

## **Definitions – A - B**

### **Abnormal Condition:**

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

### **Acceleration Request:**

“Acceleration Request” shall mean a request pursuant to section 1.9.4A of this Schedule to accelerate or reschedule a transmission outage scheduled pursuant to sections 1.9.2 or 1.9.4.

### **Additional Day-ahead Scheduling Reserves Requirement:**

“Additional Day-ahead Scheduling Reserves Requirement” shall mean the portion of the Day-ahead Scheduling Reserves Requirement that is required in addition to the Base Day-ahead Scheduling Reserves Requirement to ensure adequate resources are procured to meet real-time load and operational needs, as specified in the PJM Manuals

### **Affected System:**

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

### **Affected System Operator:**

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

### **Affiliate:**

”Affiliate” shall mean any two or more entities, one of which controls the other or that are under common control. “Control” shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in control or affiliation for purposes of this Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on

the entity's board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, ten percent or more of the voting securities of such entity.

**Agreements:**

Agreements are the Operating Agreement of PJM Interconnection, L.L.C., the PJM Open Access Transmission Tariff, the Reliability Assurance Agreement, ~~the Reliability Assurance Agreement –West~~, and/or other agreements between PJM Interconnection, L.L.C. and its Members.

**Ancillary Services:**

Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Annual Demand Resource:**

"Annual Demand Resource" shall have the meaning specified in the Reliability Assurance Agreement.

**Annual Energy Efficiency Resource:**

"Annual Energy Efficiency Resource" shall have the meaning specified in the Reliability Assurance Agreement.

**Annual Resource:**

"Annual Resource" shall mean a Generation Capacity Resource, an Annual Energy Efficiency Resource or an Annual Demand Resource.

**Annual Resource Price Adder:**

"Annual Resource Price Adder" shall mean, for Delivery Years starting June 1, 2014 and ending May 31, 2017, an addition to the marginal value of Unforced Capacity and the Extended Summer Resource Price Adder as necessary to reflect the price of Annual Resources required to meet the applicable Minimum Annual Resource Requirement.

**Annual Revenue Rate:**

"Annual Revenue Rate" shall mean the rate employed to assess a compliance penalty charge on a Curtailment Service Provider under section 11.

**Annual Transmission Costs:**

The total annual cost of the Transmission System for purposes of Network Integration Transmission Service shall be the amount specified in Attachment H for each Zone until amended by the applicable Transmission Owner or modified by the Commission.

**Applicable Laws and Regulations:**

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

**Applicable Regional Entity:**

The Regional Entity for the region in which a Network Customer, Transmission Customer, New Service Customer, or Transmission Owner operates.

**Applicable Standards:**

The requirements and guidelines of NERC, the Applicable Regional Entity, and the Control Area in which the Customer Facility is electrically located; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

Those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Interconnected Transmission Owner or, as the case may be and to the extent applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual provided, however, that, with respect to any generation facilities with maximum generating capacity of 2 MW or less for which the Interconnection Customer executes a Construction Service Agreement or Interconnection Service Agreement on or after March 19, 2005, "Applicable Technical Requirements and Standards" shall refer to the "PJM Small Generator Interconnection Applicable Technical Requirements and Standards." All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**Applicant:**

Applicant is an entity desiring to become a PJM Member, or to take Transmission Service that has submitted the PJM Settlement ~~c~~Credit ~~a~~Application, PJM Settlement ~~c~~Credit ~~a~~Agreement and other required submittals as set forth in [Attachment Q of the Tariff](#)~~this policy~~.

**Application:**

A request by an Eligible Customer for transmission service pursuant to the provisions of the Tariff.

**Attachment Facilities:**

The facilities necessary to physically connect a Customer Facility to the Transmission System or interconnected distribution facilities.

**Attachment H**

Attachment H shall refer collectively to the Attachments to the PJM Tariff with the prefix “H-“ that set forth, among other things, the Annual Transmission Rates for Network Integration Transmission Service in the PJM Zones.

**Auction Revenue Rights:**

“Auction Revenue Rights” or “ARRs” shall mean the right to receive the revenue from the Financial Transmission Right auction, as further described in Section 7.4 of this Schedule.

**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 Section 7.4.3 of this Schedule.

**Authorized Government Agency:**

“Authorized Government Agency” means a regulatory body or government agency, with jurisdiction over PJM, the PJM Market, or any entity doing business in the PJM Market, including, but not limited to, the Commission, State Commissions, and state and federal attorneys general.

**Avoidable Cost Rate:**

“Avoidable Cost Rate” shall mean a component of the Market Seller Offer Cap calculated in accordance with section 6.

**Balancing Ratio**

“Balancing Ratio” shall have the meaning provided in section 10A.

**Base Capacity Demand Resource:**

“Base Capacity Demand Resource” shall have the meaning specified in the Reliability Assurance Agreement.

**Base Capacity Demand Resource Constraint:**

“Base Capacity Demand Resource Constraint” for the PJM Region or an LDA, shall mean, for the 2018/2019 and 2019/2020 Delivery Years, the maximum Unforced Capacity amount, determined by PJM, of Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources that is consistent with the maintenance of reliability. As more fully set forth in the PJM Manuals, PJM calculates the Base Capacity Demand Resource Constraint for the PJM Region or an LDA, by first determining a reference annual loss of load expectation (“LOLE”) assuming no Base Capacity Resources, including no Base Capacity Demand Resources or Base Capacity Energy Efficiency Resources. The calculation for the PJM Region uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast and iteratively shifting the load distributions to result in the Installed Reserve Margin established for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). The calculation for each relevant LDA uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). For the relevant LDA calculation, the weekly capacity distributions are adjusted to reflect the Capacity Emergency Transfer Limit for the Delivery Year in question.

For both the PJM Region and LDA analyses, PJM then models the commitment of varying amounts of Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources (displacing otherwise committed generation) as interruptible from June 1 through September 30 and unavailable the rest of the Delivery Year in question and calculates the LOLE at each DR and EE level. The Base Capacity Demand Resource Constraint is the combined amount of Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources, stated as a percentage of the unrestricted annual peak load, that produces no more than a five percent increase in the LOLE, compared to the reference value. The Base Capacity Demand Resource Constraint shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Base Capacity Demand Resource Price Decrement:**

“Base Capacity Demand Resource Price Decrement” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a difference between the clearing price for Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources and the clearing price for Base Capacity Resources and Capacity Performance Resources, representing the cost to procure additional Base Capacity Resources or Capacity Performance Resources out of merit order