and megawatt quantities, which must be a non-decreasing function and taken together produce all of the energy segments above a resource’s Economic Minimum. No-load Costs are not included in the Incremental Energy Offer.

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 Tariff, 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 Tariff, Attachment O-Appendix 2, sSection 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 Tariff, 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 [Tariff](#), Part IV and [Tariff](#), 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 [Tariff](#), 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 [Tariff](#), 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, section 2.6A.

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.

2.1 Initial Allocation of Available Transfer Capability:

For purposes of determining whether existing capability on the Transmission Provider's Transmission System is adequate to accommodate a request for firm service under this Tariff, all Completed Applications for new firm transmission service received during the initial sixty (60) day period commencing with the effective date of the Tariff will be deemed to have been filed simultaneously. A lottery system conducted by an independent party, which shall be the Office of the Interconnection, shall be used to assign priorities for Completed Applications filed simultaneously. All Completed Applications for firm transmission service received after the initial sixty (60) day period shall be assigned a priority pursuant to [Tariff, Part II, s](#)Section 13.2.

2.3 Procedures For Exercising Transmission Reservation Priority Rights:

(a) If, at any time, the Transmission Provider receives a request from an Eligible Customer for new firm transmission service that the Transmission Provider determines it could not provide without performing a System Impact Study if an existing customer were to exercise its transmission reservation priority pursuant to [Tariff, Part I, sSection 2.2](#), the Transmission Provider shall promptly notify the existing customer of the new request. Within thirty (30) days of such notification, the existing customer must inform the Transmission Provider whether it exercises its reservation priority pursuant to [Tariff, Part I, sSection 2.2](#) and agrees to accept a contract term at least equal to the new request. In the event an existing customer does not exercise its reservation priority or fails to respond within thirty (30) days of such notification, the existing firm service customer shall forfeit its reservation priority.

(b) In the event an existing firm service customer does not receive a notification pursuant to [sSection 2.3\(a\) above](#), then the existing customer must notify Transmission Provider no later than one year prior to the end of the term of its firm transmission contract that it is exercising its transmission reservation priority and will take transmission service for an additional term of five years or longer; otherwise it shall forfeit the transmission reservation priority associated with the contract.

3 Ancillary Services

Ancillary Services are needed with transmission service to maintain reliability within and among the Control Areas affected by the transmission service. The Transmission Provider is required to provide (or offer to arrange with the local Control Area operator as discussed below), and the Transmission Customer is required to purchase, the following Ancillary Services (i) Scheduling, System Control and Dispatch, and (ii) Reactive Supply and Voltage Control from Generation or Other Sources.

The Transmission Provider is required to offer to provide (or offer to arrange with the local Control Area operator as discussed below) the following Ancillary Services only to the Transmission Customer serving load within the Transmission Provider's Control Area (i) Regulation and Frequency Response, (ii) Energy Imbalance, (iii) Operating Reserve - Synchronized, and (iv) Operating Reserve - Supplemental. Subject to the provisions of [Tariff, Schedules 1 through 6](#), the Transmission Customer serving load within the Transmission Provider's Control Area is required to acquire these Ancillary Services, whether from the Transmission Provider, from a third party, or by self-supply. The Transmission Provider shall administer the purchases by Transmission Customers of these Ancillary Services.

PJMSettlement shall be the Counterparty to the Ancillary Services provided to the Transmission Customer; provided, however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply relating to Ancillary Services. The Transmission Customer may not decline the Transmission Provider's offer of Ancillary Services unless it demonstrates that it has acquired the Ancillary Services from another source. The Transmission Customer must list in its Application which Ancillary Services it will purchase from the Transmission Provider. A Transmission Customer that exceeds its firm reserved capacity at any Point of Receipt or Point of Delivery or an Eligible Customer that uses Transmission Service at a Point of Receipt or Point of Delivery that it has not reserved is required to pay for all of the Ancillary Services identified in this section that were provided by the Transmission Provider associated with the unreserved service. The Transmission Customer or Eligible Customer will pay for Ancillary Services based on the amount of transmission service it used but did not reserve.

If the Transmission Provider is a public utility providing transmission service but is not a Control Area operator, it may be unable to provide some or all of the Ancillary Services. In this case, the Transmission Provider can fulfill its obligation to provide Ancillary Services by acting as the Transmission Customer's agent to secure these Ancillary Services from the Control Area operator. The Transmission Customer may elect to (i) have the Transmission Provider act as its agent, (ii) secure the Ancillary Services directly from the Control Area operator, or (iii) secure the Ancillary Services (discussed in [Tariff, Schedules 3, 4, 5 and 6](#) [Tariff, Schedule 4, Tariff, Schedule 5 and Tariff, Schedule 6](#)) from a third party or by self-supply when technically feasible. The Transmission Provider shall specify the rate treatment and all related terms and conditions in the event of an unauthorized use of Ancillary Services by the Transmission Customer.

The specific Ancillary Services, prices and/or compensation methods are described on the Schedules that are attached to and made a part of the Tariff. Three principal requirements apply to discounts for Ancillary Service provided by the Transmission Provider in conjunction with its

provision of transmission services as follows: (1) any offer of a discount made by the Transmission Provider must be announced to all Eligible Customers solely by posting on the OASIS, (2) any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an Affiliate's use) must occur solely by posting on the OASIS, and (3) once a discount is negotiated, details must be immediately posted on the OASIS. A discount agreed upon for an Ancillary Service must be offered for the same period to all Eligible Customers on the Transmission Provider's system. Tariff, Part I, sSections 3.1 through 3.6 below list the six Ancillary Services.

3.1 Scheduling, System Control and Dispatch Services:

| The rates and/or methodology are described in [Tariff](#), Schedule 1 and [Tariff](#), Schedule 1A.

3.2 Reactive Supply and Voltage Control from Generation or Other Sources Service:

| The rates and/or methodology are described in [Tariff](#), Schedule 2.

3.3 Regulation and Frequency Response Service:

| Where applicable the rates and/or methodology are described in [Tariff](#), Schedule 3.

3.4 Energy Imbalance Service:

| Where applicable the rates and/or methodology are described in [Tariff](#), Schedule 4.

3.5 Operating Reserve - Synchronized Reserve Service:

| Where applicable the rates and/or methodology are described in [Tariff](#), Schedule 5.

3.6 Operating Reserve - Supplemental Reserve Service:

| Where applicable the rates and/or methodology are described in [Tariff](#), Schedule 6.

3B PJM Administrative Service

The Transmission Provider shall recover the costs of the operation of PJM Interconnection, L.L.C. and the Office of the Interconnection from Transmission Customers, and from other users of the various PJM services, under Tariff, Schedule 9 “PJM Interconnection, L.L.C. Administrative Services;” ~~which is attached to and made part of this Tariff.~~

3E Transmission Enhancement Charges

The Transmission Provider shall collect from designated customers using Point-to-Point Transmission Service and Network Integration Transmission Service the charges of Transmission Owners related to the costs of Required Transmission Enhancements under Tariff, Schedule 12; “Transmission Enhancement Charges,” ~~which is attached to and made part of this Tariff.~~

4.1

Terms and conditions regarding Open Access Same-Time Information System (OASIS) and standards of conduct are set forth in 18 CFR § 37 of the Commission's regulations (Open Access Same-Time Information System and Standards of Conduct for Public Utilities) and 18 CFR § 38 of the Commission's regulations (Business Practice Standards and Communication Protocols for Public Utilities). For purposes of the Standards of Conduct, a marketing affiliate of any party to the Operating Agreement is deemed to be a marketing affiliate of the Transmission Provider. In the event available transfer capability as posted on the OASIS is insufficient to accommodate a request for firm transmission service, additional studies may be required as provided by this Tariff, ~~pursuant to Part II, s~~Sections 19 and Tariff, Part III, section 32.

The Transmission Provider shall post on OASIS and its public website an electronic link to all rules, standards and practices that (i) relate to the terms and conditions of transmission service, (ii) are not subject to a North American Energy Standards Board (NAESB) copyright restriction, and (iii) are not otherwise included in this Tariff. The Transmission Provider shall post on OASIS and on its public website an electronic link to the NAESB website where any rules, standards and practices that are protected by copyright may be obtained. The Transmission Provider shall also post on OASIS and its public website an electronic link to a statement of the process by which the Transmission Provider shall add, delete or otherwise modify the rules, standards and practices that are not included in this tariff. Such process shall set forth the means by which the Transmission Provider shall provide reasonable advance notice to Transmission Customers and Eligible Customers of any such additions, deletions or modifications, the associated effective date, and any additional implementation procedures that the Transmission Provider deems appropriate.

4.2

Pursuant to the Commission's September 18, 2014 Final Rule, Order No. 676-H (148 FERC ¶ 61,205, corrections applied at 149 FERC ¶ 61,014) amending its regulations under the Federal Power Act, and the grant of waivers from specified provisions of WEQ-001, WEQ-002 and WEQ-003 approved by the Commission in *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,141 (May 18, 2015) Transmission Provider hereby incorporates by reference the following standards promulgated by the WEQ of the NAESB:

- WEQ-000, Abbreviations, Acronyms, and Definition of Terms, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Oct. 4, 2012, Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-001, Open Access Same-Time Information System (OASIS), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) excluding Standards 001-9.5, 001-10.5, 001-14.1.3, 001-15.1.2 and 001-106.2.5, as well as the timing requirements established in 001-23, to the extent not inconsistent with Transmission Provider's current practice;
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-002, Open Access Same-Time Information System (OASIS) Business Practice Standards and Communication Protocols (S&CP), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-003, Open Access Same-Time Information System (OASIS) Data Dictionary Business Practice Standards, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- WEQ-004, Coordinate Interchange, WEQ Version 003, July 31, 2012 (with Final Action ratified December 28, 2012);
- WEQ-005, Area Control Error (ACE) Equation Special Cases, WEQ Version 003, July 31, 2012;
- WEQ-006, Manual Time Error Correction, WEQ Version 003, July 31, 2012;
- WEQ-007, Inadvertent Interchange Payback, WEQ Version 003, July 31, 2012;
- WEQ-008, Transmission Loading Relief (TLR) – Eastern Interconnection, WEQ Version 003, July 31, 2012 (with minor corrections applied November 28, 2012);

- WEQ-011, Gas/Electric Coordination, WEQ Version 003, July 31, 2012;
- WEQ-012, Public Key Infrastructure (PKI), WEQ Version 003, July 31, 2012 (as modified by NAESB Final Actions ratified on October 4, 2012);
- WEQ-013, Open Access Same-Time Information System (OASIS) Implementation Guide, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) ;
- WEQ-015, Measurement and Verification of Wholesale Electricity Demand Response, WEQ Version 003, July 31, 2012; and
- WEQ-021, Measurement and Verification of Energy Efficiency Products, WEQ Version 003, July 31, 2012.

The Commission has granted Transmission Provider with waivers of specified provisions of WEQ-001, WEQ-002 and WEQ-003 as those Business Practice Standards relate to Service Across Multiple Transmission Systems (SAMTS) and Network Integration Transmission Service (NITS).

With respect to SAMTS, the Transmission Provider has adopted Tariff, Part II, sections 17.9 and Tariff, Part II, section 18.4 ~~in part II of the Tariff~~, specifying processing timelines for all short-term transmission service requests. The Transmission Provider will process and set the status of a SAMTS request or reservation consistent with a non-SAMTS transaction and the customer may withdraw, annul or reduce their request or reservation without financial penalty in accordance with the Transmission Provider's Regional Transmission and Energy Scheduling Practices document which can be found on the Transmission Provider's website.

With respect to NITS requests, the Transmission Provider has adopted rules in Tariff, Part III ~~of the Tariff~~ relating to the study and commitment of internal and external network resources and load designations, including Tariff, Part III, section 30 (relating to designation and termination of Network Resources), Tariff, Part III, section 31 (relating to the designation of Network Load), and Tariff, Part III, section 32 (relating to Initial Study procedures for NITS), all of which are subject, however, to the applicable requirements of PJM's Reliability Pricing Model (RPM) rules as set forth in Tariff, Attachment DD ~~of the Tariff~~ and associated requirements as set forth in Transmission Provider's FERC-filed Reliability Assurance Agreement Among Load Serving Entities (RAA) and associated Manuals. Moreover, consistent with the Transmission Provider's planning processes, Network Resources proposing to interconnect to the Transmission System in the PJM Region must comply with the terms, conditions, rules and procedures for interconnection as specified in Tariff, Part IV ~~of the Tariff~~.

6A Counterparty

- 6A.1** PJM administers the Tariff and the Operating Agreement. Under the Tariff and Operating Agreement, PJM administers the provision of transmission service and associated ancillary services to customers and operates and administers various centralized electric power and energy markets. In obtaining transmission service and in these centralized markets, customers conduct transactions with PJMSettlement as a counterparty. Market participants also may conduct bilateral transactions with other market participants and they may self-supply power and energy to the electric loads they serve. Such bilateral and self-supply arrangements are not transactions with PJMSettlement.
- 6A.2** For purposes of contracting with customers and conducting financial settlements regarding the use of the transmission capacity of the Transmission System, PJM has established PJMSettlement. PJM also has established PJMSettlement as the entity that is the Counterparty with respect to the agreements and transactions in the centralized markets that the Transmission Provider administers under the Tariff and the Operating Agreement (i.e., the agreements and transactions that are not bilateral arrangements between market participants or self-supply). PJMSettlement will serve as the Counterparty to Financial Transmission Rights and Auction Revenue Rights instruments held by a Market Participant. Any subsequent bilateral transfer of these instruments by the Market Participant to another Market Participant shall require the consent of PJM, but shall not implicate PJMSettlement as a contracting party with respect to such subsequent bilateral transfer.
- 6A.3** As a party to the Consolidated Transmission Owners Agreement, PJM has acquired the right to use the transmission capacity of the Transmission System that is required to provide service under this Tariff and the authorization to resell transmission service using such capacity on the Transmission System. Under the Consolidated Transmission Owners Agreement, PJM compensates the Transmission Owners for the use of their transmission capacity by distributing certain revenues to the Transmission Owners as set forth in the Tariff and the Consolidated Transmission Owners Agreement. PJM has assigned its right to use the transmission capacity of the Transmission System to PJMSettlement. Accordingly, PJMSettlement shall compensate the Transmission Owners for the use of the transmission capacity required to provide service under this Tariff.
- 6A.4** Unless otherwise expressly stated in the Tariff or the Operating Agreement, PJMSettlement shall be the Counterparty to the customers purchasing Transmission Service and Network Integration Transmission Service, and to the other transactions with customers and other entities under the Tariff.
- 6A.5** PJMSettlement shall not be a contracting party to other non-transmission transactions that are (i) bilateral transactions between market participants reported

to the Transmission Provider, and (ii) self-supplied or self-scheduled transactions reported to the Transmission Provider.

6A.6 Notwithstanding the foregoing, PJMSettlement shall not be the Counterparty with respect to agreements and transactions regarding the Transmission Provider's administration of Tariff, Parts IV, and Tariff, Part VI, Schedules 1, Tariff, Part VI, Schedule 9 (excluding Schedule 9-PJMSettlement), Tariff, Part VI, Schedule 10-NEERC, Tariff, Part VI, Schedule 10-RFC, Tariff, Part VI, Schedule 14, Tariff, Part VI, Schedule 16, Tariff, Part VI, Schedule 16-A, and Tariff, Part VI, Schedule 17 ~~of the PJM Tariff~~.

6A.7 Confidentiality. PJMSettlement shall be bound by the same confidentiality requirements as the Transmission Provider.

6A.8 PJMSettlement Costs. All costs of services provided by PJMSettlement for the benefit of Market Participants and Transmission Customers shall be included in the Administrative Services set forth in Tariff, Part VI, Schedule 9-PJMSettlement.

6A.9 Amendment of Previously Effective Arrangements.

- (a) **Transmission Service Agreements.** Transmission Service Agreements in effect at the time this Section 6A becomes effective shall be deemed to be revised to include PJMSettlement as a Counterparty to the Transmission Service Agreement in the same manner and to the same extent as agreements entered after the effective date of this Section 6A.
- (b) **Reliability Pricing Model.** PJMSettlement shall be the Counterparty to the transactions arising from the cleared Based Residual Auctions and Incremental Auctions that occurred prior to the effective date of this Section 6A and for which delivery will occur after the effective date of this Section 6A in the same manner and to the same extent as transactions arising from auctions cleared after the effective date of this Section 6A.
- (c) **Auction Revenue Rights and Financial Transmission Rights.** PJMSettlement shall be the Counterparty with respect to the rights and obligations arising from Auction Revenue Rights and Financial Transmission Rights acquired in an auction or assigned by PJM prior to the effective date of this Section 6A to the same extent as with respect to rights and obligations arising from auctions or assignments of Auction Revenue Rights and Financial Transmission Rights after the effective date of this Section 6A.

7.1A Payments:

(a) Monthly Bills.

Net amounts due to PJMSettlement, in its own name or as agent for Transmission Provider, as applicable, pursuant to a monthly bill shall be due and payable by the Transmission Customer or other entity no later than noon Eastern Prevailing Time on the due date of the first weekly bill issued for activity in the month that the monthly bill is issued. It is possible, due to the timing of holidays, that the billing and payment cycle for monthly bills stated here would call for payment of a monthly bill on a Friday that occurs less than three Business Days after issuance of the bill by PJM. Where this occurs, the payment period of the monthly bill will be extended such that payment will be due when payment for the second weekly bill is due.

(b) Weekly Bills.

Net amounts due to PJMSettlement, in its own name or as agent for Transmission Provider, as applicable, pursuant to a weekly bill shall be due and payable by the Transmission Customer or other entity no later than noon Eastern Prevailing Time on the third Business Day following the issuance of the weekly bill. Weekly bills issued after 5:00 p.m. Eastern Prevailing Time shall be considered to be issued the following Business Day

(i) Municipal Electric Systems.

Recognizing that municipal electric systems may, at times, face unique circumstances that could temporarily prevent their ability to make payments on a weekly bill issued pursuant to sSection 7.1(b) above when due, the Transmission Provider may allow a municipal electric system to make arrangement with PJM whereby PJM would extend trade credit to the municipal electric system sufficient to enable it to make payment on a weekly bill provided that the following conditions are met:

(a) the Transmission Provider determines, in its sole discretion, that it has sufficient excess working capital available to complete financial settlement with other market participants;

(b) the municipal electric system reimburses PJM for the actual cost of such working capital;

(c) the municipal electric system provides PJM with a binding representation that it has all legal right and authority to enter into the arrangement with PJM;

(d) PJMSettlement will continue to issue weekly bills to the municipal electric system in accordance with sSection 7.1(b) above and the municipal electric system will make payment as due under the weekly bills using the proceeds it

obtains under its arrangement with PJM. Reimbursement of these amounts, including PJM's actual costs of working capital, shall be due from the municipal electric system at the time payment is due for the invoice issued under ~~s~~Section 7.1A(a) above;

(e) the aggregate of all financed amounts and accrued obligations shall not exceed the Working Credit Limit available to the municipal electric system;

(f) the municipal electric system provides the Transmission Provider with at least one week of notice (though PJM may waive this provision), and;

(g) the accumulated duration of such postponed payments shall not exceed three months in a rolling twelve-month period.

PJM may terminate this payment option at any time it determines its excess working capital is no longer sufficient to allow further or continued extension financing. In such cases, PJM shall attempt to give five Business Days, but not less than three Business Days notice to the affected municipal electric system, and may call for immediate reimbursement of any outstanding amounts owed by the municipal electric system.

(c) Form of Payments.

All payments tendered in satisfaction of a Transmission Customer's or other entity's obligations to PJMSettlement or Transmission Provider shall be in the form of immediately available funds payable to PJMSettlement, or by wire transfer to a bank named by PJMSettlement.

(d) Payments by PJMSettlement.

Unless delayed by unforeseen events, payments made by PJMSettlement, in its own name or as agent for Transmission Provider, for amounts due to Transmission Customers and other entities shall be paid no later than 5:00 p.m. Eastern Prevailing Time on the Business Day following the payment due date for net amounts owed to PJMSettlement, in its own name or as agent for the Transmission Provider, as specified above.

(e) Payment Calendar.

A comprehensive billing and settlement calendar will be posted on Transmission Provider's website prior to March 31 for the upcoming June – May annual period to communicate the schedule of holidays for settlement and billing purposes.

(f) Late Payments.

In the event that a Transmission Customer, or other entity, is delinquent in paying the amount set forth in its weekly or monthly bill two or more times within any rolling twelve (12) month period, PJMSettlement, in its own name or as agent for Transmission

Provider, may assess, in addition to the interest on each late payment as provided for in Tariff, Part I, sSection 7.2~~of this Tariff~~, a late payment charge for a second and any subsequent failure to pay on time during such twelve (12) month period (a “Late Payment Charge”). The applicable Late Payment Charge will be assessed in an amount equal to the greater of: (i) two percent (2%) of the total amount set forth in the monthly or weekly bill that the Transmission Customer or other entity has been late in paying, or (ii) \$1,000; up to a maximum of \$100,000 per late bill payment. For the sole purpose of application of this sSection 7.1A(f), weekly and monthly bills that are due on the same date shall be considered to be one bill; moreover, the term “on time” shall mean payment received on the date due; and “delinquent” shall mean any payment received on a day subsequent to the date due.

Late Payment Charges that are collected pursuant to this sSection 7.1A(f) shall be credited to PJMSettlement administrative costs and will be included in any applicable stated rate refund calculations as contemplated under Tariff, Schedule 9~~of this Tariff~~.

8.1 Transmission Revenues:

Include in a separate operating revenue account or subaccount the revenues it receives from Transmission Service when making Third-Party Sales under Tariff, Part II ~~of the Tariff~~.

8.3 Generation Interconnection Costs:

Include in a separate transmission account or subaccount, costs of Attachment Facilities, Local Upgrades, and Network Upgrades that are incurred by the Transmission Owner with respect to its own Interconnection Requests under Tariff, Part IV ~~of the Tariff~~ that are directly assigned to the Transmission Owner to accommodate its Interconnection Requests in accordance with Operating Agreement, Schedule 6A ~~of the Operating Agreement~~.

9.1 Rights of the Transmission Owners:

(a) The Transmission Owners shall have the exclusive and unilateral rights to file pursuant to Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder for any changes in or relating to the establishment and recovery of the Transmission Owners' transmission revenue requirements or the transmission rate design under the ~~PJM~~ Tariff, and such filing rights shall also encompass any provisions of the ~~PJM~~ Tariff governing the recovery of transmission-related costs incurred by the Transmission Owners. Nothing herein is intended to limit or change the right of individual Transmission Owners under Tariff, Part I, sSection 2.2.1 ~~of the PJM Tariff~~ to make their own Section 205 filings to change the transmission revenue requirement within their own zones, including the right of individual Transmission Owners to file for zonal transmission revenue requirements based on incentive or performance factors. The Transmission Owners may only file under Section 205 to change the transmission rate design for the PJM Region pursuant to a filing approved in accordance with Section 8.5.1 of the Consolidated Transmission Owners Agreement.

(b) If the Transmission Owners agree upon a change in accordance with ~~sSection 9.1(a) above~~, the Transmission Owners shall make such filing jointly pursuant to Section 205 of the Federal Power Act. For purposes of administrative convenience, at the request of the Transmission Owners, the Office of Interconnection may, but shall not be required to, make the Section 205 filing with the FERC on behalf of the Transmission Owners; provided that any such filing by the Office of Interconnection shall be deemed for all purposes under the Federal Power Act to be a filing of the Transmission Owners. The Transmission Owners shall consult with PJM and the PJM Members Committee beginning no less than thirty (30) days prior to any Section 205 filing hereunder, but neither PJM (except as provided for in Tariff, Part I, sSection 9.3) nor the PJM Members Committee shall have any rights to veto or delay the Transmission Owners' Section 205 filing hereunder; provided that the Transmission Owners may file with less than a full 30 day advance consultation in circumstances where imminent harm to system reliability or imminent severe economic harm to electric consumers requires a prompt Section 205 filing; provided further that the Transmission Owners shall provide as much advance notice and consultation with PJM and the PJM Members Committee as is practicable in such circumstances and no such filing shall be made with less than 24 hours' advance notice.

(c) Nothing herein is intended to limit the rights of the Transmission Owners, PJM or any other person to oppose such a Section 205 filing pursuant to Section 206 or any other applicable provision of the Federal Power Act.

(d) In accordance with sSection 9.1(a) above, the following provisions of the ~~PJM~~ Tariff and any successors thereto shall be within the Transmission Owners' exclusive and unilateral rights to make Section 205 filings: Tariff, Part III, sSection 34; Tariff, Schedule 1A; Tariff, Schedule 7 (except as to transmission congestion charges under Tariff, Attachment K ~~to the PJM Tariff~~ or any successor thereto); Tariff, Schedule 8 (except as to transmission congestion charges under Tariff, Attachment K ~~to the PJM Tariff~~ or any successor thereto); Tariff, Schedule 11; Tariff, Schedule 12; Tariff, Attachment H-A; Tariff, Attachment J; and Tariff, Attachment R, provided, however, that if a filing pursuant to Section 205 is required to effect a change in any of the foregoing provisions of the ~~PJM~~ Tariff solely by reason of a filing by an individual Transmission

Owner pursuant to ~~S~~section 9.1(e) below, PJM may make such filing if, (i) five business days prior to making such filing, PJM provides the Transmission Owners with each proposed change including an explanation thereof and (ii) no Transmission Owner notifies PJM that it objects to PJM making such filing.

(e) In accordance with ~~s~~Section 9.1(a) above, the following provisions of the ~~PJM~~ Tariff and any successors thereto shall be within the exclusive and unilateral rights to make Section 205 filings of the individual Transmission Owner to which the provisions apply: (i) Tariff, Attachment H (other than Tariff, Attachment H-A) (except as to transmission congestion charges under Tariff, Attachment K ~~to the PJM Tariff~~ or any successor thereto); (ii) Tariff, Attachment M-1 (First Energy); (iii) Tariff, Attachment M-2 (First Energy); (iv) Procedures for Load Determination (PSE&G); (v) Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers (Atlantic City); and (vi) Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers (Delmarva).

(f) The listing of provisions in ~~s~~Sections (d) and (e) above is not exclusive, and the failure to specify a provision of ~~the PJM Tariff in s~~Section 9.1(d) or (e) above shall not be deemed to be an admission or agreement by the Transmission Owners that such provision or any change thereto does not relate to the establishment and recovery of the Transmission Owners' transmission revenue requirements or the transmission rate design under the PJM Tariff, or encompass any provisions of the PJM Tariff governing the recovery of transmission-related costs incurred by the Transmission Owners. The Transmission Owners reserve their rights to assert that other provisions of the PJM Tariff-OATT should be included within their Section 205 rights, and PJM reserves its rights to contest such assertions.

(g) The Transmission Owners' Section 205 rights shall include the unilateral right to file for incentive and performance based rates that affect or relate to the establishment or recovery of transmission revenue requirements, transmission rate design, or any performance or incentive based rates in which the incentives to the Transmission Owners may be measured by savings or efficiencies in the power or ancillary services markets resulting from the construction, operation or maintenance of transmission facilities. Nothing in this Tariff is intended to limit PJM's right to make Section 205 filings to establish incentive or performance based rates applicable to market participants, provided that PJM must obtain the prior approval of the Transmission Owners (pursuant to ~~Section 8.5.1 of the~~ Consolidated Transmission Owners Agreement, section 8.5.1) for any portion of such a filing that reasonably could be expected to affect the establishment and recovery of the Transmission Owners' transmission revenue requirements, transmission rate design or recovery of transmission-related costs by the Transmission Owners.

(h) Nothing contained in the Tariff, any Service Agreement or any Network Operating Agreement shall be construed as affecting in any way the exclusive and unilateral right of the Transmission Owners to make application to the Federal Energy Regulatory Commission for any change in accordance with this ~~s~~Section 9.1 under Section 205 of the Federal Power Act and pursuant to the Commission's Rules and Regulations promulgated thereunder.

9.2 Rights of the Transmission Provider:

(a) PJM shall have the exclusive and unilateral right to file pursuant to Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder to make changes in or relating to the terms and conditions of the PJM Tariff (including but not limited to provisions relating to creditworthiness, billing, and defaults) as well as all charges for recovery of PJM costs. PJM shall not have any Section 205 filing rights with respect to the subject matters described in the first sentence of Tariff, Part I, sSection 9.1(a)-of this Tariff. PJM shall not have any Section 205 filing rights with respect to the provisions of the PJM Tariff listed in Section 9.1(d) and (e). Notwithstanding the foregoing, PJM shall have Section 205 filing rights to make changes in the PJM Tariff in order to address the Behind The Meter Generation netting rules in accordance with the settlement in FERC Docket No EL05-127-000 approved by the FERC on December 16, 2005, 113 FERC ¶ 61,279.

(b) PJM shall consult with the Transmission Owners and the PJM Members Committee beginning no less than seven (7) days in advance of any Section 205 filing under sSection 9.2(a) above, but neither the Transmission Owners, except as provided for in Tariff, Part I, sSection 9.3, nor the PJM Members Committee shall have any right to veto or delay any such Section 205 filing. PJM may file with less than a full 7 day advance consultation in circumstances where imminent harm to system reliability or imminent severe economic harm to electric consumers requires a prompt Section 205 filing; provided that PJM shall provide as much advance notice and consultation with the Transmission Owners and the PJM Members Committee as is practicable in such circumstances, and no such emergency filing shall be made with less than 24 hours advance notice.

(c) Nothing herein is intended to limit the rights of any Party or other person to oppose such a Section 205 filing pursuant to Section 206 or any other applicable provision of the Federal Power Act or to limit the right of any Party or other person to make filings under Section 206 of the Federal Power Act.

(d) To the extent that PJM desires to add a provision to this Tariff, or to change an existing provision hereof, in accordance with its rights under sSection 9.2(a) above, the Transmission Owners shall have unilateral and exclusive rights to make Section 205 filings with respect to any matters covered by such new or changed provisions relating to the establishment and recovery of the Transmission Owners' transmission revenue requirements, transmission rate design under the PJM Tariff, or any provisions governing the recovery of transmission-related costs incurred by the Transmission Owners. Prior to making any Section 205 filing covered by sSection 9.2(a) above that also relates to or affects the establishment and recovery of the Transmission Owners' transmission revenue requirements, the transmission rate design under the PJM Tariff, or any provisions governing the recovery of transmission-related costs incurred by the Transmission Owners, PJM shall provide no less than 45 days notice to the Transmission Owners of the intended filing in sufficient detail to provide them a reasonable opportunity to include appropriate provisions in the PJM Tariff governing these subjects, either through a Section 205 filing by the Transmission Owners pursuant to Tariff, Part I, sSection 9.1(a) or approval by the Transmission Owners of the PJM proposal pursuant to Section 8.5.1 of the Consolidated Transmission Owners Agreement, section 8.5.1.

(e) PJM shall be required to maintain in effect at all times provisions relating to the creditworthiness of all customers under this Tariff that are designed to provide reasonable assurances to the Transmission Owners, consistent with FERC orders and policies applicable to open access transmission services, that such customers will be able to pay for transmission services purchased hereunder. If at any time PJM intends to make a Section 205 filing to change the creditworthiness provisions of this Tariff, it shall provide no less than 30 days advance notice to, and consult with, the Transmission Owners and the PJM Members Committee. In the case of an emergency requiring immediate action, PJM shall not be required to provide 30 days advance notice but shall provide as much advance notice as is practicable in the circumstances, and in no circumstances may PJM make an emergency Section 205 filing without providing at least 24 hours advance notice to the Transmission Owners. PJM shall further maintain at all times in the tariffs under which it recovers its costs comparable provisions, if any, for sharing among PJM members and/or transmission customers any shortfalls in the recovery of its own and the Transmission Owners' costs due to defaults.

9.3 Disputes Regarding Filing Rights:

If at the time that a proposal to change or amend any part of the PJM Tariff, or to add any new provision, is submitted to PJM or the Transmission Owners for consultation pursuant to [Tariff, Part I, s](#)Section 9.1(b) or [Tariff, Part I, section](#) 9.2(b), a dispute arises as to which Party has Section 205 rights to make such filing, the following procedures shall apply:

- (i) The Consolidated Transmission Owners Agreement Administrative Committee and PJM shall meet promptly prior to the filing in order to resolve the dispute. Such resolution may include a joint Section 205 filing by the Transmission Owners and PJM.
- (ii) If the Transmission Owners propose to make the Section 205 filing, they shall defer such filing beyond the thirty (30) day notice and consultation period provided for in [Tariff, Part I, s](#)Section 9.1(b) for up to ten (10) additional days at the request of PJM to allow the dispute to be resolved.
- (iii) If PJM proposes to make the Section 205 filing it shall defer any filing beyond the seven (7) day notice and consultation period provided for in [Tariff, Part I, s](#)Section 9.2(b) for up to ten (10) additional days to allow the dispute to be resolved;
- (iv) In order to resolve a dispute, the agreement of the Transmission Owners must be obtained by vote in accordance with ~~Section 8.5.1 of the~~ Consolidated Transmission Owners Agreement, [section 8.5.1](#);
- (v) If the Parties are unable to reach agreement among themselves, the matter shall be presented to and resolved by a Neutral Party chosen as follows and, except as provided in this ~~s~~Section 9.3(v), such resolution shall be binding on the Parties: The Chairman of the Consolidated Transmission Owners Agreement Administrative Committee (or his/her designee) and an executive of PJM chosen by the President shall choose the Neutral Party and shall have authority to enter into an agreement that will make the Neutral Party available on a prompt basis to resolve disputes hereunder, and any costs associated with the Neutral Party shall be shared equally between the Transmission Owners and PJM. The Chairman of the Consolidated Transmission Owners Agreement Administrative Committee (or his/her designee) and an executive of PJM chosen by the President may replace the Neutral Party at any time they mutually deem such action to be appropriate or necessary. The decision of the Neutral Party as to which Parties have Section 205 rights hereunder shall be made within the period provided for consultation between the Transmission Owners and PJM as set forth in ~~s~~Sections 9.3(ii) [above](#) or [Tariff, Part I, section](#) 9.2(iii), as applicable. Interested parties (including the Parties) may file a complaint seeking review by the FERC of the Neutral Party's decision, and the FERC's authority to interpret which Parties have Section 205 rights shall not be limited by the Neutral Party's decision as it relates to these disputes.
- (vi) Nothing in this ~~s~~Section 9.3 is intended to limit the Parties' rights to make filings pursuant to Section 206 of the Federal Power Act prior to resolution of such dispute.

9.4 Mobile Sierra:

Tariff, Part I, sSections 9.1 through 9.4 of this Tariff shall be subject to change solely by written amendment executed by PJM and the Transmission Owners, with the Transmission Owners acting by vote in accordance with ~~Section 8.5.1 of the~~ Consolidated Transmission Owners Agreement, section 8.5.1. It is the intent of this sSection 9.4 that ~~the~~ FERC's right to change Tariff, Part I, sSections 9.1 through 9.4 shall be limited to the maximum extent permissible by law and that any such change shall be in accordance with the Mobile-Sierra public interest standard applicable to fixed rate agreements.

11 Creditworthiness

| The Transmission Provider will specify its creditworthiness procedure in Tariff, Attachment Q.

12A PJM Compliance Review

The Office of the Interconnection determines whether an offer, bid, components of an offer or bid, or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection has the final authority to determine whether an offer, bid or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection may accept an offer, bid or decision not to offer a committed resource regardless of whether the Market Monitoring Unit has made a finding that such conduct raises market power concerns, unless the Commission issues an order determining that the offer or bid must be rejected prior to the clearing of the relevant RPM Auction.

The Office of the Interconnection does not make determinations about market power, including, but not limited to, whether the level or value of inputs or a decision not to offer a committed resource involves the potential exercise of market power. Acceptance or rejection of an offer or bid by the Office of the Interconnection does not include an evaluation of whether such offer or bid represents a potential exercise of market power.

A market participant may submit any offer or bid that it chooses or make a decision not to offer a committed resource, provided that the Office of the Interconnection determines that: (i) the market participant has participated in the review process conducted by the Market Monitoring Unit (without regard to whether an agreement is obtained) if required by the Tariff; (ii) offer is no higher, in the case of seller market power, or lower, in the case of buyer side market power, than the level to which the market participant has committed or agreed in the course of its participation in such review process; and (iii) the offer is compliant with the Tariff and PJM Manuals. The market participant assumes exclusive responsibility for any adverse findings at the Commission related to its offer.

The Office of the Interconnection has the exclusive authority to administer the Tariff. The Office of the Interconnection has the exclusive authority to implement the PJM Market Rules, except with respect to Tariff, Attachment M and ~~the Tariff~~, Attachment M-Appendix and related provisions in the PJM Manuals. The Market Monitoring Unit has the exclusive authority to perform the functions set forth in Tariff, Attachment M and ~~the Tariff~~, Attachment M-Appendix. The Office of the Interconnection shall oversee compliance with PJM Market Rules and may take action on compliance issues and/or request that the Market Monitoring Unit take action on compliance issues.

When the Tariff requires the Office of the Interconnection to provide written notice to or communication with a Market Participant, such notice or communication shall include, but not be limited to, a letter, email or posting to a Market Participant's account in the internet-based application designated by the Office of the Interconnection.

SCHEDULE 1
Scheduling, System Control and Dispatch Service

This service is required to schedule the movement of power through, out of, within, or into a Control Area. This service can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located. Scheduling, System Control and Dispatch Service is to be provided directly by the Transmission Provider. The Transmission Customer must purchase this service from the Transmission Provider. The charges for Scheduling, System Control and Dispatch Service from PJM Interconnection, L.L.C. are set forth on an unbundled basis among the subsidiary schedules of Tariff, Schedule 9; “PJM Interconnection, L.L.C. Administrative Services,” ~~of this Tariff~~.

SCHEDULE 2

Reactive Supply and Voltage Control from Generation or Other Sources Service

In order to maintain transmission voltages on the Transmission Provider's transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the control area operator are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service must be provided for each transaction on the Transmission Provider's transmission facilities. The amount of Reactive Supply and Voltage Control from Generation or Other Sources Service that must be supplied with respect to the Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by the Transmission Provider.

Reactive Supply and Voltage Control from Generation or Other Sources Service is to be provided directly by the Transmission Provider. The Transmission Customer must purchase this service from the Transmission Provider.

In addition to the charges and payments set forth in this Tariff, Schedule 2, Market Sellers providing reactive services at the direction of the Office of the Interconnection shall be credited for such services, and Market Participants shall be charged for such services, as set forth in Tariff, Attachment K-Appendix, section 3.2.3B ~~of the Appendix to Attachment K~~.

The Transmission Provider shall administer the purchases and sales of Reactive Supply. PJM Settlement shall be the Counterparty to (a) the purchases of Reactive Supply from owners of Generation or Other Sources and Market Sellers and (b) the sales of Reactive Supply to Transmission Customers and Market Participants.

Charges

Purchasers of Reactive Supply and Voltage Control from Generation or Other Sources Service shall be charged for such service in accordance with the following formulae.

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Non-Zone Load = Allocation Factor * Total Generation Owner or other source owner Monthly Revenue Requirement

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Zone Load = Allocation Factor * Zonal Generation Owner or other source owner Monthly Revenue Requirement * Adjustment Factor

Where:

Purchaser serving Non-Zone Load is a Network Customer serving Non-Zone Network Load or serving Network Load in a zone with no revenue requirement for Reactive Supply and Voltage Control from Generation or Other Sources Service, or a Transmission Customer where the Point of Delivery is at the boundary of the PJM Region.

Zonal Generation Owner or other source owner Monthly Revenue Requirement is the sum of the monthly revenue requirements for each generator or other source located in a Zone, as such revenue requirements have been accepted or approved, upon application, by the Commission.

Total Generation Owner or other source owner Monthly Revenue Requirement is the sum of the Zonal Generation or other source owner Monthly Revenue Requirements for all Zones in the PJM Region.

Allocation Factor is the monthly transmission use of each Network Customer or Transmission Customer per Zone or Non-Zone, as applicable, on a megawatt basis divided by the total transmission use in the Zone or in the PJM Region, as applicable, on a megawatt basis.

For Network Customers, monthly transmission use on a megawatt basis is the sum of a Network Customer's daily values of DCPZ or DCPNZ (as those terms are defined in [Tariff, Part III, sSection 34.1](#)) as applicable, for all days of the month.

For Transmission Customers, monthly transmission use on a megawatt basis is the sum of the Transmission Customer's hourly amounts of Reserved Capacity for each day of the month (not curtailed by PJM) divided by the number of hours in the day.

Adjustment Factor is determined as the sum of the total monthly transmission use in the PJM Region, exclusive of such use by Transmission Customers serving Non-Zone Load, divided by the total monthly transmission use in the PJM Region on a megawatt basis.

In the event that a single customer is serving load in more than one Zone, or serving Non-Zone Load as well as load in one or more Zones, or is both a Network Customer and a Transmission Customer, the Monthly Charge for such a customer shall be the sum of the Monthly Charges determined by applying the appropriate formulae set forth in this Schedule 2 for each category of service.

Payment to Generation or Other Source Owners

Each month, the Transmission Provider shall pay each Generation Owner or other source owner an amount equal to the Generation Owner's or other source owner's monthly revenue requirement as accepted or approved by the Commission. In the event a Generation Owner or

other source owner sells a generator or other source which is included in its current effective monthly revenue requirement accepted or approved by the Commission, payments in that Generation Owner's or other source owner's Zone may be allocated as agreed to by the owners of the generator or other source in that Zone. Such Generation Owner or other source owners shall inform the Transmission Provider of any such agreement and submit either a filing to revise its cost-based rate or an informational filing in accordance with the requirements below in this Schedule 2. In the absence of agreement among such Generation Owners or other source owners, the Commission, upon application, shall establish the allocation. Generation Owners shall not be eligible for payment, pursuant to this Schedule 2, of monthly revenue requirement associated with those portions of generating units designated as Behind The Meter Generation. The Transmission Provider shall post on its website a list for each Zone of the annual revenue requirements for each Generation Owner receiving payment within such Zone and specify the total annual revenue requirement for all of the Transmission provider.

At least 90 days prior to the Deactivation Date or disposition date of a generator or other source receiving payment in accordance with a Commission accepted or approved revenue requirement for providing reactive supply and voltage control service under this Schedule 2 ~~of the Tariff~~, the Generation Owner or other source owner must either:

(1) submit to the Commission the appropriate filings to terminate or revise its cost-based revenue requirement for supplying reactive supply and voltage control service under this Schedule 2 to account for the deactivated or transferred generator or other source; or

(2) provide to the Transmission Provider and file with the Commission an informational filing that includes the following information:

- (i) the acquisition date, Deactivation Date, and transfer date of the generator or other source;
- (ii) an explanation of the basis for the decision by the Generation Owner or other source owner not to terminate or revise the cost-based rate approved or accepted by the Commission associated with the planned generator or other source deactivation or disposition;
- (iii) a list of all of the generators or other sources covered by the Generation Owner's or other source owner's cost-based tariff from the date the revenue requirement was first established until the date of the informational filing;
- (iv) the type (i.e., fuel type and prime mover) of each generator or other source;
- (v) the actual (site-rated) megavolt-ampere reactive ("MVAR") capability, megavolt-ampere ("MVA") capability, and megawatt capability of each generator or other source, as supported by test data; and
- (vi) the nameplate MVAR rating, nameplate MVA rating, nameplate megawatt rating, and nameplate power factor for each generator or other source.

The Generation Owner or other source owner must submit the informational filing in the docket in which its cost-based revenue requirement was approved or accepted by the Commission or as otherwise directed by the Commission.

The requirement to submit the filings at least 90 days prior to the Deactivation Date or disposition date of a generator or other source shall not apply to generators or other source deactivations or transfers occurring between June 18, 2015, and September 16, 2015. For generator or other source deactivations or transfers occurring between June 18, 2015, and September 16, 2015, the Generation Owner or other source owner shall submit the informational filing or filings to terminate or revise its cost-based revenue requirement by September 16, 2015.

SCHEDULE 3

Regulation and Frequency Response Service

Regulation and Frequency Response Service is necessary to provide for the continuous balancing of resources with load and for maintaining scheduled Interconnection frequency at sixty cycles per second (60 Hz). Regulation and Frequency Response Service is accomplished by committing on-line resources whose output is raised or lowered (predominantly through the use of automatic generating control equipment) and by other non-generation resources capable of providing this service as necessary to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with the Transmission Provider. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from the Transmission Provider or make alternative comparable arrangements to satisfy its Regulation and Frequency Response Service obligation. The Transmission Provider will take into account the speed and accuracy of Regulation resources in its determination of Regulation and Frequency Response reserve requirements, including as it reviews whether a self-supplying Transmission Customer has made alternative comparable arrangements. Upon request by the self-supplying Transmission Customer, the Transmission Provider will share with the Transmission Customer its reasoning and any related data used to make the determination of whether the Transmission Customer has made alternative comparable arrangements. The amount of and charges for Regulation and Frequency Response Service are set forth below. The Transmission Provider shall administer the purchases of Regulation Service in the PJM Interchange Energy Market. PJMSettlement shall be the Counterparty to the purchases by customers of Regulation Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply of resources by a customer to satisfy its Regulation obligation.

For Regulation not satisfied by individual Transmission Owners on behalf of their Native Load Customers, Network Customers or other Transmission Customers serving load in the PJM Region, the Transmission Provider will order the lowest cost alternative for Regulation in service as needed to meet the Regulation requirements of each Regulation Zone (as may be set forth in the PJM Manuals and as specified below:

- a. Regulation shall be supplied to meet the Regulation objective of a Regulation Zone from resources located within the metered electrical boundaries of such Regulation Zone. Resources offering Regulation shall comply with applicable standards and requirements for Regulation capability and dispatch specified in the PJM Manuals.
- b. The Office of the Interconnection shall obtain and maintain an amount of Regulation for each Regulation Zone equal to the Regulation objective for such Regulation Zone, as specified in the PJM Manuals.
- c. The Regulation range of a resource shall be at least twice the amount of Regulation assigned.

d. A resource capable of automatic energy dispatch that is also providing Regulation shall have its energy dispatch range reduced from the Regulation range by at least twice the amount of the Regulation provided with consideration of the Regulation limits of the resource, as specified in the PJM Manuals.

e. Qualified Regulation must satisfy the measurement and verification tests described in the PJM Manuals.

f. A Transmission Owner, Network Customer or other Transmission Customer may satisfy its Regulation obligation from its own resources capable of performing Regulation service, by contractual arrangements with others able to provide Regulation service on a comparable basis, or by purchases from the PJM Regulation market.

g. The Office of the Interconnection shall obtain Regulation service from the least-cost alternatives available from either pool-scheduled or self-scheduled resources as needed to meet Regulation Zone requirements not otherwise satisfied by a Transmission Owner, Network Customer or other Transmission Customer, in accordance with Tariff, Attachment K-Appendix, Section 1.11.4(b) ~~of Attachment K-Appendix.~~

h. The Office of the Interconnection shall dispatch resources for Regulation by sending Regulation signals and instructions to resources from which Regulation service has been offered, in accordance with the PJM Manuals. Those resources shall comply with Regulation dispatch signals and instructions transmitted by the Office of the Interconnection and, in the event of conflict, Regulation dispatch signals and instructions shall take precedence over energy dispatch signals and instructions. Those providing Regulation shall exert all reasonable efforts to operate, or ensure the operation of, their resources supplying load in the PJM Region as close to desired output levels as practical, consistent with Good Utility Practice.

i. Each Transmission Owner (on behalf of its Native Load Customers), Network Customer or other Transmission Customer serving load within a Regulation Zone shall have an hourly Regulation objective equal to its pro rata share of the Regulation requirements of such Regulation Zone for such hour, based on the entity's total load (net of operating Behind The Meter Generation, but not to be less than zero) in such Regulation Zone for such hour.

j. An entity supplying Regulation at the direction of the Office of the Interconnection in excess of its hourly Regulation obligation shall be credited for each increment of such Regulation at the price specified in Tariff, Attachment K-Appendix, Sections 3.2.2 and Tariff, Attachment K-Appendix, section 3.3.2 and the parallel provisions of Operating Agreement, Schedule 1, section 3.2.2 and Operating Agreement, Schedule 1, section 3.3.2 ~~of Attachment K-Appendix.~~ A Transmission Owner, Network Customer or other Transmission Customer that does not meet its hourly Regulation obligation shall be charged for Regulation dispatched by the Office of the Interconnection to meet such obligation at the price specified in Tariff, Attachment K-Appendix, Sections 3.2.2 and Tariff, Attachment K-Appendix, section 3.3.2 and the parallel provisions of Operating Agreement, Schedule 1, section 3.2.2 and Operating Agreement, Schedule 1, section 3.3.2 ~~of Attachment K-Appendix.~~

SCHEDULE 4

Energy Imbalance Service

Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Control Area over a single hour. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner, Transmission Customer, and Network Customer must purchase Energy Imbalance Service through the Transmission Provider, with PJMSettlement acting as the Counterparty, or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service. For purposes of Energy Imbalance Services, if a Point of Delivery serves more than one Transmission Owner or Network Customer, the Energy Imbalance Service and any associated charges will be computed by the Transmission Provider for the Point of Delivery and the allocation of the service and associated charges shall be the responsibility of the meter operator of the Point of Delivery.

For each Transmission Owner, Transmission Customer receiving service under Tariff, Part II ~~of this Tariff~~, and Network Customer, Energy Imbalance Service is considered to be PJM interchange and will be charged at the Locational Marginal Price determined pursuant to Section 2 of the Appendix to Tariff, Attachment K-Appendix, section 2 ~~of this Tariff~~. The Transmission Provider shall administer the purchases by customers of Energy Imbalance Service. PJMSettlement shall be the Counterparty to the purchases by customers of Energy Imbalance Service.

SCHEDULE 5

Operating Reserve - Synchronized Reserve Service

Synchronized Reserve Service is needed to serve load immediately in the event of a system contingency. Synchronized Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output and by non-generation resources capable of providing this service or eligible Demand Resources as specified in Tariff, Attachment K-Appendix, Section 1.7.19A~~-of Attachment K-Appendix~~. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner and Network Customer must purchase this service from the Transmission Provider. The amount of and charges for Synchronized Reserve Service, as defined in accordance with NERC operating policies, will be accounted and paid for as set forth in Tariff, Attachment K-Appendix, Section 3.2.3A~~-of the Appendix to Attachment K~~. The Transmission Provider shall administer the purchases by customers of Synchronized Reserve Service. PJMSettlement shall be the Counterparty to the purchases by customers of Synchronized Reserve Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply of generation resources by a customer to satisfy its Synchronized Reserve obligation.

SCHEDULE 6

Operating Reserve - Supplemental Reserve Service

Supplemental Reserve Service is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation or by interruptible load or other non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner and Network Customer must purchase this service from the Transmission Provider. The amount of and charges for Supplemental Reserve Service will be accounted and paid for as part of the Operating Reserves in accordance with Tariff, Attachment K-Appendix, sections 3.2.3 and Tariff, Attachment K-Appendix, section 3.2.3A.01 ~~of the Appendix to Attachment K~~. The Transmission Provider shall administer the purchases by customers of Supplemental Reserve Service in the PJM Interchange Energy Market. PJMSettlement shall be the Counterparty to the purchases by customers of Supplemental Reserve Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply relating to Supplemental Reserve.

SCHEDULE 6A

Black Start Service

References to section numbers in this Schedule 6A refer to sections of this Schedule 6A, unless otherwise specified.

To ensure the reliable restoration following a shut down of the PJM transmission system, Black Start Service is necessary to facilitate the goal of complete system restoration. Black Start Service enables the Transmission Provider to designate specific generators called Black Start Units whose location and capabilities are required to re-energize the transmission system following a system-wide blackout. The Transmission Provider shall administer the provision of Black Start Service. PJMSettlement shall be the Counterparty to the purchases and sales of Black Start Service.

TRANSMISSION CUSTOMERS

1. All Transmission Customers and Network Customers must obtain Black Start Service through the Transmission Provider, with PJMSettlement as the Counterparty, pursuant to this Schedule 6A.

PROVISION OF BLACK START SERVICE

2. A Black Start Unit is a generating unit that has equipment enabling it to start without an outside electrical supply or a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the demonstrated ability to automatically remain operating, at reduced levels, when disconnected from the grid. A Black Start Unit shall be considered capable of providing Black Start Service only when it meets the criteria set forth in the PJM manuals. For the purposes of this Schedule 6A, the expected life of the Black Start Unit shall take into consideration expectations regarding both the enabling equipment and the generation unit itself.

3. A Black Start Plant is a generating plant that includes one or more Black Start Units. A generating plant with Black Start Units electrically separated at different voltage levels will be considered multiple Black Start Plants.

4. The Transmission Provider is responsible for developing a coordinated and efficient system restoration plan that identifies all of the locations where Black Start Units are needed. The PJM Manuals shall set forth the criteria and process for selecting or identifying the Black Start Units necessary to commit to providing Black Start Service at the identified locations. No Black Start Unit shall be eligible to recover the costs of providing Black Start Service in the PJM Region unless it agrees to provide such service for a term of commitment established under section 5, 6, or 6A below.

5. Owners of Black Start Units selected to provide Black Start Service in accordance with section 4 [of this Schedule 6A](#) and electing to forego any recovery of new or additional Black Start Capital Costs shall commit to provide Black Start Service from such Black Start Units for an initial term of no less than two years and authorize the Transmission Provider to resell Black

Start Service from its Black Start Units. The term commitment shall continue to extend until the Black Start Unit owner or the Transmission Provider provides written, one-year advance notice of its intention to terminate the commitment or the commitment is involuntarily terminated pursuant to ~~s~~Section 15 of this Schedule 6A.

6. Owners of Black Start Units selected to provide Black Start Service in accordance with section 4 of this Schedule 6A and electing to recover new or additional Black Start Capital Costs shall commit to provide Black Start Service from such Black Start Units for a term based upon the age of the Black Start Unit or the longest expected life of the Incremental Black Start Capital Cost, as set forth in the applicable CRF Tables in ~~Paragraph-section~~ 18 of this Schedule 6A. For those Black Start Units that elect to recover new or additional Black Start Capital Costs in addition to a prior, FERC-approved cost recovery rate, the applicable commitment period shall be the longer of the FERC-approved recovery period or the applicable term of commitment as set forth in the CRF Tables in ~~Paragraph-section~~ 18 of this Schedule 6A. The Transmission Provider may terminate the commitment with one year advance notice of its intention to the Black Start Unit owner, but the Black Start Unit owner shall be eligible to recover any amount of unrecovered Fixed Black Start Service Costs over a period not to exceed five years. A Black Start Unit owner may terminate the provision of Black Start Service with one year advance notice and consent of the Transmission Provider (or its commitment period may be involuntarily terminated pursuant to the section 15 below). Such Black Start Unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of section 17(i) of this Schedule 6A) in excess of the amount that would have been recovered pursuant to section 18 of this Schedule 6A during the same period. At the conclusion of the term of commitment established under this section 6 of this Schedule 6A, a Black Start Unit shall commence a new term of commitment under either section 5 or 6 of this Schedule 6A, as applicable.

6A. Black Start Units which are owned or contracted for by a Transmission Owner to provide Black Start Service as a result of the black start reliability backstop process defined in the PJM Manuals, shall be subject to cost recovery through such Transmission Owner's annual revenue requirement under such Transmission Owner's Tariff, Attachment H ~~of the Tariff~~, as filed with, and accepted by, FERC under Section 205 of the Federal Power Act and in accordance with Tariff, Part I, s~~Section 9 of the Tariff~~, or through such other cost recovery mechanism, provided that such cost recovery mechanism is filed with and accepted by FERC. The relevant Transmission Owner shall commit to provide, or effectuate the provision of, Black Start Service from such a Black Start Unit for the FERC-approved cost recovery period. The Transmission Provider may terminate the commitment with one year advance notice of its intention to the Transmission Owner. Provision of Black Start Service from a Black Start Unit obtained through the black start reliability backstop process defined in the PJM Manuals shall be subject to ~~s~~Sections 7 through 13 of this Schedule 6A. The Revenue Requirements, Credits, and Charges provisions contained in sections 16 through 27 of this Schedule 6A, shall not apply to Black Start Units obtained as a result of the black start reliability backstop process defined in the PJM Manuals.

6B. In the event that a Black Start Unit fails to fulfill its commitment established under section 5 to provide Black Start Service, receipt of any Black Start Service revenues associated with the non-performing Black Start Unit shall cease and, for the period of the unit's non-performance, the Black Start Unit owner shall forfeit the Black Start Service revenues associated with the non-performing Black Start Unit that it received or would have received had the Black Start Unit performed, not to exceed revenues for a maximum of one year.

In the event that a Black Start Unit fails to fulfill its commitment established under section 6 above, such unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of section 17(i) of this Schedule 6A) in excess of the amount that would have been recovered pursuant to section 18 of this Schedule 6A during the same period, but such unit remains eligible to establish a new commitment under section 5 or 6 of this Schedule 6A.

Performance Standards and Outage Restrictions

7. In addition to the performance capabilities set forth in the PJM Manuals, Black Start Units must have the capabilities listed below. These capabilities must be demonstrated in accordance with the criteria set forth in the PJM manuals and will remain in effect for the duration of the commitment to provide Black Start Service.

- a. A Black Start Unit must be able to close its output circuit breaker to a dead (de-energized) bus within the time specified in the PJM Manuals.
- b. A Black Start Unit must be capable of maintaining frequency and voltage under varying load.
- c. A Black Start Unit must be able to maintain rated output for a period of time identified by each Transmission Owner's system restoration requirements, in conjunction with the Transmission Provider.

8. Each owner of Black Start Units or Black Start Plants must maintain procedures for the start-up of the Black Start Units.

9. If a Black Start Unit is a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, this ability must be demonstrated in accordance with the criteria set forth in the PJM manuals.

10. No more than one Black Start Unit at a Black Start Plant may be subject to planned maintenance at any one time. This restriction excludes outages on common plant equipment that may make all units unavailable. A Black Start Unit not currently designated as critical and on the same voltage level may be substituted for a Black Start Unit that is subject to a planned outage to permit a concurrent planned outage of another critical Black Start Unit at the Black

Start Plant to begin. The Black Start Unit used as a substitute must have had a valid annual test within the previous 12 months.

11. Concurrent planned outages at multiple Black Start Plants within a zone may be restricted based on Transmission Owner requirements for Black Start Service availability. Such restrictions must be predefined and approved by Transmission Provider in accordance with the PJM manuals.

Testing

12. To verify that they can be started and operated without being connected to the Transmission System, Black Start Units designated as critical shall be tested annually in accordance with the PJM manuals. The Black Start Unit owner shall determine the time of the annual test.

13. Compensation for energy output delivered to the Transmission System during the annual test shall be provided for the Black Start Unit's minimum run time at the higher of the unit's cost-capped offer or real-time Locational Marginal Price plus start-up and no-load costs for up to two start attempts, if necessary. For Black Start Units that are generating units with a high operating factor (subject to Transmission Provider's concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, an opportunity cost will be provided to compensate the unit for lost revenues during testing.

14. To receive Black Start Service revenues, a Black Start Unit must have a successful annual test on record with the Transmission Provider within the preceding 13 months.

15. If a Black Start Unit fails the annual test, the unit may be re-tested within a ten-day period without financial penalty. If the Black Start Unit does not successfully re-test within that ten-day period, monthly Black Start Service revenues will be forfeited by that unit from the time of the first unsuccessful test until such time as the unit passes an annual test. If the Black Start Unit owner determines not to make the necessary repairs to enable the Black Start Unit to pass the annual test, the Black Start Unit owner will have failed to fulfill its commitment pursuant to section 5 or section 6 [above](#), whichever is applicable, of this Schedule 6A and will be subject to the additional forfeiture of revenues set forth in section 6B [of this Schedule 6A](#).

Revenue Requirements

16. A Black Start Unit Owner's annual Black Start Service revenue requirement shall be the sum of the annual Black Start Service revenue requirements for each generator that is designated as providing Black Start Service and has provided the Transmission Provider with a calculation of its annual Black Start Service revenue requirements. A separate line item shall appear on the participants' Transmission Provider bill for Black Start Service charges and credits.

17. Black Start Service revenue requirements for each Black Start Unit shall be based, at the election of the owner, on either (i) a FERC-approved rate for the recovery of the cost of providing such service for the entire duration of the commitment term set forth in either section 5

or 6 of this Schedule 6A, as applicable, or (ii) the formula rates set forth in section 18 of this Schedule 6A for the commitment term set forth in ~~Paragraph section~~ 5 or 6 of this Schedule 6A as applicable. Each generator's Black Start Service revenue requirements shall be an annual calculation.

17A. Annual Review for all Black Start Units

Requests for Black Start Service revenue requirements and for changes to the Black Start Service revenue requirements must be submitted to the Market Monitoring Unit for review and analysis, with supporting data and documentation, pursuant to ~~Tariff, section III of~~ Attachment M--Appendix, section III and the PJM Manuals, with a copy to the Office of the Interconnection, by no later than May 3 of each year. The Market Monitoring Unit and the Black Start Unit owner shall attempt to come to agreement on the level of each component included in the Black Start Service revenue requirements by no later than May 14 of each year. By no later than May 21 of each year, the Black Start Unit owner shall notify the Office of the Interconnection and the Market Monitoring Unit in writing whether it agrees or disagrees with the Market Monitoring Unit's determination of the level of each component included in the Black Start Service revenue requirements. The Black Start Unit owner may also submit Black Start Service revenue requirements that it chooses to the Office of the Interconnection by no later than May 21 of each year, provided that (i) it has participated in good faith with the process described in this section and in ~~Tariff, section III of~~ Attachment M--Appendix, section III (ii) the Black Start Service revenue requirements are no higher than the level defined in any agreement reached by the Black Start Unit owner and the Market Monitoring Unit that resulted from the foregoing process, and (iii) the Black Start Service revenue requirements are accepted by the Office of the Interconnection subject to the criteria set forth in the Tariff and PJM Manuals.

The Office of the Interconnection shall determine whether to accept the values submitted by the Black Start Unit owner subject to the requirements of the Tariff and the PJM Manuals by no later than May 27. If the Office of the Interconnection does not accept the values submitted by the Black Start Unit owner in such case, the Black Start Unit owner may file its proposed values with the Commission for approval. Pursuant to ~~section III of Tariff,~~ Attachment M--Appendix, section III, if the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner in such case, the Market Monitoring Unit may petition the Commission for an order that would require the Black Start Unit owner to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission. The annual calculation of Black Start Service revenue requirements shall become effective on June 1 of each year, except that no change to a Black Start Service revenue requirement shall become effective until the existing revenue requirement has been effective for at least twelve months. Notwithstanding the foregoing, the deadlines set forth in this section 17 shall not apply to a Black Start Unit owner's election to select a new method of recovery for its Fixed BSSC.

17B. Initial Review for New Black Start Units

Requests for new Black Start Service revenue requirements must be submitted to the Market Monitoring Unit for review and analysis, with supporting data and documentation, pursuant to ~~section III of Tariff,~~ Attachment M--Appendix, section III and the PJM Manuals, with a copy to

the Office of the Interconnection, by no later than 90 days after entering Black Start Service. The Market Monitoring Unit and the Black Start Unit owner shall attempt to come to agreement on the level of each component included in the Black Start Service revenue requirements by no later than 90 days after the Black Start Unit owner's submittal of final black start capital costs (if applicable), variable black start costs, and fuel storage cost documentation. By no later than 90 days of the Black Start Unit owner's submittal of final black start cost documentation, the Market Monitoring Unit shall calculate the new Black Start Unit's annual revenue requirement and submit it to the Office of the Interconnection and the Black Start Unit owner. If more than three Black Start Unit owners submit documentation within a 90-day period, the Market Monitoring Unit shall complete the review of the first three submittals within 90 days and the next set of three within the following three months and so on until all are complete. The Black Start Unit owner shall notify the Office of the Interconnection and the Market Monitoring Unit in writing if it disagrees with the Market Monitoring Unit's determination of the level of any component included in the Black Start Service revenue requirements within 7 days after the Market Monitoring Unit's submittal of the annual revenue requirement to the Office of the Interconnection. The Black Start Unit owner shall also submit Black Start Service revenue requirements that it proposes to the Office of the Interconnection provided that (i) it has participated in good faith with the process described in this section and in ~~section III of Tariff, Attachment M--Appendix, section III~~; (ii) the Black Start Service revenue requirements are no higher than the level defined in any agreement reached by the Black Start Unit owner and the Market Monitoring Unit that resulted from the foregoing process; and (iii) the Black Start Service revenue requirements are accepted by the Office of the Interconnection subject to the criteria set forth in the Tariff and PJM Manuals.

The Office of the Interconnection shall determine whether to accept the values submitted by the Black Start Unit owner subject to the requirements of the Tariff and the PJM Manuals by no later than 30 days after its receipt of the Black Start Unit owner's written notice of a disagreement. If the Office of the Interconnection does not accept the values submitted by the Black Start Unit owner in such case, the Black Start Unit owner may file its proposed values with the Commission for approval. Pursuant to ~~section III of Tariff, Attachment M--Appendix, section III~~, if the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner in such case, the Market Monitoring Unit may petition the Commission for an order that would require the Black Start Unit owner to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission. The annual calculation of Black Start Service revenue requirements shall become effective the day the unit enters Black Start Service.

18. The formula for calculating a generator's annual Black Start Service revenue requirement is:

$$\{(\text{Fixed BSSC}) + (\text{Variable BSSC}) + (\text{Training Costs}) + (\text{Fuel Storage Costs})\} * (1 + Z)$$

For units that have the demonstrated ability to operate at reduced levels when automatically disconnected from the grid, the formula is revised to:

$$(\text{Training Costs}) * (1 + Z)$$

Where:

Fixed BSSC

Black Start Units with a commitment established under [Paragraph-section 5 of this Schedule 6A](#) shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with the following Base Formula Rate:

Base Formula Rate:

$$\text{Net CONE} * \text{Black Start Unit Capacity} * X$$

Where:

“Net CONE” is the then current installed capacity (“ICAP”) net Cost of New Entry (expressed in \$/MW year) for the CONE Area where the Black Start Unit is located.

“Black Start Unit Capacity” is either: (i) the Black Start Unit’s installed capacity, expressed in MW, for those Black Start Units that are Generation Capacity Resources; or (ii) the awarded MWs in the Transmission Provider’s request for proposal process under the PJM Manuals, for those Black Start Units that are Energy Resources.

“X” is the Black Start Service allocation factor unless a higher or lower value is supported by the documentation of the actual costs of providing Black Start Service. For such units qualifying as Black Start Units on the basis of demonstrated ability to operate at reduced levels when automatically disconnected from the grid, X shall be zero. For Black Start Units with a commitment established under section 5 [of this Schedule 6A](#), X shall be .01 for Hydro units, .02 for CT units.

Black Start Units with a commitment established under [Paragraph-section 6](#) above shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with one of the following formulas, as applicable:

Capital Cost Recovery Rate – NERC-CIP Specific Recovery

$$(\text{Net Cone} * \text{Black Start NERC-CIP Unit Capacity} * X) + (\text{Incremental Black Start NERC-CIP Capital Costs} * \text{CRF})$$

Where:

“Net Cone” is the then current installed capacity (“ICAP”) net Cost of New Entry (expressed in \$/MW year) for the CONE area where the Black Start Unit is located.

“Black Start NERC-CIP Unit Capacity” is the Black Start Unit’s installed capacity, expressed in MW, but, for purposes of this calculation, capped at 100 MW for Hydro units, or 50 MW for CT units.

“Incremental Black Start NERC-CIP Capital Cost” are those capital costs documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a Black Start Unit to maintain compliance with mandatory Critical Infrastructure Protection Reliability Standards (as approved by the Commission and administered by the applicable Electric Reliability Organization).

“CRF” or “Capital Recovery Factor” is equal to the levelized CRF as set forth in the applicable CRF Table set forth below.

A Black Start Unit may elect to terminate forward cost recovery under this Capital Cost Recovery Rate – NERC-CIP Specific Recovery at any time and seek cost recovery under the Capital Cost Recovery Rate, pursuant to the terms and conditions set forth below.

Capital Cost Recovery Rate

$(\text{FERC-approved rate}) + (\text{Incremental Black Start Capital Costs} * \text{CRF})$

Where:

“FERC-approved rate” is the Black Start Unit’s current FERC-approved recovery of costs to provide Black Start Service, if applicable. To the extent that a Black Start Unit owner is currently recovering black start costs pursuant to a FERC-approved rate, that cost recovery will be included as a formulaic component for calculating the Black Start Unit’s annual revenue requirement pursuant to this [paragraph-section 18](#). However, under no circumstances will PJM or the Black Start Unit owner restructure or modify that existing FERC-approved rate without FERC approval.

“Incremental Black Start Capital Costs” are the new or additional capital costs documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a unit to provide Black Start Service in addition to whatever other product or services such unit may provide. Such costs shall include those incurred by a Black Start Unit owner in order to meet NERC Reliability Standards that apply to Black Start Units solely on the basis of the provision of Black Start Service by such unit. However, Incremental Black Start Capital Costs shall not include any capital costs that the Black Start Unit owner is recovering for that unit pursuant to a FERC-approved recovery rate.

“CRF” or “Capital Recovery Factor “ is equal to the Levelized CRF based on the age of the Black Start Unit, which is modified to provide Black Start Service, as present in the CRF Table below:

Age of Black Start Unit	Term of Black Start Commitment	Levelized CRF
1 to 5	20	0.125
6 to 10	15	0.146
11 to 15	10	0.198
16+	5	0.363

Or:

Optionally, a Black Start Unit owner may elect to apply an alternative Capital Recovery Factor, in lieu of the age-based CRF Table listed above, which is based upon to the expected Capital Improvement Lifespan of the new or additional capital improvements (as determined by the applicable depreciation period of the capital improvement, as published from time to time by the US Internal Revenue Service). The Applicable Recovery Period and the term of Black Start Service Commitment shall be the same and determined by the expected Capital Improvement Lifespan. In the event that the Black Start Unit seeks recovery of capital improvements that are included in more than one category of Capital Improvement Lifespan (as set forth below), its Applicable Recovery Period and term of commitment to provide black start service for such Black Start Unit shall be the longest expected life of those new or additional capital improvements.

Capital Improvement Lifespan (years)	Applicable Recovery Period/Term of Commitment (years)	Levelized CRF
16-20	20	0.125
11-15	15	0.146
6-10	10	0.198
1-5	5	0.363

In those circumstances where a Black Start Unit owner has elected to recover Incremental Black Start Capital Costs, in addition to a FERC-approved recovery rate, its applicable term of commitment shall be the greater of: (i) the FERC-approved recovery period, or; (ii) the applicable term of commitment as established by the CRF Tables above.

After a Black Start Unit has recovered its allowable Incremental Black Start Capital Costs or Incremental Black Start NERC-CIP Capital Costs, as provided by the applicable Capital Cost Recovery Rate, and has satisfied its applicable commitment period required under [Paragraph-section 6 of this Schedule 6A](#), the Black Start Unit shall be committed to providing black start in accordance with [Paragraph-section 5](#) of this Schedule 6A and calculate its Fixed BSSC in accordance with the Base Formula Rate.

Variable BSSC

All Black Start Units shall calculate Variable BSSC or “Variable Black Start Service Costs” in accordance with the following formula:

$$\text{Black Start Unit O\&M} * Y$$

Where:

“Black Start Unit O&M” are the operations and maintenance costs attributable to supporting Black Start Service and must equal the annual variable O&M outlined in the PJM Cost Development Guidelines set forth in the PJM Manuals. Such costs shall include those incurred by a Black Start Owner in order to meet NERC Reliability Standards that apply to the Black Start Unit solely on the basis of the provision of Black Start Service by unit.

“Y” is 0.01, unless a higher or lower value is supported by the documentation of costs. If a value of Y is submitted for this cost, a (1-Y) factor must be applied to the Black Start Unit’s O&M costs on the unit’s cost-based energy schedule, calculated based on the Cost Development Guidelines in the PJM Manuals.

For units qualifying as Black Start Units on the basis of a demonstrated ability to operate at reduced levels when automatically disconnected from the grid, there are no variable costs associated with providing Black Start Service and the value for Variable BSSC shall be zero.

Black Start Units with the demonstrated ability to automatically remain operating, at reduced levels, when disconnected from the grid may receive NERC compliance costs associated with providing Black Start Service in addition to the formula above, if approved in accordance with the procedures in [Paragraph-section 17 of this Schedule 6A](#).

Training Costs:

All Black Start Units shall calculate Training Costs in accordance with the following formula:

$$50 \text{ staff hours/year/plant} * 75/\text{hour}$$

Fuel Storage Costs:

Black Start Units that store liquefied natural gas, propane, or oil on site shall calculate Fuel Storage Costs in accordance with the following formula:

$$\{ \text{MTSL} + [(\# \text{ Run Hours}) * (\text{Fuel Burn Rate})] \} * (\text{12 Month Forward Strip} + \text{Basis}) * (\text{Bond Rate})$$

Where:

Run Hours are the actual number of hours a Transmission Provider requires a Black Start Unit to run. Run Hours shall be at least 16 hours or as defined by the Transmission Owner restoration plan, whichever is less.

“Fuel Burn Rate” is actual fuel burn rate for the Black Start Unit.

“12-Month Forward Strip” is the average of forward prices for the fuel burned in the Black Start Unit traded the first Business Day on or following May 1.

“Basis” is the transportation costs from the location referenced in the forward price data to the Black Start Unit plus any variable taxes.

“Bond rate” is the value determined with reference to the Moody's Utility Index for bonds rated Baa1 reported the first Business Day on or following May 1.

“MTSL” is the “minimum tank suction level” and shall apply where no direct current pumps are available for the Black Start Unit. In the case where more than one Black Start Unit shares a common fuel tank, only one Black Start Unit will be eligible for the recovery of this volume in its fuel storage cost calculation. The MTSL for the other Black Start Unit(s) sharing the common fuel tank shall be zero.

For units qualifying as Black Start Units on the basis of a demonstrated ability to operate at reduced levels when automatically disconnected from the grid, there are no associated fuel storage costs and the value for FSC shall be zero.

Z

Z shall be an incentive factor solely for Black Start Units with a commitment established under section 5 above and shall be ten percent. For those Black Start Units that elect to recover new or additional Black Start Capital Costs under section 6 above, the incentive factor, Z, shall be equal to zero.

Every five years, PJM shall review the formula and its costs components set forth in this section [18](#), and report on the results of that review to stakeholders.

19. Transmission Provider or its agent shall have the right to independently audit the accounts and records of each Black Start Unit that is receiving payments for providing Black Start Service.

20. PJM shall notify its Members when a Black Start Unit seeks to recover new or additional Black Start NERC-CIP Capital Costs under ~~Paragraph section~~ 18 of this Schedule 6A no later than thirty (30) days prior to the effective date of the recovery. At the written request of a PJM Member, made simultaneously to the Market Monitoring Unit and PJM, with notice to the Black Start Unit owner, the Market Monitoring Unit shall make available to the affected PJM Member for inspection at the offices of the Market Monitoring Unit, all data supporting the requested new or additional NERC-CIP specific Capital Costs. The Black Start Unit owner may elect to attend this review. In all cases, the supporting data is to be held confidential and may not be distributed.

21. The Market Monitoring Unit shall include a Black Start Service summary in its annual State of the Market report which will set forth a descriptive summary of the new or additional Black Start NERC-CIP Capital Costs requested by Black Start Units, and include a list of the types of capital costs requested and the overall cost of such capital improvements on an aggregate basis such that no data is attributable to an individual Black Start Unit.

Credits

22. For existing Black Start Units, monthly credits are provided to Black Start Unit owners that submit to the Transmission Provider their annual revenue requirements established pursuant to section 17A of this Schedule 6A. The generator's monthly credit is equal to 1/12 of its annual Black Start Service revenue requirement for eligible critical Black Start Units. For new Black Start Unit owners, monthly credits will be held by the Office of the Interconnection in a non-interest bearing account until the Office of the Interconnection, or the Commission as applicable, accepts the owner's annual revenue requirement pursuant to section 17B of this Schedule 6A. New Black Start Unit owners will begin to receive monthly credits, including any monthly credits held by the Office of the Interconnection back to the date the unit enters Black Start Service and any required estimated annual revenue requirement true up after the Office of the Interconnection, or the Commission as applicable, accepts the new Black Start Unit owner's annual revenue requirement.

23. Revenue requirements for jointly owned Black Start Units will be allocated to the owners based on ownership percentage.

24. Transmission Provider shall not compensate generators for Black Start Service unless they meet the Transmission Provider criteria for Black Start Service and the criteria for Black Start Service in the Applicable Standards and provide Transmission Provider with all necessary data in accordance with this Schedule 6A and the PJM manuals.

Charges

25. Zonal rates will be based on Black Start Service capability or share of generation units designated by the Transmission Provider and allocated to network service customers and point-to-point reservations. Zonal rates will include estimated annual revenue requirements for new Black Start Units from the date the units enter Black Start Service to last day of the month

preceding the Office of the Interconnection's acceptance of the unit's annual revenue requirement. The estimated annual revenue requirement will be based on the Black Start Unit owner's best estimate at the time the unit enters Black Start Service. Any estimated annual revenue requirement true up will be included in the monthly bill after the Office of the Interconnection accepts the new Black Start unit's annual revenue requirement.

26. Revenue requirements for Black Start Units designated by the Transmission Provider as critical (regardless of zonal location) will be allocated to the receiving Transmission Owner's zone. Black Start Units that are shared and designated to serve multiple zones will have their annual revenues allocated by Transmission Owner designated critical load percentage.

27. Purchasers of Black Start Service shall be charged for such service in accordance with the following formulae.

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Non-Zone Load = Allocation Factor * Total Generation Owner Monthly Black Start Service Revenue Requirement

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Zone Load = Allocation Factor * Zonal Generation Owner Monthly Black Start Service Revenue Requirement * Adjustment Factor

Where:

Purchaser serving Non-Zone Load is a Network Customer serving Non-Zone Network Load or a Transmission Customer where the Point of Delivery is at the boundary of the PJM Region.

Zonal Generation Owner Monthly Black Start Service Revenue Requirement is the sum of the monthly share of Black Start Service revenue requirements for each generator nominated by the Transmission Owners in that zone.

Total Generation Owner Monthly Black Start Service Revenue Requirement is the sum of the Zonal Generation Owner Monthly Black Start Service Revenue Requirements for all Zones in the PJM Region.

Allocation Factor is the monthly transmission use of each Network Customer or Transmission Customer per Zone or Non-Zone, as applicable, on a megawatt basis divided by the total transmission use in the Zone or in the PJM Region, as applicable, on a megawatt basis.

For Network Customers, monthly transmission use on a megawatt basis is the sum of a Network Customer's daily values of DCPZ or DCPNZ (as those terms are defined in [Tariff, Part I, sSection 34.1](#)) as applicable, for all days of the month.

For Transmission Customers, monthly transmission use on a megawatt basis is the sum of the Transmission Customer's hourly amounts of Reserved Capacity for each day of the month (not curtailed by PJM) divided by the number of hours in the day.

Adjustment Factor is determined as the sum of the total monthly transmission use in the PJM Region on a megawatt basis, exclusive of such use by Network Customers and Transmission Customers serving Non-Zone Load, divided by the total monthly transmission use in the PJM Region on a megawatt basis.

In the event that a single customer is serving load in more than one Zone, or serving Non-Zone Load as well as load in one or more Zones, or is both a Network Customer and a Transmission Customer, the Monthly Charge for such a customer shall be the sum of the Monthly Charges determined by applying the appropriate formulae set forth in this Schedule 6A.

SCHEDULE 9
PJM Interconnection, L.L.C. Administrative Services

a) PJM Interconnection, L.L.C. is the Transmission Provider under this Tariff. It also operates the PJM Interchange Energy Market as described in ~~the Tariff, Appendix to~~ Attachment K-~~Appendix of this Tariff~~ and provides various other services to market participants. The cost of operating the PJM Interconnection, L.L.C., including principal and/or depreciation expense, interest expense and financing costs, shall be recovered from users of the various PJM services pursuant to the rates set forth in this Schedule 9 and its subsidiary Schedules which correspond to categories of services (“Service Categories”) provided by PJM. The charge in any month to any user of PJM’s services under this Schedule 9 is the sum of the charges under the following subsidiary Schedules of this Schedule 9 to the extent determined to be applicable by the Transmission Provider to such user in such month:

<u>Tariff</u> , Schedule 9-1:	“Control Area Administration Service”
<u>Tariff</u> , Schedule 9-2:	“Financial Transmission Rights Administration Service”
<u>Tariff</u> , Schedule 9-3:	“Market Support Service”
<u>Tariff</u> , Schedule 9-4:	“Regulation and Frequency Response Administration Service”
<u>Tariff</u> , Schedule 9-5:	“Capacity Resource and Obligation Management Service”

b) The rates, terms, conditions, and applicability of these subsidiary services of this Schedule 9 are set forth on the subsidiary Schedules of this Schedule 9. These rates and charges do not include the charges for PJMSettlement services to Transmission Customers and Market Participants. The charges for PJMSettlement services to Transmission Customers and Market Participants are set forth in Tariff, Schedule 9-PJMSettlement.

c) In addition to subsidiary ~~Tariff, S~~schedules 9-1through 9-5, this Schedule 9 also includes the following separate subsidiary schedules: (i) Tariff, Schedule 9-FERC, which is designed to recover Transmission Provider’s costs for the annual charges assessed on Transmission Provider by FERC; (ii) Tariff, Schedule 9-OPSI, which is designed to recover Transmission Provider’s payments to the Organization of PJM States, Inc.; (iii) Tariff, Schedule 9-CAPS, which is designed to recover Consumer Advocates of PJM States, Inc. costs; (iv) Tariff, Schedule 9-MMU which is designed to recover the cost of providing market monitoring functions to the PJM Region; (v) Tariff, Schedule 9-FINCON, which is designed to recover Transmission Provider’s costs of outside consultants engaged by the Finance Committee, and (vi) Tariff, Schedule 9-PJMSettlement, which is designed to recover PJMSettlement’s costs.

d) Revenues received under subsidiary Tariff, Schedules 9-1 through 9-5 shall be used in part to fund and maintain a reasonable reserve, and amounts received in excess of that necessary to recover costs and fund such reserve, shall be refunded to customers on a one-quarter lag basis, in accordance with the following:

(1) PJM shall record on its income statement deferred regulatory expense, and PJM’s balance sheet will reflect as a cumulative deferred regulatory liability, any revenues collected under subsidiary Tariff, Schedules 9-1 through 9-5 that are in excess of all expenses (exclusive

of expenses recovered under Tariff, Schedule 9-FERC, Tariff, Schedule 9-OPSI, Tariff, Schedule 9-CAPS, Tariff, Schedule 9-FINCON, Tariff, Schedule 9-MMU, Tariff, Schedule 9-PJM Settlement and other similar schedules that may be added to the ~~PJM~~-Tariff, and exclusive of expenses of PJM affiliates), and taking account of and including any accrued tax expense effects of this regulatory liability. The deferred regulatory liability will be reduced whenever after-tax PJM revenues collected under subsidiary Tariff, Schedules 9-1 through 9-5 during any calendar quarter are less than PJM's actual expenses, excluding the costs recovered under Tariff, Schedules 9-FERC, Tariff, Schedule 9-OPSI, Tariff, Schedule 9-CAPS, Tariff, Schedule 9-FINCON, Tariff, Schedule 9-MMU, Tariff, Schedule 9-PJM Settlement and other similar schedules that may be added to the ~~PJM~~-Tariff.

(2) At the end of each calendar quarter, to the extent that the deferred regulatory liability exceeds six percent of PJM's revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 during the current calendar year (exclusive of any credits to Tariff, Schedules 9-1 through 9-5 charges associated with a refund applied during the preceding calendar quarter(s)), such excess amounts in the deferred regulatory liability shall be refunded evenly over the applicable billing determinant volumes in the following calendar quarter through credits to charges to then-current Tariff, Schedules 9-1 through 9-5 customers in the following proportions:

Allocation of Refunds

<u>Schedule</u>	<u>Amount</u>
9-1	58.0%
9-2 (FTR Service Rate Component 1)	1.5%
9-2 (FTR Service Rate Component 2)	2.5%
9-3 (MS Service Rate Component 1)	31.4%
9-3 (MS Service Rate Component 2)	0.4%
9-4	2.0%
9-5	4.2%

The deferred regulatory liability shall be reduced by such refunds.

(3) Notwithstanding subsection (d)(2) above, PJM shall refund evenly over a three-month period commencing January 1, 2020 and every third year thereafter, the full cumulative regulatory liability as of December 31 of the previous calendar year, provided that refunds shall be limited to amounts that will not reduce any regulatory liability balance below an amount equal to two percent of the revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 during the same calendar year. Such amounts that are not refunded shall continue to be recorded as a regulatory liability. All such refunds under this paragraph shall be made through credits to the charges to then-current Tariff, Schedules 9-1 through 9-5 customers in the proportions set forth in ~~paragraph~~ subsection (e)(2) above.

(4) If at any time the cumulative deferred regulatory liability on PJM's year-end balance sheet is projected to be less than two percent of the revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 in the same calendar year, PJM will consult with the

Finance Committee, in a manner consistent with the Finance Committee Protocol, to develop plans to restore the reserve.

SCHEDULE 9-2
Financial Transmission Rights Administration Service

a) Financial Transmission Rights Administration Service comprises all of the activities of PJM associated with administering the Financial Transmission Rights (“FTRs”) provided for under Tariff, Attachment K ~~to this Tariff~~, including, but not limited to, coordination of FTR bilateral trading, administration of FTR auctions, support of PJM’s on-line, internet-based FTR reporting tool, and analyses to determine what total combination of FTRs can be outstanding and accommodated by the PJM system at a given time. PJM provides this service to entities that hold FTRs or that submit offers to sell or bids to buy FTRs.

b) PJM will charge each user of Financial Transmission Rights Administration Service each month a charge equal to: (i) the FTR Service Rate, Component 1, as stated below, times the FTR Holder’s total FTRs in megawatt-hours during such month; plus (ii) the FTR Service Rate, Component 2, as stated below, times the sum of (1) the number of hours in all bids to buy Financial Transmission Rights Obligations submitted by such user during such month, plus (2) five times the number of hours in all bids to buy Financial Transmission Rights Options submitted by such user during such month. Component 1 of this charge applies to all bids submitted into any round of the Long-term, Annual, or monthly FTR Auctions; Component 2 of this charge applies to all bids submitted into any round of the Annual FTR Auction and to all bids submitted into the applicable monthly FTR Auction.

c) The FTR Service Rate, Component 1 shall be as follows

Commencing January 1, 2017:	\$0.0028 per MWh
Commencing January 1, 2019:	\$0.0029 per MWh
Commencing January 1, 2020:	\$0.0029 per MWh
Commencing January 1, 2021:	\$0.0030 per MWh
Commencing January 1, 2022:	\$0.0031 per MWh
Commencing January 1, 2023:	\$0.0032 per MWh
Commencing January 1, 2024:	\$0.0032 per MWh

d) The FTR Service Rate, Component 2 shall be as follows:

Commencing January 1, 2017:	\$0.0019 per hour
Commencing January 1, 2019:	\$0.0019 per hour
Commencing January 1, 2020:	\$0.0020 per hour

Commencing January 1, 2021:	\$0.0020 per hour
Commencing January 1, 2022:	\$0.0021 per hour
Commencing January 1, 2023:	\$0.0021 per hour
Commencing January 1, 2024:	\$0.0022 per hour

SCHEDULE 9-3 Market Support Service

- a) Market Support Service comprises all of the activities of PJM associated with supporting the operation of the PJM Interchange Energy Market and related functions, as described in Operating Agreement, Schedule 1 ~~of the Operating Agreement and the Tariff, Attachment K-Appendix to Attachment K to this Tariff~~, including, but not limited to, market modeling and scheduling functions, locational marginal pricing support, and support of PJM's Internet-based customer transaction tools. PJM provides this service to customers using Point-to-Point or Network Integration Transmission Service under this Tariff, to Generation Providers, as defined below, and to entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market.
- b) PJM will charge each user of Market Support Service each month a charge equal to the sum of: (i) the MS Service Rate, Component 1, as stated below, times (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service, as defined below) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, as defined below, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted "Up-to" Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c) ~~of such Appendix~~, submitted by such user during such month; plus (ii) the MS Service Rate Component 2, as stated below, times the number of Bid/Offer Segments, as defined below, submitted by such user during such month. For purposes of this Schedule 9-3, Wheeling-Through Service is Point-to-Point Transmission Service for which both the Point of Receipt and the Point of Delivery are at interconnections of the PJM Region with other Control Areas.
- c) For purposes of this Schedule 9-3, a Generation Provider shall be: (i) a Generation Owner, as such term is defined in the Operating Agreement; provided, however, that if a Generation Owner is not the entity credited on PJM's records for the energy input into the Transmission System from the generation facilities owned or leased (with rights equivalent to ownership) by such Generation Owner, as, for example, in the case of a qualifying facility selling energy to a public utility pursuant to section 210 of the Public Utility Regulatory Policies Act of 1978, then, with respect to such energy, the Generation Provider shall be the entity credited on PJM's records for the energy input into the Transmission System from such generation facilities; (ii) a Network Customer or Point-to-Point Transmission Service customer, with respect to energy arranged by such customer to be delivered for import into the PJM Region; or (iii) a Market Seller with respect to energy arranged by such Market Seller to be delivered for import to the boundaries of the PJM Region and for which there is no separately identifiable Transmission Customer. As the term is used in this Schedule 9-3, energy "credited on PJM's records" does not necessarily mean that a monetary credit resulted on any billing statement provided by PJM.
- d) For purposes of this Schedule 9-3, a Bid/Offer Segment shall be each price/quantity pair submitted into the Day-ahead Energy Market, including those submitted in the generation

rebidding period pursuant to Tariff, Attachment K-Appendix, section 1.10.9(a) ~~of the Appendix to Attachment K of this Tariff~~. Segments shall be hourly for each bid to purchase energy, each Increment Offer, each Decrement Bid, and each “Up-to” Congestion Transaction. Segments shall be daily for each offer to sell other than an Increment Offer. Each “Up-to” Congestion Transaction also shall be considered a Bid/Offer Segment.

e) The MS Service Rate, Component 1 shall be as follows:

Commencing January 1, 2017:	\$0.0463 per MWh
Commencing January 1, 2019:	\$0.0475 per MWh
Commencing January 1, 2020:	\$0.0487 per MWh
Commencing January 1, 2021:	\$0.0499 per MWh
Commencing January 1, 2022:	\$0.0511 per MWh
Commencing January 1, 2023:	\$0.0524 per MWh
Commencing January 1, 2024:	\$0.0527 per MWh

Users charged the MS Service Rate, Component 1, shall receive a credit in the amount the user is charged the PJMSettlement Market Service Rate set forth in Tariff, Schedule 9-PJMSettlement during the same billing period.

f) The MS Service Rate, Component 2 shall be as follows:

Commencing January 1, 2017:	\$0.0693 per Bid/Offer Segment
Commencing January 1, 2019:	\$0.0710 per Bid/Offer Segment
Commencing January 1, 2020:	\$0.0728 per Bid/Offer Segment
Commencing January 1, 2021:	\$0.0746 per Bid/Offer Segment
Commencing January 1, 2022:	\$0.0765 per Bid/Offer Segment
Commencing January 1, 2023:	\$0.0784 per Bid/Offer Segment
Commencing January 1, 2024:	\$0.0789 per Bid/Offer Segment

SCHEDULE 9-4
Regulation and Frequency Response Administration Service

a) Regulation and Frequency Response Administration Service comprises all of the activities of PJM associated with administering the provision of Regulation and Frequency Response Service under Tariff, Schedule 3 ~~of this Tariff~~. PJM provides this service to Load Serving Entities and to generators that provide regulation in accordance with Tariff, Schedule 3.

b) PJM will charge each user of Regulation and Frequency Response Administration Service each month a charge equal to the Regulation and Frequency Response Administration Service Rate stated below times the MWhs of such user's hourly regulation objective as a Load Serving Entity determined pursuant to Tariff, Schedule 3, plus the MWhs of regulation scheduled (including self-scheduling) from generating units owned by such user, summed for each hour in such month.

c) The Regulation and Frequency Administration Service Rate shall be as follows:

Commencing January 1, 2017:	\$0.2819 per MWh
Commencing January 1, 2019:	\$0.2889 per MWh
Commencing January 1, 2020:	\$0.2961 per MWh
Commencing January 1, 2021:	\$0.3035 per MWh
Commencing January 1, 2022:	\$0.3111 per MWh
Commencing January 1, 2023:	\$0.3189 per MWh
Commencing January 1, 2024:	\$0.3210 per MWh

SCHEDULE 9-5
Capacity Resource and Obligation Management Service

a) Capacity Resource and Obligation Management Service comprises the activities of PJM associated with (i) assuring that customers have arranged for sufficient generating capacity to meet their unforced capacity obligations under the Reliability Assurance Agreement (“RAA”); (ii) processing Network Integration Transmission Service; (iii) administering the Reliability Pricing Model auctions for the PJM Region; and (iv) administering or providing technical support for the RAA (as delegated to PJM under the RAA), including, but not limited to, long-term load forecasting, studies to establish reserve requirements, and the determination of each Load-Serving Entity’s capacity obligations. PJM’s Internet-based capacity transaction tool enables many of these functions. PJM provides this service to Load-Serving Entities and to owners of Capacity Resources; as such terms are defined in the RAA.

b) PJM will charge each Load-Serving Entity in the PJM Region each month a charge equal to the Capacity Resource and Obligation Management Service Rate stated below times the summation for each day of such month of the Daily Unforced Capacity Obligation of such user, as determined for each such day pursuant to RAA, Schedule 8 or RAA, Schedule 8.1 ~~of the RAA~~.

c) In addition to any charge under section (b), PJM will charge each month, each entity that included in an FRR Capacity Plan, self-scheduled, or sold and cleared, in a Reliability Pricing Model Auction, a- Capacity Resource committed to serve load for such month, a charge equal to the Capacity Resource and Obligation Management Service Rate stated below times such entity’s total share, in MWs, of the Unforced Capacity of all Capacity Resources cleared or self-scheduled (including through an FRR Capacity Plan) by such entity, for commitment to serve load during such month.

d) The Capacity Resource and Obligation Management Rate shall be as follows:

Commencing January 1, 2017:	\$0.1073 per MW-day
Commencing January 1, 2019:	\$0.1100 per MW-day
Commencing January 1, 2020:	\$0.1128 per MW-day
Commencing January 1, 2021:	\$0.1156 per MW-day
Commencing January 1, 2022:	\$0.1185 per MW-day
Commencing January 1, 2023:	\$0.1215 per MW-day
Commencing January 1, 2024:	\$0.1223 per MW-day

SCHEDULE 9-MMU MMU Funding

a) This Schedule 9-MMU shall recover the costs of providing the market monitoring functions to the PJM region as specified in Tariff, Attachment M ~~to this Tariff~~. This Schedule 9-MMU recovers PJM's payments to MMU as set forth below. PJM provides this service to all customers using Point-to-Point or Network Integration Transmission Service under this Tariff, to all Generation Providers, and to all entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market.

b) PJM will charge each user of this Schedule 9-MMU service each month a charge equal to the sum of: (i) the MMU Service Rate, Component 1, as stated below, times (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c) ~~of such Appendix~~, submitted by such user during such month; plus (ii) the MMU Service Rate, Component 2, as stated below, times the number of Bid/Offer Segments submitted by such user during such month.

c) For purposes of this Schedule 9-MMU, Wheeling-Through Service, Generation Provider, and Bid/Offer Segments shall have the same meanings set forth in Tariff, Schedule 9-3 ~~of this Tariff~~.

d) The MMU Services Rate, Component 1 = $[0.987 \text{ times CYMC}]/\text{VOL1}$; and the MMU Services Rate, Component 2 = $[0.013 \text{ times CYMC}]/\text{VOL2}$,

where

Current Year MMU Charges ("CYMC") are the expenses on an accrual basis in accordance with generally accepted accounting principles for MMU funding determined in accordance with the initial budget amount and thereafter the annual budget approval process set forth in Attachment M, for the year for which the charge under this Schedule 9-MMU is being calculated, with said annual budget adjusted to take into account the MMU's prior year deferred regulatory liability or deferred regulatory asset balance; provided that, such adjustment shall not take account of any actual expenses for the prior year that exceed MMU's approved annual budget for such year, unless the MMU shall have received approval from FERC of an amendment to the MMU's approved annual budget.

VOL1 is PJM's estimate of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service

during the year for which the charge under this Schedule 9-MMU is being calculated, plus (2) the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the year for which the charge under this Schedule 9-MMU is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c)-~~of such Appendix~~, to be submitted during the year for which the charge under this Schedule 9-MMU is being calculated.

VOL2 is PJM's estimate of the number of Bid/Offer Segments to be submitted during the year for which the charge under this Schedule 9-MMU is being calculated.

e) MMU shall document, and advise PJM of, MMU's actual expenses for the prior year no later than March 15, and provide a copy of such documentation to the Finance Committee. Such documentation shall be in a level of supporting detail consistent with that required under Tariff, Attachment M, sSection III.E.2-~~of Attachment M~~ for the annual budget. MMU further annually shall provide to PJM and the Finance Committee audited financial statements of revenues and expenses related solely to the services provided to PJM. This requirement is also duplicated in Tariff, Attachment M, ssection IV-~~of Attachment M~~.

f) PJM shall transmit to MMU, within two (2) Business Days of receipt thereof, the revenue collected under this Schedule 9-MMU.

g) If there is any change in the entity contracted to perform the functions of the MMU under Tariff, Attachment M, then PJM shall determine the revenues received by MMU prior to the change of MMU and compare them to MMU's actual expenses prior to the change of MMU (capped at the level of MMU's approved budget, adjusted to reflect only the portion of the year for which the MMU provided services prior to the change of MMU). PJM shall pay MMU any deficiency, or MMU shall pay PJM any credit, as indicated by such comparison. Such true-up payments associated with any change in the entity performing the functions of the MMU under Tariff, Attachment M shall be charged or credited, as applicable, in the next year's billings under this Schedule 9-MMU.

SCHEDULE 9-PJMSettlement
PJM Settlement, Inc. Administrative Services

a) PJM Settlement, Inc. (“PJMSettlement”) is the entity that is (i) contracting with customers and conducting financial settlements regarding the use of the transmission capacity of the Transmission System; (ii) the Counterparty with respect to the agreements and “pool” transactions in the centralized markets that PJM Interconnection, L.L.C., as the Transmission Provider, administers under the Tariff and Operating Agreement; and (iii) the Counterparty to Financial Transmission Rights (“FTRs”) and Auction Revenue Rights instruments held by a Market Participant. PJMSettlement Services comprise all of the activities of PJMSettlement associated with PJMSettlement performing the services of being the Counterparty and conducting financial settlements.

b) The cost of operating PJMSettlement, including principal and/or depreciation expense, interest expense and financing costs, if any, shall be recovered from users of the PJMSettlement Services pursuant to the PJMSettlement Market Support Service Rate set forth in this Schedule 9-PJMSettlement.

c) **PJMSettlement Market Support Service Rate:** PJMSettlement will charge customers using Point-to-Point or Network Integration Transmission Service under the Tariff, Generation Providers, as defined below, and entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market each month a charge equal to: the PJMSettlement Market Support Service Rate, as stated below, times the sum of (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service, as defined below) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, as defined below, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c) ~~of such Appendix~~, submitted by such user during such month

(A) For purposes of this Schedule 9-PJMSettlement, Wheeling-Through Service and Generation Provider shall have the same meanings as set forth in Tariff, Schedule 9-3 ~~of this Tariff~~.

(B) The PJMSettlement Market Support Service Rate is:

$$[\text{CYPMSC} / \text{VOL}] - \text{PQDRLB} / \text{VOLQA}] + [\text{PQDRAB} / \text{VOLQA}]$$

where

CYPMSC (Current Year PJMSettlement Market Support Service Costs) is the budgeted annual costs of PJMSettlement associated with PJMSettlement services recovered pursuant to PJMSettlement’s Market Support Service Rate for the current calendar year.

VOL (Volume) is PJMSettlement's estimate of the sum of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service during the year for which the PJMSettlement Market Support Service Rate is being calculated, plus (2) the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the year for which the PJMSettlement Market Support Service Rate is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c)-~~of such Appendix~~, to be submitted during the year for which the PJMSettlement Market Support Service Rate is being calculated.

PQDRLB (Prior Quarter Deferred Regulatory Liability Balance) is the cumulative deferred regulatory liability balance as of the end of the prior quarter.

PQDRAB (Prior Quarter Deferred Regulatory Asset Balance) is the cumulative deferred regulatory asset balance as of the end of the prior quarter.

VOLQA (Volume Quarter Adjustment) is PJMSettlement's estimate of the sum of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service during the quarter for which the PJMSettlement Market Support Service Rate is being calculated, plus (2) the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the quarter for which the PJMSettlement Market Support Service Rate is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c)-~~of such Appendix~~, to be submitted during the quarter for which the PJMSettlement Market Support Service Rate is being calculated.

SCHEDULE 12 – APPENDIX B

Joint Planning Or Coordination Agreements Between PJM And Other Regions Or Transmission Planning Authorities

1. Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.
2. Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. and The Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol.
3. Interregional transmission coordination between Southeastern Regional Transmission Planning region participants and PJM pursuant to Operating Agreement, Schedule 6-A ~~of the Operating Agreement~~ and Tariff, Schedule 12-B ~~of the Tariff~~ and the corresponding provisions of the tariffs of the jurisdictional Southeastern Regional Transmission Planning region participants.

SCHEDULE 12A

Rights Associated With Cost Responsibility Assignments for Required Transmission Enhancements

(a) Incremental Auction Revenue Rights Associated With Incremental Rights-Eligible Required Transmission Enhancements

(i) Right of Responsible Customers to Incremental Auction Revenue Rights:

Responsible Customers as defined in Tariff, Schedule 12 ~~of the Tariff~~ that are Network Customers, Transmission Customers with an agreement for Firm Point-To-Point Service, or Merchant Transmission Facility owners that are assigned cost responsibility for Incremental Rights-Eligible Required Transmission Enhancements shall be entitled to receive an allocated share of the Incremental Auction Revenue Rights associated with such facility as determined in accordance with ~~this~~ section (a) of this Schedule 12A.

(ii) Nature of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: All Incremental Auction Revenue Rights associated with a given Incremental Rights-Eligible Required Transmission Enhancement shall have the same source point and the same sink point, as defined in this subsection (a)(ii) and determined for each such facility by the Transmission Provider. Requests for alternative source or sink points for such Incremental Auction Revenue Rights shall be invalid. For each Incremental Rights-Eligible Required Transmission Enhancement: (1) the source point for its associated Incremental Auction Revenue Rights shall be an aggregate pricing point comprised of up to ten generator busses that have the greatest flow increase effect (measured by distribution factors) on the transmission constraint that is relieved by the Incremental Rights-Eligible Required Transmission Enhancements; and (2) the sink point for its associated Incremental Auction Revenue Rights shall be an aggregate pricing point consisting of the Zone that has the greatest flow increase effect (measured by distribution factors) on the constraint that is relieved by the Incremental Rights-Eligible Required Transmission Enhancements.

(iii) Determination of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: Transmission Provider shall determine the Incremental Auction Revenue Rights associated with a given Incremental Rights-Eligible Required Transmission Enhancement using the tools described in the Tariff, ~~Appendix to Attachment K-Appendix of the Tariff~~, including an assessment of the simultaneous feasibility of any such rights with all other outstanding Auction Revenue Rights and Incremental Auction Revenue Rights. Incremental Auction Revenue Rights associated with an Incremental Rights-Eligible Required Transmission Enhancement shall be calculated by determining the Incremental Auction Revenue Right capability created by such Incremental Rights-Eligible Required Transmission Enhancement between the aggregate source and sink points determined as described in subsection (a)(ii) of this Schedule 12A. To determine such capability, Transmission Provider first shall determine the base system Auction Revenue Right capability between such aggregate source and sink points, excluding the impact of the given Incremental Rights-Eligible Required Transmission Enhancements. The Transmission Provider then shall similarly determine for such source and sink points the Auction Revenue Rights capability that

includes the impact of the particular Incremental Rights-Eligible Required Transmission Enhancement. The Incremental Auction Revenue Right capability associated with the given Incremental Rights-Eligible Required Transmission Enhancement shall be the difference between the Auction Revenue Right capability in the base system analysis without the facility and the Auction Revenue Right capability in the analysis including the impact of such facility.

(iv) Determinations of Available Incremental Auction Revenue Rights: For each Incremental Rights-Eligible Required Transmission Enhancement, within three months prior to the FTR planning period in which the Eligible Transmission Enhancement comes in-service, the Transmission Provider shall determine in accordance with this ~~subsection-section~~ (a), the available Incremental Auction Revenue Rights associated with such facility.

(v) Duration of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements. The final quantity of Incremental Auction Revenue Rights, determined pursuant to subsection (a)(iv) of this Schedule 12A for a given Incremental Rights-Eligible Required Transmission Enhancement, shall be available for allocation to Responsible Customers as of the first day of the first month that the Incremental Rights-Eligible Required Transmission Enhancement is included in the transmission system model for the monthly Financial Transmission Right auction and shall continue to be available for allocation for thirty (30) years thereafter, or for the life of the associated facility, whichever is less, subject to any subsequent pro-rata reduction of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with ~~the Appendix to Tariff,~~ Attachment K-~~Appendix~~ of ~~the Tariff~~.

(vi) Procedures for Allocating Incremental Auction Revenue Rights to Responsible Customers: Transmission Provider shall allocate to eligible Responsible Customers, as specified in subsection (a)(i) of this Schedule 12A, the Incremental Auction Revenue Rights associated with each Incremental Rights-Eligible Required Transmission Enhancement based on the percentage cost responsibility assigned to Responsible Customers for such facility as set forth on a zonal basis in ~~Tariff, Schedule 12-Appendix to the Tariff~~. Network Customers within a Zone shall be allocated a share of the Incremental Auction Revenue Rights identified for such Zone based on their percentage share, determined daily, of the network service peak load of the Zone. To the extent one or more Transmission Customers with agreements for Firm Point-to-Point Transmission Service are assigned costs of such facility pursuant to ~~Tariff, Schedule 12~~ or other ~~PJM-Tariff~~ provisions assigning ~~Tariff, Schedule 12~~ costs in a Zone, such customer(s) shall be allocated a share of the Incremental Auction Revenue Rights identified for such Zone consistent with such Transmission Customer's assigned ~~Tariff, Schedule 12~~ cost responsibility. Incremental Auction Revenue Rights shall be re-allocated annually to reflect the annual recalculation of Transmission Enhancement Charges under ~~section (e) of Tariff, Schedule 12, section (c)~~. Transmission Provider shall allocate Incremental Auction Revenue Rights that become effective after the start of a Planning Period no later than forty-five (45) days before such rights become effective. Transmission Provider shall allocate Incremental Auction Revenue Rights that become effective at the start of a Planning Period (including any annual reallocations of such rights) in coordination with the annual allocation of Auction Revenue Rights under ~~section 7 of the Appendix to Tariff, Attachment K-Appendix, section 7 of this Tariff~~. PJM will notify Responsible Customers of such allocations in accordance with

established PJM procedures. Where an allocation of Incremental Auction Revenue Rights hereunder is for a full Planning Period, the Responsible Customer may decline to accept such allocation. Incremental Auction Revenue Rights so declined shall not be reallocated to other Responsible Customers for such Planning Period.

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

(b) Incremental Capacity Transfer Rights Associated With Incremental Rights-Eligible Required Transmission Enhancements.

(i) Right of Responsible Customers to Receive Incremental Capacity Transfer Rights: Responsible Customers, as defined in Tariff, Schedule 12-~~of the Tariff~~, that are

Network Customers, Transmission Customers with an agreement for Firm Point-To-Point Service, or Merchant Transmission Facility owners, and that are assigned cost responsibility for an Incremental Rights-Eligible Required Transmission Enhancement shall be allocated a share of the Incremental Capacity Transfer Rights associated with such facility as determined by the Transmission Provider in accordance with ~~this~~ section (b) of this Schedule 12A.

(ii) Determination of Incremental Capacity Transfer Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: For each Incremental Rights-Eligible Required Transmission Enhancement, the megawatt quantity of the Incremental Capacity Transfer Rights associated with such facility shall be the megawatt increase in Capacity Emergency Transfer Limit into a Locational Deliverability Area provided by such facility. In the event that an Incremental Rights-Eligible Required Transmission Enhancement provides simultaneous increases in Capacity Emergency Transfer Limits into multiple Locational Deliverability Areas (under capacity emergency study conditions), separate Incremental Capacity Transfer Rights shall be determined for each such Locational Deliverability Area, equal to the respective increase in the Capacity Emergency Transfer Limit into each such Locational Deliverability Area.

(iii) Determination Procedure and Duration of Incremental Capacity Transfer

Rights: Transmission Provider shall determine the Incremental Capacity Transfer Rights associated with a given Incremental Rights-Eligible Required Transmission Enhancement prior to the conduct of the Base Residual Auction for the first Delivery Year for which such facility is to be in service, and shall identify such Incremental Capacity Transfer rights in the informational posting required by ~~section 5.11 of Tariff~~, Attachment DD, ~~section 5.11 to the Tariff~~. No Incremental Capacity Transfer Rights for Regional Facilities and Necessary Lower Voltage Facilities shall become available prior to the Delivery Year that starts June 1, 2012. No Incremental Capacity Transfer Rights for Lower Voltage Facilities shall become available prior to the Delivery Year that starts June 1, 2013. Once so established, Incremental Capacity Transfer Rights for an Incremental Rights-Eligible Required Transmission Enhancement shall be available for allocation to Responsible Customers for thirty (30) years or the life of the project, whichever is less; provided, however, that Incremental Capacity Transfer Rights may be limited for any Delivery Year as provided in ~~section 5.16 of Tariff~~, Attachment DD, ~~section 5.16 to the Tariff~~.

(iv) Allocation of Incremental Capacity Transfer Rights to Responsible

Customers: Transmission Provider shall allocate to each Responsible Customer a share of the Incremental Capacity Transfer Rights associated with each Incremental Rights-Eligible Required Transmission Enhancement for which the Responsible Customer has been assigned cost responsibility pursuant to ~~Tariff, Schedule 12-12 of the Tariff~~. The megawatt quantity of Incremental Capacity Transfer Rights allocated to Responsible Customers shall be based on the percentage cost responsibility assigned to the Responsible Customers for the particular facility as set forth in ~~Tariff, Schedule 12-Appendix to the Tariff~~. During the Delivery Year, Network Customers within a Zone that are Responsible Customers shall be allocated Incremental Capacity Transfer Rights based on their percentage share, determined daily of the network service peak load of the Zone. To the extent one or more Transmission Customers with agreements for Firm Point-to-Point Transmission Service are assigned costs of such facility pursuant to ~~Tariff, Schedule 12 or other PJM Tariff provisions assigning Tariff, Schedule 12 costs in a Zone~~, such customer(s) shall be allocated a share of Incremental Capacity Transfer Rights identified for such Zone consistent with such Transmission Customer's assigned ~~Tariff, Schedule 12 cost responsibility~~. Incremental Capacity Transfer Rights shall be re-allocated annually to reflect the annual recalculation of Transmission Enhancement Charges under ~~section (e) of Tariff, Schedule 12, section (c)~~.

SCHEDULE 14

Transmission Service on the Neptune Line

Pursuant to Tariff, Part IV, s~~Section 38 of the Tariff~~, this Schedule provides the terms and conditions of transmission service on the Neptune Line which is a Merchant Transmission Facility under the Tariff and the PJM Operating Agreement.

1. Definitions

Capitalized terms used and defined in this Schedule 14 shall have the meaning given them under this Schedule. Capitalized terms used and not defined in this Schedule 14 but defined in other provisions of the Tariff shall have the meaning given them under those provisions. Capitalized terms used in this Schedule 14 that are not defined in it or elsewhere in this Tariff shall have the meanings customarily attributed to such terms by the electric utility industry in PJM.

1.1 Neptune Reservation: A right, denoted in Megawatts and for a specified period, to request the withdrawal of energy and capacity from the Transmission System at the Point of Interconnection and submit schedules for transmission service over the Neptune Line on a firm or non-firm basis as set forth in this Schedule 14.

1.1.1 Firm Neptune Reservation: A Firm Neptune Reservation allows a Neptune Transmission Customer to schedule capacity and energy on a firm basis from the Neptune Point of Receipt to the Neptune Point of Delivery.

1.1.2 Non-Firm Neptune Reservation: A Non-Firm Neptune Reservation allows a Neptune Transmission Customer to schedule energy on a non-firm, as available, basis from the Neptune Point of Receipt to the Neptune Point of Delivery.

1.2 Neptune Transmission Customer: An entity that (i) is an Eligible Customer (or its Designated Agent) that meets the creditworthiness requirements of the Transmission Provider set forth in Tariff, Attachment Q ~~to this Tariff~~ and is in good-standing with respect to all payments owed under the Tariff and Operating Agreement; (ii) executes a Neptune Service Agreement, the form of which is attached as Exhibit A to this Schedule 14; and (iii) holds a Neptune Reservation.

1.3 Neptune Line: The Neptune Line is a controllable, high voltage, direct current Merchant Transmission Facility that runs undersea between the Raritan River (Sayreville) Substation in Sayreville, New Jersey to the Newbridge Road Substation in Long Island, New York, which was the subject of Commission orders in FERC Docket No. ER01-2099 et al. regarding operation of the line as a merchant transmission facility and as more particularly described in the Interconnection Service Agreement among PJM Interconnection, L.L.C. and Neptune Regional Transmission System, LLC and Jersey Central Power & Light Company a First Energy Company, which was accepted for filing by the Commission in FERC Docket No. ER05-1010.

1.4 Neptune Schedule: The schedule for the transmission of capacity and energy on the Neptune Line pursuant to the terms and conditions of service set forth in this Schedule 14.

1.5 Neptune Transmission Owner: Neptune Regional Transmission System, LLC, its agents, successors or assigns.

1.6 Primary Rights Holder: An entity that has been allocated rights to the use of the transmission capability of the Neptune Line and assigned Firm and Non-Firm Transmission Withdrawal Rights by the Neptune Transmission Owner in accordance with [Tariff, Part I, sSection 2.1](#).

1.7 Point of Interconnection: The Point of Interconnection is as defined in [sSection 11.1](#) of the Interconnection Service Agreement among PJM Interconnection, L.L.C. and Neptune Regional Transmission System, LLC and Jersey Central Power & Light Company a First Energy Company, which was accepted for filing by the Commission in FERC Docket No. ER05-1010.

1.8 Neptune Service Agreement: An initial agreement and any amendments or supplements thereto entered into by a Neptune Transmission Customer and the Transmission Provider for transmission service on the Neptune Line under this Schedule 14, the form of which is included as Exhibit A to this Schedule 14.

1.9 Neptune Point of Receipt: The point of receipt is the Raritan River (Sayreville) Substation in Sayreville, New Jersey.

1.10 Neptune Point of Delivery: The point of delivery is the Newbridge Road Substation in Long Island, New York.

2. Allocation of Available Transmission Capability Over the Neptune Line

2.1 Commission Approved Allocation Process: The Neptune Transmission Owner shall allocate the total transmission capability over the Neptune Line pursuant to an allocation process approved by the Commission under FERC Docket No. ER01-2099 et al., as such allocation process may be amended by the Neptune Transmission Owner from time-to-time subject to Commission approval provided that the results of such rights allocation process shall be furnished to the Transmission Provider and posted on the OASIS. The allocation of rights to the Primary Rights Holder for the transmission capability of the Neptune Line shall include the allocation of the Firm and Non-Firm Transmission Withdrawal Rights, as applicable, which have been assigned to the Neptune Transmission Owner pursuant to [Tariff, Part VI, sSection 232](#) ~~of this Tariff~~ as well as the award of Firm and Non-Firm Neptune Reservations. The allocation of such rights shall be in the megawatt quantity and for the period specified for allocation to parties pursuant to the Neptune Transmission Owner's Commission-approved allocation process. The Primary Rights Holder is the holder of the Firm Transmission Withdrawal Rights for the Neptune Line. In the event that there has been no allocation of Firm Transmission Withdrawal Rights to a Primary Rights Holder, the Neptune Transmission Owner is the holder of such unallocated Firm Transmission Withdrawal Rights.

2.2 Charges for Allocation of Rights by Neptune Transmission Owner to Primary Rights Holder: The charge applicable to the allocation of rights to the Primary Rights Holder pursuant to this section shall be determined pursuant to arrangements between the Neptune Transmission Owner and the Primary Rights Holder in accordance with the process approved by the Commission under FERC Docket No. ER01-2099 et al., as amended by the Neptune Transmission Owner from time-to-time subject to Commission approval. The charge for the allocation of rights to the Primary Rights Holder shall be in accordance with the Commission's authorization for the Neptune Transmission Owner to charge negotiated rates (i.e., rates established pursuant to market mechanisms as recognized for merchant transmission projects and not included in PJM Tariff rates) for the use of transmission capability over the Neptune Line. Agreements between the Neptune Transmission Owner and a Primary Rights Holder for the allocation of rights to a Primary Rights Holder shall be considered Service Agreements under this Schedule 14 and shall be reported by the Neptune Transmission Owner to the Commission through Electronic Quarterly Reports in accordance with Order No. 2001.

2.3 Transmission Withdrawal Rights Associated with the Neptune Line: The award of Transmission Withdrawal Rights to the Neptune Transmission Owner and any subsequent transfer to the Primary Rights Holder shall be made pursuant to Tariff, Part VI, sSection 232 ~~of the PJM Tariff~~. The Transmission Withdrawal Rights solely allow for the withdrawal of capacity and energy at the Point of Interconnection for the Neptune Line and do not provide any priority with respect to the reservation, scheduling, curtailment or interruption of transmission service over the Neptune Line pursuant to this Schedule.

2.4 Transfer of Transmission Withdrawal Rights: Any sale, assignment, conveyance or transfer of a Transmission Withdrawal Right shall be consistent with Tariff, Part VI, sSection 232.6 ~~of this Tariff~~ and any terms and conditions agreed upon between the Neptune Transmission Owner and the Primary Rights Holder.

3. Neptune Reservations

3.1 Effect of a Neptune Reservation: A Neptune Reservation is a prerequisite to scheduling capacity and/or energy on the Neptune Line. A holder of a Neptune Reservation may submit offers to schedule capacity and/or energy from the Transmission System at the Point of Interconnection over the Neptune Line.

3.2 Recallability: A Non-Firm Neptune Reservation released pursuant to Section 3.7 is recallable by a holder of a Firm Neptune Reservation that has retained the right of recall until the deadline posted on the OASIS which shall be based on the time necessary for submittal of energy bids to meet installed capacity obligations in the New York Control Area. The procedures and prerequisites for the exercise of recall rights are set forth in sSection 4.2.2 below.

3.3 Term of Service

3.3.1 Firm Neptune Reservation: The minimum term of a Firm Neptune Reservation shall be one day and the maximum term shall be equal to the term of agreement allocating rights to the capability of the Neptune Line pursuant to sSection 2.1 of this Schedule.

3.3.2 Non-Firm Neptune Reservation: Non-Firm Neptune Reservation will be available for periods ranging from one hour to one month.

3.3.3 Limitations. An Eligible Customer holding a Firm or Non-Firm Neptune Reservation may not submit a request for scheduling of capacity and energy over the Neptune Line that exceeds the period or MW amount of its Neptune Reservation.

3.4 Acquisition of Neptune Reservations: Firm and Non-Firm Neptune Reservations are initially allocated to the Primary Rights Holder pursuant to [sSection 2.1 of this Schedule](#). Third parties may acquire Firm or Non-Firm Neptune Reservations through: (i) through assignment pursuant to [sSection 3.5](#) of this Schedule or (ii) voluntary or default release through a secondary market operated through the OASIS in accordance with [sSection 3.7](#) of this Schedule.

3.5 Assignment of a Neptune Reservation: The holder of a Neptune Reservation may separately assign its Neptune Reservation to third parties provided that notice of such assignment is provided to the Transmission Provider with such information posted on the OASIS. Subject to Commission approval of any necessary filings, a holder of a Neptune Reservation may sell, assign, or transfer all or a portion of its rights, but only to another Eligible Customer (the Assignee). The holder of a Neptune Reservation that sells, assigns or transfers its rights is hereafter referred to as the Reseller. Where the Reseller is assigning a Firm Neptune Reservation, such assignment shall include the right of recall that can be exercised by the Assignee pursuant to [sSection 4.2.2](#) of this Schedule 14. The compensation to the Reseller shall be at rates established by agreement with the Assignee. A Reseller should notify the Transmission Provider as soon as possible after any assignment occurs but in any event, notification must be provided prior to any submission of offers to schedule capacity and energy pursuant to such Neptune Reservation by the Assignee. The Assignee will be subject to all terms and conditions of the Tariff.

3.6 Limitations on Assignment or Transfer of Neptune Reservations: If the Assignee requests a change in the specifications set forth in the original Neptune Service Agreement, the Transmission Provider will consent to such change subject to the provisions of the Tariff, provided that the change does not exceed the rights granted in the original Neptune Reservation and will not impair the operation and reliability of the Neptune Line, the Transmission Provider's Transmission System or a Transmission Owner's generation, transmission, or distribution systems. The Reseller shall remain liable for the performance of all obligations under the Neptune Service Agreement, except as specifically agreed to by the Reseller, the Assignee or the Transmission Provider through an amendment to the Neptune Service Agreement.

3.7 Release of Neptune Reservation: In addition to a bilateral assignment of a Neptune Reservation pursuant to [sSection 3.5 of this Schedule](#), Neptune Reservations may be released as Available Transmission Capacity (ATC) for acquisition as Neptune Service by third parties using the OASIS. All releases of Neptune Reservations shall be posted on the OASIS.

3.7.1. Voluntary Releases: A holder of a Neptune Reservation may voluntarily release its Neptune Reservation for acquisition by third parties on a first-come, first-served basis. A holder of a Neptune Reservation shall notify the Transmission Provider of the voluntary release of any Firm Neptune Reservation including the rate to be charged service in accordance with the following deadlines:

- (a) Monthly: No later than 30 calendar days prior to the first Operating Day of each Month.
- (b) Weekly: No later than 10 calendar days prior to the first Operating Day of each Week, a holder of a Neptune Reservation shall notify the Transmission Provider of the voluntary release of any Non-Firm Neptune Reservation including the rate to be charged for the Neptune Reservation in accordance with the following deadlines:
 - (i) Monthly: No later than 7 calendar days prior to the first Operating Day of each Month.
 - (ii) Weekly: No later than 5 calendar days prior to the first Operating Day of each Week.
 - (iii) Daily: No later than 13:00 the two business days before the Operating Day.
 - (iv) Hourly: No later than Noon on the day before the Operating Day.

A Neptune Reservation that has posted for voluntary release under this subsection shall be excluded from the default release procedures set forth in subsection 3.7.2 below.

3.7.2 Default Releases: In the event that a holder of a Neptune Reservation fails to either: (i) submit a request to schedule energy up to the full MW value of its Non-Firm Neptune Reservation by noon (12:00 p.m.) one business day prior to the Operating Day or (ii) voluntarily release its Neptune Reservation pursuant to subsection 3.7.1 above, then, the difference between the Total Transfer Capability over the Neptune Line in each scheduling hour of the Operating Day and the sum of the valid requests for Neptune Schedules and MW amount of Neptune Reservations voluntarily released on OASIS for such scheduling hour, shall be deemed released and shall be posted on the OASIS by the Transmission Provider as Non-Firm ATC for acquisition by third parties on a first-come, first served basis.

3.7.3 Release Rate: The holder of a Neptune Reservation which is seeking to voluntarily release its Neptune Reservation shall provide to the Transmission Provider the rate to be posted on OASIS and charged for such releases. The Neptune Transmission Owner may provide the Transmission Provider a rate to be posted on OASIS and charged for default releases pursuant to sSection 3.7.2 above. In the event that the Neptune Transmission Owner does not separately provide to the Transmission Provider a rate for default releases, such default releases

shall be charged the lowest rate posted on OASIS for voluntary release of Neptune Reservations in the applicable hour.

3.7.4 Character of Service Released: Releases of Neptune Reservations made pursuant to the default release provisions in subsection 3.7.2 above do not include the right of recall under sSection 3.2 of this Schedule and shall be hourly Non-Firm Neptune Reservations.

3.7.5 Requirements for Acquisition of Neptune Reservations through Release or Assignment: An Eligible Customer shall be eligible to acquire and hold a Neptune Reservation through an assignment of a Neptune Reservation pursuant to sSection 3.5 of this Schedule or release of a Neptune Reservation over OASIS pursuant to sSection 3.7 of this Schedule if such entity: (i) has executed a Neptune Service Agreement, the form of which is attached as Exhibit A to this Schedule 14; (ii) meets the creditworthiness requirements of the Transmission Provider set forth in Tariff, Attachment Q ~~to this Tariff~~; and (iii) is in good-standing with respect to all payments owed under the Tariff and Operating Agreement.

3.8 Billing and Payment for Neptune Reservations:

3.8.1 Neptune Reservations Allocated to Primary Rights Holders Pursuant to Section 2.1: The billing and payment of rates or charges applicable to the allocation of Firm or Non-Firm Neptune Reservations to the Primary Rights Holder pursuant to section 2.1 of this Schedule shall be determined pursuant to arrangements between the Neptune Transmission Owner and the Primary Rights Holder and not under this Tariff.

3.8.2 Neptune Reservations Acquired Through Bilateral Assignment Pursuant to Section 3.5: The billing and payment of rates or charges applicable to a bilateral assignment of Firm or Non-Firm Neptune Reservations shall be determined pursuant to the arrangements between the assignor and assignee.

3.8.3 Neptune Reservations Acquired Through Voluntary and Default Releases on OASIS Pursuant to Section 3.7: An entity acquiring a Neptune Reservation through a voluntary or default release over the OASIS shall be billed the applicable release rate which is posted on OASIS pursuant to subsection 3.7.3 of this Schedule. The entity acquiring a Neptune Reservation through voluntary or default releases shall make payments to the Transmission Provider in accordance with the terms of the Neptune Service Agreement. The Neptune Transmission Customer shall pay the applicable rate for the MW amount of the Neptune Reservation for each hour regardless of whether such holder submits a schedule for transmission service over the Neptune Line in such hour.

3.9 Payment of Revenues Received: Revenues received from the acquisition of voluntarily released Neptune Reservation shall be paid by the Transmission Provider to the party releasing such Neptune Reservation. Revenues received from the acquisition of Neptune Reservations subject to default release provisions shall be paid by the Transmission Provider to the Neptune Transmission Owner.

4. Neptune Schedules

4.1 Nature of Transmission Service over the Neptune Line: Neptune Schedules shall be requested in accordance with NERC Standards, including requirements relating to E-Tagging and Transmission Line Relief procedures. An entity seeking to schedule use of the Neptune Line must hold a Neptune Reservation for no less than the amount of MWs of service being requested. Deadlines for scheduling the use of the Neptune Line shall adhere to the Transmission Provider's deadlines for scheduling as provided by the Transmission Provider's manuals and consistent with the deadlines for scheduling Point to Point services as described in [Tariff, Part II](#) ~~of the Tariff~~.

4.2 Submission of Scheduling Requests, Award of Reservations, Curtailment and Interruption of Neptune Schedule:

4.2.1 Submission of Scheduling Requests: An Eligible Customer holding a Neptune Reservation has the right to submit requests for Firm or Non-Firm Neptune Schedules commensurate to the Neptune Reservations held by that entity.

4.2.2 Exercise of Recall Rights: An Eligible Customer holding a Firm Neptune Reservation, that retains the right of recall, may exercise such recall rights by providing notice, until the deadline posted on the OASIS which shall be based on the time necessary for submittal of energy bids to meet any installed capacity obligations in the New York Control Area, to the Transmission Provider that it wishes to exercise its right of recall. The exercise of a recall right pursuant to notice to the Transmission Provider shall immediately act to recall the Neptune Reservation previously released by the Eligible Customer and acquired by a third party under the assignment provisions set forth in [sSection 3.5 of this Schedule](#) or the release procedures set forth in [sSection 3.7 of this Schedule](#).

4.3 Scheduling of Capacity and Energy over the Neptune Line: The Transmission Provider shall evaluate all requests to schedule capacity and energy for withdrawal from the Transmission System at the Point of Interconnection based on economic merit order. In the event of a tie within economic merit, a scheduling request made pursuant to a Firm Neptune Reservation shall have priority over a scheduling request made pursuant to a Non-Firm Neptune Reservation. In the case of an economic merit order tie between two or more scheduling requests using a Firm Neptune Reservation, the award of the scheduling reservation shall be on a pro rata basis. In the case of an economic merit order tie between two or more scheduling requests based on Non-Firm Neptune Reservations, the reservation classification of the Non-Firm Neptune Reservation (Monthly, Weekly, Daily or Hourly) shall then be used as the tiebreaker, with the longer term of Non-Firm Neptune Reservation receiving priority. In the case of a further tie within the sub-category of Non-Firm Neptune Reservations (Monthly, Weekly, Daily or Hourly), the timestamp order of the submission of requests to schedule service over the Neptune Line shall be used as a tie-breaker. A holder of Neptune Reservations is limited in its total capacity and energy schedule for its Neptune Schedule to the higher of either its Firm or Non-Firm Neptune Reservations.

4.4 Limitations on Scheduling Amount: The Neptune Line has a minimum total scheduling requirement of 60 MW at the Neptune Point of Delivery. In the event that the total

MW of schedules determined to be in economic merit by the Transmission Provider is less than 60 MW at the Neptune Point of Delivery, all schedules shall be rejected. The Neptune Line has a maximum continuous scheduling capability of the lower of the Total Transfer Capability (“TTC”) set by the Transmission Provider or 660 MW at the Neptune Point of Delivery. In the event that the total MW of schedules determined to be in economic merit by the Transmission Provider is greater than the lower of the TTC or 660 MW at the Neptune Point of Delivery, all schedules above the maximum capability shall be rejected.

4.5 Curtailment or Interruption of Neptune Schedules: In the event that a Curtailment or interruption of Neptune Schedules is required to maintain reliable operation of the Neptune Line and the systems directly and indirectly interconnected with the Neptune Line, any such Curtailment or interruption implemented by the Transmission Provider shall be based upon the priority of the associated Neptune Reservations. For curtailment or interruptions of Neptune Schedules based on Firm Neptune Reservations will be performed on a pro rata basis. Curtailment or interruptions of Neptune Schedules based on Non-Firm Neptune Reservations shall first be based on the Non-Firm Neptune Reservation classification (i.e., Monthly, Weekly, Daily, Hourly) with the longer term of Non-Firm Neptune Reservation receiving priority. In the case of a tie within the Non-Firm Neptune Reservation classifications, the time stamp order of the submission of valid bids/offers to schedule service over the Neptune Line shall be used as a tiebreaker. The Transmission Provider shall provide advance notice of any Curtailment or interruption of Neptune Schedules to all affected Neptune Transmission Customers where such notice can be provided consistent with Good Utility Practice. The Transmission Provider shall curtail Neptune Schedules over the Neptune Line as required by NERC Standards. The Transmission Provider shall curtail Neptune Schedules over the Neptune Line for reliability of the Transmission System pursuant to the separately reserved Transmission Service over the Transmission System pursuant to Tariff, Part II or Tariff, Part III ~~of the Tariff~~ to the Neptune Line and the PJM Manuals.

4.6 Separate Reservation for Network or Point-to-Point Service over the Transmission System: Prior to the commencement of a Neptune Schedule under this Schedule 14, the Neptune Transmission Customer must separately reserve Transmission Service over the Transmission System pursuant Tariff, Part II or Tariff, Part III ~~of the Tariff~~ for delivery of energy, capacity or ancillary services to the Neptune Line for at least the same time period as the Neptune Schedule provided under this Schedule 14. Reserving such Transmission Service to the Neptune Line is a required precondition to holding a Neptune Schedule. The Neptune Transmission Customer is responsible for all charges associated with Transmission Service for delivery of capacity and energy to the Neptune Line.

5. Liability

The Transmission Provider and any holder of a Neptune Reservation which releases its Neptune Reservation through the voluntary or default release procedures set forth in ~~s~~Section 3.7 of this Schedule 14 shall be held harmless with regard to any claim which may be raised by any party regarding the award of the released Neptune Reservation, except to the extent that such party successfully establishes that the releasing party has incorrectly selected the party acquiring such released Neptune Reservation as the result of gross negligence or willful misconduct. The

liability of the Transmission Provider shall be limited by the terms and conditions of Tariff, Part I, s~~Section 10 of the Tariff~~ and the provisions of the PJM Operating Agreement.

6. Losses and Inadvertent Energy

Real power losses and inadvertent energy across the Neptune Line shall be allocated solely to Neptune Transmission Customers that schedule Firm or Non-Firm transmission service over the Neptune Line on an hourly pro rata basis, except for hours with no Neptune Schedules, in which case any real power losses and inadvertent energy across the Neptune Line shall be allocated to Neptune Transmission Customer that schedule Firm or Non-Firm transmission service over the Neptune Line on a monthly pro rata basis.

7. Congestion Costs and FTRs

A Neptune Schedule provides a physical right to deliver capacity and energy over the Neptune Line. Accordingly, no congestion costs shall be calculated over the Neptune Line and no financial transmission rights or their equivalent shall be offered for a Neptune Schedule. This provision is not meant to preclude any allocation of financial transmission rights, auction revenue rights or their equivalent awarded to the Neptune Transmission Owner pursuant to Tariff, Part VI~~of the Tariff~~.

8. Measurement and Posting of ATC and TTC

The Available Transfer Capability and Total Transfer Capability of the Neptune Line shall be calculated and posted on the OASIS by the Transmission Provider consistent with the requirements of the Tariff.

9. Payment of Other Charges Required for a Neptune Schedule

The Neptune Transmission Customer is responsible for charges applicable to a Neptune Schedule provided under this Schedule 14, including, but not limited to, any congestion and loss charges, redispatch costs, transitional revenue neutrality charges, scheduling, administrative, hardware or software upgrade charges, control area or administrative services charges or ancillary service charges applicable to the Transmission Provider's administration of transmission service over the Neptune Line (collectively, the "Neptune Service Administration Charges"). In the event that any such Neptune Service Administration Charges are billed by the Transmission Provider to the Neptune Transmission Owner, the Neptune Transmission Owner may bill the Neptune Transmission Customer for such charges, and the Neptune Transmission Customer shall pay the Transmission Provider, on behalf of the Neptune Transmission Owner, such Neptune Service Administration Charges pursuant to this s~~Section 9~~ as a condition of receiving transmission service over the Neptune Line. In the event that any Transmission Enhancement Charges under Tariff, Schedule 12 ~~of the Tariff~~ are charged to the Neptune Transmission Owner, the Neptune Transmission Owner may bill the holder of Firm Transmission Withdrawal Rights for the Neptune Line, and the holder of Firm Transmission Withdrawal Rights for the Neptune Line shall pay the Transmission Provider such Transmission

Enhancement Charges, on behalf of the Neptune Transmission Owner, pursuant to this Section 9 as a condition of receiving transmission service over the Neptune Line.

In the event that any other charges related to the construction, maintenance, operation or upgrading of the Transmission System are assessed by the Transmission Provider to the Neptune Transmission Owner for the use of the Neptune Line for withdrawals of energy or capacity from the Transmission System, the Neptune Transmission Owner may bill the Primary Rights Holder, and the Primary Rights Holder shall pay the Transmission Provider, on behalf of the Neptune Transmission Owner, such charges pursuant to this ~~s~~Section 9 as a condition of receiving transmission service over the Neptune Line. The issuance and time for payment of charges under this Schedule 14 shall be consistent with the billing and payment provisions of Tariff, Part I, s~~Section 7-of the Tariff~~.

Any failure of the Neptune Transmission Customer, the holder of Firm Transmission Withdrawal Rights, or the Primary Rights Holder to pay any of the charges referenced in this Section 9 shall be deemed a failure to pay by the Neptune Transmission Owner.

SCHEDULE 15
Non-Retail Behind The Meter Generation
Maximum Generation Emergency Obligations

1. A Non-Retail Behind The Meter Generation resource that has output that is netted from load for the purposes of determining the DCPZ of a Network Customer pursuant to Tariff, Part III, section 34~~of the Tariff~~ shall be required to operate at its full output the first ten times between November 1 and October 31, that Maximum Generation Emergency conditions occur in the zone in which the Non-Retail Behind The Meter Generation resource is located .

2. The Network Customer for which Non-Retail Behind The Meter Generation output is netted for the purposes of determining its DCPZ shall be required to report to the Transmission Provider scheduled outages of the resource prior to the occurrence of such outage in accordance with the time requirements and procedures set forth in the PJM Manuals. Such Network Customers also shall report to the Transmission Provider the output of the Non-Retail Behind The Meter Generation resource during each Maximum Generation Emergency condition in which the resource is required to operate in accordance with the procedures set forth in PJM Manuals.

3. Except for failures to operate due to scheduled outages during the months of October through May, for each instance a Non-Retail Behind The Meter Generation resource fails to operate, in whole or in part, as required in section 1 above, the amount of operating Non-Retail Behind The Meter Generation from such resource that is eligible for netting will be reduced pursuant to the following formula:

$$\text{Adjusted ENRBTMG} = \text{ENRBTMG} - \sum(10\% \text{ of the Not Run NRBTMG})$$

Where:

ENRBTMG equals the operating Non-Retail Behind The Meter Generation eligible for netting as determined pursuant to Tariff, Part III, section 34.3~~of this Tariff~~.

Not Run NRBTMG is the amount in megawatts that the Non-Retail Behind The Meter Generation resource failed to produce during an occurrence of Maximum Generation Emergency conditions in which the resource was required to operate.

$\sum(10\% \text{ of the Not Run NRBTMG})$ is the summation of 10% megawatt reductions associated with the events of non-performance.

The Adjusted ENRBTMG shall not be less than zero and shall be applicable for the succeeding calendar year.

4. If a Non-Retail Behind The Meter Generation resource that is required to operate during a Maximum Generation Emergency condition is an Energy Resource and injects energy into the

Transmission System during the Maximum Generation Emergency condition, the Network Customer that owns the resource shall be compensated for such injected energy in accordance with the PJM market rules.

ATTACHMENT Q

PJM CREDIT POLICY

INTRODUCTION:

It is the policy of PJM ~~Interconnection, L.L.C. (“PJM”)~~ that prior to an entity participating in the PJM Markets, or in order to take Transmission Service, the entity must meet PJMSettlement’s credit requirements.

Prior to becoming a Market Participant and/or Transmission Customer of PJM, PJMSettlement must accept and approve a credit application (including credit agreement) from such entity . PJMSettlement shall approve or deny submitted credit application on the basis of a complete credit evaluation including, but not be limited to, a review of financial statements, rating agency reports, and other pertinent indicators of credit strength that are applicable to the Applicant’s requested activity in PJM. Applicants must satisfy all applicable credit requirements set forth in this Attachment Q prior to transacting in the PJM Markets. All references in this Attachment Q to “section” shall refer to sections within Attachment Q unless otherwise indicated.

These credit rules may establish certain restrictions on available credit by requiring that some amounts of credit be designated for specific purposes, such as for FTR or RPM activity, and thus not be available to satisfy credit requirements for other purposes. Such designations shall be construed to be applicable to calculation of credit requirements only, and shall not restrict PJMSettlement’s ability to apply such designated credit to any obligation(s) in case of a default.

PJMSettlement may post on PJM’s web site, and may reference on OASIS, a supplementary document which contains additional business practices (such as algorithms for credit scoring) that are not included in this document. Changes to the supplementary document will be subject to stakeholder review and comment prior to implementation. PJMSettlement may specify a required compliance date, not less than 15 days from notification, by which time all Participants must comply with provisions that have been revised in the supplementary document.

PJMSettlement will regularly post each Participant’s credit requirements and credit provisions on the PJM web site in a secure, password-protected location. Each Participant is responsible for monitoring such information, and maintaining sufficient credit to satisfy all of its PJM credit requirements. Failure to maintain credit sufficient to satisfy its credit requirements shall be a breach of this Attachment Q, and the Participant will be subject to the remedies established herein and in any of the Agreements.

Each Participant is required to provide information as to any known material litigation, commitments or contingencies as well as any current or prior bankruptcy declarations or material defalcations by the Participant or its predecessors, subsidiaries or Affiliates, if any. These disclosures shall be made by the Participant upon the applicable initiation or change, or as requested by PJMSettlement.

Each Participant is required to disclose any Affiliates that are currently Members of PJM or are applying for membership with PJM. Each Participant is also required to disclose the existence of any ongoing investigations by the U.S. Securities and Exchange Commission (“SEC”), U.S. Commodity Futures Trading Commission (“CFTC”), FERC, or any other governing, regulatory, or standards body. These disclosures shall be made by the Participant upon the applicable initiation or change, or as requested by PJMSettlement.

I. MINIMUM PARTICIPATION REQUIREMENTS

A. PJM Market Participation Eligibility Requirements

To be eligible to transact in the PJM Markets, a Market Participant must demonstrate in accordance with the Risk Management and Verification processes set forth below that it qualifies in one of the following ways:

1. an “appropriate person,” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act, or;
2. an “eligible contract participant,” as that term is defined in section 1a(18), or successor provision, of the Commodity Exchange Act, or;
3. a business entity or person who is in the business of: (1) generating, transmitting, or distributing electric energy, or (2) providing electric energy services that are necessary to support the reliable operation of the transmission system, or;
4. a Market Participant seeking eligibility as an “appropriate person” providing an unlimited Corporate Guaranty in a form acceptable to PJMSettlement as described in section II.C below from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Market Participant for which the issuer has issued an unlimited Corporate Guaranty, or;
5. a Market Participant providing a letter of credit of at least \$5 million to PJMSettlement in a form acceptable to PJMSettlement as described in section III.B below that the Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJMSettlement.

If, at any time, a Market Participant cannot meet the eligibility requirements set forth above, it shall immediately notify PJMSettlement and immediately cease conducting transactions in the PJM Markets. PJMSettlement shall terminate a Market Participant’s transaction rights in the PJM Markets if, at any time, it becomes aware that the Market Participant does not meet the minimum eligibility requirements set forth above.

In the event that a Market Participant is no longer able to demonstrate it meets the minimum eligibility requirements set forth above, and possesses, obtains or has rights to possess or obtain, any open or forward positions in the PJM Markets, PJMSettlement may take any such action it

deems necessary with respect to such open or forward positions, including, but not limited to, liquidation, transfer, assignment or sale; provided, however, that the Market Participant will, notwithstanding its ineligibility to participate in the PJM Markets, be entitled to any positive market value of those positions, net of any obligations due and owing to PJM and/or PJMSettlement.

B. Risk Management and Verification

All Participants shall provide to PJMSettlement an executed copy of a credit application and the annual certification set forth in ~~Appendix 1 to this~~ Attachment Q, Appendix 1 before they are eligible to transact in the PJM Markets. Thereafter, the annual certification must be submitted each calendar year by all Participants during a period beginning on January 1 and ending April 30. Except for certain FTR Participants (discussed below) or in cases of manifest error, PJMSettlement will accept such certifications as a matter of course and Participants will not need further notice from PJMSettlement before commencing or maintaining their eligibility to participate in PJM Markets. A Participant that fails to provide its annual certification by April 30 shall be ineligible to transact in the PJM Markets and PJM will disable the Participant's access to the PJM Markets until such time as PJMSettlement receives the Participant's certification.

Participants acknowledge and understand that the annual certification constitutes a representation upon which PJMSettlement will rely. Such representation is additionally made under the Tariff, filed with and accepted by FERC, and any inaccurate or incomplete statement may subject the Participant to action by FERC. Failure to comply with any of the criteria or requirements listed herein or in the certification may result in suspension of a Participant's transaction rights in the PJM Markets.

Certain FTR Participants (those providing representations found in ~~paragraph 3.b of~~ the annual certification form set forth in ~~Appendix 1 to this~~ Attachment Q, Appendix 1, paragraph 3.b) are additionally required to submit to PJMSettlement (at the time they make their annual certification) a copy of their current governing risk control policies, procedures and controls applicable to their FTR trading activities, except that if no substantive changes have been made to such applicable policies, procedures and/or controls since their last submission, they may instead submit to PJMSettlement a certification stating that no substantive changes have been made. PJMSettlement will review such documentation to verify that it appears generally to conform to prudent risk management practices for entities trading in FTR-type markets. Those FTR Participants subject to this provision shall make a one-time payment of \$1,000.00 to PJMSettlement to cover administrative costs. Thereafter, if such FTR Participant's risk policies, procedures and controls applicable to its FTR trading activities change substantively, it shall submit such modified documentation, without charge, to PJMSettlement for review and verification at the time it makes its annual certification. Such FTR Participant's continued eligibility to participate in the PJM FTR markets is conditioned on PJMSettlement notifying such FTR Participant that its annual certification, including the submission of its risk policies, procedures and controls, has been accepted by PJMSettlement. PJMSettlement may retain outside expertise to perform the review and verification function described in this paragraph, however, in all circumstances, PJMSettlement and any third-party it may retain will treat as

confidential the documentation provided by an FTR Participant under this paragraph, consistent with the applicable provisions of ~~PJM's~~ the Operating Agreement.

An FTR Participant that makes the representation in paragraph 3.a of the annual certification understands that PJMSettlement, given the visibility it has over an FTR Participant's overall market activity in performing billing and settlement functions, may at any time request that the FTR Participant provide additional information demonstrating that it is in fact eligible to make the representation in paragraph 3.a of the annual certification. If such additional information is not provided or does not, in PJMSettlement's judgment, demonstrate eligibility to make the representation in paragraph 3.a of the annual certification, PJMSettlement will require the FTR Participant to instead make the representations required in paragraph 3.b of the annual certification, including representing that it has submitted a copy of its current governing risk control policies, procedures and controls applicable to its FTR trading activities. If the FTR Participant cannot or does not make those representations as required in paragraph 3.b of the annual certification, then PJM will terminate the FTR Participant's rights to purchase FTRs in the FTR market and, in its sole discretion, may terminate the FTR Participant's rights to sell FTRs in the PJM FTR market.

PJMSettlement shall also conduct a periodic compliance verification process to review and verify, as applicable, Participants' risk management policies, practices, and procedures pertaining to the Participants' activities in the PJM Markets. Such review shall include verification that:

1. The risk management framework is documented in a risk policy addressing market, credit and liquidity risks.
2. The Participant maintains an organizational structure with clearly defined roles and responsibilities that clearly segregates trading and risk management functions.
3. There is clarity of authority specifying the types of transactions into which traders are allowed to enter.
4. The Participant has requirements that traders have adequate training relative to their authority in the systems and PJM Markets in which they transact.
5. As appropriate, risk limits are in place to control risk exposures.
6. Reporting is in place to ensure that risks and exceptions are adequately communicated throughout the organization.
7. Processes are in place for qualified independent review of trading activities.
8. As appropriate, there is periodic valuation or mark-to-market of risk positions.

If principles or best practices relating to risk management in wholesale electric markets are published, as may be modified from time to time, by a third-party industry association, PJMSettlement may, following stakeholder discussion and with no less than six months prior

notice to stakeholders, apply such principles or best practices in determining the sufficiency of the Participant's risk controls.

PJMSettlement may select Participants for review on a random basis and/or based on identified risk factors such as, but not limited to, the PJM Markets in which the Participant is transacting, the magnitude of the Participant's transactions in the PJM Markets, or the volume of the Participant's open positions in the PJM Markets. Those Participants notified by PJMSettlement that they have been selected for review shall, upon fourteen calendar days' notice, provide a copy of their current governing risk control policies, procedures and controls applicable to their PJM Market activities and shall also provide such further information or documentation pertaining to the Participants' activities in the PJM Markets as PJMSettlement may reasonably request. Participants selected for risk management verification through a random process and satisfactorily verified by PJMSettlement shall be excluded from such verification process based on a random selection for the subsequent two years. PJMSettlement shall annually randomly select for review no more than 20% of the Participants in each member sector.

Each selected Participant's continued eligibility to participate in the PJM Markets is conditioned upon PJMSettlement notifying the Participant of successful completion of PJMSettlement's verification of the Participant's risk management policies, practices and procedures, as discussed herein. However, if PJMSettlement notifies the Participant in writing that it could not successfully complete the verification process, PJMSettlement shall allow such Participant fourteen calendar days to provide sufficient evidence for verification prior to declaring the Participant as ineligible to continue to participate in PJM's markets, which declaration shall be in writing with an explanation of why PJMSettlement could not complete the verification. If, prior to the expiration of such fourteen calendar days, the Participant demonstrates to PJMSettlement that it has filed with the Federal Energy Regulatory Commission an appeal of PJMSettlement's risk management verification determination, then the Participant shall retain its transaction rights, pending the Commission's determination on the Participant's appeal. PJMSettlement may retain outside expertise to perform the review and verification function described in this paragraph. PJMSettlement and any third party it may retain will treat as confidential the documentation provided by a Participant under this paragraph, consistent with the applicable provisions of the Operating Agreement. If PJMSettlement retains such outside expertise, a Participant may direct in writing that PJMSettlement perform the risk management review and verification for such Participant instead of utilizing a third party, provided however, that employees and contract employees of PJMSettlement and PJM shall not be considered to be such outside expertise or third parties.

Participants are solely responsible for the positions they take and the obligations they assume in PJM Markets. PJMSettlement hereby disclaims any and all responsibility to any Participant or PJM Member associated with Participant's submitting or failure to submit its annual certification or PJMSettlement's review and verification of an FTR Participant's risk policies, procedures and controls. Such review and verification is limited to demonstrating basic compliance by an FTR Participant with the representation it makes under paragraph 3.b of its annual certification showing the existence of written policies, procedures and controls to limit its risk in PJM's FTR markets and does not constitute an endorsement of the efficacy of such policies, procedures or controls.

C. Capitalization

In addition to the annual certification requirements in ~~Appendix 1 to this~~ Attachment Q, Appendix 1, a Participant must demonstrate that it meets the minimum financial requirements appropriate for the PJM Market(s) in which it transacts by satisfying either the minimum capitalization or the provision of Collateral requirements listed below:

1. Minimum Capitalization

FTR Participants must demonstrate a tangible net worth in excess of \$1 million or tangible assets in excess of \$10 million. Other Participants must demonstrate a tangible net worth in excess of \$500,000 or tangible assets in excess of \$5 million.

~~(a)-~~ In either case, consideration of tangible assets and net worth shall exclude assets (net of any matching liabilities, assuming the result is a positive value) which PJMSettlement reasonably believes to be restricted, highly risky, or potentially unavailable to settle a claim in the event of default. Examples include, but are not limited to, restricted assets and Affiliate assets, derivative assets, goodwill, and other intangible assets.

~~(b)-~~ Demonstration of “tangible” assets and net worth may be satisfied through presentation of an acceptable Corporate Guaranty, provided that both:

- (i) the Guarantor is an Affiliate company that satisfies the tangible net worth or tangible assets requirements herein, and;
- (ii) the Corporate Guaranty is either unlimited or at least \$500,000.

If the Corporate Guaranty presented by the Participant to satisfy these capitalization requirements is limited in value, then the Participant’s resulting Unsecured Credit Allowance shall be the lesser of:

- (1) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or;
- (2) the face value of the Corporate Guaranty, reduced by \$500,000 and further reduced by 10%. (For example, a \$10.5 million Corporate Guaranty would be reduced first by \$500,000 to \$10 million and then further reduced 10% more to \$9 million. The resulting \$9 million would be the Participant’s Unsecured Credit Allowance available through the Corporate Guaranty).

In the event that a Participant provides Collateral in addition to a limited Corporate Guaranty to increase its available credit, the value of such Collateral shall be reduced by 10%. This reduced value shall be

considered the amount available to satisfy requirements of this Attachment Q.

Demonstrations of capitalization must be presented in the form of audited financial statements for the Participant's most recent fiscal year.

2. Provision of Collateral

If a Participant does not demonstrate compliance with its applicable minimum capitalization requirements above, it may still qualify to participate in PJM's markets by posting additional Collateral, subject to the terms and conditions set forth herein.

Any Collateral provided by a Participant unable to satisfy the minimum capitalization requirements above will be restricted in the following manner:

- (i) Collateral provided by FTR Participants shall be reduced by \$500,000 and then further reduced by 10%. This reduced amount shall be considered the amount available to satisfy requirements of this Attachment Q.
- (ii) Collateral provided by other Participants that engage in Virtual Transactions or Export Transactions shall be reduced by \$200,000 and then further reduced by 10%. This reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.
- (iii) Collateral provided by other Participants that do not engage in Virtual Transactions or Export Transactions shall be reduced by 10%, and this reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.

In the event a Participant that satisfies the Minimum Participation requirements through provision of Collateral also provides a Corporate Guaranty to increase its available credit, then the Participant's resulting Unsecured Credit Allowance conveyed through such Corporate Guaranty shall be the lesser of:

- (~~1~~i) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or,
- (~~2~~ii) the face value of the Corporate Guaranty, reduced by 10%.

II. UNSECURED CREDIT ALLOWANCE

A Participant may request that PJM consider it for an Unsecured Credit Allowance pursuant to the provisions herein.

A. Unsecured Credit Allowance Evaluation

PJMSettlement will perform a credit evaluation on each Participant that has requested an Unsecured Credit Allowance, both initially and at least annually thereafter. In completing the credit evaluation, PJMSettlement will consider:

1. Rating Agency Reports

In evaluating credit strength, PJMSettlement will review rating agency reports from Standard & Poor's, Moody's Investors Service, Fitch Ratings, or other nationally known rating agencies. The focus of the review will be on senior unsecured debt ratings; however, PJMSettlement will consider other ratings if senior unsecured debt ratings are not available.

2. Financial Statements and Related Information

Each Participant requesting an Unsecured Credit Allowance or seeking to satisfy the minimum capitalization requirements herein must submit audited annual financial statements as soon as they become available and no later than 120 days after its fiscal year end. All financial and related information considered for an Unsecured Credit Allowance must be audited by an outside entity, and must be accompanied by an unqualified audit letter acceptable to PJMSettlement. If financial statements are not provided within the timeframe required, the Participant may not be granted an Unsecured Credit Allowance and may have its officer certification revoked.

The information should include, but not be limited to, the following:

- ~~(a)~~ If publicly traded:
 - ~~(i)~~ Annual and quarterly reports on Form 10-K and Form 10-Q, respectively.
 - ~~(ii)~~ Form 8-K reports disclosing material changes, if any, immediately upon issuance.
- ~~(b)~~ If privately held:
 - ~~(i)~~ Management's Discussion & Analysis
 - ~~(ii)~~ Report of Independent Accountants
 - ~~(iii)~~ Financial Statements, including:
 - Balance Sheet
 - Income Statement
 - Statement of Cash Flows
 - Statement of Stockholder's Equity
 - ~~(iv)~~ Notes to Financial Statements

If the above information is available on the internet, the Participant may provide a letter stating where such statements may be located and retrieved by PJMSettlement. For certain Participants, some of the above financial submittals may not be applicable, and alternate requirements may be specified by PJMSettlement.

In its credit evaluation of cooperatives and municipalities, PJMSettlement may request additional information as part of the overall financial review process and may also consider qualitative factors in determining financial strength and creditworthiness.

3. Material Changes

Each Participant is responsible for informing PJMSettlement immediately, in writing, of any material change in its financial condition. However, PJMSettlement may also independently establish from available information that a Participant has experienced a material change in its financial condition without regard to whether such Participant has informed PJMSettlement of the same.

For the purposes of this Attachment Q, a material change in financial condition may include, but is not be limited to, any of the following:

- ~~(a)~~ a downgrade of any debt rating by any rating agency;
- ~~(b)~~ being placed on a credit watch with negative implications by any rating agency;
- ~~(c)~~ a bankruptcy filing;
- ~~(d)~~ insolvency;
- ~~(e)~~ a report of a quarterly or annual loss or a decline in earnings of ten percent or more compared to the prior period;
- ~~(f)~~ restatement of prior financial statements;
- ~~(g)~~ the resignation of key officer(s);
- ~~(h)~~ the filing of a lawsuit that could adversely impact any current or future financial results by ten percent or more;
- ~~(i)~~ financial default in another organized wholesale electric market, futures exchange or clearing house;
- ~~(j)~~ revocation of a license or other authority by any Federal or State regulatory agency; where such license or authority is necessary or important to the Participants continued business for example, FERC market-based rate authority, or State license to serve retail load; or
- ~~(k)~~ a significant change in credit default spreads, market capitalization, or other market-based risk measurement criteria, such as a recent increase in Moody's KMV Expected Default Frequency (EDFtm) that is noticeably greater than the increase in its peers' EDFtm rates, or a collateral default swap (CDS) premium normally associated with an entity rated lower than investment grade.

If PJMSettlement determines that a material change in the financial condition of the Participant has occurred, it may reduce or eliminate any Unsecured Credit afforded to the Participant. Such reduction or elimination may require the Participant to provide Collateral within two Business Days. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

In the event that PJMSettlement determines that a material change in the financial condition of a Participant warrants a requirement to provide Collateral, PJMSettlement shall provide the Participant with a written explanation of why such determination was made. However, under no circumstances shall the requirement that a Participant provide the requisite Collateral be deferred pending the issuance of such written explanation.

B. Contesting an Unsecured Credit Evaluation

PJMSettlement will provide to a Participant, upon request, a written explanation for any change in Unsecured Credit or credit requirement within ten Business Days of receiving such request.

If a Participant believes that either its level of Unsecured Credit or its credit requirement has been incorrectly determined, according to this Attachment Q, then the Participant may send a request for reconsideration in writing to PJMSettlement. Such a request should include:

- (i) A citation to the applicable section(s) of this Attachment Q along with an explanation of how the respective provisions of this Attachment Q were not carried out in the determination as made.
- (ii) A calculation of what the Participant believes should be the correct credit level or Collateral requirement, according to terms of this Attachment Q.

PJMSettlement will reconsider the determination and will provide a written response as promptly as practical, but no more than ten Business Days after receipt of the request. If the Participant still feels that the determination is incorrect, then the Participant may contest that determination. Such contest should be in written form, addressed to PJMSettlement, and should contain:

- (i) A complete copy of the Participant's earlier request for reconsideration, including citations and calculations.
- (ii) A copy of PJMSettlement's written response to its request for reconsideration.
- (iii) An explanation of why it believes that the determination still does not comply with this Attachment Q.

PJMSettlement will investigate and will respond to the Participant with a final determination on the matter as promptly as practical, but no more than twenty Business Days after receipt of the request.

Neither requesting reconsideration nor contesting the determination following such request shall relieve or delay Participant's responsibility to comply with all provisions of this Attachment Q.

C. Corporate Guaranty

An irrevocable and unconditional Corporate Guaranty may be utilized to establish an Unsecured Credit Allowance for a Participant. Such credit will be considered a transfer of Unsecured Credit from the Guarantor to the Participant, and will not be considered a form of Collateral.

PJMSettlement will post on its web site an acceptable form that should be utilized by a Participant choosing to establish its credit with a Corporate Guaranty. If the Corporate Guaranty

varies in any way from the PJMSettlement format, it must first be reviewed and approved by PJMSettlement before it may be applied to satisfy the Participant's credit requirements.

The Corporate Guaranty must be signed by an officer of the Guarantor, and must demonstrate that it is duly authorized in a manner acceptable to PJMSettlement. Such demonstration may include either a corporate seal on the Corporate Guaranty itself, or an accompanying executed and sealed secretary's certificate from the Guarantor's corporate secretary noting that the Guarantor was duly authorized to provide such Corporate Guaranty and that the person signing the Corporate Guaranty is duly authorized, or other manner acceptable to PJMSettlement.

PJM will evaluate the creditworthiness of a Guarantor and will establish any Unsecured Credit granted through a Corporate Guaranty using the methodology and requirements established for Participants requesting an Unsecured Credit Allowance as described herein. Foreign Guaranties and Canadian Guaranties shall be subject to additional requirements as established herein. If PJMSettlement determines that a material change in the financial condition of the Guarantor has occurred, or if the Corporate Guaranty comes within 30 days of expiring without renewal, PJMSettlement may reduce or eliminate any Unsecured Credit afforded to the Participant through the guaranty. Such reduction or elimination may require the Participant to provide Collateral within two Business Days. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

All costs associated with obtaining and maintaining a Corporate Guaranty and meeting the Attachment Q provisions are the responsibility of the Participant.

1. Foreign Guaranties

A Foreign Guaranty is a Corporate Guaranty that is provided by an Affiliate entity that is domiciled in a country other than the United States or Canada. The entity providing a Foreign Guaranty on behalf of a Participant is a Foreign Guarantor. A Participant may provide a Foreign Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJMSettlement provided that all of the following conditions are met:

PJMSettlement reserves the right to deny, reject, or terminate acceptance of any Foreign Guaranty at any time, including for material adverse circumstances or occurrences.

- ~~(a)~~ A Foreign Guaranty:
 - ~~(i)~~ Must contain provisions equivalent to those contained in PJMSettlement's standard form of Foreign Guaranty with any modifications subject to review and approval by PJMSettlement counsel.
 - ~~(ii)~~ Must be denominated in US currency.
 - ~~(iii)~~ Must be written and executed solely in English, including any duplicate originals.
 - ~~(iv)~~ Will not be accepted towards a Participant's Unsecured Credit Allowance for more than the following limits, depending on the Foreign Guarantor's credit rating:

Rating of Foreign Guarantor	Maximum Accepted Guaranty if Country Rating is AAA	Maximum Accepted Guaranty if Country Rating is AA+
A- and above	USD50,000,000	USD30,000,000
BBB+	USD30,000,000	USD20,000,000
BBB	USD10,000,000	USD10,000,000
BBB- or below	USD 0	USD 0

(v-) May not exceed 50% of the Participant's total credit, if the Foreign Grantor is rated less than BBB+.

(b-) A Foreign Guarantor:

(i-) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.

(ii-) Must be an Affiliate of the Participant.

(iii-) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.

(iv-) Must be rated by at least one Rating Agency acceptable to PJMSettlement; the credit strength of a Foreign Guarantor may not be determined based on an evaluation of its financials without an actual credit rating as well.

(v-) Must have a senior unsecured (or equivalent, in PJMSettlement's sole discretion) rating of BBB (one notch above BBB-) or greater by any and all agencies that provide rating coverage of the entity.

(vi-) Must provide financials in Generally Acceptable Accounting Principles (GAAP) format or other format acceptable to PJMSettlement with clear representation of net worth, intangible assets, and any other information PJMSettlement may require in order to determine the entity's Unsecured Credit Allowance

(vii-) Must provide a Secretary's Certificate from the Participant's corporate secretary certifying the adoption of Corporate Resolutions:

1. Authorizing and approving the Guaranty; and
2. Authorizing the Officers to execute and deliver the Guaranty on behalf of the Guarantor.

(viii-) Must be domiciled in a country with a minimum long-term sovereign (or equivalent) rating of AA+/Aa1, with the following conditions:

1. Sovereign ratings must be available from at least two rating agencies acceptable to PJMSettlement (e.g. S&P, Moody's, Fitch, DBRS).
2. Each agency's sovereign rating for the domicile will be considered to be the lowest of: country ceiling, senior unsecured government debt, long-term foreign currency sovereign rating, long-term local currency sovereign rating, or other equivalent measures, at PJMSettlement's sole discretion.
3. Whether ratings are available from two or three agencies, the lowest of the two or three will be used.

(ix-) Must be domiciled in a country that recognizes and enforces judgments of US courts.

- ~~(x-)~~ Must demonstrate financial commitment to activity in the United States as evidenced by one of the following:
 1. American Depositary Receipts (ADR) are traded on the New York Stock Exchange, American Stock Exchange, or NASDAQ.
 2. Equity ownership worth over USD100,000,000 in the wholly-owned or majority owned subsidiaries in the United States.
- ~~(xi-)~~ Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.
- ~~(xii-)~~ Must pay for all expenses incurred by PJMSettlement related to reviewing and accepting a foreign guaranty beyond nominal in-house credit and legal review.
- ~~(xiii-)~~ Must, at its own cost, provide PJMSettlement with independent legal opinion from an attorney/solicitor of PJMSettlement's choosing and licensed to practice law in the United States and/or Guarantor's domicile, in form and substance acceptable to PJMSettlement in its sole discretion, confirming the enforceability of the Foreign Guaranty, the Guarantor's legal authorization to grant the Guaranty, the conformance of the Guaranty, Guarantor, and Guarantor's domicile to all of these requirements, and such other matters as PJMSettlement may require in its sole discretion.

2. Canadian Guaranties

The entity providing a Canadian Guaranty on behalf of a Participant is a Canadian Guarantor. A Participant may provide a Canadian Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJMSettlement provided that all of the following conditions are met.

PJMSettlement reserves the right to deny, reject, or terminate acceptance of any Canadian Guaranty at any time for reasonable cause, including adverse material circumstances.

- ~~(a-)~~ A Canadian Guaranty:
 - ~~(i-)~~ Must contain provisions equivalent to those contained in PJMSettlement's standard form of Foreign Guaranty with any modifications subject to review and approval by PJMSettlement counsel.
 - ~~(ii-)~~ Must be denominated in US currency.
 - ~~(iii-)~~ Must be written and executed solely in English, including any duplicate originals.
- ~~(b-)~~ A Canadian Guarantor:
 - ~~(i-)~~ Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
 - ~~(ii-)~~ Must be an Affiliate of the Participant.
 - ~~(iii-)~~ Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.

- (iv-) Must be rated by at least one Rating Agency acceptable to PJMSettlement; the credit strength of a Canadian Guarantor may not be determined based on an evaluation of its financials without an actual credit rating as well.
- (v-) Must provide financials in Generally Acceptable Accounting Principles (GAAP) format or other format acceptable to PJMSettlement with clear representation of net worth, intangible assets, and any other information PJMSettlement may require in order to determine the entity's Unsecured Credit Allowance.
- (vi-) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.

D. Unsecured Credit Allowance Calculation

PJMSettlement's Unsecured Credit Allowance evaluation process will include calculating a Credit Score for each Participant. The Credit Score will be utilized to determine a Participant's Unsecured Credit Allowance.

Where two or more entities, including Participants, are considered Affiliates, Unsecured Credit Allowances will be established for each individual Participant, subject to an aggregate maximum amount for all Affiliates as provided for in section II.D.3 of this Attachment Q.

In its credit evaluation of cooperatives and municipalities, PJMSettlement may request additional information as part of the overall financial review process and may also consider qualitative factors in determining financial strength and creditworthiness.

1. Credit Score

For Participants with credit ratings, a Credit Score will be assigned based on their senior unsecured credit rating and credit watch status as shown in the table below. If an explicit senior unsecured rating is not available, PJMSettlement may impute an equivalent rating from other ratings that are available. For Participants without a credit rating, but who wish to be considered for an Unsecured Credit Allowance, a Credit Score will be generated from PJMSettlement's review and analysis of various factors that are predictors of financial strength and creditworthiness. PJMSettlement will consistently apply the measures it uses in determining Credit Scores. The credit scoring methodology details are included in a supplementary document available on OASIS.

Rated Entities Credit Scores

Rating	Score	Score Modifier	
		Credit Watch Negative	Credit Watch Positive
AAA	100	-1.0	0.0
AA+	99	-1.0	0.0
AA	99	-1.0	0.0
AA-	98	-1.0	0.0
A+	97	-1.0	0.0

A	96	-2.0	0.0
A-	93	-3.0	1.0
BBB+	88	-4.0	2.0
BBB	78	-4.0	2.0
BBB-	65	-4.0	2.0
BB+ and below	0	0.0	0.0

2. Unsecured Credit Allowance

PJMSettlement will determine a Participant's Unsecured Credit Allowance based on its Credit Score and the parameters in the table below. The maximum Unsecured Credit Allowance is the lower of:

- (a) A percentage of the Participant's Tangible Net Worth, as stated in the table below, with the percentage based on the Participant's credit score; and
- (b) A dollar cap based on the credit score, as stated in the table below:

Credit Score	Tangible Net Worth Factor	Maximum Unsecured Credit Allowance (\$ Million)
91-100	2.125 – 2.50%	\$50
81-90	1.708 – 2.083%	\$42
71-80	1.292 – 1.667%	\$33
61-70	0.875 – 1.25%	\$7
51-60	0.458 – 0.833%	\$0-\$2
50 and Under	0%	\$0

If a Corporate Guaranty is utilized to establish an Unsecured Credit Allowance for a Participant, the value of a Corporate Guaranty will be the lesser of:

- (i) The limit imposed in the Corporate Guaranty;
- (ii) The Unsecured Credit Allowance calculated for the Guarantor; and
- (iii) A portion of the Unsecured Credit Allowance calculated for the Guarantor in the case of Affiliated Participants.

PJMSettlement has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current market activity. Failure to remit the required amount of additional Collateral within two Business Days shall be deemed an event of default.

PJMSettlement will maintain a posting of each Participant's Unsecured Credit Allowance, along with certain other credit related parameters, on the PJM website in a secure, password-protected location. Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

3. Unsecured Credit Limits For Affiliates

If two or more Participants are Affiliates and each is being granted an Unsecured Credit Allowance, PJMSettlement will consider the overall creditworthiness of the Affiliates when determining the Unsecured Credit Allowances in order not to grant more Unsecured Credit than the overall corporation could support.

Example: Participants A and B each have a \$10.0 million Corporate Guaranty from their common parent, a holding company with an Unsecured Credit Allowance calculation of \$12.0 million. PJMSettlement may limit the Unsecured Credit Allowance for each Participant to \$6.0 million, so the total Unsecured Credit Allowance does not exceed the corporate total of \$12.0 million.

PJMSettlement will work with the Affiliates to allocate the total Unsecured Credit Allowance among the Affiliates while assuring that no individual Participant, nor common guarantor, exceeds the Unsecured Credit Allowance appropriate for its credit strength. The aggregate Unsecured Credit for a Participant, including Unsecured Credit Allowance granted based on its own creditworthiness and any Unsecured Credit Allowance conveyed through a Guaranty shall not exceed \$50 million. The aggregate Unsecured Credit for a group of Affiliates shall not exceed \$50 million. A group of Affiliates subject to this cap shall request PJMSettlement to allocate the maximum Unsecured Credit amongst the group, assuring that no individual Participant or common guarantor, shall exceed the Unsecured Credit level appropriate for its credit strength and activity.

III. FORMS OF COLLATERAL

In order to satisfy their PJM credit requirements Participants may provide Collateral in a PJMSettlement-approved form and amount pursuant to the guidelines herein.

Collateral which is no longer required to be maintained under provisions of the Agreements shall be returned at the request of a Participant no later than two Business Days following determination by PJMSettlement within a commercially reasonable period of time that such Collateral is not required.

Except when an event of default has occurred, a Participant may substitute an approved PJMSettlement form of Collateral for another PJMSettlement approved form of Collateral of equal value.

A. Cash Deposit

Cash provided by a Participant as Collateral will be held in a depository account by PJMSettlement. Interest shall accrue to the benefit of the Participant, provided that PJMSettlement may require Participants to provide appropriate tax and other information in order to accrue such interest credits.

PJMSettlement may establish an array of investment options among which a Participant may choose to invest its cash deposited as Collateral. The depository account shall be held in PJMSettlement's name in a banking or financial institution acceptable to PJMSettlement. Where practicable, PJMSettlement may establish a means for the Participant to communicate directly with the bank or financial institution to permit the Participant to direct certain activity in the PJMSettlement account in which its Collateral is held. PJMSettlement will establish and publish procedural rules, identifying the investment options and respective discounts in Collateral value that will be taken to reflect any liquidation, market and/or credit risk presented by such investments.

Cash Collateral may not be pledged or in any way encumbered or restricted from full and timely use by PJM in accordance with terms of the Agreements.

PJMSettlement has the right to liquidate all or a portion of the Collateral account balance at its discretion to satisfy a Participant's Total Net Obligation to PJMSettlement in the event of default under this Attachment Q or one or more of the Agreements.

B. Letter Of Credit

An unconditional, irrevocable standby letter of credit can be utilized to meet the Collateral requirement. As stated below, the form, substance, and provider of the letter of credit must all be acceptable to PJMSettlement.

(i) _____ The letter of credit will only be accepted from U.S.-based financial institutions or U.S. branches of foreign financial institutions ("financial institutions") that have a minimum corporate debt rating of "A" by Standard & Poor's or Fitch Ratings, or "A2" from Moody's Investors Service, or an equivalent short term rating from one of these agencies. PJMSettlement will consider the lowest applicable rating to be the rating of the financial institution. If the rating of a financial institution providing a letter of credit is lowered below A/A2 by any rating agency, then PJMSettlement may require the Participant to provide a letter of credit from another financial institution that is rated A/A2 or better, or to provide a cash deposit. If a letter of credit is provided from a U.S. branch of a foreign institution, the U.S. branch must itself comply with the terms of this Attachment Q, including having its own acceptable credit rating.

(ii) The letter of credit shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) days prior written notice from the issuing financial institution. If PJM or PJMSettlement receives notice from the issuing financial institution that the current letter of credit is being

cancelled, the Participant will be required to provide evidence, acceptable to PJMSettlement, that such letter of credit will be replaced with appropriate Collateral, effective as of the cancellation date of the letter of credit, no later than thirty (30) days before the cancellation date of the letter of credit, and no later than ninety (90) days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one of more of the Agreements.

•(iii) PJM will post on its web site an acceptable standard form of a letter of credit that should be utilized by a Participant choosing to submit a letter of credit to establish credit at PJM. If the letter of credit varies in any way from the standard format, it must first be reviewed and approved by PJMSettlement. All costs associated with obtaining and maintaining a letter of credit and meeting the Attachment Q provisions are the responsibility of the Participant.

•(iv) PJMSettlement may accept a letter of credit from a financial institution that does not meet the credit standards of this Attachment Q provided that the letter of credit has third-party support, in a form acceptable to PJMSettlement, from a financial institution that does meet the credit standards of this Attachment Q.

C. PJM Administrative Charges

Collateral held by PJMSettlement shall also secure obligations to PJM for PJM administrative charges, and may be liquidated to satisfy all such obligations in event of default.

D. Collateral Held by PJM

PJMSettlement's credit requirements are applicable as of the effective date of the filing on May 5, 2010 by PJM and PJMSettlement of amendments to this Attachment Q. Collateral submitted by Participants and held by PJM shall be held by PJM for the benefit of PJMSettlement.

IV. CREDIT REQUIREMENTS FOR SCREENED TRANSACTIONS

A. Virtual and Export Transaction Screening

1. Credit for Virtual and Export Transactions

Export Transactions and Virtual Transactions both utilize Credit Available for Virtual Transactions to support their credit requirements.

PJMSettlement does not require a Market Participant to establish separate or additional credit for submitting Virtual or Export Transactions; however, once transactions are submitted and accepted by PJM, PJMSettlement may require credit supporting those transactions to be held until the transactions are completed and their financial impact incorporated into the Market Participant's Obligations. If a Market Participant chooses to establish additional Collateral

and/or Unsecured Credit Allowance in order to increase its Credit Available for Virtual Transactions, the Market Participant's Working Credit Limit for Virtual Transactions shall be increased in accordance with the definition thereof. The Collateral and/or Unsecured Credit Allowance available to increase a Market Participant's Credit Available for Virtual Transactions shall be the amount of Collateral and/or Unsecured Credit Allowance available after subtracting any credit required for Minimum Participation Requirements, FTR, RPM or other credit requirement determinants defined in this Attachment Q, as applicable.

If a Market Participant chooses to provide additional Collateral in order to increase its Credit Available for Virtual Transactions PJMSettlement may establish a reasonable timeframe, not to exceed three months, for which such Collateral must be maintained. PJMSettlement will not impose such restriction on a deposit unless a Market Participant is notified prior to making the deposit. Such restriction, if applied, shall be applied to all future deposits by all Market Participants engaging in Virtual Transactions.

A Market Participant may increase its Credit Available for Virtual Transactions by providing additional Collateral to PJMSettlement. PJMSettlement will make a good faith effort to make new Collateral available as Credit Available for Virtual Transactions as soon as practicable after confirmation of receipt. In any event, however, Collateral received and confirmed by noon on a Business Day will be applied (as provided under this Attachment Q) to Credit Available for Virtual Transactions no later than 10:00 am on the following Business Day. Receipt and acceptance of wired funds for cash deposit shall mean actual receipt by PJMSettlement's bank, deposit into PJMSettlement's customer deposit account, confirmation by PJMSettlement that such wire has been received and deposited, and entry into PJM's credit system. Receipt and acceptance of letters of credit shall mean receipt of the original letter of credit or amendment thereto, confirmation from PJMSettlement's credit and legal staffs that such letter of credit or amendment thereto conforms to PJMSettlement's requirements, which confirmation shall be made in a reasonable and practicable timeframe, and entry into PJM's credit system. To facilitate this process, bidders submitting additional Collateral for the purpose of increasing their Credit Available for Virtual Transactions are advised to submit such Collateral well in advance of the desired time, and to specifically notify PJMSettlement of such submission.

A Market Participant wishing to submit Virtual or Export Transactions must allocate within PJM's credit system the appropriate amount of Credit Available for Virtual Transactions to the virtual and export allocation sections within each customer account in which it wishes to submit such transactions.

2. Virtual Transaction Screening

All Virtual Transactions submitted to PJM shall be subject to a credit screen prior to acceptance in the Day-ahead Energy Market. The credit screen is applied separately for each of a Market Participant's customer accounts. The credit screen process will automatically reject Virtual Transactions submitted by the Market Participant in a customer account if the Market Participant's Credit Available for Virtual Transactions, allocated on a customer account basis, is exceeded by the Virtual Credit Exposure that is calculated based on the Market Participant's Virtual Transactions submitted, as described below.

A Market Participant's Virtual Credit Exposure will be calculated separately for each customer account on a daily basis for all Virtual Transactions submitted by the Market Participant for the next Operating Day using the following equation:

Virtual Credit Exposure = INC and DEC Exposure + Up-to Congestion Exposure

Where:

(a) INC and DEC Exposure for each customer account is calculated as:

(i) ((the total MWh bid or offered, whichever is greater, hourly at each node) x the Nodal Reference Price x 1 day) summed over all nodes and all hours; plus (bii) ((the difference between the total bid MWh cleared and total offered MWh cleared hourly at each node) x Nodal Reference Price) summed over all nodes and all hours for the previous cleared Day-ahead Energy Market.

(b) Up-to Congestion Exposure for each customer account is calculated as:

(i) Total MWh bid hourly for each Up-to Congestion Transaction x (price bid – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours; plus (bii) Total MWh cleared hourly for each Up-to Congestion Transaction x (cleared price – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours for the previous cleared Day-ahead Energy Market, provided that hours for which the calculation for an Up-to Congestion Transaction is negative, it shall be deemed to have a zero contribution to the sum.

3. Export Transaction Screening

Export Transactions in the Real-time Energy Market shall be subject to Export Transaction Screening. Export Transaction Screening may be performed either for the duration of the entire Export Transaction, or separately for each time interval comprising an Export Transaction. PJM will deny or curtail all or a portion (based on the relevant time interval) of an Export Transaction if that Export Transaction, or portion thereof, would otherwise cause the Market Participant's Export Credit Exposure to exceed its Credit Available for Export Transactions. Export Transaction Screening shall be applied separately for each Operating Day and shall also be applied to each Export Transaction one or more times prior to the market clearing process for each relevant time interval. Export Transaction Screening shall not apply to transactions established directly by and between PJM and a neighboring Balancing Authority for the purpose of maintaining reliability.

A Market Participant's credit exposure for an individual Export Transaction shall be the MWh volume of the Export Transaction for each relevant time interval multiplied by each relevant Export Transaction Price Factor and summed over all relevant time intervals of the Export Transaction.

B. RPM Auction and Price Responsive Demand Credit Requirements

Settlement during any Delivery Year of cleared positions resulting or expected to result from any RPM Auction shall be included as appropriate in Peak Market Activity, and the provisions of this Attachment Q shall apply to any such activity and obligations arising therefrom. In addition, the provisions of this section shall apply to any entity seeking to participate in any RPM Auction, to address credit risks unique to such auctions. The provisions of this section also shall apply under certain circumstances to PRD Providers that seek to commit Price Responsive Demand pursuant to the provisions of the Reliability Assurance Agreement.

Credit requirements described herein for RPM Auctions and RPM bilateral transactions are applied separately for each customer account of a Market Participant. Market Participants wishing to participate in an RPM Auction or enter into RPM bilateral transactions must designate the appropriate amount of credit to each account in which their offers are submitted.

1. Applicability

A Market Participant seeking to submit a Sell Offer in any RPM Auction based on any Capacity Resource for which there is a materially increased risk of nonperformance must satisfy the credit requirement specified herein before submitting such Sell Offer. A PRD Provider seeking to commit Price Responsive Demand for which there is a materially increased risk of non-performance must satisfy the credit requirement specified herein before it may commit the Price Responsive Demand. Credit must be maintained until such risk of non-performance is substantially eliminated, but may be reduced commensurate with the reduction in such risk, as set forth in section IV.B.3 below.

For purposes of this provision, a resource for which there is a materially increased risk of nonperformance shall mean: (i) a Planned Generation Capacity Resource; (ii) a Planned Demand Resource or an Energy Efficiency Resource; (iii) a Qualifying Transmission Upgrade; (iv) an existing or Planned Generation Capacity Resource located outside the PJM Region that at the time it is submitted in a Sell Offer has not secured firm transmission service to the border of the PJM Region sufficient to satisfy the deliverability requirements of the Reliability Assurance Agreement; or (v) Price Responsive Demand to the extent the responsible PRD Provider has not registered PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with ~~Schedule 6.1 of the~~ Reliability Assurance Agreement, Schedule 6.1.

2. Reliability Pricing Model Auction and Price Responsive Demand Credit Requirement

Except as provided for Credit-Limited Offers below, for any resource specified in section IV.B.1 above, other than Price Responsive Demand, the credit requirement shall be the RPM Auction Credit Rate, as provided in section IV.B.4 below, times the megawatts to be offered for sale from such resource in an RPM Auction. For Qualified Transmission Upgrades, the credit

requirements shall be based on the Locational Deliverability Area in which such upgrade was to increase the Capacity Emergency Transfer Limit. However, the credit requirement for Planned Financed Generation Capacity Resources and Planned External Financed Generation Capacity Resources shall be one half of the product of the RPM Auction Credit Rate, as provided in section IV.B.4 [below](#), times the megawatts to be offered for sale from such resource in a Reliability Pricing Model Auction. The RPM Auction Credit Requirement for each Market Participant shall be determined on a customer account basis, separately for each customer account of a Market Participant, and shall be the sum of the credit requirements for all such resources to be offered by such Market Participant in the auction or, as applicable, cleared by such Market Participant in the relevant auctions. For Price Responsive Demand, the credit requirement shall be based on the Nominal PRD Value (stated in Unforced Capacity terms) times the Price Responsive Demand Credit Rate as set forth in section IV.B.5 [below](#).

Except for Credit-Limited Offers, the RPM Auction Credit requirement for a Market Participant will be reduced for any Delivery Year to the extent less than all of such Market Participant's offers clear in the Base Residual Auction or any Incremental Auction for such Delivery Year. Such reduction shall be proportional to the quantity, in megawatts, that failed to clear in such Delivery Year.

A Sell Offer based on a Planned Generation Capacity Resource, Planned Demand Resource, or Energy Efficiency Resource may be submitted as a Credit-Limited Offer. A Market Participant electing this option shall specify a maximum amount of Unforced Capacity, in megawatts, and a maximum credit requirement, in dollars, applicable to the Sell Offer. A Credit-Limited Offer shall clear the RPM Auction in which it is submitted (to the extent it otherwise would clear based on the other offer parameters and the system's need for the offered capacity) only to the extent of the lesser of: (i) the quantity of Unforced Capacity that is the quotient of the division of the specified maximum credit requirement by the Auction Credit Rate resulting from section IV.B.4.b. [below](#); and (ii) the maximum amount of Unforced Capacity specified in the Sell Offer. For a Market Participant electing this alternative, the RPM Auction Credit requirement applicable prior to the posting of results of the auction shall be the maximum credit requirement specified in its Credit-Limited Offer, and the RPM Auction Credit requirement subsequent to posting of the results will be the Auction Credit Rate, as provided in section IV.B.4.b, c. or d. [of this Attachment Q](#), as applicable, times the amount of Unforced Capacity from such Sell Offer that cleared in the auction. The availability and operational details of Credit-Limited Offers shall be as described in the PJM Manuals.

As set forth in section IV.B.4 [below](#), a Market Participant's Auction Credit requirement shall be determined separately for each Delivery Year.

3. Reduction in Credit Requirement

As specified below, the RPM Auction Credit Rate may be reduced under certain circumstances after the auction has closed.

The Price Responsive Demand credit requirement shall be reduced as and to the extent the PRD Provider registers PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with ~~Schedule 6.1 of the~~ Reliability Assurance Agreement, Schedule 6.1.

In addition, the RPM Auction Credit requirement for a Market Participant for any given Delivery Year shall be reduced periodically, provided the Market Participant successfully meets progress milestones that reduce the risk of non-performance, as follows:

(a) For Planned Demand Resources and Energy Efficiency Resources, the RPM Auction Credit requirement will be reduced in direct proportion to the megawatts of such Demand Resource that the Resource Provider qualifies as a Capacity Resource, in accordance with the procedures established under the Reliability Assurance Agreement.

~~(b)~~ For Existing Generation Capacity Resources located outside the PJM Region that have not secured sufficient firm transmission to the border of the PJM Region prior to the auction in which such resource is first offered, the RPM Auction Credit requirement shall be reduced in direct proportion to the megawatts of firm transmission service secured by the Market Participant that qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

~~(c)~~ For Planned Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

Milestones	Increment of reduction from initial RPM Auction Credit requirement
Effective Date of Interconnection Service Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, except for the Interconnection Service Agreement and Commencement of Interconnection Service milestones, the Capacity Market Seller must submit a sworn, notarized certification of a duly authorized independent engineer in a form acceptable to PJM, certifying that the engineer has personal knowledge, or has engaged in a diligent inquiry to determine, that the milestone has been achieved and that, based on its review of the relevant project information, the independent engineer is not aware of any information that could reasonably cause it to believe that the Capacity Resource will not be in-service by the beginning of the applicable Delivery Year. The

Capacity Market Seller shall, if requested by PJM, supply to PJM on a confidential basis all records and documents relating to the independent engineer's certification.

~~(d)~~ For Planned External Generation Capacity Resources, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement shall be no greater than the quotient of ~~(a)~~ the MWs of firm transmission service that the Capacity Market Seller has secured for the complete transmission path divided by ~~(b)~~ the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

Credit Reduction Milestones for Planned External Generation Capacity Resources	
Milestones	Increment of reduction from initial RPM Auction Credit requirement
Effective Date of the equivalent of an Interconnection Service Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

~~(e)~~ For Planned Financed Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

Credit Reduction Milestones for Planned Financed Generation Capacity Resources	
Milestones	Increment of reduction from initial RPM Auction Credit requirement
Full Notice to Proceed	50%
Commencement of Construction (e.g., footers poured)	15%
Main Power Generating Equipment Delivered	10%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(f)- For Planned External Financed Generation Capacity Resources, the RPM ~~Auction~~ Credit ~~Auction~~ Requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement, including the initial 50% reduction for being a Planned External Financed Generation Capacity Resources, shall be no greater than the quotient of (ai) the MWs of firm transmission service that the Capacity Market Seller has secured for the complete transmission path divided by (bii) the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

Credit Reduction Milestones for Planned External Financed Generation Capacity	
Milestones	Increment of reduction from initial RPM Auction Credit requirement
Full Notice to Proceed	50%
Commencement of Construction (e.g., footers poured)	15%
Main Power Generating Equipment Delivered	10%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(g)- For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section IV.B.2 ~~above~~ beginning as of the effective date of the latest associated Interconnection Service Agreement (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service. In addition, a Qualifying Transmission Upgrade will be allowed a reduction in its RPM Auction Credit requirement equal to the amount of Collateral currently posted with PJM for the facility construction when the Qualifying Transmission Upgrade meets the following requirements: the Upgrade Construction Service Agreement has been fully executed, the full estimated cost to complete as most recently determined or updated by PJM has been fully paid or collateralized, and all regulatory and other required approvals (except those that must await construction completion) have been obtained. Such reduction in RPM Auction Credit requirement may not be transferred across different projects.

4. RPM Auction Credit Rate

As set forth in the PJM Manuals, a separate Auction Credit Rate shall be calculated for each Delivery Year prior to each RPM Auction for such Delivery Year, as follows:

~~(a)~~ Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Auction Credit Rate shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of days in such Delivery Year; and
- (ii) For Capacity Performance Resources, the greater of ((A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in MW-day or (B) \$20 per MW-day) times the number of days in such Delivery Year.
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.

~~(b)~~ Subsequent to the posting of the results from a Base Residual Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of days in such Delivery Year; and
- (ii) For Capacity Performance Resources, the (greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) or (C) the lesser of ~~(i1)~~ 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or ~~(i2)~~ 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of days in such Delivery Year).
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.

~~(c)~~ For any resource not previously committed for a Delivery Year that seeks to participate in an Incremental Auction, the Auction Credit Rate shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) 0.24 times the Capacity Resource Clearing Price in the Base Residual Auction for

such Delivery Year for the Locational Deliverability Area within which the resource is located or (C) \$20 per MW-day) times the number of days in such Delivery Year; and

(ii) For Capacity Performance Resources, the (greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery ~~Y~~Year or for the Relevant LDA or (B) \$20/MW-day) times the number of days in such Delivery Year.

~~(d)~~ Subsequent to the posting of the results of an Incremental Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

(i) For Base Capacity Resources: (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of days in such Delivery Year, but no greater than the Auction Credit Rate previously established for such resource's participation in such Incremental Auction pursuant to subsection (c) above) times the number of days in such Delivery Year; and

(ii) For Capacity Performance Resources, the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) or (C) the lesser of (~~i1~~) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (~~ii2~~) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of days in such Delivery Year).

(iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.

~~(e)~~ For the purposes of this section IV.B.4, "Relevant LDA" means the Locational Deliverability Area in which the Capacity Performance Resource is located if a separate Variable Resource Requirement Curve has been established for that Locational Deliverability Area for the Base Residual Auction for such Delivery Year.

5. Price Responsive Demand Credit Rate

~~(a)~~ Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (i) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (ii) \$20 per MW-day) times the number of days in such Delivery Year;

~~(b)~~ Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive

Demand registered prior to such auction shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the PRD load is located) times the number of days in such Delivery Year times a final price uncertainty factor of 1.05;

~~(c).~~ For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be the same as the rate for Price Responsive Demand that had cleared in the Base Residual Auction;

~~(d).~~ Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for all Price Responsive Demand, shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Final Zonal Capacity Price for the Locational Deliverability Area within which the Price Responsive Demand is located) times the number of days in such Delivery Year, but no greater than the Price Responsive Demand Credit Rate previously established under subsections (a), (b), or (c) of this section for such Delivery Year.

6. RPM Seller Credit - Additional Form of Unsecured Credit for RPM

In addition to the forms of credit specified elsewhere in this Attachment Q, RPM Seller Credit shall be available to Market Participants, but solely for purposes of satisfying RPM Auction Credit requirements. If a supplier has a history of being a net seller into PJM Markets, on average, over the past 12 months, then PJMSettlement will count as available Unsecured Credit twice the average of that Market Participant's total net monthly PJMSettlement bills over the past 12 months. This RPM Seller Credit shall be subject to the cap on available Unsecured Credit as established in section II.D.3 [above](#).

RPM Seller Credit is calculated as a single value for each Market Participant, not separately by account, and must be designated to specific customer accounts in order to be available to satisfy RPM Auction Credit requirements that are calculated in each such customer account.

7. Credit Responsibility for Traded Planned RPM Capacity Resources

PJMSettlement may require that credit and financial responsibility for planned Capacity Resources that are traded remain with the original party (which for these purposes, means the party bearing credit responsibility for the planned Capacity Resource immediately prior to trade) unless the receiving party independently establishes consistent with this Attachment Q, that it has sufficient credit with PJMSettlement and agrees by providing written notice to PJMSettlement that it will fully assume the credit responsibility associated with the traded planned Capacity Resource.

C. Financial Transmission Right Auctions

Credit requirements described herein for FTR activity are applied separately for each customer account of a Market Participant. FTR Participants must designate the appropriate amount of credit to each separate customer account in which any activity occurs or will occur.

1. FTR Credit Limit.

Participants must maintain their FTR Credit Limit at a level equal to or greater than their FTR Credit Requirement for each applicable account. FTR Credit Limits will be established only by a Participant providing Collateral and designating the available credit to specific accounts.

2. FTR Credit Requirement.

For each Market Participant with FTR activity, PJMSettlement shall calculate an FTR Credit Requirement based on FTR cost less the FTR Historical Value. FTR Historical Values shall be calculated separately for on-peak, off-peak, and 24-hour FTRs for each month of the year. FTR Historical Values shall be adjusted by plus or minus ten percent for cleared counter flow or prevailing flow FTRs, respectively, in order to mitigate exposure due to uncertainty and fluctuations in actual FTR value. Historical values used in the calculation of FTR Historical Values shall be adjusted when the network simulation model utilized in PJM's economic planning process indicates that transmission congestion will decrease due to certain transmission upgrades that are in effect or planned to go into effect for the following Planning Period. The transmission upgrades to be modeled for this purpose shall only include those upgrades that, individually, or together, have 10% or more impact on the transmission congestion on an individual constraint or constraints with congestion of \$5 million or more affecting a common congestion path. The adjustments to historical values shall be the dollar amount of the adjustment shown in the network simulation model. FTR Credit Requirements shall be further adjusted by ARR credits available and by an amount based on portfolio diversification, if applicable. The requirement will be based on individual monthly exposures which are then used to derive a total requirement.

The FTR Credit Requirement shall be calculated by first adding for each month the FTR Monthly Credit Requirement Contribution for each submitted, accepted, and cleared FTR and then subtracting the prorated value of any ARRs held by the Market Participant for that month. The resulting twelve monthly subtotals represent the expected value of net payments between PJMSettlement and the Market Participant for FTR activity each month during the Planning Period. Subject to later adjustment by an amount based on portfolio diversification, if applicable, the FTR Credit Requirement shall be the sum of the individual positive monthly subtotals, representing months in which net payments to PJMSettlement are expected.

3. Rejection of FTR Bids.

Bids submitted into an auction will be rejected if the Market Participant's FTR Credit Requirement including such submitted bids would exceed the Market Participant's FTR Credit Limit, or if the Market Participant fails to establish additional credit as required pursuant to provisions related to portfolio diversification.

4. FTR Credit Collateral Returns.

A Market Participant may request from PJMSettlement the return of any Collateral no longer required for the FTR auctions. PJMSettlement is permitted to limit the frequency of such requested Collateral returns, provided that Collateral returns shall be made by PJMSettlement at least once per calendar quarter, if requested by a Market Participant.

5. Credit Responsibility for Bilateral Transfers of FTRs.

PJMSettlement may require that credit responsibility associated with an FTR bilaterally transferred to a new Market Participant remain with the original party (which for these purposes, means the party bearing credit responsibility for the FTR immediately prior to bilateral transfer) unless and until the receiving party independently establishes, consistent with this Attachment Q, sufficient credit with PJMSettlement and agrees through confirmation of the bilateral transfer in PJM's FTR reporting tool that it will meet in full the credit requirements associated with the transferred FTR.

6. Portfolio Diversification.

Portfolio diversification shall be calculated, and the appropriate provisions herein applied, separately for each customer account of a Market Participant, and separately for each month.

Subsequent to calculating a tentative cleared solution for an FTR auction (or auction round), PJM shall determine the FTR Portfolio Auction Value for each customer account of a Market Participant, including the tentative cleared solution. Any customer accounts with such FTR Portfolio Auction Values that are negative in one or more months shall be deemed "FTR Flow Undiversified".

For customer accounts that are FTR Flow Undiversified in a month, PJMSettlement shall increment the FTR Credit Requirement by an amount equal to three times the absolute value of the FTR Portfolio Auction Value in that month, including the tentative cleared solution. For portfolios that are FTR Flow Undiversified in months subsequent to the current planning year, these incremental amounts, calculated on a monthly basis, shall be reduced (but not below zero) by an amount up to 25% of the monthly value of ARR credits that are held by a Market Participant. Subsequent to the ARR allocation process preceding an annual FTR auction, such ARR credits shall be reduced to zero for months associated with that ARR allocation process. PJMSettlement may recalculate such ARR credits at any time, but at a minimum shall do so subsequent to each annual FTR auction. If a reduction in such ARR credits at any time increases a Market Participant's FTR Credit Requirements beyond its credit available for FTR activity, the Market Participant must increase its credit to eliminate the shortfall in the applicable customer account(s).

If the FTR Credit Requirement for any Market Participant's customer account exceeds its credit available for FTRs as a result of these diversification requirements for the tentatively cleared portfolio of FTRs, PJMSettlement shall immediately issue a demand for additional credit, and such demand must be fulfilled before 4:00 p.m. on the Business Day following the demand. If any Market Participant does not timely satisfy such demand, PJMSettlement, in coordination

with PJM, shall cause the removal of that Market Participant's entire set of bids in that account for that FTR auction (or auction round) and a new cleared solution shall be calculated for the entire auction (or auction round).

If necessary, PJM shall repeat the auction clearing calculation. PJM shall repeat these portfolio diversification calculations subsequent to any such secondary clearing calculation, and PJMSettlement shall require affected Market Participants to establish additional credit.

7. FTR Administrative Charge Credit Requirement

In addition to any other credit requirements, PJMSettlement may apply a credit requirement to cover the maximum administrative fees that may be charged to a Market Participant for its bids and offers.

8. Long-Term FTR Credit Recalculation

Long-term FTR Credit Requirement calculations shall be updated annually for known history, consistent with updating of historical values used for FTR Credit Requirement calculations in the annual auctions.

Effective only for the FTR Historical Value update performed in 2018 for FTR Credit Requirement calculations, Market Participants will be granted a one-time transition period of no longer than 13 months in duration, during which they may remedy any credit shortfall arising from the 2018 historical value update. The transition period shall commence upon implementation of the 2018 FTR Historical Value update, and shall expire upon implementation of the 2019 FTR Historical Value update. During this transition period, a shortfall in FTR credit allocation by a Market Participant shall not be an event of default. However, failure to remedy the shortfall by the expiration of the transition period shall be an event of default. During such transition period, Market Participants with a credit shortfall shall be restricted in all of their credit-screened transactions. Specifically, such Market Participants may not engage in any Virtual Transactions or Export Transactions, or participate in RPM Auctions or other RPM activity, and may only participate in FTR Auctions or engage in FTR trading activities that reduce credit requirements. PJM shall not return any Collateral to such Market Participants until their credit shortfall is remedied. Market Participants shall allocate any excess or unallocated Collateral to any account(s) of such Market Participant in which there is a credit shortfall during the transition period. Market Participants may remedy their credit shortfall at any time through provision of sufficient Collateral.

V. GENERAL OBLIGATIONS

A. Peak Market Activity Credit Requirement

PJM shall calculate a Peak Market Activity credit requirement for each Participant. Each Participant must maintain sufficient Unsecured Credit Allowance and/or Collateral, as applicable, and subject to the provisions herein, to satisfy its Peak Market Activity credit requirement.

Peak Market Activity for Participants will be determined semi-annually, utilizing an initial Peak Market Activity, as explained below, calculated after the first complete billing week in the months of April and October. Peak Market Activity shall be the greater of the initial Peak Market Activity, or the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two, or three week period, ending within a respective semi-annual period. However, Peak Market Activity shall not exceed the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two or three week period in the prior 52 weeks.

Peak Market Activity shall exclude FTR Net Activity, Virtual Transactions Net Activity, and Export Transactions Net Activity.

When calculating Peak Market Activity, PJMSettlement may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

The initial Peak Market Activity for Applicants will be determined by PJMSettlement based on a review of an estimate of their transactional activity for all PJM Markets and services over the next 52 weeks, which the Applicant shall provide to PJMSettlement.

The initial Peak Market Activity for Market Participants and Transmission Customers, calculated at the beginning of each semi-annual period, shall be the three-week average of all non-zero invoice totals over the previous 52 weeks. This calculation shall be performed and applied within three Business Days following the day the invoice is issued for the first full billing week in the current semi-annual period.

Prepayments shall not affect Peak Market Activity unless otherwise agreed to in writing pursuant to this Attachment Q.

Peak Market Activity calculations shall take into account reductions of invoice values effectuated by early payments which are applied to reduce a Participant's Peak Market Activity as contemplated by other terms of this Attachment Q; provided that the initial Peak Market Activity shall not be less than the average value calculated using the weeks for which no early payment was made.

A Participant may reduce its Collateral requirement by agreeing in writing (in a form acceptable to PJMSettlement) to make additional payments, including prepayments, as and when necessary to ensure that such Participant's Total Net Obligation at no time exceeds such reduced Collateral requirement.

PJMSettlement may, at its discretion, adjust a Participant's Peak Market Activity requirement if PJMSettlement determines that the Peak Market Activity is not representative of such Participant's expected activity, as a consequence of known, measurable, and sustained changes. Such changes may include the loss (without replacement) of short-term load contracts, when

such contracts had terms of three months or more and were acquired through state-sponsored retail load programs, but shall not include short-term buying and selling activities.

PJMSettlement may waive the credit requirements for a Participant that has no outstanding transactions and agrees in writing that it shall not, after the date of such agreement, incur obligations under any of the Agreements. Such entity's access to all electronic transaction systems administered by PJM shall be terminated.

A Participant receiving unsecured credit may make early payments up to ten times in a rolling 52-week period in order to reduce its Peak Market Activity for credit requirement purposes. Imputed Peak Market Activity reductions for credit purposes will be applied to the billing period for which the payment was received. Payments used as the basis for such reductions must be received prior to issuance or posting of the invoice for the relevant billing period. The imputed Peak Market Activity reduction attributed to any payment may not exceed the amount of Unsecured Credit for which the Participant is eligible.

B. Working Credit Limit

PJMSettlement will establish a Working Credit Limit for each Participant against which its Total Net Obligation will be monitored. The Working Credit Limit is defined as 75% of the Collateral provided to PJMSettlement and/or 75% of the Unsecured Credit Allowance determined by PJMSettlement, as reduced by any applicable credit requirement determinants defined in this Attachment Q. A Participant's Total Net Obligation should not exceed its Working Credit Limit.

Example: After a credit evaluation by PJMSettlement, a Participant that has satisfied the Minimum Participation Requirements with audited financials demonstrating a Tangible Net Worth greater than \$1,000,000 is allowed an Unsecured Credit Allowance of \$10.0 million. The Participant will be assigned a Working Credit Limit of \$7.5 million.

If a Participant's Total Net Obligation approaches its Working Credit Limit, PJMSettlement may require the Participant to make an advance payment or increase its Collateral in order to maintain its Total Net Obligation below its Working Credit Limit. Except as explicitly provided herein, advance payments shall not serve to reduce the Participant's Peak Market Activity for the purpose of calculating credit requirements.

Example: After 10 days, and with 5 days remaining before the bill is due to be paid, a Participant approaches its \$4.0 million Working Credit Limit. PJMSettlement may require a prepayment of \$2.0 million in order that the Total Net Obligation will not exceed the Working Credit Limit.

If a Participant exceeds its Working Credit Limit or is required to make advance payments more than ten times during a 52-week period, PJMSettlement may require Collateral in an amount as may be deemed reasonably necessary to support its Total Net Obligation.

When calculating Total Net Obligation, PJMSettlement may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

VI. CREDIT BREACH AND EVENTS OF DEFAULT

If PJMSettlement determines that a Participant is in Credit Breach of its requirements, including payment requirements, PJMSettlement may issue to the Participant a breach notice or Collateral Call. A Participant will have two Business Days from notification of Credit Breach or issuance of a Collateral Call to remedy the Credit Breach or satisfy the Collateral Call in a manner deemed acceptable by PJMSettlement. Failure to remedy the Credit Breach or satisfy such Collateral Call within such two Business Days will be considered an event of default. If a Participant fails to meet the requirements of this Attachment Q but then remedies the Credit Breach or satisfies a Collateral Call within the two Business Day cure period, then the Participant shall be deemed to have complied with this Attachment Q. Any such two Business Day cure period will expire at 4:00 p.m. eastern prevailing time on the final day.

Only one cure period shall apply to a single event giving rise to a Credit Breach or Credit Breach default. Application of Collateral towards a non-payment shall not be considered a satisfactory cure of such Credit Breach if the Participant fails to meet all requirements of this Attachment Q after such application.

Failure to comply with this Attachment Q (except for the responsibility of a Participant to notify PJMSettlement of a material change) shall be considered an event of default. Pursuant to Operating Agreement, section 15.1.3(a) of the Operating Agreement and Tariff, Part I, section 1.7.3 of the PJM Tariff, non-compliance with this Attachment Q is an event of default under those respective Agreements. In event of default under this Attachment Q or one or more of the Agreements, PJMSettlement, in coordination with PJM, will take such actions as may be required or permitted under the Agreements, including but not limited to the termination of the Participant's ongoing Transmission Service and participation in PJM Markets. PJMSettlement has the right to liquidate all or a portion of a Participant's Collateral at its discretion to satisfy Total Net Obligations to PJMSettlement in the event of default under this Attachment Q or one or more of the Agreements.

In event of breach or default by a Participant of any requirements of this Attachment Q, PJMSettlement may exercise any remedy or action allowed or prescribed by this Attachment Q immediately upon identification of the Breach or following a reasonable time after identification in order to properly investigate and to orderly exercise such remedy or action. Delay in exercising any allowed or prescribed remedy or action shall not preclude PJMSettlement from exercising such remedy or action at a later time.

PJMSettlement may hold a defaulting Participant's Collateral for as long as such party's positions exist and consistent with this Attachment Q, in order to protect PJM's membership from default.

No payments shall be due to a Participant, nor shall any payments be made to a Participant, while the Participant is in default or has been declared in Credit Breach of this Attachment Q or the Agreements, or while a Collateral Call is outstanding. PJMSettlement may apply towards an

ongoing default any amounts that are held or later become available or due to the defaulting Participant through PJM's markets and systems.

In order to cover Obligations, PJMSettlement may hold a Participant's Collateral through the end of the billing period which includes the 90th day following the last day a Participant had activity, open positions, or accruing obligations (other than reconciliations and true-ups), and until such Participant has satisfactorily paid any obligations invoiced through such period. Obligations incurred or accrued through such period shall survive any withdrawal from PJM. In event of non-payment by a Participant, PJMSettlement may apply any Collateral to such Participant's Obligations, even if Participant had previously announced and effected its withdrawal from PJM.

~~Appendix 1 to~~ Attachment Q
Appendix 1

PJM MINIMUM PARTICIPATION CRITERIA
OFFICER CERTIFICATION FORM

Participant Name: _____ ("Participant")

I, _____, a duly authorized officer of Participant, understanding that PJM Interconnection, L.L.C. and PJMSettlement, Inc. ("PJMSettlement") are relying on this certification as evidence that Participant meets the minimum requirements set forth in ~~Attachment Q~~ to the PJM Open Access Transmission Tariff ("PJM Tariff"), Attachment Q hereby certify that I have full authority to represent on behalf of Participant and further represent as follows, as evidenced by my initialing each representation in the space provided below:

1. All employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Amended and Restated Operating Agreement ("PJM Operating Agreement") on behalf of the Participant have received appropriate¹ training and are authorized to transact on behalf of Participant. _____
2. Participant has written risk management policies, procedures, and controls, approved by Participant's independent risk management function² and applicable to transactions in the PJM Markets in which it participates and for which employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Operating Agreement have been trained, that provide an appropriate, comprehensive risk management framework that, at a minimum, clearly identifies and documents the range of risks to which Participant is exposed, including, but not limited to credit risks, liquidity risks and market risks. _____
3. An FTR Participant must make either the following 3.a. or 3.b. additional representations, evidenced by the undersigned officer initialing either the one 3.a. representation or the six 3.b. representations in the spaces provided below:
 - 3.a. Participant transacts in PJM's FTR markets with the sole intent to hedge congestion risk in connection with either obligations Participant has to serve load or rights Participant has to generate electricity in the PJM Region ("physical

As used in this representation, the term "appropriate" as used with respect to training means training that is (i) comparable to generally accepted practices in the energy trading industry, and (ii) commensurate and proportional in sophistication, scope and frequency to the volume of transactions and the nature and extent of the risk taken by the participant.

² As used in this representation, a Participant's "independent risk management function" can include appropriate corporate persons or bodies that are independent of the Participant's trading functions, such as a risk management committee, a risk officer, a Participant's board or board committee, or a board or committee of the Participant's parent company.

transactions”) and monitors all of the Participant’s FTR market activity to endeavor to ensure that its FTR positions, considering both the size and pathways of the positions, are either generally proportionate to or generally do not exceed the Participant’s physical transactions, and remain generally consistent with the Participant’s intention to hedge its physical transactions._____

- 3.b. On no less than a weekly basis, Participant values its FTR positions and engages in a probabilistic assessment of the hypothetical risk of such positions using analytically based methodologies, predicated on the use of industry accepted valuation methodologies._____

Such valuation and risk assessment functions are performed either by persons within Participant’s organization independent from those trading in PJM’s FTR markets or by an outside firm qualified and with expertise in this area of risk management._____

Having valued its FTR positions and quantified their hypothetical risks, Participant applies its written policies, procedures and controls to limit its risks using industry recognized practices, such as value-at-risk limitations, concentration limits, or other controls designed to prevent Participant from purposefully or unintentionally taking on risk that is not commensurate or proportional to Participant’s financial capability to manage such risk._____

Exceptions to Participant’s written risk policies, procedures and controls applicable to Participant’s FTR positions are documented and explain a reasoned basis for the granting of any exception._____

Participant has provided to PJMSettlement, in accordance with Tariff, Attachment Q, section I.B-~~of Attachment Q to the PJM Tariff~~, a copy of its current governing risk management policies, procedures and controls applicable to its FTR trading activities._____

If the risk management policies, procedures and controls applicable to Participant’s FTR trading activities submitted to PJMSettlement were submitted prior to the current certification, Participant certifies that no substantive changes have been made to such policies, procedures and controls applicable to its FTR trading activities since such submission._____

4. Participant has appropriate personnel resources, operating procedures and technical abilities to promptly and effectively respond to all PJM communications and directions._____
5. Participant has demonstrated compliance with the Minimum Capitalization criteria set forth in Tariff, Attachment Q-~~of the PJM Open Access Transmission Tariff~~ that are applicable to the PJM Market(s) in which Participant transacts, and is not aware of any

change having occurred or being imminent that would invalidate such compliance. _____

6. All Participants must certify and initial in at least one of the four sections below:

- a. I certify that Participant qualifies as an “appropriate person” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act or an “eligible contract participant” as that term is defined under section 1a(18), or successor provision, of the Commodity Exchange Act. I certify that Participant will cease transacting in PJM’s Markets and notify PJMSettlement immediately if Participant no longer qualifies as an “appropriate person” or “eligible contract participant.” _____

If providing financial statements to support Participant’s certification of qualification as an “appropriate person:”

I certify, to the best of my knowledge and belief, that the financial statements provided to PJMSettlement present fairly, pursuant to such disclosures in such financial statements, the financial position of Participant as of the date of those financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$5 million total asset levels reflected in these financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. _____

If providing financial statements to support Participant’s certification of qualification as an “eligible contract participant:”

I certify, to the best of my knowledge and belief, that the financial statements provided to PJMSettlement present fairly, pursuant to such disclosures in such financial statements, the financial position of Participant as of the date of those financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$10 million total asset levels reflected in these financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. _____

- b. I certify that Participant has provided an unlimited Corporate Guaranty in a form acceptable to PJM as described in Tariff, Attachment Q, section II.C ~~of Attachment Q~~ from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I certify that Participant will cease transacting PJM’s Markets and notify PJMSettlement immediately if issuer of the unlimited Corporate Guaranty for Participant no longer has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. _____

I certify that the issuer of the unlimited Corporate Guaranty to Participant continues to have at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I acknowledge that PJM and PJMSettlement are relying upon my certifications to maintain compliance with federal regulatory requirements._____

- c. I certify that Participant fulfills the eligibility requirements of the Commodity Futures Trading Commission exemption order (78 F.R. 19880 – April 2, 2013) by being in the business of at least one of the following in the PJM Region as indicated below (initial those applicable):

1. Generating electric energy, including Participants that resell physical energy acquired from an entity generating electric energy:_____
2. Transmitting electric energy:_____
3. Distributing electric energy delivered under Point-to-Point or Network Integration Transmission Service, including scheduled import, export and wheel through transactions:_____
4. Other electric energy services that are necessary to support the reliable operation of the transmission system:_____

Description only if c(4) is initialed:

Further, I certify that Participant will cease transacting in the PJM Markets and notify PJMSettlement immediately if Participant no longer performs at least one of the functions noted above in the PJM Region. I acknowledge that PJM and PJMSettlement are relying on my certification to maintain compliance with federal energy regulatory requirements._____

- d. I certify that Participant has provided a letter of credit of \$5 million or more to PJMSettlement in a form acceptable to PJMSettlement as described in Tariff, Attachment Q, section III.B ~~of Attachment Q~~ that the Participant acknowledges cannot be utilized to meet its credit requirements to PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this letter of credit and my certification to maintain compliance with federal regulatory requirements._____

7. I acknowledge that I have read and understood the provisions of Tariff, Attachment Q ~~of the PJM Tariff~~ applicable to Participant's business in the PJM Markets, including those provisions describing PJM's minimum participation requirements and the enforcement actions available to PJMSettlement of a Participant not satisfying those requirements. I

acknowledge that the information provided herein is true and accurate to the best of my belief and knowledge after due investigation. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this Certification._____

Date: _____

(Signature)

Print Name: _____

Title: _____

Attachment B

Revisions to the
PJM Open Access Transmission Tariff

(Clean Format)

Definitions – I – J - K

IDR Transfer Agreement:

“IDR Transfer Agreement” shall mean an agreement to transfer, subject to the terms of Tariff, Part VI, 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 Tariff, Schedule 12A.

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 Energy Offer:

“Incremental Energy Offer” shall mean offer segments comprised of a pairing of price (in dollars per MWh) and megawatt quantities, which must be a non-decreasing function and taken together produce all of the energy segments above a resource’s Economic Minimum. No-load Costs are not included in the Incremental Energy Offer.

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 Tariff, Schedule 12) 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 Tariff, Attachment O-Appendix 2, section 1.4 (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 Tariff, Attachment P, 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 Tariff, Part IV and Tariff, 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 Tariff, 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 Tariff, 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, section 2.6A.

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.

2.1 Initial Allocation of Available Transfer Capability:

For purposes of determining whether existing capability on the Transmission Provider's Transmission System is adequate to accommodate a request for firm service under this Tariff, all Completed Applications for new firm transmission service received during the initial sixty (60) day period commencing with the effective date of the Tariff will be deemed to have been filed simultaneously. A lottery system conducted by an independent party, which shall be the Office of the Interconnection, shall be used to assign priorities for Completed Applications filed simultaneously. All Completed Applications for firm transmission service received after the initial sixty (60) day period shall be assigned a priority pursuant to Tariff, Part II, section 13.2.

2.3 Procedures For Exercising Transmission Reservation Priority Rights:

(a) If, at any time, the Transmission Provider receives a request from an Eligible Customer for new firm transmission service that the Transmission Provider determines it could not provide without performing a System Impact Study if an existing customer were to exercise its transmission reservation priority pursuant to Tariff, Part I, section 2.2, the Transmission Provider shall promptly notify the existing customer of the new request. Within thirty (30) days of such notification, the existing customer must inform the Transmission Provider whether it exercises its reservation priority pursuant to Tariff, Part I, section 2.2 and agrees to accept a contract term at least equal to the new request. In the event an existing customer does not exercise its reservation priority or fails to respond within thirty (30) days of such notification, the existing firm service customer shall forfeit its reservation priority.

(b) In the event an existing firm service customer does not receive a notification pursuant to section 2.3(a) above, then the existing customer must notify Transmission Provider no later than one year prior to the end of the term of its firm transmission contract that it is exercising its transmission reservation priority and will take transmission service for an additional term of five years or longer; otherwise it shall forfeit the transmission reservation priority associated with the contract.

3 Ancillary Services

Ancillary Services are needed with transmission service to maintain reliability within and among the Control Areas affected by the transmission service. The Transmission Provider is required to provide (or offer to arrange with the local Control Area operator as discussed below), and the Transmission Customer is required to purchase, the following Ancillary Services (i) Scheduling, System Control and Dispatch, and (ii) Reactive Supply and Voltage Control from Generation or Other Sources.

The Transmission Provider is required to offer to provide (or offer to arrange with the local Control Area operator as discussed below) the following Ancillary Services only to the Transmission Customer serving load within the Transmission Provider's Control Area (i) Regulation and Frequency Response, (ii) Energy Imbalance, (iii) Operating Reserve - Synchronized, and (iv) Operating Reserve - Supplemental. Subject to the provisions of Tariff, Schedules 1 through 6, the Transmission Customer serving load within the Transmission Provider's Control Area is required to acquire these Ancillary Services, whether from the Transmission Provider, from a third party, or by self-supply. The Transmission Provider shall administer the purchases by Transmission Customers of these Ancillary Services.

PJMSettlement shall be the Counterparty to the Ancillary Services provided to the Transmission Customer; provided, however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply relating to Ancillary Services. The Transmission Customer may not decline the Transmission Provider's offer of Ancillary Services unless it demonstrates that it has acquired the Ancillary Services from another source. The Transmission Customer must list in its Application which Ancillary Services it will purchase from the Transmission Provider. A Transmission Customer that exceeds its firm reserved capacity at any Point of Receipt or Point of Delivery or an Eligible Customer that uses Transmission Service at a Point of Receipt or Point of Delivery that it has not reserved is required to pay for all of the Ancillary Services identified in this section that were provided by the Transmission Provider associated with the unreserved service. The Transmission Customer or Eligible Customer will pay for Ancillary Services based on the amount of transmission service it used but did not reserve.

If the Transmission Provider is a public utility providing transmission service but is not a Control Area operator, it may be unable to provide some or all of the Ancillary Services. In this case, the Transmission Provider can fulfill its obligation to provide Ancillary Services by acting as the Transmission Customer's agent to secure these Ancillary Services from the Control Area operator. The Transmission Customer may elect to (i) have the Transmission Provider act as its agent, (ii) secure the Ancillary Services directly from the Control Area operator, or (iii) secure the Ancillary Services (discussed in Tariff, Schedule 3, Tariff, Schedule 4, Tariff, Schedule 5 and Tariff, Schedule 6) from a third party or by self-supply when technically feasible. The Transmission Provider shall specify the rate treatment and all related terms and conditions in the event of an unauthorized use of Ancillary Services by the Transmission Customer.

The specific Ancillary Services, prices and/or compensation methods are described on the Schedules that are attached to and made a part of the Tariff. Three principal requirements apply to discounts for Ancillary Service provided by the Transmission Provider in conjunction with its

provision of transmission services as follows: (1) any offer of a discount made by the Transmission Provider must be announced to all Eligible Customers solely by posting on the OASIS, (2) any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an Affiliate's use) must occur solely by posting on the OASIS, and (3) once a discount is negotiated, details must be immediately posted on the OASIS. A discount agreed upon for an Ancillary Service must be offered for the same period to all Eligible Customers on the Transmission Provider's system. Tariff, Part I, sections 3.1 through 3.6 below list the six Ancillary Services.

3.1 Scheduling, System Control and Dispatch Services:

The rates and/or methodology are described in Tariff, Schedule 1 and Tariff, Schedule 1A.

3.2 Reactive Supply and Voltage Control from Generation or Other Sources Service:

The rates and/or methodology are described in Tariff, Schedule 2.

3.3 Regulation and Frequency Response Service:

Where applicable the rates and/or methodology are described in Tariff, Schedule 3.

3.4 Energy Imbalance Service:

Where applicable the rates and/or methodology are described in Tariff, Schedule 4.

3.5 Operating Reserve - Synchronized Reserve Service:

Where applicable the rates and/or methodology are described in Tariff, Schedule 5.

3.6 Operating Reserve - Supplemental Reserve Service:

Where applicable the rates and/or methodology are described in Tariff, Schedule 6.

3B PJM Administrative Service

The Transmission Provider shall recover the costs of the operation of PJM Interconnection, L.L.C. and the Office of the Interconnection from Transmission Customers, and from other users of the various PJM services, under Tariff, Schedule 9 “PJM Interconnection, L.L.C. Administrative Services”.

3E Transmission Enhancement Charges

The Transmission Provider shall collect from designated customers using Point-to-Point Transmission Service and Network Integration Transmission Service the charges of Transmission Owners related to the costs of Required Transmission Enhancements under Tariff, Schedule 12 “Transmission Enhancement Charges”.

4.1

Terms and conditions regarding Open Access Same-Time Information System (OASIS) and standards of conduct are set forth in 18 CFR § 37 of the Commission's regulations (Open Access Same-Time Information System and Standards of Conduct for Public Utilities) and 18 CFR § 38 of the Commission's regulations (Business Practice Standards and Communication Protocols for Public Utilities). For purposes of the Standards of Conduct, a marketing affiliate of any party to the Operating Agreement is deemed to be a marketing affiliate of the Transmission Provider. In the event available transfer capability as posted on the OASIS is insufficient to accommodate a request for firm transmission service, additional studies may be required as provided by this Tariff, Part II, section 19 and Tariff, Part III, section 32.

The Transmission Provider shall post on OASIS and its public website an electronic link to all rules, standards and practices that (i) relate to the terms and conditions of transmission service, (ii) are not subject to a North American Energy Standards Board (NAESB) copyright restriction, and (iii) are not otherwise included in this Tariff. The Transmission Provider shall post on OASIS and on its public website an electronic link to the NAESB website where any rules, standards and practices that are protected by copyright may be obtained. The Transmission Provider shall also post on OASIS and its public website an electronic link to a statement of the process by which the Transmission Provider shall add, delete or otherwise modify the rules, standards and practices that are not included in this tariff. Such process shall set forth the means by which the Transmission Provider shall provide reasonable advance notice to Transmission Customers and Eligible Customers of any such additions, deletions or modifications, the associated effective date, and any additional implementation procedures that the Transmission Provider deems appropriate.

4.2

Pursuant to the Commission's September 18, 2014 Final Rule, Order No. 676-H (148 FERC ¶ 61,205, corrections applied at 149 FERC ¶ 61,014) amending its regulations under the Federal Power Act, and the grant of waivers from specified provisions of WEQ-001, WEQ-002 and WEQ-003 approved by the Commission in *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,141 (May 18, 2015) Transmission Provider hereby incorporates by reference the following standards promulgated by the WEQ of the NAESB:

- WEQ-000, Abbreviations, Acronyms, and Definition of Terms, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Oct. 4, 2012, Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-001, Open Access Same-Time Information System (OASIS), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) excluding Standards 001-9.5, 001-10.5, 001-14.1.3, 001-15.1.2 and 001-106.2.5, as well as the timing requirements established in 001-23, to the extent not inconsistent with Transmission Provider's current practice;
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-002, Open Access Same-Time Information System (OASIS) Business Practice Standards and Communication Protocols (S&CP), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- To the extent not inconsistent with Transmission Provider's current NITS practices and procedures, WEQ-003, Open Access Same-Time Information System (OASIS) Data Dictionary Business Practice Standards, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);
- WEQ-004, Coordinate Interchange, WEQ Version 003, July 31, 2012 (with Final Action ratified December 28, 2012);
- WEQ-005, Area Control Error (ACE) Equation Special Cases, WEQ Version 003, July 31, 2012;
- WEQ-006, Manual Time Error Correction, WEQ Version 003, July 31, 2012;
- WEQ-007, Inadvertent Interchange Payback, WEQ Version 003, July 31, 2012;
- WEQ-008, Transmission Loading Relief (TLR) – Eastern Interconnection, WEQ Version 003, July 31, 2012 (with minor corrections applied November 28, 2012);

- WEQ-011, Gas/Electric Coordination, WEQ Version 003, July 31, 2012;
- WEQ-012, Public Key Infrastructure (PKI), WEQ Version 003, July 31, 2012 (as modified by NAESB Final Actions ratified on October 4, 2012);
- WEQ-013, Open Access Same-Time Information System (OASIS) Implementation Guide, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) ;
- WEQ-015, Measurement and Verification of Wholesale Electricity Demand Response, WEQ Version 003, July 31, 2012; and
- WEQ-021, Measurement and Verification of Energy Efficiency Products, WEQ Version 003, July 31, 2012.

The Commission has granted Transmission Provider with waivers of specified provisions of WEQ-001, WEQ-002 and WEQ-003 as those Business Practice Standards relate to Service Across Multiple Transmission Systems (SAMTS) and Network Integration Transmission Service (NITS).

With respect to SAMTS, the Transmission Provider has adopted Tariff, Part II, section 17.9 and Tariff, Part II, section 18.4, specifying processing timelines for all short-term transmission service requests. The Transmission Provider will process and set the status of a SAMTS request or reservation consistent with a non-SAMTS transaction and the customer may withdraw, annul or reduce their request or reservation without financial penalty in accordance with the Transmission Provider's Regional Transmission and Energy Scheduling Practices document which can be found on the Transmission Provider's website.

With respect to NITS requests, the Transmission Provider has adopted rules in Tariff, Part III relating to the study and commitment of internal and external network resources and load designations, including Tariff, Part III, section 30 (relating to designation and termination of Network Resources), Tariff, Part III, section 31 (relating to the designation of Network Load), and Tariff, Part III, section 32 (relating to Initial Study procedures for NITS), all of which are subject, however, to the applicable requirements of PJM's Reliability Pricing Model (RPM) rules as set forth in Tariff, Attachment DD and associated requirements as set forth in Transmission Provider's FERC-filed Reliability Assurance Agreement Among Load Serving Entities (RAA) and associated Manuals. Moreover, consistent with the Transmission Provider's planning processes, Network Resources proposing to interconnect to the Transmission System in the PJM Region must comply with the terms, conditions, rules and procedures for interconnection as specified in Tariff, Part IV.

6A Counterparty

- 6A.1** PJM administers the Tariff and the Operating Agreement. Under the Tariff and Operating Agreement, PJM administers the provision of transmission service and associated ancillary services to customers and operates and administers various centralized electric power and energy markets. In obtaining transmission service and in these centralized markets, customers conduct transactions with PJMSettlement as a counterparty. Market participants also may conduct bilateral transactions with other market participants and they may self-supply power and energy to the electric loads they serve. Such bilateral and self-supply arrangements are not transactions with PJMSettlement.
- 6A.2** For purposes of contracting with customers and conducting financial settlements regarding the use of the transmission capacity of the Transmission System, PJM has established PJMSettlement. PJM also has established PJMSettlement as the entity that is the Counterparty with respect to the agreements and transactions in the centralized markets that the Transmission Provider administers under the Tariff and the Operating Agreement (i.e., the agreements and transactions that are not bilateral arrangements between market participants or self-supply). PJMSettlement will serve as the Counterparty to Financial Transmission Rights and Auction Revenue Rights instruments held by a Market Participant. Any subsequent bilateral transfer of these instruments by the Market Participant to another Market Participant shall require the consent of PJM, but shall not implicate PJMSettlement as a contracting party with respect to such subsequent bilateral transfer.
- 6A.3** As a party to the Consolidated Transmission Owners Agreement, PJM has acquired the right to use the transmission capacity of the Transmission System that is required to provide service under this Tariff and the authorization to resell transmission service using such capacity on the Transmission System. Under the Consolidated Transmission Owners Agreement, PJM compensates the Transmission Owners for the use of their transmission capacity by distributing certain revenues to the Transmission Owners as set forth in the Tariff and the Consolidated Transmission Owners Agreement. PJM has assigned its right to use the transmission capacity of the Transmission System to PJMSettlement. Accordingly, PJMSettlement shall compensate the Transmission Owners for the use of the transmission capacity required to provide service under this Tariff.
- 6A.4** Unless otherwise expressly stated in the Tariff or the Operating Agreement, PJMSettlement shall be the Counterparty to the customers purchasing Transmission Service and Network Integration Transmission Service, and to the other transactions with customers and other entities under the Tariff.
- 6A.5** PJMSettlement shall not be a contracting party to other non-transmission transactions that are (i) bilateral transactions between market participants reported

to the Transmission Provider, and (ii) self-supplied or self-scheduled transactions reported to the Transmission Provider.

6A.6 Notwithstanding the foregoing, PJMSettlement shall not be the Counterparty with respect to agreements and transactions regarding the Transmission Provider's administration of Tariff, Part IV, Tariff, Part VI, Schedule 1, Tariff, Part VI, Schedule 9 (excluding Schedule 9-PJMSettlement), Tariff, Part VI, Schedule 10-NEERC, Tariff, Part VI, Schedule 10-RFC, Tariff, Part VI, Schedule 14, Tariff, Part VI, Schedule 16, Tariff, Part VI, Schedule 16-A, and Tariff, Part VI, Schedule 17.

6A.7 Confidentiality. PJMSettlement shall be bound by the same confidentiality requirements as the Transmission Provider.

6A.8 PJMSettlement Costs. All costs of services provided by PJMSettlement for the benefit of Market Participants and Transmission Customers shall be included in the Administrative Services set forth in Tariff, Part VI, Schedule 9-PJMSettlement.

6A.9 Amendment of Previously Effective Arrangements.

- (a) **Transmission Service Agreements.** Transmission Service Agreements in effect at the time this Section 6A becomes effective shall be deemed to be revised to include PJMSettlement as a Counterparty to the Transmission Service Agreement in the same manner and to the same extent as agreements entered after the effective date of this Section 6A.
- (b) **Reliability Pricing Model.** PJMSettlement shall be the Counterparty to the transactions arising from the cleared Based Residual Auctions and Incremental Auctions that occurred prior to the effective date of this Section 6A and for which delivery will occur after the effective date of this Section 6A in the same manner and to the same extent as transactions arising from auctions cleared after the effective date of this Section 6A.
- (c) **Auction Revenue Rights and Financial Transmission Rights.** PJMSettlement shall be the Counterparty with respect to the rights and obligations arising from Auction Revenue Rights and Financial Transmission Rights acquired in an auction or assigned by PJM prior to the effective date of this Section 6A to the same extent as with respect to rights and obligations arising from auctions or assignments of Auction Revenue Rights and Financial Transmission Rights after the effective date of this Section 6A.

7.1A Payments:

(a) Monthly Bills.

Net amounts due to PJMSettlement, in its own name or as agent for Transmission Provider, as applicable, pursuant to a monthly bill shall be due and payable by the Transmission Customer or other entity no later than noon Eastern Prevailing Time on the due date of the first weekly bill issued for activity in the month that the monthly bill is issued. It is possible, due to the timing of holidays, that the billing and payment cycle for monthly bills stated here would call for payment of a monthly bill on a Friday that occurs less than three Business Days after issuance of the bill by PJM. Where this occurs, the payment period of the monthly bill will be extended such that payment will be due when payment for the second weekly bill is due.

(b) Weekly Bills.

Net amounts due to PJMSettlement, in its own name or as agent for Transmission Provider, as applicable, pursuant to a weekly bill shall be due and payable by the Transmission Customer or other entity no later than noon Eastern Prevailing Time on the third Business Day following the issuance of the weekly bill. Weekly bills issued after 5:00 p.m. Eastern Prevailing Time shall be considered to be issued the following Business Day

(i) Municipal Electric Systems.

Recognizing that municipal electric systems may, at times, face unique circumstances that could temporarily prevent their ability to make payments on a weekly bill issued pursuant to section 7.1(b) above when due, the Transmission Provider may allow a municipal electric system to make arrangement with PJM whereby PJM would extend trade credit to the municipal electric system sufficient to enable it to make payment on a weekly bill provided that the following conditions are met:

- (a) the Transmission Provider determines, in its sole discretion, that it has sufficient excess working capital available to complete financial settlement with other market participants;
- (b) the municipal electric system reimburses PJM for the actual cost of such working capital;
- (c) the municipal electric system provides PJM with a binding representation that it has all legal right and authority to enter into the arrangement with PJM;
- (d) PJMSettlement will continue to issue weekly bills to the municipal electric system in accordance with section 7.1(b) above and the municipal electric system will make payment as due under the weekly bills using the proceeds it obtains

under its arrangement with PJM. Reimbursement of these amounts, including PJM's actual costs of working capital, shall be due from the municipal electric system at the time payment is due for the invoice issued under section 7.1A(a) above;

(e) the aggregate of all financed amounts and accrued obligations shall not exceed the Working Credit Limit available to the municipal electric system;

(f) the municipal electric system provides the Transmission Provider with at least one week of notice (though PJM may waive this provision), and;

(g) the accumulated duration of such postponed payments shall not exceed three months in a rolling twelve-month period.

PJM may terminate this payment option at any time it determines its excess working capital is no longer sufficient to allow further or continued extension financing. In such cases, PJM shall attempt to give five Business Days, but not less than three Business Days notice to the affected municipal electric system, and may call for immediate reimbursement of any outstanding amounts owed by the municipal electric system.

(c) Form of Payments.

All payments tendered in satisfaction of a Transmission Customer's or other entity's obligations to PJMSettlement or Transmission Provider shall be in the form of immediately available funds payable to PJMSettlement, or by wire transfer to a bank named by PJMSettlement.

(d) Payments by PJMSettlement.

Unless delayed by unforeseen events, payments made by PJMSettlement, in its own name or as agent for Transmission Provider, for amounts due to Transmission Customers and other entities shall be paid no later than 5:00 p.m. Eastern Prevailing Time on the Business Day following the payment due date for net amounts owed to PJMSettlement, in its own name or as agent for the Transmission Provider, as specified above.

(e) Payment Calendar.

A comprehensive billing and settlement calendar will be posted on Transmission Provider's website prior to March 31 for the upcoming June – May annual period to communicate the schedule of holidays for settlement and billing purposes.

(f) Late Payments.

In the event that a Transmission Customer, or other entity, is delinquent in paying the amount set forth in its weekly or monthly bill two or more times within any rolling twelve (12) month period, PJMSettlement, in its own name or as agent for Transmission

Provider, may assess, in addition to the interest on each late payment as provided for in Tariff, Part I, section 7.2, a late payment charge for a second and any subsequent failure to pay on time during such twelve (12) month period (a "Late Payment Charge"). The applicable Late Payment Charge will be assessed in an amount equal to the greater of: (i) two percent (2%) of the total amount set forth in the monthly or weekly bill that the Transmission Customer or other entity has been late in paying, or (ii) \$1,000; up to a maximum of \$100,000 per late bill payment. For the sole purpose of application of this section 7.1A(f), weekly and monthly bills that are due on the same date shall be considered to be one bill; moreover, the term "on time" shall mean payment received on the date due; and "delinquent" shall mean any payment received on a day subsequent to the date due.

Late Payment Charges that are collected pursuant to this section 7.1A(f) shall be credited to PJMSettlement administrative costs and will be included in any applicable stated rate refund calculations as contemplated under Tariff, Schedule 9.

8.1 Transmission Revenues:

Include in a separate operating revenue account or subaccount the revenues it receives from Transmission Service when making Third-Party Sales under Tariff, Part II.

8.3 Generation Interconnection Costs:

Include in a separate transmission account or subaccount, costs of Attachment Facilities, Local Upgrades, and Network Upgrades that are incurred by the Transmission Owner with respect to its own Interconnection Requests under Tariff, Part IV that are directly assigned to the Transmission Owner to accommodate its Interconnection Requests in accordance with Operating Agreement, Schedule 6A.

9.1 Rights of the Transmission Owners:

(a) The Transmission Owners shall have the exclusive and unilateral rights to file pursuant to Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder for any changes in or relating to the establishment and recovery of the Transmission Owners' transmission revenue requirements or the transmission rate design under the Tariff, and such filing rights shall also encompass any provisions of the Tariff governing the recovery of transmission-related costs incurred by the Transmission Owners. Nothing herein is intended to limit or change the right of individual Transmission Owners under Tariff, Part I, section 2.2.1 to make their own Section 205 filings to change the transmission revenue requirement within their own zones, including the right of individual Transmission Owners to file for zonal transmission revenue requirements based on incentive or performance factors. The Transmission Owners may only file under Section 205 to change the transmission rate design for the PJM Region pursuant to a filing approved in accordance with Section 8.5.1 of the Consolidated Transmission Owners Agreement.

(b) If the Transmission Owners agree upon a change in accordance with section 9.1(a) above, the Transmission Owners shall make such filing jointly pursuant to Section 205 of the Federal Power Act. For purposes of administrative convenience, at the request of the Transmission Owners, the Office of Interconnection may, but shall not be required to, make the Section 205 filing with the FERC on behalf of the Transmission Owners; provided that any such filing by the Office of Interconnection shall be deemed for all purposes under the Federal Power Act to be a filing of the Transmission Owners. The Transmission Owners shall consult with PJM and the PJM Members Committee beginning no less than thirty (30) days prior to any Section 205 filing hereunder, but neither PJM (except as provided for in Tariff, Part I, section 9.3) nor the PJM Members Committee shall have any rights to veto or delay the Transmission Owners' Section 205 filing hereunder; provided that the Transmission Owners may file with less than a full 30 day advance consultation in circumstances where imminent harm to system reliability or imminent severe economic harm to electric consumers requires a prompt Section 205 filing; provided further that the Transmission Owners shall provide as much advance notice and consultation with PJM and the PJM Members Committee as is practicable in such circumstances and no such filing shall be made with less than 24 hours' advance notice.

(c) Nothing herein is intended to limit the rights of the Transmission Owners, PJM or any other person to oppose such a Section 205 filing pursuant to Section 206 or any other applicable provision of the Federal Power Act.

(d) In accordance with section 9.1(a) above, the following provisions of the Tariff and any successors thereto shall be within the Transmission Owners' exclusive and unilateral rights to make Section 205 filings: Tariff, Part III, section 34; Tariff, Schedule 1A; Tariff, Schedule 7 (except as to transmission congestion charges under Tariff, Attachment K or any successor thereto); Tariff, Schedule 8 (except as to transmission congestion charges under Tariff, Attachment K or any successor thereto); Tariff, Schedule 11; Tariff, Schedule 12; Tariff, Attachment H-A; Tariff, Attachment J; and Tariff, Attachment R, provided, however, that if a filing pursuant to Section 205 is required to effect a change in any of the foregoing provisions of the Tariff solely by reason of a filing by an individual Transmission Owner pursuant to section

9.1(e) below, PJM may make such filing if, (i) five business days prior to making such filing, PJM provides the Transmission Owners with each proposed change including an explanation thereof and (ii) no Transmission Owner notifies PJM that it objects to PJM making such filing.

(e) In accordance with section 9.1(a) above, the following provisions of the Tariff and any successors thereto shall be within the exclusive and unilateral rights to make Section 205 filings of the individual Transmission Owner to which the provisions apply: (i) Tariff, Attachment H (other than Tariff, Attachment H-A) (except as to transmission congestion charges under Tariff, Attachment K or any successor thereto); (ii) Tariff, Attachment M-1 (First Energy); (iii) Tariff, Attachment M-2 (First Energy); (iv) Procedures for Load Determination (PSE&G); (v) Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers (Atlantic City); and (vi) Procedures for Determination of Peak Load Contributions and Hourly Load Obligations for Retail Customers (Delmarva).

(f) The listing of provisions in sections (d) and (e) above is not exclusive, and the failure to specify a provision of section 9.1(d) or (e) above shall not be deemed to be an admission or agreement by the Transmission Owners that such provision or any change thereto does not relate to the establishment and recovery of the Transmission Owners' transmission revenue requirements or the transmission rate design under the PJM Tariff, or encompass any provisions of the PJM Tariff governing the recovery of transmission-related costs incurred by the Transmission Owners. The Transmission Owners reserve their rights to assert that other provisions of the PJM Tariff should be included within their Section 205 rights, and PJM reserves its rights to contest such assertions.

(g) The Transmission Owners' Section 205 rights shall include the unilateral right to file for incentive and performance based rates that affect or relate to the establishment or recovery of transmission revenue requirements, transmission rate design, or any performance or incentive based rates in which the incentives to the Transmission Owners may be measured by savings or efficiencies in the power or ancillary services markets resulting from the construction, operation or maintenance of transmission facilities. Nothing in this Tariff is intended to limit PJM's right to make Section 205 filings to establish incentive or performance based rates applicable to market participants, provided that PJM must obtain the prior approval of the Transmission Owners (pursuant to Consolidated Transmission Owners Agreement, section 8.5.1) for any portion of such a filing that reasonably could be expected to affect the establishment and recovery of the Transmission Owners' transmission revenue requirements, transmission rate design or recovery of transmission-related costs by the Transmission Owners.

(h) Nothing contained in the Tariff, any Service Agreement or any Network Operating Agreement shall be construed as affecting in any way the exclusive and unilateral right of the Transmission Owners to make application to the Federal Energy Regulatory Commission for any change in accordance with this section 9.1 under Section 205 of the Federal Power Act and pursuant to the Commission's Rules and Regulations promulgated thereunder.

9.2 Rights of the Transmission Provider:

(a) PJM shall have the exclusive and unilateral right to file pursuant to Section 205 of the Federal Power Act and the FERC's rules and regulations thereunder to make changes in or relating to the terms and conditions of the PJM Tariff (including but not limited to provisions relating to creditworthiness, billing, and defaults) as well as all charges for recovery of PJM costs. PJM shall not have any Section 205 filing rights with respect to the subject matters described in the first sentence of Tariff, Part I, section 9.1(a). PJM shall not have any Section 205 filing rights with respect to the provisions of the PJM Tariff listed in Section 9.1(d) and (e). Notwithstanding the foregoing, PJM shall have Section 205 filing rights to make changes in the PJM Tariff in order to address the Behind The Meter Generation netting rules in accordance with the settlement in FERC Docket No EL05-127-000 approved by the FERC on December 16, 2005, 113 FERC ¶ 61,279.

(b) PJM shall consult with the Transmission Owners and the PJM Members Committee beginning no less than seven (7) days in advance of any Section 205 filing under section 9.2(a) above, but neither the Transmission Owners, except as provided for in Tariff, Part I, section 9.3, nor the PJM Members Committee shall have any right to veto or delay any such Section 205 filing. PJM may file with less than a full 7 day advance consultation in circumstances where imminent harm to system reliability or imminent severe economic harm to electric consumers requires a prompt Section 205 filing; provided that PJM shall provide as much advance notice and consultation with the Transmission Owners and the PJM Members Committee as is practicable in such circumstances, and no such emergency filing shall be made with less than 24 hours advance notice.

(c) Nothing herein is intended to limit the rights of any Party or other person to oppose such a Section 205 filing pursuant to Section 206 or any other applicable provision of the Federal Power Act or to limit the right of any Party or other person to make filings under Section 206 of the Federal Power Act.

(d) To the extent that PJM desires to add a provision to this Tariff, or to change an existing provision hereof, in accordance with its rights under section 9.2(a) above, the Transmission Owners shall have unilateral and exclusive rights to make Section 205 filings with respect to any matters covered by such new or changed provisions relating to the establishment and recovery of the Transmission Owners' transmission revenue requirements, transmission rate design under the PJM Tariff, or any provisions governing the recovery of transmission-related costs incurred by the Transmission Owners. Prior to making any Section 205 filing covered by section 9.2(a) above that also relates to or affects the establishment and recovery of the Transmission Owners' transmission revenue requirements, the transmission rate design under the PJM Tariff, or any provisions governing the recovery of transmission-related costs incurred by the Transmission Owners, PJM shall provide no less than 45 days notice to the Transmission Owners of the intended filing in sufficient detail to provide them a reasonable opportunity to include appropriate provisions in the PJM Tariff governing these subjects, either through a Section 205 filing by the Transmission Owners pursuant to Tariff, Part I, section 9.1(a) or approval by the Transmission Owners of the PJM proposal pursuant to Consolidated Transmission Owners Agreement, section 8.5.1.

(e) PJM shall be required to maintain in effect at all times provisions relating to the creditworthiness of all customers under this Tariff that are designed to provide reasonable assurances to the Transmission Owners, consistent with FERC orders and policies applicable to open access transmission services, that such customers will be able to pay for transmission services purchased hereunder. If at any time PJM intends to make a Section 205 filing to change the creditworthiness provisions of this Tariff, it shall provide no less than 30 days advance notice to, and consult with, the Transmission Owners and the PJM Members Committee. In the case of an emergency requiring immediate action, PJM shall not be required to provide 30 days advance notice but shall provide as much advance notice as is practicable in the circumstances, and in no circumstances may PJM make an emergency Section 205 filing without providing at least 24 hours advance notice to the Transmission Owners. PJM shall further maintain at all times in the tariffs under which it recovers its costs comparable provisions, if any, for sharing among PJM members and/or transmission customers any shortfalls in the recovery of its own and the Transmission Owners' costs due to defaults.

9.3 Disputes Regarding Filing Rights:

If at the time that a proposal to change or amend any part of the PJM Tariff, or to add any new provision, is submitted to PJM or the Transmission Owners for consultation pursuant to Tariff, Part I, section 9.1(b) or Tariff, Part I, section 9.2(b), a dispute arises as to which Party has Section 205 rights to make such filing, the following procedures shall apply:

- (i) The Consolidated Transmission Owners Agreement Administrative Committee and PJM shall meet promptly prior to the filing in order to resolve the dispute. Such resolution may include a joint Section 205 filing by the Transmission Owners and PJM.
- (ii) If the Transmission Owners propose to make the Section 205 filing, they shall defer such filing beyond the thirty (30) day notice and consultation period provided for in Tariff, Part I, section 9.1(b) for up to ten (10) additional days at the request of PJM to allow the dispute to be resolved.
- (iii) If PJM proposes to make the Section 205 filing it shall defer any filing beyond the seven (7) day notice and consultation period provided for in Tariff, Part I, section 9.2(b) for up to ten (10) additional days to allow the dispute to be resolved;
- (iv) In order to resolve a dispute, the agreement of the Transmission Owners must be obtained by vote in accordance with Consolidated Transmission Owners Agreement, section 8.5.1;
- (v) If the Parties are unable to reach agreement among themselves, the matter shall be presented to and resolved by a Neutral Party chosen as follows and, except as provided in this section 9.3(v), such resolution shall be binding on the Parties: The Chairman of the Consolidated Transmission Owners Agreement Administrative Committee (or his/her designee) and an executive of PJM chosen by the President shall choose the Neutral Party and shall have authority to enter into an agreement that will make the Neutral Party available on a prompt basis to resolve disputes hereunder, and any costs associated with the Neutral Party shall be shared equally between the Transmission Owners and PJM. The Chairman of the Consolidated Transmission Owners Agreement Administrative Committee (or his/her designee) and an executive of PJM chosen by the President may replace the Neutral Party at any time they mutually deem such action to be appropriate or necessary. The decision of the Neutral Party as to which Parties have Section 205 rights hereunder shall be made within the period provided for consultation between the Transmission Owners and PJM as set forth in section 9.3(ii) above or Tariff, Part I, section 9.2(iii), as applicable. Interested parties (including the Parties) may file a complaint seeking review by the FERC of the Neutral Party's decision, and the FERC's authority to interpret which Parties have Section 205 rights shall not be limited by the Neutral Party's decision as it relates to these disputes.
- (vi) Nothing in this section 9.3 is intended to limit the Parties' rights to make filings pursuant to Section 206 of the Federal Power Act prior to resolution of such dispute.

9.4 Mobile Sierra:

Tariff, Part I, sections 9.1 through 9.4 of this Tariff shall be subject to change solely by written amendment executed by PJM and the Transmission Owners, with the Transmission Owners acting by vote in accordance with Consolidated Transmission Owners Agreement, section 8.5.1. It is the intent of this section 9.4 that FERC's right to change Tariff, Part I, sections 9.1 through 9.4 shall be limited to the maximum extent permissible by law and that any such change shall be in accordance with the Mobile-Sierra public interest standard applicable to fixed rate agreements.

11 Creditworthiness

The Transmission Provider will specify its creditworthiness procedure in Tariff, Attachment Q.

12A PJM Compliance Review

The Office of the Interconnection determines whether an offer, bid, components of an offer or bid, or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection has the final authority to determine whether an offer, bid or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection may accept an offer, bid or decision not to offer a committed resource regardless of whether the Market Monitoring Unit has made a finding that such conduct raises market power concerns, unless the Commission issues an order determining that the offer or bid must be rejected prior to the clearing of the relevant RPM Auction.

The Office of the Interconnection does not make determinations about market power, including, but not limited to, whether the level or value of inputs or a decision not to offer a committed resource involves the potential exercise of market power. Acceptance or rejection of an offer or bid by the Office of the Interconnection does not include an evaluation of whether such offer or bid represents a potential exercise of market power.

A market participant may submit any offer or bid that it chooses or make a decision not to offer a committed resource, provided that the Office of the Interconnection determines that: (i) the market participant has participated in the review process conducted by the Market Monitoring Unit (without regard to whether an agreement is obtained) if required by the Tariff; (ii) offer is no higher, in the case of seller market power, or lower, in the case of buyer side market power, than the level to which the market participant has committed or agreed in the course of its participation in such review process; and (iii) the offer is compliant with the Tariff and PJM Manuals. The market participant assumes exclusive responsibility for any adverse findings at the Commission related to its offer.

The Office of the Interconnection has the exclusive authority to administer the Tariff. The Office of the Interconnection has the exclusive authority to implement the PJM Market Rules, except with respect to Tariff, Attachment M and Tariff, Attachment M-Appendix and related provisions in the PJM Manuals. The Market Monitoring Unit has the exclusive authority to perform the functions set forth in Tariff, Attachment M and Tariff, Attachment M-Appendix. The Office of the Interconnection shall oversee compliance with PJM Market Rules and may take action on compliance issues and/or request that the Market Monitoring Unit take action on compliance issues.

When the Tariff requires the Office of the Interconnection to provide written notice to or communication with a Market Participant, such notice or communication shall include, but not be limited to, a letter, email or posting to a Market Participant's account in the internet-based application designated by the Office of the Interconnection.

SCHEDULE 1
Scheduling, System Control and Dispatch Service

This service is required to schedule the movement of power through, out of, within, or into a Control Area. This service can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located. Scheduling, System Control and Dispatch Service is to be provided directly by the Transmission Provider. The Transmission Customer must purchase this service from the Transmission Provider. The charges for Scheduling, System Control and Dispatch Service from PJM Interconnection, L.L.C. are set forth on an unbundled basis among the subsidiary schedules of Tariff, Schedule 9 “PJM Interconnection, L.L.C. Administrative Services”.

SCHEDULE 2

Reactive Supply and Voltage Control from Generation or Other Sources Service

In order to maintain transmission voltages on the Transmission Provider's transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the control area operator are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service must be provided for each transaction on the Transmission Provider's transmission facilities. The amount of Reactive Supply and Voltage Control from Generation or Other Sources Service that must be supplied with respect to the Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by the Transmission Provider.

Reactive Supply and Voltage Control from Generation or Other Sources Service is to be provided directly by the Transmission Provider. The Transmission Customer must purchase this service from the Transmission Provider.

In addition to the charges and payments set forth in this Tariff, Schedule 2, Market Sellers providing reactive services at the direction of the Office of the Interconnection shall be credited for such services, and Market Participants shall be charged for such services, as set forth in Tariff, Attachment K-Appendix, section 3.2.3B.

The Transmission Provider shall administer the purchases and sales of Reactive Supply. PJMSettlement shall be the Counterparty to (a) the purchases of Reactive Supply from owners of Generation or Other Sources and Market Sellers and (b) the sales of Reactive Supply to Transmission Customers and Market Participants.

Charges

Purchasers of Reactive Supply and Voltage Control from Generation or Other Sources Service shall be charged for such service in accordance with the following formulae.

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Non-Zone Load = Allocation Factor * Total Generation Owner or other source owner Monthly Revenue Requirement

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Zone Load = Allocation Factor * Zonal Generation Owner or other source owner Monthly Revenue Requirement * Adjustment Factor

Where:

Purchaser serving Non-Zone Load is a Network Customer serving Non-Zone Network Load or serving Network Load in a zone with no revenue requirement for Reactive Supply and Voltage Control from Generation or Other Sources Service, or a Transmission Customer where the Point of Delivery is at the boundary of the PJM Region.

Zonal Generation Owner or other source owner Monthly Revenue Requirement is the sum of the monthly revenue requirements for each generator or other source located in a Zone, as such revenue requirements have been accepted or approved, upon application, by the Commission.

Total Generation Owner or other source owner Monthly Revenue Requirement is the sum of the Zonal Generation or other source owner Monthly Revenue Requirements for all Zones in the PJM Region.

Allocation Factor is the monthly transmission use of each Network Customer or Transmission Customer per Zone or Non-Zone, as applicable, on a megawatt basis divided by the total transmission use in the Zone or in the PJM Region, as applicable, on a megawatt basis.

For Network Customers, monthly transmission use on a megawatt basis is the sum of a Network Customer's daily values of DCPZ or DCPNZ (as those terms are defined in Tariff, Part III, section 34.1) as applicable, for all days of the month.

For Transmission Customers, monthly transmission use on a megawatt basis is the sum of the Transmission Customer's hourly amounts of Reserved Capacity for each day of the month (not curtailed by PJM) divided by the number of hours in the day.

Adjustment Factor is determined as the sum of the total monthly transmission use in the PJM Region, exclusive of such use by Transmission Customers serving Non-Zone Load, divided by the total monthly transmission use in the PJM Region on a megawatt basis.

In the event that a single customer is serving load in more than one Zone, or serving Non-Zone Load as well as load in one or more Zones, or is both a Network Customer and a Transmission Customer, the Monthly Charge for such a customer shall be the sum of the Monthly Charges determined by applying the appropriate formulae set forth in this Schedule 2 for each category of service.

Payment to Generation or Other Source Owners

Each month, the Transmission Provider shall pay each Generation Owner or other source owner an amount equal to the Generation Owner's or other source owner's monthly revenue requirement as accepted or approved by the Commission. In the event a Generation Owner or

other source owner sells a generator or other source which is included in its current effective monthly revenue requirement accepted or approved by the Commission, payments in that Generation Owner's or other source owner's Zone may be allocated as agreed to by the owners of the generator or other source in that Zone. Such Generation Owner or other source owners shall inform the Transmission Provider of any such agreement and submit either a filing to revise its cost-based rate or an informational filing in accordance with the requirements below in this Schedule 2. In the absence of agreement among such Generation Owners or other source owners, the Commission, upon application, shall establish the allocation. Generation Owners shall not be eligible for payment, pursuant to this Schedule 2, of monthly revenue requirement associated with those portions of generating units designated as Behind The Meter Generation. The Transmission Provider shall post on its website a list for each Zone of the annual revenue requirements for each Generation Owner receiving payment within such Zone and specify the total annual revenue requirement for all of the Transmission provider.

At least 90 days prior to the Deactivation Date or disposition date of a generator or other source receiving payment in accordance with a Commission accepted or approved revenue requirement for providing reactive supply and voltage control service under this Schedule 2, the Generation Owner or other source owner must either:

(1) submit to the Commission the appropriate filings to terminate or revise its cost-based revenue requirement for supplying reactive supply and voltage control service under this Schedule 2 to account for the deactivated or transferred generator or other source; or

(2) provide to the Transmission Provider and file with the Commission an informational filing that includes the following information:

- (i) the acquisition date, Deactivation Date, and transfer date of the generator or other source;
- (ii) an explanation of the basis for the decision by the Generation Owner or other source owner not to terminate or revise the cost-based rate approved or accepted by the Commission associated with the planned generator or other source deactivation or disposition;
- (iii) a list of all of the generators or other sources covered by the Generation Owner's or other source owner's cost-based tariff from the date the revenue requirement was first established until the date of the informational filing;
- (iv) the type (i.e., fuel type and prime mover) of each generator or other source;
- (v) the actual (site-rated) megavolt-ampere reactive ("MVAR") capability, megavolt-ampere ("MVA") capability, and megawatt capability of each generator or other source, as supported by test data; and
- (vi) the nameplate MVAR rating, nameplate MVA rating, nameplate megawatt rating, and nameplate power factor for each generator or other source.

The Generation Owner or other source owner must submit the informational filing in the docket in which its cost-based revenue requirement was approved or accepted by the Commission or as otherwise directed by the Commission.

The requirement to submit the filings at least 90 days prior to the Deactivation Date or disposition date of a generator or other source shall not apply to generators or other source deactivations or transfers occurring between June 18, 2015, and September 16, 2015. For generator or other source deactivations or transfers occurring between June 18, 2015, and September 16, 2015, the Generation Owner or other source owner shall submit the informational filing or filings to terminate or revise its cost-based revenue requirement by September 16, 2015.

SCHEDULE 3

Regulation and Frequency Response Service

Regulation and Frequency Response Service is necessary to provide for the continuous balancing of resources with load and for maintaining scheduled Interconnection frequency at sixty cycles per second (60 Hz). Regulation and Frequency Response Service is accomplished by committing on-line resources whose output is raised or lowered (predominantly through the use of automatic generating control equipment) and by other non-generation resources capable of providing this service as necessary to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with the Transmission Provider. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from the Transmission Provider or make alternative comparable arrangements to satisfy its Regulation and Frequency Response Service obligation. The Transmission Provider will take into account the speed and accuracy of Regulation resources in its determination of Regulation and Frequency Response reserve requirements, including as it reviews whether a self-supplying Transmission Customer has made alternative comparable arrangements. Upon request by the self-supplying Transmission Customer, the Transmission Provider will share with the Transmission Customer its reasoning and any related data used to make the determination of whether the Transmission Customer has made alternative comparable arrangements. The amount of and charges for Regulation and Frequency Response Service are set forth below. The Transmission Provider shall administer the purchases of Regulation Service in the PJM Interchange Energy Market. PJMSettlement shall be the Counterparty to the purchases by customers of Regulation Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply of resources by a customer to satisfy its Regulation obligation.

For Regulation not satisfied by individual Transmission Owners on behalf of their Native Load Customers, Network Customers or other Transmission Customers serving load in the PJM Region, the Transmission Provider will order the lowest cost alternative for Regulation in service as needed to meet the Regulation requirements of each Regulation Zone (as may be set forth in the PJM Manuals and as specified below:

- a. Regulation shall be supplied to meet the Regulation objective of a Regulation Zone from resources located within the metered electrical boundaries of such Regulation Zone. Resources offering Regulation shall comply with applicable standards and requirements for Regulation capability and dispatch specified in the PJM Manuals.
- b. The Office of the Interconnection shall obtain and maintain an amount of Regulation for each Regulation Zone equal to the Regulation objective for such Regulation Zone, as specified in the PJM Manuals.
- c. The Regulation range of a resource shall be at least twice the amount of Regulation assigned.

- d. A resource capable of automatic energy dispatch that is also providing Regulation shall have its energy dispatch range reduced from the Regulation range by at least twice the amount of the Regulation provided with consideration of the Regulation limits of the resource, as specified in the PJM Manuals.
- e. Qualified Regulation must satisfy the measurement and verification tests described in the PJM Manuals.
- f. A Transmission Owner, Network Customer or other Transmission Customer may satisfy its Regulation obligation from its own resources capable of performing Regulation service, by contractual arrangements with others able to provide Regulation service on a comparable basis, or by purchases from the PJM Regulation market.
- g. The Office of the Interconnection shall obtain Regulation service from the least-cost alternatives available from either pool-scheduled or self-scheduled resources as needed to meet Regulation Zone requirements not otherwise satisfied by a Transmission Owner, Network Customer or other Transmission Customer, in accordance with Tariff, Attachment K-Appendix, section 1.11.4(b).
- h. The Office of the Interconnection shall dispatch resources for Regulation by sending Regulation signals and instructions to resources from which Regulation service has been offered, in accordance with the PJM Manuals. Those resources shall comply with Regulation dispatch signals and instructions transmitted by the Office of the Interconnection and, in the event of conflict, Regulation dispatch signals and instructions shall take precedence over energy dispatch signals and instructions. Those providing Regulation shall exert all reasonable efforts to operate, or ensure the operation of, their resources supplying load in the PJM Region as close to desired output levels as practical, consistent with Good Utility Practice.
- i. Each Transmission Owner (on behalf of its Native Load Customers), Network Customer or other Transmission Customer serving load within a Regulation Zone shall have an hourly Regulation objective equal to its pro rata share of the Regulation requirements of such Regulation Zone for such hour, based on the entity's total load (net of operating Behind The Meter Generation, but not to be less than zero) in such Regulation Zone for such hour.
- j. An entity supplying Regulation at the direction of the Office of the Interconnection in excess of its hourly Regulation obligation shall be credited for each increment of such Regulation at the price specified in Tariff, Attachment K-Appendix, section 3.2.2 and Tariff, Attachment K-Appendix, section 3.3.2 and the parallel provisions of Operating Agreement, Schedule 1, section 3.2.2 and Operating Agreement, Schedule 1, section 3.3.2. A Transmission Owner, Network Customer or other Transmission Customer that does not meet its hourly Regulation obligation shall be charged for Regulation dispatched by the Office of the Interconnection to meet such obligation at the price specified in Tariff, Attachment K-Appendix, section 3.2.2 and Tariff, Attachment K-Appendix, section 3.3.2 and the parallel provisions of Operating Agreement, Schedule 1, section 3.2.2 and Operating Agreement, Schedule 1, section 3.3.2.

SCHEDULE 4

Energy Imbalance Service

Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Control Area over a single hour. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner, Transmission Customer, and Network Customer must purchase Energy Imbalance Service through the Transmission Provider, with PJMSettlement acting as the Counterparty, or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service. For purposes of Energy Imbalance Services, if a Point of Delivery serves more than one Transmission Owner or Network Customer, the Energy Imbalance Service and any associated charges will be computed by the Transmission Provider for the Point of Delivery and the allocation of the service and associated charges shall be the responsibility of the meter operator of the Point of Delivery.

For each Transmission Owner, Transmission Customer receiving service under Tariff, Part II, and Network Customer, Energy Imbalance Service is considered to be PJM interchange and will be charged at the Locational Marginal Price determined pursuant to Tariff, Attachment K-Appendix, section 2. The Transmission Provider shall administer the purchases by customers of Energy Imbalance Service. PJMSettlement shall be the Counterparty to the purchases by customers of Energy Imbalance Service.

SCHEDULE 5

Operating Reserve - Synchronized Reserve Service

Synchronized Reserve Service is needed to serve load immediately in the event of a system contingency. Synchronized Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output and by non-generation resources capable of providing this service or eligible Demand Resources as specified in Tariff, Attachment K-Appendix, section 1.7.19A. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner and Network Customer must purchase this service from the Transmission Provider. The amount of and charges for Synchronized Reserve Service, as defined in accordance with NERC operating policies, will be accounted and paid for as set forth in Tariff, Attachment K-Appendix, section 3.2.3A. The Transmission Provider shall administer the purchases by customers of Synchronized Reserve Service. PJMSettlement shall be the Counterparty to the purchases by customers of Synchronized Reserve Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply of generation resources by a customer to satisfy its Synchronized Reserve obligation.

SCHEDULE 6

Operating Reserve - Supplemental Reserve Service

Supplemental Reserve Service is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation or by interruptible load or other non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its Control Area. Each Transmission Owner and Network Customer must purchase this service from the Transmission Provider. The amount of and charges for Supplemental Reserve Service will be accounted and paid for as part of the Operating Reserves in accordance with Tariff, Attachment K-Appendix, section 3.2.3 and Tariff, Attachment K-Appendix, section 3.2.3A.01. The Transmission Provider shall administer the purchases by customers of Supplemental Reserve Service in the PJM Interchange Energy Market. PJMSettlement shall be the Counterparty to the purchases by customers of Supplemental Reserve Service in the PJM Interchange Energy Market; provided however, that PJMSettlement shall not be the contracting party to bilateral transactions between market participants or with respect to a self-schedule or self-supply relating to Supplemental Reserve.

SCHEDULE 6A

Black Start Service

References to section numbers in this Schedule 6A refer to sections of this Schedule 6A, unless otherwise specified.

To ensure the reliable restoration following a shut down of the PJM transmission system, Black Start Service is necessary to facilitate the goal of complete system restoration. Black Start Service enables the Transmission Provider to designate specific generators called Black Start Units whose location and capabilities are required to re-energize the transmission system following a system-wide blackout. The Transmission Provider shall administer the provision of Black Start Service. PJMSettlement shall be the Counterparty to the purchases and sales of Black Start Service.

TRANSMISSION CUSTOMERS

1. All Transmission Customers and Network Customers must obtain Black Start Service through the Transmission Provider, with PJMSettlement as the Counterparty, pursuant to this Schedule 6A.

PROVISION OF BLACK START SERVICE

2. A Black Start Unit is a generating unit that has equipment enabling it to start without an outside electrical supply or a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the demonstrated ability to automatically remain operating, at reduced levels, when disconnected from the grid. A Black Start Unit shall be considered capable of providing Black Start Service only when it meets the criteria set forth in the PJM manuals. For the purposes of this Schedule 6A, the expected life of the Black Start Unit shall take into consideration expectations regarding both the enabling equipment and the generation unit itself.

3. A Black Start Plant is a generating plant that includes one or more Black Start Units. A generating plant with Black Start Units electrically separated at different voltage levels will be considered multiple Black Start Plants.

4. The Transmission Provider is responsible for developing a coordinated and efficient system restoration plan that identifies all of the locations where Black Start Units are needed. The PJM Manuals shall set forth the criteria and process for selecting or identifying the Black Start Units necessary to commit to providing Black Start Service at the identified locations. No Black Start Unit shall be eligible to recover the costs of providing Black Start Service in the PJM Region unless it agrees to provide such service for a term of commitment established under section 5, 6, or 6A below.

5. Owners of Black Start Units selected to provide Black Start Service in accordance with section 4 of this Schedule 6A and electing to forego any recovery of new or additional Black Start Capital Costs shall commit to provide Black Start Service from such Black Start Units for an initial term of no less than two years and authorize the Transmission Provider to resell Black

Start Service from its Black Start Units. The term commitment shall continue to extend until the Black Start Unit owner or the Transmission Provider provides written, one-year advance notice of its intention to terminate the commitment or the commitment is involuntarily terminated pursuant to section 15 of this Schedule 6A.

6. Owners of Black Start Units selected to provide Black Start Service in accordance with section 4 of this Schedule 6A and electing to recover new or additional Black Start Capital Costs shall commit to provide Black Start Service from such Black Start Units for a term based upon the age of the Black Start Unit or the longest expected life of the Incremental Black Start Capital Cost, as set forth in the applicable CRF Tables in section 18 of this Schedule 6A. For those Black Start Units that elect to recover new or additional Black Start Capital Costs in addition to a prior, FERC-approved cost recovery rate, the applicable commitment period shall be the longer of the FERC-approved recovery period or the applicable term of commitment as set forth in the CRF Tables in section 18 of this Schedule 6A. The Transmission Provider may terminate the commitment with one year advance notice of its intention to the Black Start Unit owner, but the Black Start Unit owner shall be eligible to recover any amount of unrecovered Fixed Black Start Service Costs over a period not to exceed five years. A Black Start Unit owner may terminate the provision of Black Start Service with one year advance notice and consent of the Transmission Provider (or its commitment period may be involuntarily terminated pursuant to the section 15 below). Such Black Start Unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of section 17(i) of this Schedule 6A) in excess of the amount that would have been recovered pursuant to section 18 of this Schedule 6A during the same period. At the conclusion of the term of commitment established under this section 6 of this Schedule 6A, a Black Start Unit shall commence a new term of commitment under either section 5 or 6 of this Schedule 6A, as applicable.

6A. Black Start Units which are owned or contracted for by a Transmission Owner to provide Black Start Service as a result of the black start reliability backstop process defined in the PJM Manuals, shall be subject to cost recovery through such Transmission Owner's annual revenue requirement under such Transmission Owner's Tariff, Attachment H, as filed with, and accepted by, FERC under Section 205 of the Federal Power Act and in accordance with Tariff, Part I, section 9, or through such other cost recovery mechanism, provided that such cost recovery mechanism is filed with and accepted by FERC. The relevant Transmission Owner shall commit to provide, or effectuate the provision of, Black Start Service from such a Black Start Unit for the FERC-approved cost recovery period. The Transmission Provider may terminate the commitment with one year advance notice of its intention to the Transmission Owner. Provision of Black Start Service from a Black Start Unit obtained through the black start reliability backstop process defined in the PJM Manuals shall be subject to sections 7 through 13 of this Schedule 6A. The Revenue Requirements, Credits, and Charges provisions contained in sections 16 through 27 of this Schedule 6A, shall not apply to Black Start Units obtained as a result of the black start reliability backstop process defined in the PJM Manuals.

6B. In the event that a Black Start Unit fails to fulfill its commitment established under section 5 to provide Black Start Service, receipt of any Black Start Service revenues associated

with the non-performing Black Start Unit shall cease and, for the period of the unit's non-performance, the Black Start Unit owner shall forfeit the Black Start Service revenues associated with the non-performing Black Start Unit that it received or would have received had the Black Start Unit performed, not to exceed revenues for a maximum of one year.

In the event that a Black Start Unit fails to fulfill its commitment established under section 6 above, such unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of section 17(i) of this Schedule 6A) in excess of the amount that would have been recovered pursuant to section 18 of this Schedule 6A during the same period, but such unit remains eligible to establish a new commitment under section 5 or 6 of this Schedule 6A.

Performance Standards and Outage Restrictions

7. In addition to the performance capabilities set forth in the PJM Manuals, Black Start Units must have the capabilities listed below. These capabilities must be demonstrated in accordance with the criteria set forth in the PJM manuals and will remain in effect for the duration of the commitment to provide Black Start Service.

- a. A Black Start Unit must be able to close its output circuit breaker to a dead (de-energized) bus within the time specified in the PJM Manuals.
- b. A Black Start Unit must be capable of maintaining frequency and voltage under varying load.
- c. A Black Start Unit must be able to maintain rated output for a period of time identified by each Transmission Owner's system restoration requirements, in conjunction with the Transmission Provider.

8. Each owner of Black Start Units or Black Start Plants must maintain procedures for the start-up of the Black Start Units.

9. If a Black Start Unit is a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, this ability must be demonstrated in accordance with the criteria set forth in the PJM manuals.

10. No more than one Black Start Unit at a Black Start Plant may be subject to planned maintenance at any one time. This restriction excludes outages on common plant equipment that may make all units unavailable. A Black Start Unit not currently designated as critical and on the same voltage level may be substituted for a Black Start Unit that is subject to a planned outage to permit a concurrent planned outage of another critical Black Start Unit at the Black Start Plant to begin. The Black Start Unit used as a substitute must have had a valid annual test within the previous 12 months.

11. Concurrent planned outages at multiple Black Start Plants within a zone may be restricted based on Transmission Owner requirements for Black Start Service availability. Such restrictions must be predefined and approved by Transmission Provider in accordance with the PJM manuals.

Testing

12. To verify that they can be started and operated without being connected to the Transmission System, Black Start Units designated as critical shall be tested annually in accordance with the PJM manuals. The Black Start Unit owner shall determine the time of the annual test.

13. Compensation for energy output delivered to the Transmission System during the annual test shall be provided for the Black Start Unit's minimum run time at the higher of the unit's cost-capped offer or real-time Locational Marginal Price plus start-up and no-load costs for up to two start attempts, if necessary. For Black Start Units that are generating units with a high operating factor (subject to Transmission Provider's concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, an opportunity cost will be provided to compensate the unit for lost revenues during testing.

14. To receive Black Start Service revenues, a Black Start Unit must have a successful annual test on record with the Transmission Provider within the preceding 13 months.

15. If a Black Start Unit fails the annual test, the unit may be re-tested within a ten-day period without financial penalty. If the Black Start Unit does not successfully re-test within that ten-day period, monthly Black Start Service revenues will be forfeited by that unit from the time of the first unsuccessful test until such time as the unit passes an annual test. If the Black Start Unit owner determines not to make the necessary repairs to enable the Black Start Unit to pass the annual test, the Black Start Unit owner will have failed to fulfill its commitment pursuant to section 5 or section 6 above, whichever is applicable, of this Schedule 6A and will be subject to the additional forfeiture of revenues set forth in section 6B of this Schedule 6A.

Revenue Requirements

16. A Black Start Unit Owner's annual Black Start Service revenue requirement shall be the sum of the annual Black Start Service revenue requirements for each generator that is designated as providing Black Start Service and has provided the Transmission Provider with a calculation of its annual Black Start Service revenue requirements. A separate line item shall appear on the participants' Transmission Provider bill for Black Start Service charges and credits.

17. Black Start Service revenue requirements for each Black Start Unit shall be based, at the election of the owner, on either (i) a FERC-approved rate for the recovery of the cost of providing such service for the entire duration of the commitment term set forth in either section 5 or 6 of this Schedule 6A, as applicable, or (ii) the formula rates set forth in section 18 of this Schedule 6A for the commitment term set forth in section 5 or 6 of this Schedule 6A as

applicable. Each generator's Black Start Service revenue requirements shall be an annual calculation.

17A. Annual Review for all Black Start Units

Requests for Black Start Service revenue requirements and for changes to the Black Start Service revenue requirements must be submitted to the Market Monitoring Unit for review and analysis, with supporting data and documentation, pursuant to Tariff, Attachment M–Appendix, section III and the PJM Manuals, with a copy to the Office of the Interconnection, by no later than May 3 of each year. The Market Monitoring Unit and the Black Start Unit owner shall attempt to come to agreement on the level of each component included in the Black Start Service revenue requirements by no later than May 14 of each year. By no later than May 21 of each year, the Black Start Unit owner shall notify the Office of the Interconnection and the Market Monitoring Unit in writing whether it agrees or disagrees with the Market Monitoring Unit's determination of the level of each component included in the Black Start Service revenue requirements. The Black Start Unit owner may also submit Black Start Service revenue requirements that it chooses to the Office of the Interconnection by no later than May 21 of each year, provided that (i) it has participated in good faith with the process described in this section and in Tariff, Attachment M–Appendix, section III (ii) the Black Start Service revenue requirements are no higher than the level defined in any agreement reached by the Black Start Unit owner and the Market Monitoring Unit that resulted from the foregoing process, and (iii) the Black Start Service revenue requirements are accepted by the Office of the Interconnection subject to the criteria set forth in the Tariff and PJM Manuals.

The Office of the Interconnection shall determine whether to accept the values submitted by the Black Start Unit owner subject to the requirements of the Tariff and the PJM Manuals by no later than May 27. If the Office of the Interconnection does not accept the values submitted by the Black Start Unit owner in such case, the Black Start Unit owner may file its proposed values with the Commission for approval. Pursuant to Tariff, Attachment M–Appendix, section III, if the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner in such case, the Market Monitoring Unit may petition the Commission for an order that would require the Black Start Unit owner to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission. The annual calculation of Black Start Service revenue requirements shall become effective on June 1 of each year, except that no change to a Black Start Service revenue requirement shall become effective until the existing revenue requirement has been effective for at least twelve months. Notwithstanding the foregoing, the deadlines set forth in this section 17 shall not apply to a Black Start Unit owner's election to select a new method of recovery for its Fixed BSSC.

17B. Initial Review for New Black Start Units

Requests for new Black Start Service revenue requirements must be submitted to the Market Monitoring Unit for review and analysis, with supporting data and documentation, pursuant to Tariff, Attachment M–Appendix, section III and the PJM Manuals, with a copy to the Office of the Interconnection, by no later than 90 days after entering Black Start Service. The Market Monitoring Unit and the Black Start Unit owner shall attempt to come to agreement on the level

of each component included in the Black Start Service revenue requirements by no later than 90 days after the Black Start Unit owner's submittal of final black start capital costs (if applicable), variable black start costs, and fuel storage cost documentation. By no later than 90 days of the Black Start Unit owner's submittal of final black start cost documentation, the Market Monitoring Unit shall calculate the new Black Start Unit's annual revenue requirement and submit it to the Office of the Interconnection and the Black Start Unit owner. If more than three Black Start Unit owners submit documentation within a 90-day period, the Market Monitoring Unit shall complete the review of the first three submittals within 90 days and the next set of three within the following three months and so on until all are complete. The Black Start Unit owner shall notify the Office of the Interconnection and the Market Monitoring Unit in writing if it disagrees with the Market Monitoring Unit's determination of the level of any component included in the Black Start Service revenue requirements within 7 days after the Market Monitoring Unit's submittal of the annual revenue requirement to the Office of the Interconnection. The Black Start Unit owner shall also submit Black Start Service revenue requirements that it proposes to the Office of the Interconnection provided that (i) it has participated in good faith with the process described in this section and in Tariff, Attachment M-Appendix, section III; (ii) the Black Start Service revenue requirements are no higher than the level defined in any agreement reached by the Black Start Unit owner and the Market Monitoring Unit that resulted from the foregoing process; and (iii) the Black Start Service revenue requirements are accepted by the Office of the Interconnection subject to the criteria set forth in the Tariff and PJM Manuals.

The Office of the Interconnection shall determine whether to accept the values submitted by the Black Start Unit owner subject to the requirements of the Tariff and the PJM Manuals by no later than 30 days after its receipt of the Black Start Unit owner's written notice of a disagreement. If the Office of the Interconnection does not accept the values submitted by the Black Start Unit owner in such case, the Black Start Unit owner may file its proposed values with the Commission for approval. Pursuant to Tariff, Attachment M-Appendix, section III, if the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner in such case, the Market Monitoring Unit may petition the Commission for an order that would require the Black Start Unit owner to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission. The annual calculation of Black Start Service revenue requirements shall become effective the day the unit enters Black Start Service.

18. The formula for calculating a generator's annual Black Start Service revenue requirement is:

$$\{(\text{Fixed BSSC}) + (\text{Variable BSSC}) + (\text{Training Costs}) + (\text{Fuel Storage Costs})\} * (1 + Z)$$

For units that have the demonstrated ability to operate at reduced levels when automatically disconnected from the grid, the formula is revised to:

$$(\text{Training Costs}) * (1 + Z)$$

Where:

Fixed BSSC

Black Start Units with a commitment established under section 5 of this Schedule 6A shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with the following Base Formula Rate:

Base Formula Rate:

$$\text{Net CONE} * \text{Black Start Unit Capacity} * X$$

Where:

“Net CONE” is the then current installed capacity (“ICAP”) net Cost of New Entry (expressed in \$/MW year) for the CONE Area where the Black Start Unit is located.

“Black Start Unit Capacity” is either: (i) the Black Start Unit’s installed capacity, expressed in MW, for those Black Start Units that are Generation Capacity Resources; or (ii) the awarded MWs in the Transmission Provider’s request for proposal process under the PJM Manuals, for those Black Start Units that are Energy Resources.

“X” is the Black Start Service allocation factor unless a higher or lower value is supported by the documentation of the actual costs of providing Black Start Service. For such units qualifying as Black Start Units on the basis of demonstrated ability to operate at reduced levels when automatically disconnected from the grid, X shall be zero. For Black Start Units with a commitment established under section 5 of this Schedule 6A, X shall be .01 for Hydro units, .02 for CT units.

Black Start Units with a commitment established under section 6 above shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with one of the following formulas, as applicable:

Capital Cost Recovery Rate – NERC-CIP Specific Recovery

$$(\text{Net Cone} * \text{Black Start NERC-CIP Unit Capacity} * X) + (\text{Incremental Black Start NERC-CIP Capital Costs} * \text{CRF})$$

Where:

“Net Cone” is the then current installed capacity (“ICAP”) net Cost of New Entry (expressed in \$/MW year) for the CONE are where the Black Start Unit is located.

“Black Start NERC-CIP Unit Capacity” is the Black Start Unit’s installed capacity, expressed in MW, but, for purposes of this calculation, capped at 100 MW for Hydro units, or 50 MW for CT units.

“Incremental Black Start NERC-CIP Capital Cost” are those capital costs documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a Black Start Unit to maintain compliance with mandatory Critical Infrastructure Protection Reliability Standards (as approved by the Commission and administered by the applicable Electric Reliability Organization).

“CRF” or “Capital Recovery Factor” is equal to the levelized CRF as set forth in the applicable CRF Table set forth below.

A Black Start Unit may elect to terminate forward cost recovery under this Capital Cost Recovery Rate – NERC-CIP Specific Recovery at any time and seek cost recovery under the Capital Cost Recovery Rate, pursuant to the terms and conditions set forth below.

Capital Cost Recovery Rate

$(\text{FERC-approved rate}) + (\text{Incremental Black Start Capital Costs} * \text{CRF})$

Where:

“FERC-approved rate” is the Black Start Unit’s current FERC-approved recovery of costs to provide Black Start Service, if applicable. To the extent that a Black Start Unit owner is currently recovering black start costs pursuant to a FERC-approved rate, that cost recovery will be included as a formulaic component for calculating the Black Start Unit’s annual revenue requirement pursuant to this section 18. However, under no circumstances will PJM or the Black Start Unit owner restructure or modify that existing FERC-approved rate without FERC approval.

“Incremental Black Start Capital Costs” are the new or additional capital costs documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a unit to provide Black Start Service in addition to whatever other product or services such unit may provide. Such costs shall include those incurred by a Black Start Unit owner in order to meet NERC Reliability Standards that apply to Black Start Units solely on the basis of the provision of Black Start Service by such unit. However, Incremental Black Start Capital Costs shall not include any capital costs that the Black Start Unit owner is recovering for that unit pursuant to a FERC-approved recovery rate.

“CRF” or “Capital Recovery Factor “ is equal to the Levelized CRF based on the age of the Black Start Unit, which is modified to provide Black Start Service, as present in the CRF Table below:

Age of Black Start Unit	Term of Black Start Commitment	Levelized CRF
1 to 5	20	0.125
6 to 10	15	0.146
11 to 15	10	0.198
16+	5	0.363

Or:

Optionally, a Black Start Unit owner may elect to apply an alternative Capital Recovery Factor, in lieu of the age-based CRF Table listed above, which is based upon to the expected Capital Improvement Lifespan of the new or additional capital improvements (as determined by the applicable depreciation period of the capital improvement, as published from time to time by the US Internal Revenue Service). The Applicable Recovery Period and the term of Black Start Service Commitment shall be the same and determined by the expected Capital Improvement Lifespan. In the event that the Black Start Unit seeks recovery of capital improvements that are included in more than one category of Capital Improvement Lifespan (as set forth below), its Applicable Recovery Period and term of commitment to provide black start service for such Black Start Unit shall be the longest expected life of those new or additional capital improvements.

Capital Improvement Lifespan (years)	Applicable Recovery Period/Term of Commitment (years)	Levelized CRF
16-20	20	0.125
11-15	15	0.146
6-10	10	0.198
1-5	5	0.363

In those circumstances where a Black Start Unit owner has elected to recover Incremental Black Start Capital Costs, in addition to a FERC-approved recovery rate, its applicable term of commitment shall be the greater of: (i) the FERC-approved recovery period, or; (ii) the applicable term of commitment as established by the CRF Tables above.

After a Black Start Unit has recovered its allowable Incremental Black Start Capital Costs or Incremental Black Start NERC-CIP Capital Costs, as provided by the applicable Capital Cost Recovery Rate, and has satisfied its applicable commitment period required under section 6 of this Schedule 6A, the Black Start Unit shall be committed to providing black start in accordance with section 5 of this Schedule 6A and calculate its Fixed BSSC in accordance with the Base Formula Rate.

Variable BSSC

All Black Start Units shall calculate Variable BSSC or “Variable Black Start Service Costs” in accordance with the following formula:

$$\text{Black Start Unit O\&M} * Y$$

Where:

“Black Start Unit O&M” are the operations and maintenance costs attributable to supporting Black Start Service and must equal the annual variable O&M outlined in the PJM Cost Development Guidelines set forth in the PJM Manuals. Such costs shall include those incurred by a Black Start Owner in order to meet NERC Reliability Standards that apply to the Black Start Unit solely on the basis of the provision of Black Start Service by unit.

“Y” is 0.01, unless a higher or lower value is supported by the documentation of costs. If a value of Y is submitted for this cost, a (1-Y) factor must be applied to the Black Start Unit’s O&M costs on the unit’s cost-based energy schedule, calculated based on the Cost Development Guidelines in the PJM Manuals.

For units qualifying as Black Start Units on the basis of a demonstrated ability to operate at reduced levels when automatically disconnected from the grid, there are no variable costs associated with providing Black Start Service and the value for Variable BSSC shall be zero.

Black Start Units with the demonstrated ability to automatically remain operating, at reduced levels, when disconnected from the grid may receive NERC compliance costs associated with providing Black Start Service in addition to the formula above, if approved in accordance with the procedures in section 17 of this Schedule 6A.

Training Costs:

All Black Start Units shall calculate Training Costs in accordance with the following formula:

$$50 \text{ staff hours/year/plant} * 75/\text{hour}$$

Fuel Storage Costs:

Black Start Units that store liquefied natural gas, propane, or oil on site shall calculate Fuel Storage Costs in accordance with the following formula:

$$\{ \text{MTSL} + [(\# \text{ Run Hours}) * (\text{Fuel Burn Rate})] \} * \\ (12 \text{ Month Forward Strip} + \text{Basis}) * (\text{Bond Rate})$$

Where:

Run Hours are the actual number of hours a Transmission Provider requires a Black Start Unit to run. Run Hours shall be at least 16 hours or as defined by the Transmission Owner restoration plan, whichever is less.

“Fuel Burn Rate” is actual fuel burn rate for the Black Start Unit.

“12-Month Forward Strip” is the average of forward prices for the fuel burned in the Black Start Unit traded the first Business Day on or following May 1.

“Basis” is the transportation costs from the location referenced in the forward price data to the Black Start Unit plus any variable taxes.

“Bond rate” is the value determined with reference to the Moody's Utility Index for bonds rated Baa1 reported the first Business Day on or following May 1.

“MTSL” is the “minimum tank suction level” and shall apply where no direct current pumps are available for the Black Start Unit. In the case where more than one Black Start Unit shares a common fuel tank, only one Black Start Unit will be eligible for the recovery of this volume in its fuel storage cost calculation. The MTSL for the other Black Start Unit(s) sharing the common fuel tank shall be zero.

For units qualifying as Black Start Units on the basis of a demonstrated ability to operate at reduced levels when automatically disconnected from the grid, there are no associated fuel storage costs and the value for FSC shall be zero.

Z

Z shall be an incentive factor solely for Black Start Units with a commitment established under section 5 above and shall be ten percent. For those Black Start Units that elect to recover new or additional Black Start Capital Costs under section 6 above, the incentive factor, Z, shall be equal to zero.

Every five years, PJM shall review the formula and its costs components set forth in this section 18, and report on the results of that review to stakeholders.

19. Transmission Provider or its agent shall have the right to independently audit the accounts and records of each Black Start Unit that is receiving payments for providing Black Start Service.

20. PJM shall notify its Members when a Black Start Unit seeks to recover new or additional Black Start NERC-CIP Capital Costs under section 18 of this Schedule 6A no later than thirty (30) days prior to the effective date of the recovery. At the written request of a PJM Member, made simultaneously to the Market Monitoring Unit and PJM, with notice to the Black Start Unit owner, the Market Monitoring Unit shall make available to the affected PJM Member for inspection at the offices of the Market Monitoring Unit, all data supporting the requested new or additional NERC-CIP specific Capital Costs. The Black Start Unit owner may elect to attend

this review. In all cases, the supporting data is to be held confidential and may not be distributed.

21. The Market Monitoring Unit shall include a Black Start Service summary in its annual State of the Market report which will set forth a descriptive summary of the new or additional Black Start NERC-CIP Capital Costs requested by Black Start Units, and include a list of the types of capital costs requested and the overall cost of such capital improvements on an aggregate basis such that no data is attributable to an individual Black Start Unit.

Credits

22. For existing Black Start Units, monthly credits are provided to Black Start Unit owners that submit to the Transmission Provider their annual revenue requirements established pursuant to section 17A of this Schedule 6A. The generator's monthly credit is equal to 1/12 of its annual Black Start Service revenue requirement for eligible critical Black Start Units. For new Black Start Unit owners, monthly credits will be held by the Office of the Interconnection in a non-interest bearing account until the Office of the Interconnection, or the Commission as applicable, accepts the owner's annual revenue requirement pursuant to section 17B of this Schedule 6A. New Black Start Unit owners will begin to receive monthly credits, including any monthly credits held by the Office of the Interconnection back to the date the unit enters Black Start Service and any required estimated annual revenue requirement true up after the Office of the Interconnection, or the Commission as applicable, accepts the new Black Start Unit owner's annual revenue requirement.

23. Revenue requirements for jointly owned Black Start Units will be allocated to the owners based on ownership percentage.

24. Transmission Provider shall not compensate generators for Black Start Service unless they meet the Transmission Provider criteria for Black Start Service and the criteria for Black Start Service in the Applicable Standards and provide Transmission Provider with all necessary data in accordance with this Schedule 6A and the PJM manuals.

Charges

25. Zonal rates will be based on Black Start Service capability or share of generation units designated by the Transmission Provider and allocated to network service customers and point-to-point reservations. Zonal rates will include estimated annual revenue requirements for new Black Start Units from the date the units enter Black Start Service to last day of the month preceding the Office of the Interconnection's acceptance of the unit's annual revenue requirement. The estimated annual revenue requirement will be based on the Black Start Unit owner's best estimate at the time the unit enters Black Start Service. Any estimated annual revenue requirement true up will be included in the monthly bill after the Office of the Interconnection accepts the new Black Start unit's annual revenue requirement.

26. Revenue requirements for Black Start Units designated by the Transmission Provider as critical (regardless of zonal location) will be allocated to the receiving Transmission Owner's

zone. Black Start Units that are shared and designated to serve multiple zones will have their annual revenues allocated by Transmission Owner designated critical load percentage.

27. Purchasers of Black Start Service shall be charged for such service in accordance with the following formulae.

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Non-Zone Load = Allocation Factor * Total Generation Owner Monthly Black Start Service Revenue Requirement

Monthly Charge for a purchaser receiving Network Integration Transmission Service or Point-to-Point Transmission Service to serve Zone Load = Allocation Factor * Zonal Generation Owner Monthly Black Start Service Revenue Requirement * Adjustment Factor

Where:

Purchaser serving Non-Zone Load is a Network Customer serving Non-Zone Network Load or a Transmission Customer where the Point of Delivery is at the boundary of the PJM Region.

Zonal Generation Owner Monthly Black Start Service Revenue Requirement is the sum of the monthly share of Black Start Service revenue requirements for each generator nominated by the Transmission Owners in that zone.

Total Generation Owner Monthly Black Start Service Revenue Requirement is the sum of the Zonal Generation Owner Monthly Black Start Service Revenue Requirements for all Zones in the PJM Region.

Allocation Factor is the monthly transmission use of each Network Customer or Transmission Customer per Zone or Non-Zone, as applicable, on a megawatt basis divided by the total transmission use in the Zone or in the PJM Region, as applicable, on a megawatt basis.

For Network Customers, monthly transmission use on a megawatt basis is the sum of a Network Customer's daily values of DCPZ or DCPNZ (as those terms are defined in Tariff, Part I, section 34.1) as applicable, for all days of the month.

For Transmission Customers, monthly transmission use on a megawatt basis is the sum of the Transmission Customer's hourly amounts of Reserved Capacity for each day of the month (not curtailed by PJM) divided by the number of hours in the day.

Adjustment Factor is determined as the sum of the total monthly transmission use in the PJM Region on a megawatt basis, exclusive of such use by Network Customers and Transmission Customers serving Non-Zone Load, divided by the total monthly transmission use in the PJM Region on a megawatt basis.

In the event that a single customer is serving load in more than one Zone, or serving Non-Zone Load as well as load in one or more Zones, or is both a Network Customer and a Transmission Customer, the Monthly Charge for such a customer shall be the sum of the Monthly Charges determined by applying the appropriate formulae set forth in this Schedule 6A.

SCHEDULE 9
PJM Interconnection, L.L.C. Administrative Services

a) PJM Interconnection, L.L.C. is the Transmission Provider under this Tariff. It also operates the PJM Interchange Energy Market as described in Tariff, Attachment K-Appendix and provides various other services to market participants. The cost of operating the PJM Interconnection, L.L.C., including principal and/or depreciation expense, interest expense and financing costs, shall be recovered from users of the various PJM services pursuant to the rates set forth in this Schedule 9 and its subsidiary Schedules which correspond to categories of services (“Service Categories”) provided by PJM. The charge in any month to any user of PJM’s services under this Schedule 9 is the sum of the charges under the following subsidiary Schedules of this Schedule 9 to the extent determined to be applicable by the Transmission Provider to such user in such month:

Tariff, Schedule 9-1:	“Control Area Administration Service”
Tariff, Schedule 9-2:	“Financial Transmission Rights Administration Service”
Tariff, Schedule 9-3:	“Market Support Service”
Tariff, Schedule 9-4:	“Regulation and Frequency Response Administration Service”
Tariff, Schedule 9-5:	“Capacity Resource and Obligation Management Service”

b) The rates, terms, conditions, and applicability of these subsidiary services of this Schedule 9 are set forth on the subsidiary Schedules of this Schedule 9. These rates and charges do not include the charges for PJMSettlement services to Transmission Customers and Market Participants. The charges for PJMSettlement services to Transmission Customers and Market Participants are set forth in Tariff, Schedule 9-PJMSettlement.

c) In addition to subsidiary Tariff, Schedule 9-1through 9-5, this Schedule 9 also includes the following separate subsidiary schedules: (i) Tariff, Schedule 9-FERC, which is designed to recover Transmission Provider’s costs for the annual charges assessed on Transmission Provider by FERC; (ii) Tariff, Schedule 9-OPSI, which is designed to recover Transmission Provider’s payments to the Organization of PJM States, Inc.; (iii) Tariff, Schedule 9-CAPS, which is designed to recover Consumer Advocates of PJM States, Inc. costs; (iv) Tariff, Schedule 9-MMU which is designed to recover the cost of providing market monitoring functions to the PJM Region; (v) Tariff, Schedule 9-FINCON, which is designed to recover Transmission Provider’s costs of outside consultants engaged by the Finance Committee, and (vi) Tariff, Schedule 9-PJMSettlement, which is designed to recover PJMSettlement’s costs.

d) Revenues received under subsidiary Tariff, Schedules 9-1 through 9-5 shall be used in part to fund and maintain a reasonable reserve, and amounts received in excess of that necessary to recover costs and fund such reserve, shall be refunded to customers on a one-quarter lag basis, in accordance with the following:

(1) PJM shall record on its income statement deferred regulatory expense, and PJM’s balance sheet will reflect as a cumulative deferred regulatory liability, any revenues collected under subsidiary Tariff, Schedules 9-1 through 9-5 that are in excess of all expenses (exclusive

of expenses recovered under Tariff, Schedule 9-FERC, Tariff, Schedule 9-OPSI, Tariff, Schedule 9-CAPS, Tariff, Schedule 9-FINCON, Tariff, Schedule 9-MMU, Tariff, Schedule 9-PJM Settlement and other similar schedules that may be added to the Tariff, and exclusive of expenses of PJM affiliates), and taking account of and including any accrued tax expense effects of this regulatory liability. The deferred regulatory liability will be reduced whenever after-tax PJM revenues collected under subsidiary Tariff, Schedules 9-1 through 9-5 during any calendar quarter are less than PJM's actual expenses, excluding the costs recovered under Tariff, Schedules 9-FERC, Tariff, Schedule 9-OPSI, Tariff, Schedule 9-CAPS, Tariff, Schedule 9-FINCON, Tariff, Schedule 9-MMU, Tariff, Schedule 9-PJM Settlement and other similar schedules that may be added to the Tariff.

(2) At the end of each calendar quarter, to the extent that the deferred regulatory liability exceeds six percent of PJM's revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 during the current calendar year (exclusive of any credits to Tariff, Schedules 9-1 through 9-5 charges associated with a refund applied during the preceding calendar quarter(s)), such excess amounts in the deferred regulatory liability shall be refunded evenly over the applicable billing determinant volumes in the following calendar quarter through credits to charges to then-current Tariff, Schedules 9-1 through 9-5 customers in the following proportions:

Allocation of Refunds

<u>Schedule</u>	<u>Amount</u>
9-1	58.0%
9-2 (FTR Service Rate Component 1)	1.5%
9-2 (FTR Service Rate Component 2)	2.5%
9-3 (MS Service Rate Component 1)	31.4%
9-3 (MS Service Rate Component 2)	0.4%
9-4	2.0%
9-5	4.2%

The deferred regulatory liability shall be reduced by such refunds.

(3) Notwithstanding subsection (d)(2) above, PJM shall refund evenly over a three-month period commencing January 1, 2020 and every third year thereafter, the full cumulative regulatory liability as of December 31 of the previous calendar year, provided that refunds shall be limited to amounts that will not reduce any regulatory liability balance below an amount equal to two percent of the revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 during the same calendar year. Such amounts that are not refunded shall continue to be recorded as a regulatory liability. All such refunds under this paragraph shall be made through credits to the charges to then-current Tariff, Schedules 9-1 through 9-5 customers in the proportions set forth in subsection (d)(2) above.

(4) If at any time the cumulative deferred regulatory liability on PJM's year-end balance sheet is projected to be less than two percent of the revenues projected to be collected under Tariff, Schedules 9-1 through 9-5 in the same calendar year, PJM will consult with the

Finance Committee, in a manner consistent with the Finance Committee Protocol, to develop plans to restore the reserve.

SCHEDULE 9-2
Financial Transmission Rights Administration Service

a) Financial Transmission Rights Administration Service comprises all of the activities of PJM associated with administering the Financial Transmission Rights (“FTRs”) provided for under Tariff, Attachment K including, but not limited to, coordination of FTR bilateral trading, administration of FTR auctions, support of PJM’s on-line, internet-based FTR reporting tool, and analyses to determine what total combination of FTRs can be outstanding and accommodated by the PJM system at a given time. PJM provides this service to entities that hold FTRs or that submit offers to sell or bids to buy FTRs.

b) PJM will charge each user of Financial Transmission Rights Administration Service each month a charge equal to: (i) the FTR Service Rate, Component 1, as stated below, times the FTR Holder’s total FTRs in megawatt-hours during such month; plus (ii) the FTR Service Rate, Component 2, as stated below, times the sum of (1) the number of hours in all bids to buy Financial Transmission Rights Obligations submitted by such user during such month, plus (2) five times the number of hours in all bids to buy Financial Transmission Rights Options submitted by such user during such month. Component 1 of this charge applies to all bids submitted into any round of the Long-term, Annual, or monthly FTR Auctions; Component 2 of this charge applies to all bids submitted into any round of the Annual FTR Auction and to all bids submitted into the applicable monthly FTR Auction.

c) The FTR Service Rate, Component 1 shall be as follows

Commencing January 1, 2017:	\$0.0028 per MWh
Commencing January 1, 2019:	\$0.0029 per MWh
Commencing January 1, 2020:	\$0.0029 per MWh
Commencing January 1, 2021:	\$0.0030 per MWh
Commencing January 1, 2022:	\$0.0031 per MWh
Commencing January 1, 2023:	\$0.0032 per MWh
Commencing January 1, 2024:	\$0.0032 per MWh

d) The FTR Service Rate, Component 2 shall be as follows:

Commencing January 1, 2017:	\$0.0019 per hour
Commencing January 1, 2019:	\$0.0019 per hour
Commencing January 1, 2020:	\$0.0020 per hour

Commencing January 1, 2021:	\$0.0020 per hour
Commencing January 1, 2022:	\$0.0021 per hour
Commencing January 1, 2023:	\$0.0021 per hour
Commencing January 1, 2024:	\$0.0022 per hour

SCHEDULE 9-3

Market Support Service

- a) Market Support Service comprises all of the activities of PJM associated with supporting the operation of the PJM Interchange Energy Market and related functions, as described in Operating Agreement, Schedule 1 and Tariff, Attachment K-Appendix, including, but not limited to, market modeling and scheduling functions, locational marginal pricing support, and support of PJM's Internet-based customer transaction tools. PJM provides this service to customers using Point-to-Point or Network Integration Transmission Service under this Tariff, to Generation Providers, as defined below, and to entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market.
- b) PJM will charge each user of Market Support Service each month a charge equal to the sum of: (i) the MS Service Rate, Component 1, as stated below, times (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service, as defined below) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, as defined below, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted "Up-to" Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c), submitted by such user during such month; plus (ii) the MS Service Rate Component 2, as stated below, times the number of Bid/Offer Segments, as defined below, submitted by such user during such month. For purposes of this Schedule 9-3, Wheeling-Through Service is Point-to-Point Transmission Service for which both the Point of Receipt and the Point of Delivery are at interconnections of the PJM Region with other Control Areas.
- c) For purposes of this Schedule 9-3, a Generation Provider shall be: (i) a Generation Owner, as such term is defined in the Operating Agreement; provided, however, that if a Generation Owner is not the entity credited on PJM's records for the energy input into the Transmission System from the generation facilities owned or leased (with rights equivalent to ownership) by such Generation Owner, as, for example, in the case of a qualifying facility selling energy to a public utility pursuant to section 210 of the Public Utility Regulatory Policies Act of 1978, then, with respect to such energy, the Generation Provider shall be the entity credited on PJM's records for the energy input into the Transmission System from such generation facilities; (ii) a Network Customer or Point-to-Point Transmission Service customer, with respect to energy arranged by such customer to be delivered for import into the PJM Region; or (iii) a Market Seller with respect to energy arranged by such Market Seller to be delivered for import to the boundaries of the PJM Region and for which there is no separately identifiable Transmission Customer. As the term is used in this Schedule 9-3, energy "credited on PJM's records" does not necessarily mean that a monetary credit resulted on any billing statement provided by PJM.
- d) For purposes of this Schedule 9-3, a Bid/Offer Segment shall be each price/quantity pair submitted into the Day-ahead Energy Market, including those submitted in the generation rebidding period pursuant to Tariff, Attachment K-Appendix, section 1.10.9(a). Segments shall

be hourly for each bid to purchase energy, each Increment Offer, each Decrement Bid, and each “Up-to” Congestion Transaction. Segments shall be daily for each offer to sell other than an Increment Offer. Each “Up-to” Congestion Transaction also shall be considered a Bid/Offer Segment.

e) The MS Service Rate, Component 1 shall be as follows:

Commencing January 1, 2017:	\$0.0463 per MWh
Commencing January 1, 2019:	\$0.0475 per MWh
Commencing January 1, 2020:	\$0.0487 per MWh
Commencing January 1, 2021:	\$0.0499 per MWh
Commencing January 1, 2022:	\$0.0511 per MWh
Commencing January 1, 2023:	\$0.0524 per MWh
Commencing January 1, 2024:	\$0.0527 per MWh

Users charged the MS Service Rate, Component 1, shall receive a credit in the amount the user is charged the PJMSettlement Market Service Rate set forth in Tariff, Schedule 9-PJMSettlement during the same billing period.

f) The MS Service Rate, Component 2 shall be as follows:

Commencing January 1, 2017:	\$0.0693 per Bid/Offer Segment
Commencing January 1, 2019:	\$0.0710 per Bid/Offer Segment
Commencing January 1, 2020:	\$0.0728 per Bid/Offer Segment
Commencing January 1, 2021:	\$0.0746 per Bid/Offer Segment
Commencing January 1, 2022:	\$0.0765 per Bid/Offer Segment
Commencing January 1, 2023:	\$0.0784 per Bid/Offer Segment
Commencing January 1, 2024:	\$0.0789 per Bid/Offer Segment

SCHEDULE 9-4
Regulation and Frequency Response Administration Service

- a) Regulation and Frequency Response Administration Service comprises all of the activities of PJM associated with administering the provision of Regulation and Frequency Response Service under Tariff, Schedule 3. PJM provides this service to Load Serving Entities and to generators that provide regulation in accordance with Tariff, Schedule 3.
- b) PJM will charge each user of Regulation and Frequency Response Administration Service each month a charge equal to the Regulation and Frequency Response Administration Service Rate stated below times the MWhs of such user's hourly regulation objective as a Load Serving Entity determined pursuant to Tariff, Schedule 3, plus the MWhs of regulation scheduled (including self-scheduling) from generating units owned by such user, summed for each hour in such month.
- c) The Regulation and Frequency Administration Service Rate shall be as follows:

Commencing January 1, 2017:	\$0.2819 per MWh
Commencing January 1, 2019:	\$0.2889 per MWh
Commencing January 1, 2020:	\$0.2961 per MWh
Commencing January 1, 2021:	\$0.3035 per MWh
Commencing January 1, 2022:	\$0.3111 per MWh
Commencing January 1, 2023:	\$0.3189 per MWh
Commencing January 1, 2024:	\$0.3210 per MWh

SCHEDULE 9-5
Capacity Resource and Obligation Management Service

a) Capacity Resource and Obligation Management Service comprises the activities of PJM associated with (i) assuring that customers have arranged for sufficient generating capacity to meet their unforced capacity obligations under the Reliability Assurance Agreement (“RAA”); (ii) processing Network Integration Transmission Service; (iii) administering the Reliability Pricing Model auctions for the PJM Region; and (iv) administering or providing technical support for the RAA (as delegated to PJM under the RAA), including, but not limited to, long-term load forecasting, studies to establish reserve requirements, and the determination of each Load-Serving Entity’s capacity obligations. PJM’s Internet-based capacity transaction tool enables many of these functions. PJM provides this service to Load-Serving Entities and to owners of Capacity Resources; as such terms are defined in the RAA.

b) PJM will charge each Load-Serving Entity in the PJM Region each month a charge equal to the Capacity Resource and Obligation Management Service Rate stated below times the summation for each day of such month of the Daily Unforced Capacity Obligation of such user, as determined for each such day pursuant to RAA, Schedule 8 or RAA, Schedule 8.1.

c) In addition to any charge under section (b), PJM will charge each month, each entity that included in an FRR Capacity Plan, self-scheduled, or sold and cleared, in a Reliability Pricing Model Auction, a- Capacity Resource committed to serve load for such month, a charge equal to the Capacity Resource and Obligation Management Service Rate stated below times such entity’s total share, in MWs, of the Unforced Capacity of all Capacity Resources cleared or self-scheduled (including through an FRR Capacity Plan) by such entity, for commitment to serve load during such month.

d) The Capacity Resource and Obligation Management Rate shall be as follows:

Commencing January 1, 2017:	\$0.1073 per MW-day
Commencing January 1, 2019:	\$0.1100 per MW-day
Commencing January 1, 2020:	\$0.1128 per MW-day
Commencing January 1, 2021:	\$0.1156 per MW-day
Commencing January 1, 2022:	\$0.1185 per MW-day
Commencing January 1, 2023:	\$0.1215 per MW-day
Commencing January 1, 2024:	\$0.1223 per MW-day

SCHEDULE 9-MMU

MMU Funding

a) This Schedule 9-MMU shall recover the costs of providing the market monitoring functions to the PJM region as specified in Tariff, Attachment M. This Schedule 9-MMU recovers PJM's payments to MMU as set forth below. PJM provides this service to all customers using Point-to-Point or Network Integration Transmission Service under this Tariff, to all Generation Providers, and to all entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market.

b) PJM will charge each user of this Schedule 9-MMU service each month a charge equal to the sum of: (i) the MMU Service Rate, Component 1, as stated below, times (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c), submitted by such user during such month; plus (ii) the MMU Service Rate, Component 2, as stated below, times the number of Bid/Offer Segments submitted by such user during such month.

c) For purposes of this Schedule 9-MMU, Wheeling-Through Service, Generation Provider, and Bid/Offer Segments shall have the same meanings set forth in Tariff, Schedule 9-3.

d) The MMU Services Rate, Component 1 = $[0.987 \text{ times CYMC}]/\text{VOL1}$; and the MMU Services Rate, Component 2 = $[0.013 \text{ times CYMC}]/\text{VOL2}$,

where

Current Year MMU Charges ("CYMC") are the expenses on an accrual basis in accordance with generally accepted accounting principles for MMU funding determined in accordance with the initial budget amount and thereafter the annual budget approval process set forth in Attachment M, for the year for which the charge under this Schedule 9-MMU is being calculated, with said annual budget adjusted to take into account the MMU's prior year deferred regulatory liability or deferred regulatory asset balance; provided that, such adjustment shall not take account of any actual expenses for the prior year that exceed MMU's approved annual budget for such year, unless the MMU shall have received approval from FERC of an amendment to the MMU's approved annual budget.

VOL1 is PJM's estimate of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service during the year for which the charge under this Schedule 9-MMU is being calculated, plus (2)

the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the year for which the charge under this Schedule 9-MMU is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c), to be submitted during the year for which the charge under this Schedule 9-MMU is being calculated.

VOL2 is PJM's estimate of the number of Bid/Offer Segments to be submitted during the year for which the charge under this Schedule 9-MMU is being calculated.

e) MMU shall document, and advise PJM of, MMU's actual expenses for the prior year no later than March 15, and provide a copy of such documentation to the Finance Committee. Such documentation shall be in a level of supporting detail consistent with that required under Tariff, Attachment M, section III.E.2 for the annual budget. MMU further annually shall provide to PJM and the Finance Committee audited financial statements of revenues and expenses related solely to the services provided to PJM. This requirement is also duplicated in Tariff, Attachment M, section IV

f) PJM shall transmit to MMU, within two (2) Business Days of receipt thereof, the revenue collected under this Schedule 9-MMU.

g) If there is any change in the entity contracted to perform the functions of the MMU under Tariff, Attachment M, then PJM shall determine the revenues received by MMU prior to the change of MMU and compare them to MMU's actual expenses prior to the change of MMU (capped at the level of MMU's approved budget, adjusted to reflect only the portion of the year for which the MMU provided services prior to the change of MMU). PJM shall pay MMU any deficiency, or MMU shall pay PJM any credit, as indicated by such comparison. Such true-up payments associated with any change in the entity performing the functions of the MMU under Tariff, Attachment M shall be charged or credited, as applicable, in the next year's billings under this Schedule 9-MMU.

SCHEDULE 9-PJMSettlement
PJM Settlement, Inc. Administrative Services

a) PJM Settlement, Inc. (“PJMSettlement”) is the entity that is (i) contracting with customers and conducting financial settlements regarding the use of the transmission capacity of the Transmission System; (ii) the Counterparty with respect to the agreements and “pool” transactions in the centralized markets that PJM Interconnection, L.L.C., as the Transmission Provider, administers under the Tariff and Operating Agreement; and (iii) the Counterparty to Financial Transmission Rights (“FTRs”) and Auction Revenue Rights instruments held by a Market Participant. PJMSettlement Services comprise all of the activities of PJMSettlement associated with PJMSettlement performing the services of being the Counterparty and conducting financial settlements.

b) The cost of operating PJMSettlement, including principal and/or depreciation expense, interest expense and financing costs, if any, shall be recovered from users of the PJMSettlement Services pursuant to the PJMSettlement Market Support Service Rate set forth in this Schedule 9-PJMSettlement.

c) **PJMSettlement Market Support Service Rate:** PJMSettlement will charge customers using Point-to-Point or Network Integration Transmission Service under the Tariff, Generation Providers, as defined below, and entities that submit offers to sell or bids to buy energy in the PJM Interchange Energy Market each month a charge equal to: the PJMSettlement Market Support Service Rate, as stated below, times the sum of (1) the total quantity in MWhs of energy delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or for export from such region during such month by such user as a customer under Point-to-Point Transmission Service (other than Wheeling-Through Service, as defined below) or Network Integration Transmission Service, plus (2) the total quantity in MWhs of energy input into the Transmission System during such month by such user as a Generation Provider, as defined below, plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c) submitted by such user during such month

(A) For purposes of this Schedule 9-PJMSettlement, Wheeling-Through Service and Generation Provider shall have the same meanings as set forth in Tariff, Schedule 9-3.

(B) The PJMSettlement Market Support Service Rate is:

$$[\text{CYPMSC} / \text{VOL}] - \text{PQDRLB} / \text{VOLQA}] + [\text{PQDRAB} / \text{VOLQA}]$$

where

CYPMSC (Current Year PJMSettlement Market Support Service Costs) is the budgeted annual costs of PJMSettlement associated with PJMSettlement services recovered pursuant to PJMSettlement’s Market Support Service Rate for the current calendar year.

VOL (Volume) is PJMSettlement's estimate of the sum of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service during the year for which the PJMSettlement Market Support Service Rate is being calculated, plus (2) the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the year for which the PJMSettlement Market Support Service Rate is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c), to be submitted during the year for which the PJMSettlement Market Support Service Rate is being calculated.

PQDRLB (Prior Quarter Deferred Regulatory Liability Balance) is the cumulative deferred regulatory liability balance as of the end of the prior quarter.

PQDRAB (Prior Quarter Deferred Regulatory Asset Balance) is the cumulative deferred regulatory asset balance as of the end of the prior quarter.

VOLQA (Volume Quarter Adjustment) is PJMSettlement's estimate of the sum of (1) the total quantity in MWhs of energy to be delivered to load (including losses and net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region or to be exported from such region under Point-to-Point Transmission Service (other than Wheeling-Through Service) or Network Integration Transmission Service during the quarter for which the PJMSettlement Market Support Service Rate is being calculated, plus (2) the total quantity in MWhs of energy to be input into the Transmission System by Generation Providers during the quarter for which the PJMSettlement Market Support Service Rate is being calculated plus (3) the total quantity in MWhs of all accepted Increment Offers and accepted Decrement Bids, and all accepted Up-to Congestion Transactions submitted pursuant to Tariff, Attachment K-Appendix, section 1.10.1A(c) to be submitted during the quarter for which the PJMSettlement Market Support Service Rate is being calculated.

SCHEDULE 12 – APPENDIX B

Joint Planning Or Coordination Agreements Between PJM And Other Regions Or Transmission Planning Authorities

1. Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.
2. Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. and The Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol.
3. Interregional transmission coordination between Southeastern Regional Transmission Planning region participants and PJM pursuant to Operating Agreement, Schedule 6-A and Tariff, Schedule 12-B and the corresponding provisions of the tariffs of the jurisdictional Southeastern Regional Transmission Planning region participants.

SCHEDULE 12A

Rights Associated With Cost Responsibility Assignments for Required Transmission Enhancements

(a) Incremental Auction Revenue Rights Associated With Incremental Rights-Eligible Required Transmission Enhancements

(i) Right of Responsible Customers to Incremental Auction Revenue Rights: Responsible Customers as defined in Tariff, Schedule 12 that are Network Customers, Transmission Customers with an agreement for Firm Point-To-Point Service, or Merchant Transmission Facility owners that are assigned cost responsibility for Incremental Rights-Eligible Required Transmission Enhancements shall be entitled to receive an allocated share of the Incremental Auction Revenue Rights associated with such facility as determined in accordance with section (a) of this Schedule 12A.

(ii) Nature of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: All Incremental Auction Revenue Rights associated with a given Incremental Rights-Eligible Required Transmission Enhancement shall have the same source point and the same sink point, as defined in this subsection (a)(ii) and determined for each such facility by the Transmission Provider. Requests for alternative source or sink points for such Incremental Auction Revenue Rights shall be invalid. For each Incremental Rights-Eligible Required Transmission Enhancement: (1) the source point for its associated Incremental Auction Revenue Rights shall be an aggregate pricing point comprised of up to ten generator busses that have the greatest flow increase effect (measured by distribution factors) on the transmission constraint that is relieved by the Incremental Rights-Eligible Required Transmission Enhancements; and (2) the sink point for its associated Incremental Auction Revenue Rights shall be an aggregate pricing point consisting of the Zone that has the greatest flow increase effect (measured by distribution factors) on the constraint that is relieved by the Incremental Rights-Eligible Required Transmission Enhancements.

(iii) Determination of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: Transmission Provider shall determine the Incremental Auction Revenue Rights associated with a given Incremental Rights-Eligible Required Transmission Enhancement using the tools described in the Tariff, Attachment K-Appendix, including an assessment of the simultaneous feasibility of any such rights with all other outstanding Auction Revenue Rights and Incremental Auction Revenue Rights. Incremental Auction Revenue Rights associated with an Incremental Rights-Eligible Required Transmission Enhancement shall be calculated by determining the Incremental Auction Revenue Right capability created by such Incremental Rights-Eligible Required Transmission Enhancement between the aggregate source and sink points determined as described in subsection (a)(ii) of this Schedule 12A. To determine such capability, Transmission Provider first shall determine the base system Auction Revenue Right capability between such aggregate source and sink points, excluding the impact of the given Incremental Rights-Eligible Required Transmission Enhancements. The Transmission Provider then shall similarly determine for such source and sink points the Auction Revenue Rights capability that includes the impact of the

particular Incremental Rights-Eligible Required Transmission Enhancement. The Incremental Auction Revenue Right capability associated with the given Incremental Rights-Eligible Required Transmission Enhancement shall be the difference between the Auction Revenue Right capability in the base system analysis without the facility and the Auction Revenue Right capability in the analysis including the impact of such facility.

(iv) Determinations of Available Incremental Auction Revenue Rights: For each Incremental Rights-Eligible Required Transmission Enhancement, within three months prior to the FTR planning period in which the Eligible Transmission Enhancement comes in-service, the Transmission Provider shall determine in accordance with this section (a), the available Incremental Auction Revenue Rights associated with such facility.

(v) Duration of Incremental Auction Revenue Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements. The final quantity of Incremental Auction Revenue Rights, determined pursuant to subsection (a)(iv) of this Schedule 12A for a given Incremental Rights-Eligible Required Transmission Enhancement, shall be available for allocation to Responsible Customers as of the first day of the first month that the Incremental Rights-Eligible Required Transmission Enhancement is included in the transmission system model for the monthly Financial Transmission Right auction and shall continue to be available for allocation for thirty (30) years thereafter, or for the life of the associated facility, whichever is less, subject to any subsequent pro-rata reduction of all Auction Revenue Rights (including Incremental Auction Revenue Rights) in accordance with Tariff, Attachment K-Appendix of.

(vi) Procedures for Allocating Incremental Auction Revenue Rights to Responsible Customers: Transmission Provider shall allocate to eligible Responsible Customers, as specified in subsection (a)(i) of this Schedule 12A, the Incremental Auction Revenue Rights associated with each Incremental Rights-Eligible Required Transmission Enhancement based on the percentage cost responsibility assigned to Responsible Customers for such facility as set forth on a zonal basis in Tariff, Schedule 12-Appendix. Network Customers within a Zone shall be allocated a share of the Incremental Auction Revenue Rights identified for such Zone based on their percentage share, determined daily, of the network service peak load of the Zone. To the extent one or more Transmission Customers with agreements for Firm Point-to-Point Transmission Service are assigned costs of such facility pursuant to Tariff, Schedule 12 or other Tariff provisions assigning Tariff, Schedule 12 costs in a Zone, such customer(s) shall be allocated a share of the Incremental Auction Revenue Rights identified for such Zone consistent with such Transmission Customer's assigned Tariff, Schedule 12 cost responsibility. Incremental Auction Revenue Rights shall be re-allocated annually to reflect the annual recalculation of Transmission Enhancement Charges under Tariff, Schedule 12, section (c). Transmission Provider shall allocate Incremental Auction Revenue Rights that become effective after the start of a Planning Period no later than forty-five (45) days before such rights become effective. Transmission Provider shall allocate Incremental Auction Revenue Rights that become effective at the start of a Planning Period (including any annual reallocations of such rights) in coordination with the annual allocation of Auction Revenue Rights under Tariff, Attachment K-Appendix, section 7. PJM will notify Responsible Customers of such allocations in accordance with established PJM procedures. Where an allocation of Incremental Auction

Revenue Rights hereunder is for a full Planning Period, the Responsible Customer may decline to accept such allocation. Incremental Auction Revenue Rights so declined shall not be reallocated to other Responsible Customers for such Planning Period.

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

(b) Incremental Capacity Transfer Rights Associated With Incremental Rights-Eligible Required Transmission Enhancements.

(i) Right of Responsible Customers to Receive Incremental Capacity Transfer Rights: Responsible Customers, as defined in Tariff, Schedule 12, that are

Network Customers, Transmission Customers with an agreement for Firm Point-To-Point Service, or Merchant Transmission Facility owners, and that are assigned cost responsibility for an Incremental Rights-Eligible Required Transmission Enhancement shall be allocated a share of the Incremental Capacity Transfer Rights associated with such facility as determined by the Transmission Provider in accordance with section (b) of this Schedule 12A.

(ii) Determination of Incremental Capacity Transfer Rights Associated with Incremental Rights-Eligible Required Transmission Enhancements: For each Incremental Rights-Eligible Required Transmission Enhancement, the megawatt quantity of the Incremental Capacity Transfer Rights associated with such facility shall be the megawatt increase in Capacity Emergency Transfer Limit into a Locational Deliverability Area provided by such facility. In the event that an Incremental Rights-Eligible Required Transmission Enhancement provides simultaneous increases in Capacity Emergency Transfer Limits into multiple Locational Deliverability Areas (under capacity emergency study conditions), separate Incremental Capacity Transfer Rights shall be determined for each such Locational Deliverability Area, equal to the respective increase in the Capacity Emergency Transfer Limit into each such Locational Deliverability Area.

(iii) Determination Procedure and Duration of Incremental Capacity Transfer Rights: Transmission Provider shall determine the Incremental Capacity Transfer Rights

associated with a given Incremental Rights-Eligible Required Transmission Enhancement prior to the conduct of the Base Residual Auction for the first Delivery Year for which such facility is to be in service, and shall identify such Incremental Capacity Transfer rights in the informational posting required by Tariff, Attachment DD, section 5.11. No Incremental Capacity Transfer Rights for Regional Facilities and Necessary Lower Voltage Facilities shall become available prior to the Delivery Year that starts June 1, 2012. No Incremental Capacity Transfer Rights for Lower Voltage Facilities shall become available prior to the Delivery Year that starts June 1, 2013. Once so established, Incremental Capacity Transfer Rights for an Incremental Rights-Eligible Required Transmission Enhancement shall be available for allocation to Responsible Customers for thirty (30) years or the life of the project, whichever is less; provided, however, that Incremental Capacity Transfer Rights may be limited for any Delivery Year as provided in Tariff, Attachment DD, section 5.16.

(iv) Allocation of Incremental Capacity Transfer Rights to Responsible Customers: Transmission Provider shall allocate to each Responsible Customer a share of the Incremental Capacity Transfer Rights associated with each Incremental Rights-Eligible Required Transmission Enhancement for which the Responsible Customer has been assigned cost responsibility pursuant to Tariff, Schedule 12. The megawatt quantity of Incremental Capacity Transfer Rights allocated to Responsible Customers shall be based on the percentage cost responsibility assigned to the Responsible Customers for the particular facility as set forth in Tariff, Schedule 12-Appendix. During the Delivery Year, Network Customers within a Zone that are Responsible Customers shall be allocated Incremental Capacity Transfer Rights based on their percentage share, determined daily of the network service peak load of the Zone. To the extent one or more Transmission Customers with agreements for Firm Point-to-Point Transmission Service are assigned costs of such facility pursuant to Tariff, Schedule 12 or other Tariff provisions assigning Tariff, Schedule 12 costs in a Zone, such customer(s) shall be allocated a share of Incremental Capacity Transfer Rights identified for such Zone consistent with such Transmission Customer's assigned Tariff, Schedule 12 cost responsibility. Incremental Capacity Transfer Rights shall be re-allocated annually to reflect the annual recalculation of Transmission Enhancement Charges under Tariff, Schedule 12, section (c).

SCHEDULE 14

Transmission Service on the Neptune Line

Pursuant to Tariff, Part IV, section 38, this Schedule provides the terms and conditions of transmission service on the Neptune Line which is a Merchant Transmission Facility under the Tariff and the PJM Operating Agreement.

1. Definitions

Capitalized terms used and defined in this Schedule 14 shall have the meaning given them under this Schedule. Capitalized terms used and not defined in this Schedule 14 but defined in other provisions of the Tariff shall have the meaning given them under those provisions. Capitalized terms used in this Schedule 14 that are not defined in it or elsewhere in this Tariff shall have the meanings customarily attributed to such terms by the electric utility industry in PJM.

1.1 Neptune Reservation: A right, denoted in Megawatts and for a specified period, to request the withdrawal of energy and capacity from the Transmission System at the Point of Interconnection and submit schedules for transmission service over the Neptune Line on a firm or non-firm basis as set forth in this Schedule 14.

1.1.1 Firm Neptune Reservation: A Firm Neptune Reservation allows a Neptune Transmission Customer to schedule capacity and energy on a firm basis from the Neptune Point of Receipt to the Neptune Point of Delivery.

1.1.2 Non-Firm Neptune Reservation: A Non-Firm Neptune Reservation allows a Neptune Transmission Customer to schedule energy on a non-firm, as available, basis from the Neptune Point of Receipt to the Neptune Point of Delivery.

1.2 Neptune Transmission Customer: An entity that (i) is an Eligible Customer (or its Designated Agent) that meets the creditworthiness requirements of the Transmission Provider set forth in Tariff, Attachment Q and is in good-standing with respect to all payments owed under the Tariff and Operating Agreement; (ii) executes a Neptune Service Agreement, the form of which is attached as Exhibit A to this Schedule 14; and (iii) holds a Neptune Reservation.

1.3 Neptune Line: The Neptune Line is a controllable, high voltage, direct current Merchant Transmission Facility that runs undersea between the Raritan River (Sayreville) Substation in Sayreville, New Jersey to the Newbridge Road Substation in Long Island, New York, which was the subject of Commission orders in FERC Docket No. ER01-2099 et al. regarding operation of the line as a merchant transmission facility and as more particularly described in the Interconnection Service Agreement among PJM Interconnection, L.L.C. and Neptune Regional Transmission System, LLC and Jersey Central Power & Light Company a First Energy Company, which was accepted for filing by the Commission in FERC Docket No. ER05-1010.

1.4 Neptune Schedule: The schedule for the transmission of capacity and energy on the Neptune Line pursuant to the terms and conditions of service set forth in this Schedule 14.

1.5 Neptune Transmission Owner: Neptune Regional Transmission System, LLC, its agents, successors or assigns.

1.6 Primary Rights Holder: An entity that has been allocated rights to the use of the transmission capability of the Neptune Line and assigned Firm and Non-Firm Transmission Withdrawal Rights by the Neptune Transmission Owner in accordance with Tariff, Part I, section 2.1.

1.7 Point of Interconnection: The Point of Interconnection is as defined in section 11.1 of the Interconnection Service Agreement among PJM Interconnection, L.L.C. and Neptune Regional Transmission System, LLC and Jersey Central Power & Light Company a First Energy Company, which was accepted for filing by the Commission in FERC Docket No. ER05-1010.

1.8 Neptune Service Agreement: An initial agreement and any amendments or supplements thereto entered into by a Neptune Transmission Customer and the Transmission Provider for transmission service on the Neptune Line under this Schedule 14, the form of which is included as Exhibit A to this Schedule 14.

1.9 Neptune Point of Receipt: The point of receipt is the Raritan River (Sayreville) Substation in Sayreville, New Jersey.

1.10 Neptune Point of Delivery: The point of delivery is the Newbridge Road Substation in Long Island, New York.

2. Allocation of Available Transmission Capability Over the Neptune Line

2.1 Commission Approved Allocation Process: The Neptune Transmission Owner shall allocate the total transmission capability over the Neptune Line pursuant to an allocation process approved by the Commission under FERC Docket No. ER01-2099 et al., as such allocation process may be amended by the Neptune Transmission Owner from time-to-time subject to Commission approval provided that the results of such rights allocation process shall be furnished to the Transmission Provider and posted on the OASIS. The allocation of rights to the Primary Rights Holder for the transmission capability of the Neptune Line shall include the allocation of the Firm and Non-Firm Transmission Withdrawal Rights, as applicable, which have been assigned to the Neptune Transmission Owner pursuant to Tariff, Part VI, section 232 as well as the award of Firm and Non-Firm Neptune Reservations. The allocation of such rights shall be in the megawatt quantity and for the period specified for allocation to parties pursuant to the Neptune Transmission Owner's Commission-approved allocation process. The Primary Rights Holder is the holder of the Firm Transmission Withdrawal Rights for the Neptune Line. In the event that there has been no allocation of Firm Transmission Withdrawal Rights to a Primary Rights Holder, the Neptune Transmission Owner is the holder of such unallocated Firm Transmission Withdrawal Rights.

2.2 Charges for Allocation of Rights by Neptune Transmission Owner to Primary Rights Holder: The charge applicable to the allocation of rights to the Primary Rights

Holder pursuant to this section shall be determined pursuant to arrangements between the Neptune Transmission Owner and the Primary Rights Holder in accordance with the process approved by the Commission under FERC Docket No. ER01-2099 et al., as amended by the Neptune Transmission Owner from time-to-time subject to Commission approval. The charge for the allocation of rights to the Primary Rights Holder shall be in accordance with the Commission's authorization for the Neptune Transmission Owner to charge negotiated rates (i.e., rates established pursuant to market mechanisms as recognized for merchant transmission projects and not included in PJM Tariff rates) for the use of transmission capability over the Neptune Line. Agreements between the Neptune Transmission Owner and a Primary Rights Holder for the allocation of rights to a Primary Rights Holder shall be considered Service Agreements under this Schedule 14 and shall be reported by the Neptune Transmission Owner to the Commission through Electronic Quarterly Reports in accordance with Order No. 2001.

2.3 Transmission Withdrawal Rights Associated with the Neptune Line: The award of Transmission Withdrawal Rights to the Neptune Transmission Owner and any subsequent transfer to the Primary Rights Holder shall be made pursuant to Tariff, Part VI, section 232. The Transmission Withdrawal Rights solely allow for the withdrawal of capacity and energy at the Point of Interconnection for the Neptune Line and do not provide any priority with respect to the reservation, scheduling, curtailment or interruption of transmission service over the Neptune Line pursuant to this Schedule.

2.4 Transfer of Transmission Withdrawal Rights: Any sale, assignment, conveyance or transfer of a Transmission Withdrawal Right shall be consistent with Tariff, Part VI, section 232.6 and any terms and conditions agreed upon between the Neptune Transmission Owner and the Primary Rights Holder.

3. Neptune Reservations

3.1 Effect of a Neptune Reservation: A Neptune Reservation is a prerequisite to scheduling capacity and/or energy on the Neptune Line. A holder of a Neptune Reservation may submit offers to schedule capacity and/or energy from the Transmission System at the Point of Interconnection over the Neptune Line.

3.2 Recallability: A Non-Firm Neptune Reservation released pursuant to Section 3.7 is recallable by a holder of a Firm Neptune Reservation that has retained the right of recall until the deadline posted on the OASIS which shall be based on the time necessary for submittal of energy bids to meet installed capacity obligations in the New York Control Area. The procedures and prerequisites for the exercise of recall rights are set forth in section 4.2.2 below.

3.3 Term of Service

3.3.1 Firm Neptune Reservation: The minimum term of a Firm Neptune Reservation shall be one day and the maximum term shall be equal to the term of agreement allocating rights to the capability of the Neptune Line pursuant to section 2.1 of this Schedule.

3.3.2 Non-Firm Neptune Reservation: Non-Firm Neptune Reservation will be available for periods ranging from one hour to one month.

3.3.3 Limitations. An Eligible Customer holding a Firm or Non-Firm Neptune Reservation may not submit a request for scheduling of capacity and energy over the Neptune Line that exceeds the period or MW amount of its Neptune Reservation.

3.4 Acquisition of Neptune Reservations: Firm and Non-Firm Neptune Reservations are initially allocated to the Primary Rights Holder pursuant to section 2.1 of this Schedule. Third parties may acquire Firm or Non-Firm Neptune Reservations through: (i) through assignment pursuant to section 3.5 of this Schedule or (ii) voluntary or default release through a secondary market operated through the OASIS in accordance with section 3.7 of this Schedule.

3.5 Assignment of a Neptune Reservation: The holder of a Neptune Reservation may separately assign its Neptune Reservation to third parties provided that notice of such assignment is provided to the Transmission Provider with such information posted on the OASIS. Subject to Commission approval of any necessary filings, a holder of a Neptune Reservation may sell, assign, or transfer all or a portion of its rights, but only to another Eligible Customer (the Assignee). The holder of a Neptune Reservation that sells, assigns or transfers its rights is hereafter referred to as the Reseller. Where the Reseller is assigning a Firm Neptune Reservation, such assignment shall include the right of recall that can be exercised by the Assignee pursuant to section 4.2.2 of this Schedule 14. The compensation to the Reseller shall be at rates established by agreement with the Assignee. A Reseller should notify the Transmission Provider as soon as possible after any assignment occurs but in any event, notification must be provided prior to any submission of offers to schedule capacity and energy pursuant to such Neptune Reservation by the Assignee. The Assignee will be subject to all terms and conditions of the Tariff.

3.6 Limitations on Assignment or Transfer of Neptune Reservations: If the Assignee requests a change in the specifications set forth in the original Neptune Service Agreement, the Transmission Provider will consent to such change subject to the provisions of the Tariff, provided that the change does not exceed the rights granted in the original Neptune Reservation and will not impair the operation and reliability of the Neptune Line, the Transmission Provider's Transmission System or a Transmission Owner's generation, transmission, or distribution systems. The Reseller shall remain liable for the performance of all obligations under the Neptune Service Agreement, except as specifically agreed to by the Reseller, the Assignee or the Transmission Provider through an amendment to the Neptune Service Agreement.

3.7 Release of Neptune Reservation: In addition to a bilateral assignment of a Neptune Reservation pursuant to section 3.5 of this Schedule, Neptune Reservations may be released as Available Transmission Capacity (ATC) for acquisition as Neptune Service by third parties using the OASIS. All releases of Neptune Reservations shall be posted on the OASIS.

3.7.1. Voluntary Releases: A holder of a Neptune Reservation may voluntarily release its Neptune Reservation for acquisition by third parties on a first-come, first-served basis. A holder of a Neptune Reservation shall notify the Transmission Provider of the voluntary release of any Firm Neptune Reservation including the rate to be charged service in accordance with the following deadlines:

- (a) Monthly: No later than 30 calendar days prior to the first Operating Day of each Month.
- (b) Weekly: No later than 10 calendar days prior to the first Operating Day of each Week, a holder of a Neptune Reservation shall notify the Transmission Provider of the voluntary release of any Non-Firm Neptune Reservation including the rate to be charged for the Neptune Reservation in accordance with the following deadlines:
 - (i) Monthly: No later than 7 calendar days prior to the first Operating Day of each Month.
 - (ii) Weekly: No later than 5 calendar days prior to the first Operating Day of each Week.
 - (iii) Daily: No later than 13:00 the two business days before the Operating Day.
 - (iv) Hourly: No later than Noon on the day before the Operating Day.

A Neptune Reservation that has posted for voluntary release under this subsection shall be excluded from the default release procedures set forth in subsection 3.7.2 below.

3.7.2 Default Releases: In the event that a holder of a Neptune Reservation fails to either: (i) submit a request to schedule energy up to the full MW value of its Non-Firm Neptune Reservation by noon (12:00 p.m.) one business day prior to the Operating Day or (ii) voluntarily release its Neptune Reservation pursuant to subsection 3.7.1 above, then, the difference between the Total Transfer Capability over the Neptune Line in each scheduling hour of the Operating Day and the sum of the valid requests for Neptune Schedules and MW amount of Neptune Reservations voluntarily released on OASIS for such scheduling hour, shall be deemed released and shall be posted on the OASIS by the Transmission Provider as Non-Firm ATC for acquisition by third parties on a first-come, first served basis.

3.7.3 Release Rate: The holder of a Neptune Reservation which is seeking to voluntarily release its Neptune Reservation shall provide to the Transmission Provider the rate to be posted on OASIS and charged for such releases. The Neptune Transmission Owner may provide the Transmission Provider a rate to be posted on OASIS and charged for default releases pursuant to section 3.7.2 above. In the event that the Neptune Transmission Owner does not separately provide to the Transmission Provider a rate for default releases, such default releases

shall be charged the lowest rate posted on OASIS for voluntary release of Neptune Reservations in the applicable hour.

3.7.4 Character of Service Released: Releases of Neptune Reservations made pursuant to the default release provisions in subsection 3.7.2 above do not include the right of recall under section 3.2 of this Schedule and shall be hourly Non-Firm Neptune Reservations.

3.7.5 Requirements for Acquisition of Neptune Reservations through Release or Assignment: An Eligible Customer shall be eligible to acquire and hold a Neptune Reservation through an assignment of a Neptune Reservation pursuant to section 3.5 of this Schedule or release of a Neptune Reservation over OASIS pursuant to section 3.7 of this Schedule if such entity: (i) has executed a Neptune Service Agreement, the form of which is attached as Exhibit A to this Schedule 14; (ii) meets the creditworthiness requirements of the Transmission Provider set forth in Tariff, Attachment Q; and (iii) is in good-standing with respect to all payments owed under the Tariff and Operating Agreement.

3.8 Billing and Payment for Neptune Reservations:

3.8.1 Neptune Reservations Allocated to Primary Rights Holders Pursuant to Section 2.1: The billing and payment of rates or charges applicable to the allocation of Firm or Non-Firm Neptune Reservations to the Primary Rights Holder pursuant to section 2.1 of this Schedule shall be determined pursuant to arrangements between the Neptune Transmission Owner and the Primary Rights Holder and not under this Tariff.

3.8.2 Neptune Reservations Acquired Through Bilateral Assignment Pursuant to Section 3.5: The billing and payment of rates or charges applicable to a bilateral assignment of Firm or Non-Firm Neptune Reservations shall be determined pursuant to the arrangements between the assignor and assignee.

3.8.3 Neptune Reservations Acquired Through Voluntary and Default Releases on OASIS Pursuant to Section 3.7: An entity acquiring a Neptune Reservation through a voluntary or default release over the OASIS shall be billed the applicable release rate which is posted on OASIS pursuant to subsection 3.7.3 of this Schedule. The entity acquiring a Neptune Reservation through voluntary or default releases shall make payments to the Transmission Provider in accordance with the terms of the Neptune Service Agreement. The Neptune Transmission Customer shall pay the applicable rate for the MW amount of the Neptune Reservation for each hour regardless of whether such holder submits a schedule for transmission service over the Neptune Line in such hour.

3.9 Payment of Revenues Received: Revenues received from the acquisition of voluntarily released Neptune Reservation shall be paid by the Transmission Provider to the party releasing such Neptune Reservation. Revenues received from the acquisition of Neptune Reservations subject to default release provisions shall be paid by the Transmission Provider to the Neptune Transmission Owner.

4. Neptune Schedules

4.1 Nature of Transmission Service over the Neptune Line: Neptune Schedules shall be requested in accordance with NERC Standards, including requirements relating to E-Tagging and Transmission Line Relief procedures. An entity seeking to schedule use of the Neptune Line must hold a Neptune Reservation for no less than the amount of MWs of service being requested. Deadlines for scheduling the use of the Neptune Line shall adhere to the Transmission Provider's deadlines for scheduling as provided by the Transmission Provider's manuals and consistent with the deadlines for scheduling Point to Point services as described in Tariff, Part II.

4.2 Submission of Scheduling Requests, Award of Reservations, Curtailment and Interruption of Neptune Schedule:

4.2.1 Submission of Scheduling Requests: An Eligible Customer holding a Neptune Reservation has the right to submit requests for Firm or Non-Firm Neptune Schedules commensurate to the Neptune Reservations held by that entity.

4.2.2 Exercise of Recall Rights: An Eligible Customer holding a Firm Neptune Reservation, that retains the right of recall, may exercise such recall rights by providing notice, until the deadline posted on the OASIS which shall be based on the time necessary for submittal of energy bids to meet any installed capacity obligations in the New York Control Area, to the Transmission Provider that it wishes to exercise its right of recall. The exercise of a recall right pursuant to notice to the Transmission Provider shall immediately act to recall the Neptune Reservation previously released by the Eligible Customer and acquired by a third party under the assignment provisions set forth in section 3.5 of this Schedule or the release procedures set forth in section 3.7 of this Schedule.

4.3 Scheduling of Capacity and Energy over the Neptune Line: The Transmission Provider shall evaluate all requests to schedule capacity and energy for withdrawal from the Transmission System at the Point of Interconnection based on economic merit order. In the event of a tie within economic merit, a scheduling request made pursuant to a Firm Neptune Reservation shall have priority over a scheduling request made pursuant to a Non-Firm Neptune Reservation. In the case of an economic merit order tie between two or more scheduling requests using a Firm Neptune Reservation, the award of the scheduling reservation shall be on a pro rata basis. In the case of an economic merit order tie between two or more scheduling requests based on Non-Firm Neptune Reservations, the reservation classification of the Non-Firm Neptune Reservation (Monthly, Weekly, Daily or Hourly) shall then be used as the tiebreaker, with the longer term of Non-Firm Neptune Reservation receiving priority. In the case of a further tie within the sub-category of Non-Firm Neptune Reservations (Monthly, Weekly, Daily or Hourly), the timestamp order of the submission of requests to schedule service over the Neptune Line shall be used as a tie-breaker. A holder of Neptune Reservations is limited in its total capacity and energy schedule for its Neptune Schedule to the higher of either its Firm or Non-Firm Neptune Reservations.

4.4 Limitations on Scheduling Amount: The Neptune Line has a minimum total scheduling requirement of 60 MW at the Neptune Point of Delivery. In the event that the total

MW of schedules determined to be in economic merit by the Transmission Provider is less than 60 MW at the Neptune Point of Delivery, all schedules shall be rejected. The Neptune Line has a maximum continuous scheduling capability of the lower of the Total Transfer Capability ("TTC") set by the Transmission Provider or 660 MW at the Neptune Point of Delivery. In the event that the total MW of schedules determined to be in economic merit by the Transmission Provider is greater than the lower of the TTC or 660 MW at the Neptune Point of Delivery, all schedules above the maximum capability shall be rejected.

4.5 Curtailment or Interruption of Neptune Schedules: In the event that a Curtailment or interruption of Neptune Schedules is required to maintain reliable operation of the Neptune Line and the systems directly and indirectly interconnected with the Neptune Line, any such Curtailment or interruption implemented by the Transmission Provider shall be based upon the priority of the associated Neptune Reservations. For curtailment or interruptions of Neptune Schedules based on Firm Neptune Reservations will be performed on a pro rata basis. Curtailment or interruptions of Neptune Schedules based on Non-Firm Neptune Reservations shall first be based on the Non-Firm Neptune Reservation classification (i.e., Monthly, Weekly, Daily, Hourly) with the longer term of Non-Firm Neptune Reservation receiving priority. In the case of a tie within the Non-Firm Neptune Reservation classifications, the time stamp order of the submission of valid bids/offers to schedule service over the Neptune Line shall be used as a tiebreaker. The Transmission Provider shall provide advance notice of any Curtailment or interruption of Neptune Schedules to all affected Neptune Transmission Customers where such notice can be provided consistent with Good Utility Practice. The Transmission Provider shall curtail Neptune Schedules over the Neptune Line as required by NERC Standards. The Transmission Provider shall curtail Neptune Schedules over the Neptune Line for reliability of the Transmission System pursuant to the separately reserved Transmission Service over the Transmission System pursuant to Tariff, Part II or Tariff, Part III to the Neptune Line and the PJM Manuals.

4.6 Separate Reservation for Network or Point-to-Point Service over the Transmission System: Prior to the commencement of a Neptune Schedule under this Schedule 14, the Neptune Transmission Customer must separately reserve Transmission Service over the Transmission System pursuant Tariff, Part II or Tariff, Part III for delivery of energy, capacity or ancillary services to the Neptune Line for at least the same time period as the Neptune Schedule provided under this Schedule 14. Reserving such Transmission Service to the Neptune Line is a required precondition to holding a Neptune Schedule. The Neptune Transmission Customer is responsible for all charges associated with Transmission Service for delivery of capacity and energy to the Neptune Line.

5. Liability

The Transmission Provider and any holder of a Neptune Reservation which releases its Neptune Reservation through the voluntary or default release procedures set forth in section 3.7 of this Schedule 14 shall be held harmless with regard to any claim which may be raised by any party regarding the award of the released Neptune Reservation, except to the extent that such party successfully establishes that the releasing party has incorrectly selected the party acquiring such released Neptune Reservation as the result of gross negligence or willful misconduct. The

liability of the Transmission Provider shall be limited by the terms and conditions of Tariff, Part I, section 10 and the provisions of the PJM Operating Agreement.

6. Losses and Inadvertent Energy

Real power losses and inadvertent energy across the Neptune Line shall be allocated solely to Neptune Transmission Customers that schedule Firm or Non-Firm transmission service over the Neptune Line on an hourly pro rata basis, except for hours with no Neptune Schedules, in which case any real power losses and inadvertent energy across the Neptune Line shall be allocated to Neptune Transmission Customer that schedule Firm or Non-Firm transmission service over the Neptune Line on a monthly pro rata basis.

7. Congestion Costs and FTRs

A Neptune Schedule provides a physical right to deliver capacity and energy over the Neptune Line. Accordingly, no congestion costs shall be calculated over the Neptune Line and no financial transmission rights or their equivalent shall be offered for a Neptune Schedule. This provision is not meant to preclude any allocation of financial transmission rights, auction revenue rights or their equivalent awarded to the Neptune Transmission Owner pursuant to Tariff, Part VI.

8. Measurement and Posting of ATC and TTC

The Available Transfer Capability and Total Transfer Capability of the Neptune Line shall be calculated and posted on the OASIS by the Transmission Provider consistent with the requirements of the Tariff.

9. Payment of Other Charges Required for a Neptune Schedule

The Neptune Transmission Customer is responsible for charges applicable to a Neptune Schedule provided under this Schedule 14, including, but not limited to, any congestion and loss charges, redispatch costs, transitional revenue neutrality charges, scheduling, administrative, hardware or software upgrade charges, control area or administrative services charges or ancillary service charges applicable to the Transmission Provider's administration of transmission service over the Neptune Line (collectively, the "Neptune Service Administration Charges"). In the event that any such Neptune Service Administration Charges are billed by the Transmission Provider to the Neptune Transmission Owner, the Neptune Transmission Owner may bill the Neptune Transmission Customer for such charges, and the Neptune Transmission Customer shall pay the Transmission Provider, on behalf of the Neptune Transmission Owner, such Neptune Service Administration Charges pursuant to this section 9 as a condition of receiving transmission service over the Neptune Line. In the event that any Transmission Enhancement Charges under Tariff, Schedule 12 are charged to the Neptune Transmission Owner, the Neptune Transmission Owner may bill the holder of Firm Transmission Withdrawal Rights for the Neptune Line, and the holder of Firm Transmission Withdrawal Rights for the Neptune Line shall pay the Transmission Provider such Transmission Enhancement Charges, on

behalf of the Neptune Transmission Owner, pursuant to this Section 9 as a condition of receiving transmission service over the Neptune Line.

In the event that any other charges related to the construction, maintenance, operation or upgrading of the Transmission System are assessed by the Transmission Provider to the Neptune Transmission Owner for the use of the Neptune Line for withdrawals of energy or capacity from the Transmission System, the Neptune Transmission Owner may bill the Primary Rights Holder, and the Primary Rights Holder shall pay the Transmission Provider, on behalf of the Neptune Transmission Owner, such charges pursuant to this section 9 as a condition of receiving transmission service over the Neptune Line. The issuance and time for payment of charges under this Schedule 14 shall be consistent with the billing and payment provisions of Tariff, Part I, section 7.

Any failure of the Neptune Transmission Customer, the holder of Firm Transmission Withdrawal Rights, or the Primary Rights Holder to pay any of the charges referenced in this Section 9 shall be deemed a failure to pay by the Neptune Transmission Owner.

SCHEDULE 15
Non-Retail Behind The Meter Generation
Maximum Generation Emergency Obligations

1. A Non-Retail Behind The Meter Generation resource that has output that is netted from load for the purposes of determining the DCPZ of a Network Customer pursuant to Tariff, Part III, section 34 shall be required to operate at its full output the first ten times between November 1 and October 31, that Maximum Generation Emergency conditions occur in the zone in which the Non-Retail Behind The Meter Generation resource is located .

2. The Network Customer for which Non-Retail Behind The Meter Generation output is netted for the purposes of determining its DCPZ shall be required to report to the Transmission Provider scheduled outages of the resource prior to the occurrence of such outage in accordance with the time requirements and procedures set forth in the PJM Manuals. Such Network Customers also shall report to the Transmission Provider the output of the Non-Retail Behind The Meter Generation resource during each Maximum Generation Emergency condition in which the resource is required to operate in accordance with the procedures set forth in PJM Manuals.

3. Except for failures to operate due to scheduled outages during the months of October through May, for each instance a Non-Retail Behind The Meter Generation resource fails to operate, in whole or in part, as required in section 1 above, the amount of operating Non-Retail Behind The Meter Generation from such resource that is eligible for netting will be reduced pursuant to the following formula:

$$\text{Adjusted ENRBTMG} = \text{ENRBTMG} - \sum(10\% \text{ of the Not Run NRBTMG})$$

Where:

ENRBTMG equals the operating Non-Retail Behind The Meter Generation eligible for netting as determined pursuant to Tariff, Part III, section 34.3.

Not Run NRBTMG is the amount in megawatts that the Non-Retail Behind The Meter Generation resource failed to produce during an occurrence of Maximum Generation Emergency conditions in which the resource was required to operate.

$\sum(10\% \text{ of the Not Run NRBTMG})$ is the summation of 10% megawatt reductions associated with the events of non-performance.

The Adjusted ENRBTMG shall not be less than zero and shall be applicable for the succeeding calendar year.

4. If a Non-Retail Behind The Meter Generation resource that is required to operate during a Maximum Generation Emergency condition is an Energy Resource and injects energy into the Transmission System during the Maximum Generation Emergency condition, the Network

Customer that owns the resource shall be compensated for such injected energy in accordance with the PJM market rules.

ATTACHMENT Q

PJM CREDIT POLICY

INTRODUCTION:

It is the policy of PJM that prior to an entity participating in the PJM Markets, or in order to take Transmission Service, the entity must meet PJMSettlement's credit requirements.

Prior to becoming a Market Participant and/or Transmission Customer of PJM, PJMSettlement must accept and approve a credit application (including credit agreement) from such entity . PJMSettlement shall approve or deny submitted credit application on the basis of a complete credit evaluation including, but not be limited to, a review of financial statements, rating agency reports, and other pertinent indicators of credit strength that are applicable to the Applicant's requested activity in PJM. Applicants must satisfy all applicable credit requirements set forth in this Attachment Q prior to transacting in the PJM Markets. All references in this Attachment Q to "section" shall refer to sections within Attachment Q unless otherwise indicated.

These credit rules may establish certain restrictions on available credit by requiring that some amounts of credit be designated for specific purposes, such as for FTR or RPM activity, and thus not be available to satisfy credit requirements for other purposes. Such designations shall be construed to be applicable to calculation of credit requirements only, and shall not restrict PJMSettlement's ability to apply such designated credit to any obligation(s) in case of a default.

PJMSettlement may post on PJM's web site, and may reference on OASIS, a supplementary document which contains additional business practices (such as algorithms for credit scoring) that are not included in this document. Changes to the supplementary document will be subject to stakeholder review and comment prior to implementation. PJMSettlement may specify a required compliance date, not less than 15 days from notification, by which time all Participants must comply with provisions that have been revised in the supplementary document.

PJMSettlement will regularly post each Participant's credit requirements and credit provisions on the PJM web site in a secure, password-protected location. Each Participant is responsible for monitoring such information, and maintaining sufficient credit to satisfy all of its PJM credit requirements. Failure to maintain credit sufficient to satisfy its credit requirements shall be a breach of this Attachment Q, and the Participant will be subject to the remedies established herein and in any of the Agreements.

Each Participant is required to provide information as to any known material litigation, commitments or contingencies as well as any current or prior bankruptcy declarations or material defalcations by the Participant or its predecessors, subsidiaries or Affiliates, if any. These disclosures shall be made by the Participant upon the applicable initiation or change, or as requested by PJMSettlement.

Each Participant is required to disclose any Affiliates that are currently Members of PJM or are applying for membership with PJM. Each Participant is also required to disclose the existence of

any ongoing investigations by the U.S. Securities and Exchange Commission (“SEC”), U.S. Commodity Futures Trading Commission (“CFTC”), FERC, or any other governing, regulatory, or standards body. These disclosures shall be made by the Participant upon the applicable initiation or change, or as requested by PJMSettlement.

I. MINIMUM PARTICIPATION REQUIREMENTS

A. PJM Market Participation Eligibility Requirements

To be eligible to transact in the PJM Markets, a Market Participant must demonstrate in accordance with the Risk Management and Verification processes set forth below that it qualifies in one of the following ways:

1. an “appropriate person,” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act, or;
2. an “eligible contract participant,” as that term is defined in section 1a(18), or successor provision, of the Commodity Exchange Act, or;
3. a business entity or person who is in the business of: (1) generating, transmitting, or distributing electric energy, or (2) providing electric energy services that are necessary to support the reliable operation of the transmission system, or;
4. a Market Participant seeking eligibility as an “appropriate person” providing an unlimited Corporate Guaranty in a form acceptable to PJMSettlement as described in section II.C below from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Market Participant for which the issuer has issued an unlimited Corporate Guaranty, or;
5. a Market Participant providing a letter of credit of at least \$5 million to PJMSettlement in a form acceptable to PJMSettlement as described in section III.B below that the Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJMSettlement.

If, at any time, a Market Participant cannot meet the eligibility requirements set forth above, it shall immediately notify PJMSettlement and immediately cease conducting transactions in the PJM Markets. PJMSettlement shall terminate a Market Participant’s transaction rights in the PJM Markets if, at any time, it becomes aware that the Market Participant does not meet the minimum eligibility requirements set forth above.

In the event that a Market Participant is no longer able to demonstrate it meets the minimum eligibility requirements set forth above, and possesses, obtains or has rights to possess or obtain, any open or forward positions in the PJM Markets, PJMSettlement may take any such action it deems necessary with respect to such open or forward positions, including, but not limited to, liquidation, transfer, assignment or sale; provided, however, that the Market Participant will, notwithstanding its ineligibility to participate in the PJM Markets, be entitled to any positive

market value of those positions, net of any obligations due and owing to PJM and/or PJMSettlement.

B. Risk Management and Verification

All Participants shall provide to PJMSettlement an executed copy of a credit application and the annual certification set forth in Attachment Q, Appendix 1 before they are eligible to transact in the PJM Markets. Thereafter, the annual certification must be submitted each calendar year by all Participants during a period beginning on January 1 and ending April 30. Except for certain FTR Participants (discussed below) or in cases of manifest error, PJMSettlement will accept such certifications as a matter of course and Participants will not need further notice from PJMSettlement before commencing or maintaining their eligibility to participate in PJM Markets. A Participant that fails to provide its annual certification by April 30 shall be ineligible to transact in the PJM Markets and PJM will disable the Participant's access to the PJM Markets until such time as PJMSettlement receives the Participant's certification.

Participants acknowledge and understand that the annual certification constitutes a representation upon which PJMSettlement will rely. Such representation is additionally made under the Tariff, filed with and accepted by FERC, and any inaccurate or incomplete statement may subject the Participant to action by FERC. Failure to comply with any of the criteria or requirements listed herein or in the certification may result in suspension of a Participant's transaction rights in the PJM Markets.

Certain FTR Participants (those providing representations found in the annual certification form set forth in Attachment Q, Appendix 1, paragraph 3.b) are additionally required to submit to PJMSettlement (at the time they make their annual certification) a copy of their current governing risk control policies, procedures and controls applicable to their FTR trading activities, except that if no substantive changes have been made to such applicable policies, procedures and/or controls since their last submission, they may instead submit to PJMSettlement a certification stating that no substantive changes have been made. PJMSettlement will review such documentation to verify that it appears generally to conform to prudent risk management practices for entities trading in FTR-type markets. Those FTR Participants subject to this provision shall make a one-time payment of \$1,000.00 to PJMSettlement to cover administrative costs. Thereafter, if such FTR Participant's risk policies, procedures and controls applicable to its FTR trading activities change substantively, it shall submit such modified documentation, without charge, to PJMSettlement for review and verification at the time it makes its annual certification. Such FTR Participant's continued eligibility to participate in the PJM FTR markets is conditioned on PJMSettlement notifying such FTR Participant that its annual certification, including the submission of its risk policies, procedures and controls, has been accepted by PJMSettlement. PJMSettlement may retain outside expertise to perform the review and verification function described in this paragraph, however, in all circumstances, PJMSettlement and any third-party it may retain will treat as confidential the documentation provided by an FTR Participant under this paragraph, consistent with the applicable provisions of the Operating Agreement.

An FTR Participant that makes the representation in paragraph 3.a of the annual certification understands that PJMSettlement, given the visibility it has over an FTR Participant's overall market activity in performing billing and settlement functions, may at any time request that the FTR Participant provide additional information demonstrating that it is in fact eligible to make the representation in paragraph 3.a of the annual certification. If such additional information is not provided or does not, in PJMSettlement's judgment, demonstrate eligibility to make the representation in paragraph 3.a of the annual certification, PJMSettlement will require the FTR Participant to instead make the representations required in paragraph 3.b of the annual certification, including representing that it has submitted a copy of its current governing risk control policies, procedures and controls applicable to its FTR trading activities. If the FTR Participant cannot or does not make those representations as required in paragraph 3.b of the annual certification, then PJM will terminate the FTR Participant's rights to purchase FTRs in the FTR market and, in its sole discretion, may terminate the FTR Participant's rights to sell FTRs in the PJM FTR market.

PJMSettlement shall also conduct a periodic compliance verification process to review and verify, as applicable, Participants' risk management policies, practices, and procedures pertaining to the Participants' activities in the PJM Markets. Such review shall include verification that:

1. The risk management framework is documented in a risk policy addressing market, credit and liquidity risks.
2. The Participant maintains an organizational structure with clearly defined roles and responsibilities that clearly segregates trading and risk management functions.
3. There is clarity of authority specifying the types of transactions into which traders are allowed to enter.
4. The Participant has requirements that traders have adequate training relative to their authority in the systems and PJM Markets in which they transact.
5. As appropriate, risk limits are in place to control risk exposures.
6. Reporting is in place to ensure that risks and exceptions are adequately communicated throughout the organization.
7. Processes are in place for qualified independent review of trading activities.
8. As appropriate, there is periodic valuation or mark-to-market of risk positions.

If principles or best practices relating to risk management in wholesale electric markets are published, as may be modified from time to time, by a third-party industry association, PJMSettlement may, following stakeholder discussion and with no less than six months prior notice to stakeholders, apply such principles or best practices in determining the sufficiency of the Participant's risk controls.

PJMSettlement may select Participants for review on a random basis and/or based on identified risk factors such as, but not limited to, the PJM Markets in which the Participant is transacting, the magnitude of the Participant's transactions in the PJM Markets, or the volume of the Participant's open positions in the PJM Markets. Those Participants notified by PJMSettlement that they have been selected for review shall, upon fourteen calendar days' notice, provide a copy of their current governing risk control policies, procedures and controls applicable to their PJM Market activities and shall also provide such further information or documentation pertaining to the Participants' activities in the PJM Markets as PJMSettlement may reasonably request. Participants selected for risk management verification through a random process and satisfactorily verified by PJMSettlement shall be excluded from such verification process based on a random selection for the subsequent two years. PJMSettlement shall annually randomly select for review no more than 20% of the Participants in each member sector.

Each selected Participant's continued eligibility to participate in the PJM Markets is conditioned upon PJMSettlement notifying the Participant of successful completion of PJMSettlement's verification of the Participant's risk management policies, practices and procedures, as discussed herein. However, if PJMSettlement notifies the Participant in writing that it could not successfully complete the verification process, PJMSettlement shall allow such Participant fourteen calendar days to provide sufficient evidence for verification prior to declaring the Participant as ineligible to continue to participate in PJM's markets, which declaration shall be in writing with an explanation of why PJMSettlement could not complete the verification. If, prior to the expiration of such fourteen calendar days, the Participant demonstrates to PJMSettlement that it has filed with the Federal Energy Regulatory Commission an appeal of PJMSettlement's risk management verification determination, then the Participant shall retain its transaction rights, pending the Commission's determination on the Participant's appeal. PJMSettlement may retain outside expertise to perform the review and verification function described in this paragraph. PJMSettlement and any third party it may retain will treat as confidential the documentation provided by a Participant under this paragraph, consistent with the applicable provisions of the Operating Agreement. If PJMSettlement retains such outside expertise, a Participant may direct in writing that PJMSettlement perform the risk management review and verification for such Participant instead of utilizing a third party, provided however, that employees and contract employees of PJMSettlement and PJM shall not be considered to be such outside expertise or third parties.

Participants are solely responsible for the positions they take and the obligations they assume in PJM Markets. PJMSettlement hereby disclaims any and all responsibility to any Participant or PJM Member associated with Participant's submitting or failure to submit its annual certification or PJMSettlement's review and verification of an FTR Participant's risk policies, procedures and controls. Such review and verification is limited to demonstrating basic compliance by an FTR Participant with the representation it makes under paragraph 3.b of its annual certification showing the existence of written policies, procedures and controls to limit its risk in PJM's FTR markets and does not constitute an endorsement of the efficacy of such policies, procedures or controls.

C. Capitalization

In addition to the annual certification requirements in Attachment Q, Appendix 1, a Participant must demonstrate that it meets the minimum financial requirements appropriate for the PJM Market(s) in which it transacts by satisfying either the minimum capitalization or the provision of Collateral requirements listed below:

1. Minimum Capitalization

FTR Participants must demonstrate a tangible net worth in excess of \$1 million or tangible assets in excess of \$10 million. Other Participants must demonstrate a tangible net worth in excess of \$500,000 or tangible assets in excess of \$5 million.

(a) In either case, consideration of tangible assets and net worth shall exclude assets (net of any matching liabilities, assuming the result is a positive value) which PJM Settlement reasonably believes to be restricted, highly risky, or potentially unavailable to settle a claim in the event of default. Examples include, but are not limited to, restricted assets and Affiliate assets, derivative assets, goodwill, and other intangible assets.

(b) Demonstration of “tangible” assets and net worth may be satisfied through presentation of an acceptable Corporate Guaranty, provided that both:

- (i) the Guarantor is an Affiliate company that satisfies the tangible net worth or tangible assets requirements herein, and;
- (ii) the Corporate Guaranty is either unlimited or at least \$500,000.

If the Corporate Guaranty presented by the Participant to satisfy these capitalization requirements is limited in value, then the Participant’s resulting Unsecured Credit Allowance shall be the lesser of:

- (1) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or;
- (2) the face value of the Corporate Guaranty, reduced by \$500,000 and further reduced by 10%. (For example, a \$10.5 million Corporate Guaranty would be reduced first by \$500,000 to \$10 million and then further reduced 10% more to \$9 million. The resulting \$9 million would be the Participant’s Unsecured Credit Allowance available through the Corporate Guaranty).

In the event that a Participant provides Collateral in addition to a limited Corporate Guaranty to increase its available credit, the value of such Collateral shall be reduced by 10%. This reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.

Demonstrations of capitalization must be presented in the form of audited financial statements for the Participant's most recent fiscal year.

2. Provision of Collateral

If a Participant does not demonstrate compliance with its applicable minimum capitalization requirements above, it may still qualify to participate in PJM's markets by posting additional Collateral, subject to the terms and conditions set forth herein.

Any Collateral provided by a Participant unable to satisfy the minimum capitalization requirements above will be restricted in the following manner:

- (i) Collateral provided by FTR Participants shall be reduced by \$500,000 and then further reduced by 10%. This reduced amount shall be considered the amount available to satisfy requirements of this Attachment Q.
- (ii) Collateral provided by other Participants that engage in Virtual Transactions or Export Transactions shall be reduced by \$200,000 and then further reduced by 10%. This reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.
- (iii) Collateral provided by other Participants that do not engage in Virtual Transactions or Export Transactions shall be reduced by 10%, and this reduced value shall be considered the amount available to satisfy requirements of this Attachment Q.

In the event a Participant that satisfies the Minimum Participation requirements through provision of Collateral also provides a Corporate Guaranty to increase its available credit, then the Participant's resulting Unsecured Credit Allowance conveyed through such Corporate Guaranty shall be the lesser of:

- (i) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this Attachment Q, or,
- (ii) the face value of the Corporate Guaranty, reduced by 10%.

II. UNSECURED CREDIT ALLOWANCE

A Participant may request that PJM consider it for an Unsecured Credit Allowance pursuant to the provisions herein.

A. Unsecured Credit Allowance Evaluation

PJMSettlement will perform a credit evaluation on each Participant that has requested an Unsecured Credit Allowance, both initially and at least annually thereafter. In completing the credit evaluation, PJMSettlement will consider:

1. Rating Agency Reports

In evaluating credit strength, PJMSettlement will review rating agency reports from Standard & Poor's, Moody's Investors Service, Fitch Ratings, or other nationally known rating agencies. The focus of the review will be on senior unsecured debt ratings; however, PJMSettlement will consider other ratings if senior unsecured debt ratings are not available.

2. Financial Statements and Related Information

Each Participant requesting an Unsecured Credit Allowance or seeking to satisfy the minimum capitalization requirements herein must submit audited annual financial statements as soon as they become available and no later than 120 days after its fiscal year end. All financial and related information considered for an Unsecured Credit Allowance must be audited by an outside entity, and must be accompanied by an unqualified audit letter acceptable to PJMSettlement. If financial statements are not provided within the timeframe required, the Participant may not be granted an Unsecured Credit Allowance and may have its officer certification revoked.

The information should include, but not be limited to, the following:

- (a) If publicly traded:
 - (i) Annual and quarterly reports on Form 10-K and Form 10-Q, respectively.
 - (ii) Form 8-K reports disclosing material changes, if any, immediately upon issuance.
- (b) If privately held:
 - (i) Management's Discussion & Analysis
 - (ii) Report of Independent Accountants
 - (iii) Financial Statements, including:
 - Balance Sheet
 - Income Statement
 - Statement of Cash Flows
 - Statement of Stockholder's Equity
 - (iv) Notes to Financial Statements

If the above information is available on the internet, the Participant may provide a letter stating where such statements may be located and retrieved by PJMSettlement. For certain Participants, some of the above financial submittals may not be applicable, and alternate requirements may be specified by PJMSettlement.

In its credit evaluation of cooperatives and municipalities, PJMSettlement may request additional information as part of the overall financial review process and may also consider qualitative factors in determining financial strength and creditworthiness.

3. Material Changes

Each Participant is responsible for informing PJMSettlement immediately, in writing, of any material change in its financial condition. However, PJMSettlement may also independently

establish from available information that a Participant has experienced a material change in its financial condition without regard to whether such Participant has informed PJMSettlement of the same.

For the purposes of this Attachment Q, a material change in financial condition may include, but is not be limited to, any of the following:

- (a) a downgrade of any debt rating by any rating agency;
- (b) being placed on a credit watch with negative implications by any rating agency;
- (c) a bankruptcy filing;
- (d) insolvency;
- (e) a report of a quarterly or annual loss or a decline in earnings of ten percent or more compared to the prior period;
- (f) restatement of prior financial statements;
- (g) the resignation of key officer(s);
- (h) the filing of a lawsuit that could adversely impact any current or future financial results by ten percent or more;
- (i) financial default in another organized wholesale electric market, futures exchange or clearing house;
- (j) revocation of a license or other authority by any Federal or State regulatory agency; where such license or authority is necessary or important to the Participants continued business for example, FERC market-based rate authority, or State license to serve retail load; or
- (k) a significant change in credit default spreads, market capitalization, or other market-based risk measurement criteria, such as a recent increase in Moody's KMV Expected Default Frequency (EDFtm) that is noticeably greater than the increase in its peers' EDFtm rates, or a collateral default swap (CDS) premium normally associated with an entity rated lower than investment grade.

If PJMSettlement determines that a material change in the financial condition of the Participant has occurred, it may reduce or eliminate any Unsecured Credit afforded to the Participant. Such reduction or elimination may require the Participant to provide Collateral within two Business Days. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

In the event that PJMSettlement determines that a material change in the financial condition of a Participant warrants a requirement to provide Collateral, PJMSettlement shall provide the Participant with a written explanation of why such determination was made. However, under no circumstances shall the requirement that a Participant provide the requisite Collateral be deferred pending the issuance of such written explanation.

B. Contesting an Unsecured Credit Evaluation

PJMSettlement will provide to a Participant, upon request, a written explanation for any change in Unsecured Credit or credit requirement within ten Business Days of receiving such request.

If a Participant believes that either its level of Unsecured Credit or its credit requirement has been incorrectly determined, according to this Attachment Q, then the Participant may send a request for reconsideration in writing to PJMSettlement. Such a request should include:

- (i) A citation to the applicable section(s) of this Attachment Q along with an explanation of how the respective provisions of this Attachment Q were not carried out in the determination as made.
- (ii) A calculation of what the Participant believes should be the correct credit level or Collateral requirement, according to terms of this Attachment Q.

PJMSettlement will reconsider the determination and will provide a written response as promptly as practical, but no more than ten Business Days after receipt of the request. If the Participant still feels that the determination is incorrect, then the Participant may contest that determination. Such contest should be in written form, addressed to PJMSettlement, and should contain:

- (i) A complete copy of the Participant's earlier request for reconsideration, including citations and calculations.
- (ii) A copy of PJMSettlement's written response to its request for reconsideration.
- (iii) An explanation of why it believes that the determination still does not comply with this Attachment Q.

PJMSettlement will investigate and will respond to the Participant with a final determination on the matter as promptly as practical, but no more than twenty Business Days after receipt of the request.

Neither requesting reconsideration nor contesting the determination following such request shall relieve or delay Participant's responsibility to comply with all provisions of this Attachment Q.

C. Corporate Guaranty

An irrevocable and unconditional Corporate Guaranty may be utilized to establish an Unsecured Credit Allowance for a Participant. Such credit will be considered a transfer of Unsecured Credit from the Guarantor to the Participant, and will not be considered a form of Collateral.

PJMSettlement will post on its web site an acceptable form that should be utilized by a Participant choosing to establish its credit with a Corporate Guaranty. If the Corporate Guaranty varies in any way from the PJMSettlement format, it must first be reviewed and approved by PJMSettlement before it may be applied to satisfy the Participant's credit requirements.

The Corporate Guaranty must be signed by an officer of the Guarantor, and must demonstrate that it is duly authorized in a manner acceptable to PJMSettlement. Such demonstration may include either a corporate seal on the Corporate Guaranty itself, or an accompanying executed and sealed secretary's certificate from the Guarantor's corporate secretary noting that the

Guarantor was duly authorized to provide such Corporate Guaranty and that the person signing the Corporate Guaranty is duly authorized, or other manner acceptable to PJMSettlement.

PJM will evaluate the creditworthiness of a Guarantor and will establish any Unsecured Credit granted through a Corporate Guaranty using the methodology and requirements established for Participants requesting an Unsecured Credit Allowance as described herein. Foreign Guaranties and Canadian Guaranties shall be subject to additional requirements as established herein. If PJMSettlement determines that a material change in the financial condition of the Guarantor has occurred, or if the Corporate Guaranty comes within 30 days of expiring without renewal, PJMSettlement may reduce or eliminate any Unsecured Credit afforded to the Participant through the guaranty. Such reduction or elimination may require the Participant to provide Collateral within two Business Days. If the Participant fails to provide the required Collateral, the Participant shall be in default under this Attachment Q.

All costs associated with obtaining and maintaining a Corporate Guaranty and meeting the Attachment Q provisions are the responsibility of the Participant.

1. Foreign Guaranties

A Foreign Guaranty is a Corporate Guaranty that is provided by an Affiliate entity that is domiciled in a country other than the United States or Canada. The entity providing a Foreign Guaranty on behalf of a Participant is a Foreign Guarantor. A Participant may provide a Foreign Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJMSettlement provided that all of the following conditions are met:

PJMSettlement reserves the right to deny, reject, or terminate acceptance of any Foreign Guaranty at any time, including for material adverse circumstances or occurrences.

- (a) A Foreign Guaranty:
 - (i) Must contain provisions equivalent to those contained in PJMSettlement's standard form of Foreign Guaranty with any modifications subject to review and approval by PJMSettlement counsel.
 - (ii) Must be denominated in US currency.
 - (iii) Must be written and executed solely in English, including any duplicate originals.
 - (iv) Will not be accepted towards a Participant's Unsecured Credit Allowance for more than the following limits, depending on the Foreign Guarantor's credit rating:

Rating of Foreign Guarantor	Maximum Accepted Guaranty if Country Rating is AAA	Maximum Accepted Guaranty if Country Rating is AA+
A- and above	USD50,000,000	USD30,000,000
BBB+	USD30,000,000	USD20,000,000
BBB	USD10,000,000	USD10,000,000
BBB- or below	USD 0	USD 0

- (v) May not exceed 50% of the Participant's total credit, if the Foreign Grantor is rated less than BBB+.
- (b) A Foreign Guarantor:
- (i) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
 - (ii) Must be an Affiliate of the Participant.
 - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
 - (iv) Must be rated by at least one Rating Agency acceptable to PJMSettlement; the credit strength of a Foreign Guarantor may not be determined based on an evaluation of its financials without an actual credit rating as well.
 - (v) Must have a senior unsecured (or equivalent, in PJMSettlement's sole discretion) rating of BBB (one notch above BBB-) or greater by any and all agencies that provide rating coverage of the entity.
 - (vi) Must provide financials in Generally Acceptable Accounting Principles (GAAP) format or other format acceptable to PJMSettlement with clear representation of net worth, intangible assets, and any other information PJMSettlement may require in order to determine the entity's Unsecured Credit Allowance
 - (vii) Must provide a Secretary's Certificate from the Participant's corporate secretary certifying the adoption of Corporate Resolutions:
 - 1. Authorizing and approving the Guaranty; and
 - 2. Authorizing the Officers to execute and deliver the Guaranty on behalf of the Guarantor.
 - (viii) Must be domiciled in a country with a minimum long-term sovereign (or equivalent) rating of AA+/Aa1, with the following conditions:
 - 1. Sovereign ratings must be available from at least two rating agencies acceptable to PJMSettlement (e.g. S&P, Moody's, Fitch, DBRS).
 - 2. Each agency's sovereign rating for the domicile will be considered to be the lowest of: country ceiling, senior unsecured government debt, long-term foreign currency sovereign rating, long-term local currency sovereign rating, or other equivalent measures, at PJMSettlement's sole discretion.
 - 3. Whether ratings are available from two or three agencies, the lowest of the two or three will be used.
 - (ix) Must be domiciled in a country that recognizes and enforces judgments of US courts.

- (x) Must demonstrate financial commitment to activity in the United States as evidenced by one of the following:
 - 1. American Depositary Receipts (ADR) are traded on the New York Stock Exchange, American Stock Exchange, or NASDAQ.
 - 2. Equity ownership worth over USD100,000,000 in the wholly-owned or majority owned subsidiaries in the United States.
- (xi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.
- (xii) Must pay for all expenses incurred by PJMSettlement related to reviewing and accepting a foreign guaranty beyond nominal in-house credit and legal review.
- (xiii) Must, at its own cost, provide PJMSettlement with independent legal opinion from an attorney/solicitor of PJMSettlement's choosing and licensed to practice law in the United States and/or Guarantor's domicile, in form and substance acceptable to PJMSettlement in its sole discretion, confirming the enforceability of the Foreign Guaranty, the Guarantor's legal authorization to grant the Guaranty, the conformance of the Guaranty, Guarantor, and Guarantor's domicile to all of these requirements, and such other matters as PJMSettlement may require in its sole discretion.

2. Canadian Guaranties

The entity providing a Canadian Guaranty on behalf of a Participant is a Canadian Guarantor. A Participant may provide a Canadian Guaranty in satisfaction of part of its credit obligations or voluntary credit provision at PJMSettlement provided that all of the following conditions are met.

PJMSettlement reserves the right to deny, reject, or terminate acceptance of any Canadian Guaranty at any time for reasonable cause, including adverse material circumstances.

- (a) A Canadian Guaranty:
 - (i) Must contain provisions equivalent to those contained in PJMSettlement's standard form of Foreign Guaranty with any modifications subject to review and approval by PJMSettlement counsel.
 - (ii) Must be denominated in US currency.
 - (iii) Must be written and executed solely in English, including any duplicate originals.
- (b) A Canadian Guarantor:
 - (i) Must satisfy all provisions of this Attachment Q applicable to domestic Guarantors.
 - (ii) Must be an Affiliate of the Participant.
 - (iii) Must maintain an agent for acceptance of service of process in the United States; such agent shall be situated in the Commonwealth of Pennsylvania, absent legal constraint.
 - (iv) Must be rated by at least one Rating Agency acceptable to PJMSettlement; the credit strength of a Canadian Guarantor may not be determined based on an evaluation of its financials without an actual credit rating as well.

- (v) Must provide financials in Generally Acceptable Accounting Principles (GAAP) format or other format acceptable to PJMSettlement with clear representation of net worth, intangible assets, and any other information PJMSettlement may require in order to determine the entity's Unsecured Credit Allowance.
- (vi) Must satisfy all other applicable provisions of the PJM Tariff and/or Operating Agreement, including this Attachment Q.

D. Unsecured Credit Allowance Calculation

PJMSettlement's Unsecured Credit Allowance evaluation process will include calculating a Credit Score for each Participant. The Credit Score will be utilized to determine a Participant's Unsecured Credit Allowance.

Where two or more entities, including Participants, are considered Affiliates, Unsecured Credit Allowances will be established for each individual Participant, subject to an aggregate maximum amount for all Affiliates as provided for in section II.D.3 of this Attachment Q.

In its credit evaluation of cooperatives and municipalities, PJMSettlement may request additional information as part of the overall financial review process and may also consider qualitative factors in determining financial strength and creditworthiness.

1. Credit Score

For Participants with credit ratings, a Credit Score will be assigned based on their senior unsecured credit rating and credit watch status as shown in the table below. If an explicit senior unsecured rating is not available, PJMSettlement may impute an equivalent rating from other ratings that are available. For Participants without a credit rating, but who wish to be considered for an Unsecured Credit Allowance, a Credit Score will be generated from PJMSettlement's review and analysis of various factors that are predictors of financial strength and creditworthiness. PJMSettlement will consistently apply the measures it uses in determining Credit Scores. The credit scoring methodology details are included in a supplementary document available on OASIS.

Rated Entities Credit Scores

Rating	Score	Score Modifier	
		Credit Watch Negative	Credit Watch Positive
AAA	100	-1.0	0.0
AA+	99	-1.0	0.0
AA	99	-1.0	0.0
AA-	98	-1.0	0.0
A+	97	-1.0	0.0
A	96	-2.0	0.0
A-	93	-3.0	1.0
BBB+	88	-4.0	2.0

BBB	78	-4.0	2.0
BBB-	65	-4.0	2.0
BB+ and below	0	0.0	0.0

2. Unsecured Credit Allowance

PJMSettlement will determine a Participant's Unsecured Credit Allowance based on its Credit Score and the parameters in the table below. The maximum Unsecured Credit Allowance is the lower of:

- (a) A percentage of the Participant's Tangible Net Worth, as stated in the table below, with the percentage based on the Participant's credit score; and
- (b) A dollar cap based on the credit score, as stated in the table below:

Credit Score	Tangible Net Worth Factor	Maximum Unsecured Credit Allowance (\$ Million)
91-100	2.125 – 2.50%	\$50
81-90	1.708 – 2.083%	\$42
71-80	1.292 – 1.667%	\$33
61-70	0.875 – 1.25%	\$7
51-60	0.458 – 0.833%	\$0-\$2
50 and Under	0%	\$0

If a Corporate Guaranty is utilized to establish an Unsecured Credit Allowance for a Participant, the value of a Corporate Guaranty will be the lesser of:

- (i) The limit imposed in the Corporate Guaranty;
- (ii) The Unsecured Credit Allowance calculated for the Guarantor; and
- (iii) A portion of the Unsecured Credit Allowance calculated for the Guarantor in the case of Affiliated Participants.

PJMSettlement has the right at any time to modify any Unsecured Credit Allowance and/or require additional Collateral as may be deemed reasonably necessary to support current market activity. Failure to remit the required amount of additional Collateral within two Business Days shall be deemed an event of default.

PJMSettlement will maintain a posting of each Participant's Unsecured Credit Allowance, along with certain other credit related parameters, on the PJM website in a secure, password-protected location. Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

3. Unsecured Credit Limits For Affiliates

If two or more Participants are Affiliates and each is being granted an Unsecured Credit Allowance, PJMSettlement will consider the overall creditworthiness of the Affiliates when determining the Unsecured Credit Allowances in order not to grant more Unsecured Credit than the overall corporation could support.

Example: Participants A and B each have a \$10.0 million Corporate Guaranty from their common parent, a holding company with an Unsecured Credit Allowance calculation of \$12.0 million. PJMSettlement may limit the Unsecured Credit Allowance for each Participant to \$6.0 million, so the total Unsecured Credit Allowance does not exceed the corporate total of \$12.0 million.

PJMSettlement will work with the Affiliates to allocate the total Unsecured Credit Allowance among the Affiliates while assuring that no individual Participant, nor common guarantor, exceeds the Unsecured Credit Allowance appropriate for its credit strength. The aggregate Unsecured Credit for a Participant, including Unsecured Credit Allowance granted based on its own creditworthiness and any Unsecured Credit Allowance conveyed through a Guaranty shall not exceed \$50 million. The aggregate Unsecured Credit for a group of Affiliates shall not exceed \$50 million. A group of Affiliates subject to this cap shall request PJMSettlement to allocate the maximum Unsecured Credit amongst the group, assuring that no individual Participant or common guarantor, shall exceed the Unsecured Credit level appropriate for its credit strength and activity.

III. FORMS OF COLLATERAL

In order to satisfy their PJM credit requirements Participants may provide Collateral in a PJMSettlement-approved form and amount pursuant to the guidelines herein.

Collateral which is no longer required to be maintained under provisions of the Agreements shall be returned at the request of a Participant no later than two Business Days following determination by PJMSettlement within a commercially reasonable period of time that such Collateral is not required.

Except when an event of default has occurred, a Participant may substitute an approved PJMSettlement form of Collateral for another PJMSettlement approved form of Collateral of equal value.

A. Cash Deposit

Cash provided by a Participant as Collateral will be held in a depository account by PJMSettlement. Interest shall accrue to the benefit of the Participant, provided that PJMSettlement may require Participants to provide appropriate tax and other information in order to accrue such interest credits.

PJMSettlement may establish an array of investment options among which a Participant may choose to invest its cash deposited as Collateral. The depository account shall be held in

PJMSettlement's name in a banking or financial institution acceptable to PJMSettlement. Where practicable, PJMSettlement may establish a means for the Participant to communicate directly with the bank or financial institution to permit the Participant to direct certain activity in the PJMSettlement account in which its Collateral is held. PJMSettlement will establish and publish procedural rules, identifying the investment options and respective discounts in Collateral value that will be taken to reflect any liquidation, market and/or credit risk presented by such investments.

Cash Collateral may not be pledged or in any way encumbered or restricted from full and timely use by PJM in accordance with terms of the Agreements.

PJMSettlement has the right to liquidate all or a portion of the Collateral account balance at its discretion to satisfy a Participant's Total Net Obligation to PJMSettlement in the event of default under this Attachment Q or one or more of the Agreements.

B. Letter Of Credit

An unconditional, irrevocable standby letter of credit can be utilized to meet the Collateral requirement. As stated below, the form, substance, and provider of the letter of credit must all be acceptable to PJMSettlement.

- (i) The letter of credit will only be accepted from U.S.-based financial institutions or U.S. branches of foreign financial institutions ("financial institutions") that have a minimum corporate debt rating of "A" by Standard & Poor's or Fitch Ratings, or "A2" from Moody's Investors Service, or an equivalent short term rating from one of these agencies. PJMSettlement will consider the lowest applicable rating to be the rating of the financial institution. If the rating of a financial institution providing a letter of credit is lowered below A/A2 by any rating agency, then PJMSettlement may require the Participant to provide a letter of credit from another financial institution that is rated A/A2 or better, or to provide a cash deposit. If a letter of credit is provided from a U.S. branch of a foreign institution, the U.S. branch must itself comply with the terms of this Attachment Q, including having its own acceptable credit rating.
- (ii) The letter of credit shall state that it shall renew automatically for successive one-year periods, until terminated upon at least ninety (90) days prior written notice from the issuing financial institution. If PJM or PJMSettlement receives notice from the issuing financial institution that the current letter of credit is being cancelled, the Participant will be required to provide evidence, acceptable to PJMSettlement, that such letter of credit will be replaced with appropriate Collateral, effective as of the cancellation date of the letter of credit, no later than thirty (30) days before the cancellation date of the letter of credit, and no later than ninety (90) days after the notice of cancellation. Failure to do so will constitute a default under this Attachment Q and one of more of the Agreements.

- (iii) PJM will post on its web site an acceptable standard form of a letter of credit that should be utilized by a Participant choosing to submit a letter of credit to establish credit at PJM. If the letter of credit varies in any way from the standard format, it must first be reviewed and approved by PJMSettlement. All costs associated with obtaining and maintaining a letter of credit and meeting the Attachment Q provisions are the responsibility of the Participant.
- (iv) PJMSettlement may accept a letter of credit from a financial institution that does not meet the credit standards of this Attachment Q provided that the letter of credit has third-party support, in a form acceptable to PJMSettlement, from a financial institution that does meet the credit standards of this Attachment Q.

C. PJM Administrative Charges

Collateral held by PJMSettlement shall also secure obligations to PJM for PJM administrative charges, and may be liquidated to satisfy all such obligations in event of default.

D. Collateral Held by PJM

PJMSettlement's credit requirements are applicable as of the effective date of the filing on May 5, 2010 by PJM and PJMSettlement of amendments to this Attachment Q. Collateral submitted by Participants and held by PJM shall be held by PJM for the benefit of PJMSettlement.

IV. CREDIT REQUIREMENTS FOR SCREENED TRANSACTIONS

A. Virtual and Export Transaction Screening

1. Credit for Virtual and Export Transactions

Export Transactions and Virtual Transactions both utilize Credit Available for Virtual Transactions to support their credit requirements.

PJMSettlement does not require a Market Participant to establish separate or additional credit for submitting Virtual or Export Transactions; however, once transactions are submitted and accepted by PJM, PJMSettlement may require credit supporting those transactions to be held until the transactions are completed and their financial impact incorporated into the Market Participant's Obligations. If a Market Participant chooses to establish additional Collateral and/or Unsecured Credit Allowance in order to increase its Credit Available for Virtual Transactions, the Market Participant's Working Credit Limit for Virtual Transactions shall be increased in accordance with the definition thereof. The Collateral and/or Unsecured Credit Allowance available to increase a Market Participant's Credit Available for Virtual Transactions shall be the amount of Collateral and/or Unsecured Credit Allowance available after subtracting any credit required for Minimum Participation Requirements, FTR, RPM or other credit requirement determinants defined in this Attachment Q, as applicable.

If a Market Participant chooses to provide additional Collateral in order to increase its Credit Available for Virtual Transactions PJMSettlement may establish a reasonable timeframe, not to exceed three months, for which such Collateral must be maintained. PJMSettlement will not impose such restriction on a deposit unless a Market Participant is notified prior to making the deposit. Such restriction, if applied, shall be applied to all future deposits by all Market Participants engaging in Virtual Transactions.

A Market Participant may increase its Credit Available for Virtual Transactions by providing additional Collateral to PJMSettlement. PJMSettlement will make a good faith effort to make new Collateral available as Credit Available for Virtual Transactions as soon as practicable after confirmation of receipt. In any event, however, Collateral received and confirmed by noon on a Business Day will be applied (as provided under this Attachment Q) to Credit Available for Virtual Transactions no later than 10:00 am on the following Business Day. Receipt and acceptance of wired funds for cash deposit shall mean actual receipt by PJMSettlement's bank, deposit into PJMSettlement's customer deposit account, confirmation by PJMSettlement that such wire has been received and deposited, and entry into PJM's credit system. Receipt and acceptance of letters of credit shall mean receipt of the original letter of credit or amendment thereto, confirmation from PJMSettlement's credit and legal staffs that such letter of credit or amendment thereto conforms to PJMSettlement's requirements, which confirmation shall be made in a reasonable and practicable timeframe, and entry into PJM's credit system. To facilitate this process, bidders submitting additional Collateral for the purpose of increasing their Credit Available for Virtual Transactions are advised to submit such Collateral well in advance of the desired time, and to specifically notify PJMSettlement of such submission.

A Market Participant wishing to submit Virtual or Export Transactions must allocate within PJM's credit system the appropriate amount of Credit Available for Virtual Transactions to the virtual and export allocation sections within each customer account in which it wishes to submit such transactions.

2. Virtual Transaction Screening

All Virtual Transactions submitted to PJM shall be subject to a credit screen prior to acceptance in the Day-ahead Energy Market. The credit screen is applied separately for each of a Market Participant's customer accounts. The credit screen process will automatically reject Virtual Transactions submitted by the Market Participant in a customer account if the Market Participant's Credit Available for Virtual Transactions, allocated on a customer account basis, is exceeded by the Virtual Credit Exposure that is calculated based on the Market Participant's Virtual Transactions submitted, as described below.

A Market Participant's Virtual Credit Exposure will be calculated separately for each customer account on a daily basis for all Virtual Transactions submitted by the Market Participant for the next Operating Day using the following equation:

Virtual Credit Exposure = INC and DEC Exposure + Up-to Congestion Exposure

Where:

(a) INC and DEC Exposure for each customer account is calculated as:

(i) ((the total MWh bid or offered, whichever is greater, hourly at each node) x the Nodal Reference Price x 1 day) summed over all nodes and all hours; plus (ii) ((the difference between the total bid MWh cleared and total offered MWh cleared hourly at each node) x Nodal Reference Price) summed over all nodes and all hours for the previous cleared Day-ahead Energy Market.

(b) Up-to Congestion Exposure for each customer account is calculated as:

(i) Total MWh bid hourly for each Up-to Congestion Transaction x (price bid – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours; plus (ii) Total MWh cleared hourly for each Up-to Congestion Transaction x (cleared price – Up-to Congestion Reference Price) summed over all Up-to Congestion Transactions and all hours for the previous cleared Day-ahead Energy Market, provided that hours for which the calculation for an Up-to Congestion Transaction is negative, it shall be deemed to have a zero contribution to the sum.

3. Export Transaction Screening

Export Transactions in the Real-time Energy Market shall be subject to Export Transaction Screening. Export Transaction Screening may be performed either for the duration of the entire Export Transaction, or separately for each time interval comprising an Export Transaction. PJM will deny or curtail all or a portion (based on the relevant time interval) of an Export Transaction if that Export Transaction, or portion thereof, would otherwise cause the Market Participant's Export Credit Exposure to exceed its Credit Available for Export Transactions. Export Transaction Screening shall be applied separately for each Operating Day and shall also be applied to each Export Transaction one or more times prior to the market clearing process for each relevant time interval. Export Transaction Screening shall not apply to transactions established directly by and between PJM and a neighboring Balancing Authority for the purpose of maintaining reliability.

A Market Participant's credit exposure for an individual Export Transaction shall be the MWh volume of the Export Transaction for each relevant time interval multiplied by each relevant Export Transaction Price Factor and summed over all relevant time intervals of the Export Transaction.

B. RPM Auction and Price Responsive Demand Credit Requirements

Settlement during any Delivery Year of cleared positions resulting or expected to result from any RPM Auction shall be included as appropriate in Peak Market Activity, and the provisions of this Attachment Q shall apply to any such activity and obligations arising therefrom. In addition, the provisions of this section shall apply to any entity seeking to participate in any RPM Auction, to address credit risks unique to such auctions. The provisions of this section also shall apply under certain circumstances to PRD Providers that seek to commit Price Responsive Demand pursuant to the provisions of the Reliability Assurance Agreement.

Credit requirements described herein for RPM Auctions and RPM bilateral transactions are applied separately for each customer account of a Market Participant. Market Participants wishing to participate in an RPM Auction or enter into RPM bilateral transactions must designate the appropriate amount of credit to each account in which their offers are submitted.

1. Applicability

A Market Participant seeking to submit a Sell Offer in any RPM Auction based on any Capacity Resource for which there is a materially increased risk of nonperformance must satisfy the credit requirement specified herein before submitting such Sell Offer. A PRD Provider seeking to commit Price Responsive Demand for which there is a materially increased risk of non-performance must satisfy the credit requirement specified herein before it may commit the Price Responsive Demand. Credit must be maintained until such risk of non-performance is substantially eliminated, but may be reduced commensurate with the reduction in such risk, as set forth in section IV.B.3 below.

For purposes of this provision, a resource for which there is a materially increased risk of nonperformance shall mean: (i) a Planned Generation Capacity Resource; (ii) a Planned Demand Resource or an Energy Efficiency Resource; (iii) a Qualifying Transmission Upgrade; (iv) an existing or Planned Generation Capacity Resource located outside the PJM Region that at the time it is submitted in a Sell Offer has not secured firm transmission service to the border of the PJM Region sufficient to satisfy the deliverability requirements of the Reliability Assurance Agreement; or (v) Price Responsive Demand to the extent the responsible PRD Provider has not registered PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

2. Reliability Pricing Model Auction and Price Responsive Demand Credit Requirement

Except as provided for Credit-Limited Offers below, for any resource specified in section IV.B.1 above, other than Price Responsive Demand, the credit requirement shall be the RPM Auction Credit Rate, as provided in section IV.B.4 below, times the megawatts to be offered for sale from such resource in an RPM Auction. For Qualified Transmission Upgrades, the credit requirements shall be based on the Locational Deliverability Area in which such upgrade was to increase the Capacity Emergency Transfer Limit. However, the credit requirement for Planned Financed Generation Capacity Resources and Planned External Financed Generation Capacity Resources shall be one half of the product of the RPM Auction Credit Rate, as provided in section IV.B.4 below, times the megawatts to be offered for sale from such resource in a Reliability Pricing Model Auction. The RPM Auction Credit Requirement for each Market Participant shall be determined on a customer account basis, separately for each customer account of a Market Participant, and shall be the sum of the credit requirements for all such resources to be offered by such Market Participant in the auction or, as applicable, cleared by such Market Participant in the relevant auctions. For Price Responsive Demand, the credit requirement shall be based on the Nominal PRD Value (stated in Unforced Capacity terms) times the Price Responsive Demand Credit Rate as set forth in section IV.B.5 below.

Except for Credit-Limited Offers, the RPM Auction Credit requirement for a Market Participant will be reduced for any Delivery Year to the extent less than all of such Market Participant's offers clear in the Base Residual Auction or any Incremental Auction for such Delivery Year. Such reduction shall be proportional to the quantity, in megawatts, that failed to clear in such Delivery Year.

A Sell Offer based on a Planned Generation Capacity Resource, Planned Demand Resource, or Energy Efficiency Resource may be submitted as a Credit-Limited Offer. A Market Participant electing this option shall specify a maximum amount of Unforced Capacity, in megawatts, and a maximum credit requirement, in dollars, applicable to the Sell Offer. A Credit-Limited Offer shall clear the RPM Auction in which it is submitted (to the extent it otherwise would clear based on the other offer parameters and the system's need for the offered capacity) only to the extent of the lesser of: (i) the quantity of Unforced Capacity that is the quotient of the division of the specified maximum credit requirement by the Auction Credit Rate resulting from section IV.B.4.b. below; and (ii) the maximum amount of Unforced Capacity specified in the Sell Offer. For a Market Participant electing this alternative, the RPM Auction Credit requirement applicable prior to the posting of results of the auction shall be the maximum credit requirement specified in its Credit-Limited Offer, and the RPM Auction Credit requirement subsequent to posting of the results will be the Auction Credit Rate, as provided in section IV.B.4.b, c. or d. of this Attachment Q, as applicable, times the amount of Unforced Capacity from such Sell Offer that cleared in the auction. The availability and operational details of Credit-Limited Offers shall be as described in the PJM Manuals.

As set forth in section IV.B.4 below, a Market Participant's Auction Credit requirement shall be determined separately for each Delivery Year.

3. Reduction in Credit Requirement

As specified below, the RPM Auction Credit Rate may be reduced under certain circumstances after the auction has closed.

The Price Responsive Demand credit requirement shall be reduced as and to the extent the PRD Provider registers PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.

In addition, the RPM Auction Credit requirement for a Market Participant for any given Delivery Year shall be reduced periodically, provided the Market Participant successfully meets progress milestones that reduce the risk of non-performance, as follows:

(a) For Planned Demand Resources and Energy Efficiency Resources, the RPM Auction Credit requirement will be reduced in direct proportion to the megawatts of such Demand Resource that the Resource Provider qualifies as a Capacity Resource, in accordance with the procedures established under the Reliability Assurance Agreement.

(b) For Existing Generation Capacity Resources located outside the PJM Region that have not secured sufficient firm transmission to the border of the PJM Region prior to the auction in which such resource is first offered, the RPM Auction Credit requirement shall be reduced in direct proportion to the megawatts of firm transmission service secured by the Market Participant that qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

(c) For Planned Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

Milestones	Increment of reduction from initial RPM Auction Credit requirement
Effective Date of Interconnection Service Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, except for the Interconnection Service Agreement and Commencement of Interconnection Service milestones, the Capacity Market Seller must submit a sworn, notarized certification of a duly authorized independent engineer in a form acceptable to PJM, certifying that the engineer has personal knowledge, or has engaged in a diligent inquiry to determine, that the milestone has been achieved and that, based on its review of the relevant project information, the independent engineer is not aware of any information that could reasonably cause it to believe that the Capacity Resource will not be in-service by the beginning of the applicable Delivery Year. The Capacity Market Seller shall, if requested by PJM, supply to PJM on a confidential basis all records and documents relating to the independent engineer's certification.

(d) For Planned External Generation Capacity Resources, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement shall be no greater than the quotient of (i) the MWs of firm transmission service that the Capacity Market Seller has secured for the complete transmission path divided by (ii) the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

Credit Reduction Milestones for Planned External Generation Capacity Resources	
Milestones	Increment of reduction from

	initial RPM Auction Credit requirement
Effective Date of the equivalent of an Interconnection Service Agreement	50%
Financial Close	15%
Full Notice to Proceed and Commencement of Construction (e.g., footers poured)	5%
Main Power Generating Equipment Delivered	5%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(e) For Planned Financed Generation Capacity Resources located in the PJM Region, the RPM Auction Credit requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals.

Credit Reduction Milestones for Planned Financed Generation Capacity Resources	
Milestones	Increment of reduction from initial RPM Auction Credit requirement
Full Notice to Proceed	50%
Commencement of Construction (e.g., footers poured)	15%
Main Power Generating Equipment Delivered	10%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(f) For Planned External Financed Generation Capacity Resources, the RPM Auction Credit Requirement shall be reduced as the Capacity Resource attains the milestones stated in the following table and as further described in the PJM Manuals; provided, however, that the total percentage reduction in the RPM Auction Credit requirement, including the initial 50% reduction for being a Planned External Financed Generation Capacity Resources, shall be no greater than the quotient of (i) the MWs of firm transmission service that the Capacity Market Seller has secured for the complete transmission path divided by (ii) the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

Credit Reduction Milestones for Planned External Financed Generation Capacity	
Milestones	Increment of reduction from initial RPM Auction Credit

	requirement
Full Notice to Proceed	50%
Commencement of Construction (e.g., footers poured)	15%
Main Power Generating Equipment Delivered	10%
Commencement of Interconnection Service	25%

To obtain a reduction in its RPM Auction Credit requirement, the Capacity Market Seller must demonstrate satisfaction of the applicable milestone in the same manner as set forth for Planned Generation Capacity Resources in subsection (c) above.

(g) For Qualifying Transmission Upgrades, the RPM Auction Credit requirement shall be reduced to 50% of the amount calculated under section IV.B.2 above beginning as of the effective date of the latest associated Interconnection Service Agreement (or, when a project will have no such agreement, an Upgrade Construction Service Agreement), and shall be reduced to zero on the date the Qualifying Transmission Upgrade is placed in service. In addition, a Qualifying Transmission Upgrade will be allowed a reduction in its RPM Auction Credit requirement equal to the amount of Collateral currently posted with PJM for the facility construction when the Qualifying Transmission Upgrade meets the following requirements: the Upgrade Construction Service Agreement has been fully executed, the full estimated cost to complete as most recently determined or updated by PJM has been fully paid or collateralized, and all regulatory and other required approvals (except those that must await construction completion) have been obtained. Such reduction in RPM Auction Credit requirement may not be transferred across different projects.

4. RPM Auction Credit Rate

As set forth in the PJM Manuals, a separate Auction Credit Rate shall be calculated for each Delivery Year prior to each RPM Auction for such Delivery Year, as follows:

- (a) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Auction Credit Rate shall be:
- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) \$20 per MW-day) times the number of days in such Delivery Year; and
 - (ii) For Capacity Performance Resources, the greater of ((A) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in MW-day or (B) \$20 per MW-day) times the number of days in such Delivery Year.
 - (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.

(b) Subsequent to the posting of the results from a Base Residual Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of days in such Delivery Year; and
- (ii) For Capacity Performance Resources, the (greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of days in such Delivery Year).
- (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.

(c) For any resource not previously committed for a Delivery Year that seeks to participate in an Incremental Auction, the Auction Credit Rate shall be:

(i) For all Capacity Resources other than Capacity Performance Resources, (the greater of (A) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (B) 0.24 times the Capacity Resource Clearing Price in the Base Residual Auction for such Delivery Year for the Locational Deliverability Area within which the resource is located or (C) \$20 per MW-day) times the number of days in such Delivery Year; and

(ii) For Capacity Performance Resources, the (greater of (A) 0.5 times Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA or (B) \$20/MW-day) times the number of days in such Delivery Year.

(d) Subsequent to the posting of the results of an Incremental Auction, the Auction Credit Rate used for ongoing credit requirements for supply committed in such auction shall be:

- (i) For Base Capacity Resources: (the greater of (A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located) times the number of days in such Delivery Year, but no greater than the Auction Credit Rate previously established for such resource's participation in such Incremental Auction pursuant to subsection (c) above) times the number of days in such Delivery Year; and

- (ii) For Capacity Performance Resources, the greater of [(A) \$20/MW-day or (B) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located or (C) the lesser of (1) 0.5 times the Net Cost of New Entry for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day or (2) 1.5 times the Net Cost of New Entry (stated on an installed capacity basis) for the PJM Region for such Delivery Year or for the Relevant LDA, in \$/MW-day minus (the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the resource is located)] times the number of days in such Delivery Year).
 - (iii) For Seasonal Capacity Performance Resources, the same as the Auction Credit Rate for Capacity Performance Resources, but reduced to be proportional to the number of days in the relevant season.
- (e) For the purposes of this section IV.B.4, “Relevant LDA” means the Locational Deliverability Area in which the Capacity Performance Resource is located if a separate Variable Resource Requirement Curve has been established for that Locational Deliverability Area for the Base Residual Auction for such Delivery Year.

5. Price Responsive Demand Credit Rate

- (a) Prior to the posting of the results of a Base Residual Auction for a Delivery Year, the Price Responsive Demand Credit Rate shall be (the greater of (i) 0.3 times the Net Cost of New Entry for the PJM Region for such Delivery Year, in MW-day or (ii) \$20 per MW-day) times the number of days in such Delivery Year;
- (b) Subsequent to the posting of the results from a Base Residual Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for Price Responsive Demand registered prior to such auction shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Capacity Resource Clearing Price in such auction for the Locational Deliverability Area within which the PRD load is located) times the number of days in such Delivery Year times a final price uncertainty factor of 1.05;
- (c) For any additional Price Responsive Demand that seeks to commit in a Third Incremental Auction in response to a qualifying change in the final LDA load forecast, the Price Responsive Demand Credit Rate shall be the same as the rate for Price Responsive Demand that had cleared in the Base Residual Auction;
- (d) Subsequent to the posting of the results of the Third Incremental Auction, the Price Responsive Demand Credit Rate used for ongoing credit requirements for all Price Responsive Demand, shall be (the greater of (i) \$20/MW-day or (ii) 0.2 times the Final Zonal Capacity Price for the Locational Deliverability Area within which the Price Responsive Demand is located) times the number of days in such Delivery Year, but no greater than the Price Responsive Demand Credit Rate previously established under subsections (a), (b), or (c) of this section for such Delivery Year.

6. RPM Seller Credit - Additional Form of Unsecured Credit for RPM

In addition to the forms of credit specified elsewhere in this Attachment Q, RPM Seller Credit shall be available to Market Participants, but solely for purposes of satisfying RPM Auction Credit requirements. If a supplier has a history of being a net seller into PJM Markets, on average, over the past 12 months, then PJMSettlement will count as available Unsecured Credit twice the average of that Market Participant's total net monthly PJMSettlement bills over the past 12 months. This RPM Seller Credit shall be subject to the cap on available Unsecured Credit as established in section II.D.3 above.

RPM Seller Credit is calculated as a single value for each Market Participant, not separately by account, and must be designated to specific customer accounts in order to be available to satisfy RPM Auction Credit requirements that are calculated in each such customer account.

7. Credit Responsibility for Traded Planned RPM Capacity Resources

PJMSettlement may require that credit and financial responsibility for planned Capacity Resources that are traded remain with the original party (which for these purposes, means the party bearing credit responsibility for the planned Capacity Resource immediately prior to trade) unless the receiving party independently establishes consistent with this Attachment Q, that it has sufficient credit with PJMSettlement and agrees by providing written notice to PJMSettlement that it will fully assume the credit responsibility associated with the traded planned Capacity Resource.

C. Financial Transmission Right Auctions

Credit requirements described herein for FTR activity are applied separately for each customer account of a Market Participant. FTR Participants must designate the appropriate amount of credit to each separate customer account in which any activity occurs or will occur.

1. FTR Credit Limit.

Participants must maintain their FTR Credit Limit at a level equal to or greater than their FTR Credit Requirement for each applicable account. FTR Credit Limits will be established only by a Participant providing Collateral and designating the available credit to specific accounts.

2. FTR Credit Requirement.

For each Market Participant with FTR activity, PJMSettlement shall calculate an FTR Credit Requirement based on FTR cost less the FTR Historical Value. FTR Historical Values shall be calculated separately for on-peak, off-peak, and 24-hour FTRs for each month of the year. FTR Historical Values shall be adjusted by plus or minus ten percent for cleared counter flow or prevailing flow FTRs, respectively, in order to mitigate exposure due to uncertainty and fluctuations in actual FTR value. Historical values used in the calculation of FTR Historical Values shall be adjusted when the network simulation model utilized in PJM's economic planning process indicates that transmission congestion will decrease due to certain transmission

upgrades that are in effect or planned to go into effect for the following Planning Period. The transmission upgrades to be modeled for this purpose shall only include those upgrades that, individually, or together, have 10% or more impact on the transmission congestion on an individual constraint or constraints with congestion of \$5 million or more affecting a common congestion path. The adjustments to historical values shall be the dollar amount of the adjustment shown in the network simulation model. FTR Credit Requirements shall be further adjusted by ARR credits available and by an amount based on portfolio diversification, if applicable. The requirement will be based on individual monthly exposures which are then used to derive a total requirement.

The FTR Credit Requirement shall be calculated by first adding for each month the FTR Monthly Credit Requirement Contribution for each submitted, accepted, and cleared FTR and then subtracting the prorated value of any ARRs held by the Market Participant for that month. The resulting twelve monthly subtotals represent the expected value of net payments between PJMSettlement and the Market Participant for FTR activity each month during the Planning Period. Subject to later adjustment by an amount based on portfolio diversification, if applicable, the FTR Credit Requirement shall be the sum of the individual positive monthly subtotals, representing months in which net payments to PJMSettlement are expected.

3. Rejection of FTR Bids.

Bids submitted into an auction will be rejected if the Market Participant's FTR Credit Requirement including such submitted bids would exceed the Market Participant's FTR Credit Limit, or if the Market Participant fails to establish additional credit as required pursuant to provisions related to portfolio diversification.

4. FTR Credit Collateral Returns.

A Market Participant may request from PJMSettlement the return of any Collateral no longer required for the FTR auctions. PJMSettlement is permitted to limit the frequency of such requested Collateral returns, provided that Collateral returns shall be made by PJMSettlement at least once per calendar quarter, if requested by a Market Participant.

5. Credit Responsibility for Bilateral Transfers of FTRs.

PJMSettlement may require that credit responsibility associated with an FTR bilaterally transferred to a new Market Participant remain with the original party (which for these purposes, means the party bearing credit responsibility for the FTR immediately prior to bilateral transfer) unless and until the receiving party independently establishes, consistent with this Attachment Q, sufficient credit with PJMSettlement and agrees through confirmation of the bilateral transfer in PJM's FTR reporting tool that it will meet in full the credit requirements associated with the transferred FTR.

6. Portfolio Diversification.

Portfolio diversification shall be calculated, and the appropriate provisions herein applied, separately for each customer account of a Market Participant, and separately for each month.

Subsequent to calculating a tentative cleared solution for an FTR auction (or auction round), PJM shall determine the FTR Portfolio Auction Value for each customer account of a Market Participant, including the tentative cleared solution. Any customer accounts with such FTR Portfolio Auction Values that are negative in one or more months shall be deemed “FTR Flow Undiversified”.

For customer accounts that are FTR Flow Undiversified in a month, PJMSettlement shall increment the FTR Credit Requirement by an amount equal to three times the absolute value of the FTR Portfolio Auction Value in that month, including the tentative cleared solution. For portfolios that are FTR Flow Undiversified in months subsequent to the current planning year, these incremental amounts, calculated on a monthly basis, shall be reduced (but not below zero) by an amount up to 25% of the monthly value of ARR credits that are held by a Market Participant. Subsequent to the ARR allocation process preceding an annual FTR auction, such ARR credits shall be reduced to zero for months associated with that ARR allocation process. PJMSettlement may recalculate such ARR credits at any time, but at a minimum shall do so subsequent to each annual FTR auction. If a reduction in such ARR credits at any time increases a Market Participant’s FTR Credit Requirements beyond its credit available for FTR activity, the Market Participant must increase its credit to eliminate the shortfall in the applicable customer account(s).

If the FTR Credit Requirement for any Market Participant’s customer account exceeds its credit available for FTRs as a result of these diversification requirements for the tentatively cleared portfolio of FTRs, PJMSettlement shall immediately issue a demand for additional credit, and such demand must be fulfilled before 4:00 p.m. on the Business Day following the demand. If any Market Participant does not timely satisfy such demand, PJMSettlement, in coordination with PJM, shall cause the removal of that Market Participant's entire set of bids in that account for that FTR auction (or auction round) and a new cleared solution shall be calculated for the entire auction (or auction round).

If necessary, PJM shall repeat the auction clearing calculation. PJM shall repeat these portfolio diversification calculations subsequent to any such secondary clearing calculation, and PJMSettlement shall require affected Market Participants to establish additional credit.

7. FTR Administrative Charge Credit Requirement

In addition to any other credit requirements, PJMSettlement may apply a credit requirement to cover the maximum administrative fees that may be charged to a Market Participant for its bids and offers.

8. Long-Term FTR Credit Recalculation

Long-term FTR Credit Requirement calculations shall be updated annually for known history, consistent with updating of historical values used for FTR Credit Requirement calculations in the annual auctions.

Effective only for the FTR Historical Value update performed in 2018 for FTR Credit Requirement calculations, Market Participants will be granted a one-time transition period of no longer than 13 months in duration, during which they may remedy any credit shortfall arising from the 2018 historical value update. The transition period shall commence upon implementation of the 2018 FTR Historical Value update, and shall expire upon implementation of the 2019 FTR Historical Value update. During this transition period, a shortfall in FTR credit allocation by a Market Participant shall not be an event of default. However, failure to remedy the shortfall by the expiration of the transition period shall be an event of default. During such transition period, Market Participants with a credit shortfall shall be restricted in all of their credit-screened transactions. Specifically, such Market Participants may not engage in any Virtual Transactions or Export Transactions, or participate in RPM Auctions or other RPM activity, and may only participate in FTR Auctions or engage in FTR trading activities that reduce credit requirements. PJM shall not return any Collateral to such Market Participants until their credit shortfall is remedied. Market Participants shall allocate any excess or unallocated Collateral to any account(s) of such Market Participant in which there is a credit shortfall during the transition period. Market Participants may remedy their credit shortfall at any time through provision of sufficient Collateral.

V. GENERAL OBLIGATIONS

A. Peak Market Activity Credit Requirement

PJM shall calculate a Peak Market Activity credit requirement for each Participant. Each Participant must maintain sufficient Unsecured Credit Allowance and/or Collateral, as applicable, and subject to the provisions herein, to satisfy its Peak Market Activity credit requirement.

Peak Market Activity for Participants will be determined semi-annually, utilizing an initial Peak Market Activity, as explained below, calculated after the first complete billing week in the months of April and October. Peak Market Activity shall be the greater of the initial Peak Market Activity, or the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two, or three week period, ending within a respective semi-annual period. However, Peak Market Activity shall not exceed the greatest amount invoiced for the Participant's transaction activity for all PJM Markets and services in any rolling one, two or three week period in the prior 52 weeks.

Peak Market Activity shall exclude FTR Net Activity, Virtual Transactions Net Activity, and Export Transactions Net Activity.

When calculating Peak Market Activity, PJMSettlement may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

The initial Peak Market Activity for Applicants will be determined by PJMSettlement based on a review of an estimate of their transactional activity for all PJM Markets and services over the next 52 weeks, which the Applicant shall provide to PJMSettlement.

The initial Peak Market Activity for Market Participants and Transmission Customers, calculated at the beginning of each semi-annual period, shall be the three-week average of all non-zero invoice totals over the previous 52 weeks. This calculation shall be performed and applied within three Business Days following the day the invoice is issued for the first full billing week in the current semi-annual period.

Prepayments shall not affect Peak Market Activity unless otherwise agreed to in writing pursuant to this Attachment Q.

Peak Market Activity calculations shall take into account reductions of invoice values effectuated by early payments which are applied to reduce a Participant's Peak Market Activity as contemplated by other terms of this Attachment Q; provided that the initial Peak Market Activity shall not be less than the average value calculated using the weeks for which no early payment was made.

A Participant may reduce its Collateral requirement by agreeing in writing (in a form acceptable to PJMSettlement) to make additional payments, including prepayments, as and when necessary to ensure that such Participant's Total Net Obligation at no time exceeds such reduced Collateral requirement.

PJMSettlement may, at its discretion, adjust a Participant's Peak Market Activity requirement if PJMSettlement determines that the Peak Market Activity is not representative of such Participant's expected activity, as a consequence of known, measurable, and sustained changes. Such changes may include the loss (without replacement) of short-term load contracts, when such contracts had terms of three months or more and were acquired through state-sponsored retail load programs, but shall not include short-term buying and selling activities.

PJMSettlement may waive the credit requirements for a Participant that has no outstanding transactions and agrees in writing that it shall not, after the date of such agreement, incur obligations under any of the Agreements. Such entity's access to all electronic transaction systems administered by PJM shall be terminated.

A Participant receiving unsecured credit may make early payments up to ten times in a rolling 52-week period in order to reduce its Peak Market Activity for credit requirement purposes. Imputed Peak Market Activity reductions for credit purposes will be applied to the billing period for which the payment was received. Payments used as the basis for such reductions must be received prior to issuance or posting of the invoice for the relevant billing period. The imputed Peak Market Activity reduction attributed to any payment may not exceed the amount of Unsecured Credit for which the Participant is eligible.

B. Working Credit Limit

PJMSettlement will establish a Working Credit Limit for each Participant against which its Total Net Obligation will be monitored. The Working Credit Limit is defined as 75% of the Collateral provided to PJMSettlement and/or 75% of the Unsecured Credit Allowance

determined by PJMSettlement, as reduced by any applicable credit requirement determinants defined in this Attachment Q. A Participant's Total Net Obligation should not exceed its Working Credit Limit.

Example: After a credit evaluation by PJMSettlement, a Participant that has satisfied the Minimum Participation Requirements with audited financials demonstrating a Tangible Net Worth greater than \$1,000,000 is allowed an Unsecured Credit Allowance of \$10.0 million. The Participant will be assigned a Working Credit Limit of \$7.5 million.

If a Participant's Total Net Obligation approaches its Working Credit Limit, PJMSettlement may require the Participant to make an advance payment or increase its Collateral in order to maintain its Total Net Obligation below its Working Credit Limit. Except as explicitly provided herein, advance payments shall not serve to reduce the Participant's Peak Market Activity for the purpose of calculating credit requirements.

Example: After 10 days, and with 5 days remaining before the bill is due to be paid, a Participant approaches its \$4.0 million Working Credit Limit. PJMSettlement may require a prepayment of \$2.0 million in order that the Total Net Obligation will not exceed the Working Credit Limit.

If a Participant exceeds its Working Credit Limit or is required to make advance payments more than ten times during a 52-week period, PJMSettlement may require Collateral in an amount as may be deemed reasonably necessary to support its Total Net Obligation.

When calculating Total Net Obligation, PJMSettlement may attribute credits for Regulation service to the days on which they were accrued, rather than including them in the month-end invoice.

VI. CREDIT BREACH AND EVENTS OF DEFAULT

If PJMSettlement determines that a Participant is in Credit Breach of its requirements, including payment requirements, PJMSettlement may issue to the Participant a breach notice or Collateral Call. A Participant will have two Business Days from notification of Credit Breach or issuance of a Collateral Call to remedy the Credit Breach or satisfy the Collateral Call in a manner deemed acceptable by PJMSettlement. Failure to remedy the Credit Breach or satisfy such Collateral Call within such two Business Days will be considered an event of default. If a Participant fails to meet the requirements of this Attachment Q but then remedies the Credit Breach or satisfies a Collateral Call within the two Business Day cure period, then the Participant shall be deemed to have complied with this Attachment Q. Any such two Business Day cure period will expire at 4:00 p.m. eastern prevailing time on the final day.

Only one cure period shall apply to a single event giving rise to a Credit Breach or Credit Breach default. Application of Collateral towards a non-payment shall not be considered a satisfactory cure of such Credit Breach if the Participant fails to meet all requirements of this Attachment Q after such application.

Failure to comply with this Attachment Q (except for the responsibility of a Participant to notify PJMSettlement of a material change) shall be considered an event of default. Pursuant to

Operating Agreement, section 15.1.3 and Tariff, Part I, section 7.3, non-compliance with this Attachment Q is an event of default under those respective Agreements. In event of default under this Attachment Q or one or more of the Agreements, PJMSettlement, in coordination with PJM, will take such actions as may be required or permitted under the Agreements, including but not limited to the termination of the Participant's ongoing Transmission Service and participation in PJM Markets. PJMSettlement has the right to liquidate all or a portion of a Participant's Collateral at its discretion to satisfy Total Net Obligations to PJMSettlement in the event of default under this Attachment Q or one or more of the Agreements.

In event of breach or default by a Participant of any requirements of this Attachment Q, PJMSettlement may exercise any remedy or action allowed or prescribed by this Attachment Q immediately upon identification of the Breach or following a reasonable time after identification in order to properly investigate and to orderly exercise such remedy or action. Delay in exercising any allowed or prescribed remedy or action shall not preclude PJMSettlement from exercising such remedy or action at a later time.

PJMSettlement may hold a defaulting Participant's Collateral for as long as such party's positions exist and consistent with this Attachment Q, in order to protect PJM's membership from default.

No payments shall be due to a Participant, nor shall any payments be made to a Participant, while the Participant is in default or has been declared in Credit Breach of this Attachment Q or the Agreements, or while a Collateral Call is outstanding. PJMSettlement may apply towards an ongoing default any amounts that are held or later become available or due to the defaulting Participant through PJM's markets and systems.

In order to cover Obligations, PJMSettlement may hold a Participant's Collateral through the end of the billing period which includes the 90th day following the last day a Participant had activity, open positions, or accruing obligations (other than reconciliations and true-ups), and until such Participant has satisfactorily paid any obligations invoiced through such period. Obligations incurred or accrued through such period shall survive any withdrawal from PJM. In event of non-payment by a Participant, PJMSettlement may apply any Collateral to such Participant's Obligations, even if Participant had previously announced and effected its withdrawal from PJM.

Attachment Q
Appendix 1

PJM MINIMUM PARTICIPATION CRITERIA
OFFICER CERTIFICATION FORM

Participant Name: _____ ("Participant")

I, _____, a duly authorized officer of Participant, understanding that PJM Interconnection, L.L.C. and PJMSettlement, Inc. ("PJMSettlement") are relying on this certification as evidence that Participant meets the minimum requirements set forth in the PJM Open Access Transmission Tariff ("PJM Tariff"), Attachment Q hereby certify that I have full authority to represent on behalf of Participant and further represent as follows, as evidenced by my initialing each representation in the space provided below:

1. All employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Amended and Restated Operating Agreement ("PJM Operating Agreement") on behalf of the Participant have received appropriate¹ training and are authorized to transact on behalf of Participant. _____
2. Participant has written risk management policies, procedures, and controls, approved by Participant's independent risk management function² and applicable to transactions in the PJM Markets in which it participates and for which employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Operating Agreement have been trained, that provide an appropriate, comprehensive risk management framework that, at a minimum, clearly identifies and documents the range of risks to which Participant is exposed, including, but not limited to credit risks, liquidity risks and market risks. _____
3. An FTR Participant must make either the following 3.a. or 3.b. additional representations, evidenced by the undersigned officer initialing either the one 3.a. representation or the six 3.b. representations in the spaces provided below:
 - 3.a. Participant transacts in PJM's FTR markets with the sole intent to hedge congestion risk in connection with either obligations Participant has to serve load or rights Participant has to generate electricity in the PJM Region ("physical

¹ As used in this representation, the term "appropriate" as used with respect to training means training that is (i) comparable to generally accepted practices in the energy trading industry, and (ii) commensurate and proportional in sophistication, scope and frequency to the volume of transactions and the nature and extent of the risk taken by the participant.

² As used in this representation, a Participant's "independent risk management function" can include appropriate corporate persons or bodies that are independent of the Participant's trading functions, such as a risk management committee, a risk officer, a Participant's board or board committee, or a board or committee of the Participant's parent company.

transactions”) and monitors all of the Participant’s FTR market activity to endeavor to ensure that its FTR positions, considering both the size and pathways of the positions, are either generally proportionate to or generally do not exceed the Participant’s physical transactions, and remain generally consistent with the Participant’s intention to hedge its physical transactions._____

- 3.b. On no less than a weekly basis, Participant values its FTR positions and engages in a probabilistic assessment of the hypothetical risk of such positions using analytically based methodologies, predicated on the use of industry accepted valuation methodologies._____

Such valuation and risk assessment functions are performed either by persons within Participant’s organization independent from those trading in PJM’s FTR markets or by an outside firm qualified and with expertise in this area of risk management._____

Having valued its FTR positions and quantified their hypothetical risks, Participant applies its written policies, procedures and controls to limit its risks using industry recognized practices, such as value-at-risk limitations, concentration limits, or other controls designed to prevent Participant from purposefully or unintentionally taking on risk that is not commensurate or proportional to Participant’s financial capability to manage such risk._____

Exceptions to Participant’s written risk policies, procedures and controls applicable to Participant’s FTR positions are documented and explain a reasoned basis for the granting of any exception._____

Participant has provided to PJMSettlement, in accordance with Tariff, Attachment Q, section I.B, a copy of its current governing risk management policies, procedures and controls applicable to its FTR trading activities._____

If the risk management policies, procedures and controls applicable to Participant’s FTR trading activities submitted to PJMSettlement were submitted prior to the current certification, Participant certifies that no substantive changes have been made to such policies, procedures and controls applicable to its FTR trading activities since such submission._____

4. Participant has appropriate personnel resources, operating procedures and technical abilities to promptly and effectively respond to all PJM communications and directions._____
5. Participant has demonstrated compliance with the Minimum Capitalization criteria set forth in Tariff, Attachment Q that are applicable to the PJM Market(s) in which Participant transacts, and is not aware of any change having occurred or being imminent that would invalidate such compliance._____

6. All Participants must certify and initial in at least one of the four sections below:

- a. I certify that Participant qualifies as an “appropriate person” as that term is defined under section 4(c)(3), or successor provision, of the Commodity Exchange Act or an “eligible contract participant” as that term is defined under section 1a(18), or successor provision, of the Commodity Exchange Act. I certify that Participant will cease transacting in PJM’s Markets and notify PJMSettlement immediately if Participant no longer qualifies as an “appropriate person” or “eligible contract participant.” _____

If providing financial statements to support Participant’s certification of qualification as an “appropriate person:”

I certify, to the best of my knowledge and belief, that the financial statements provided to PJMSettlement present fairly, pursuant to such disclosures in such financial statements, the financial position of Participant as of the date of those financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$5 million total asset levels reflected in these financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. _____

If providing financial statements to support Participant’s certification of qualification as an “eligible contract participant:”

I certify, to the best of my knowledge and belief, that the financial statements provided to PJMSettlement present fairly, pursuant to such disclosures in such financial statements, the financial position of Participant as of the date of those financial statements. Further, I certify that Participant continues to maintain the minimum \$1 million total net worth and/or \$10 million total asset levels reflected in these financial statements as of the date of this certification. I acknowledge that both PJM and PJMSettlement are relying upon my certification to maintain compliance with federal regulatory requirements. _____

- b. I certify that Participant has provided an unlimited Corporate Guaranty in a form acceptable to PJM as described in Tariff, Attachment Q, section II.C from an issuer that has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I certify that Participant will cease transacting PJM’s Markets and notify PJMSettlement immediately if issuer of the unlimited Corporate Guaranty for Participant no longer has at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. _____

I certify that the issuer of the unlimited Corporate Guaranty to Participant continues to have at least \$1 million of total net worth or \$5 million of total assets per Participant for which the issuer has issued an unlimited Corporate Guaranty. I

acknowledge that PJM and PJMSettlement are relying upon my certifications to maintain compliance with federal regulatory requirements._____

- c. I certify that Participant fulfills the eligibility requirements of the Commodity Futures Trading Commission exemption order (78 F.R. 19880 – April 2, 2013) by being in the business of at least one of the following in the PJM Region as indicated below (initial those applicable):

1. Generating electric energy, including Participants that resell physical energy acquired from an entity generating electric energy:_____
2. Transmitting electric energy:_____
3. Distributing electric energy delivered under Point-to-Point or Network Integration Transmission Service, including scheduled import, export and wheel through transactions:_____
4. Other electric energy services that are necessary to support the reliable operation of the transmission system:_____

Description only if c(4) is initialed:

Further, I certify that Participant will cease transacting in the PJM Markets and notify PJMSettlement immediately if Participant no longer performs at least one of the functions noted above in the PJM Region. I acknowledge that PJM and PJMSettlement are relying on my certification to maintain compliance with federal energy regulatory requirements._____

- d. I certify that Participant has provided a letter of credit of \$5 million or more to PJMSettlement in a form acceptable to PJMSettlement as described in Tariff, Attachment Q, section III.B that the Participant acknowledges cannot be utilized to meet its credit requirements to PJMSettlement. I acknowledge that PJM and PJMSettlement are relying on the provision of this letter of credit and my certification to maintain compliance with federal regulatory requirements._____
7. I acknowledge that I have read and understood the provisions of Tariff, Attachment Q applicable to Participant's business in the PJM Markets, including those provisions describing PJM's minimum participation requirements and the enforcement actions available to PJMSettlement of a Participant not satisfying those requirements. I acknowledge that the information provided herein is true and accurate to the best of my belief and knowledge after due investigation. In addition, by signing this certification, I acknowledge the potential consequences of making incomplete or false statements in this Certification._____

Date: _____

(Signature)

Print Name: _____

Title: _____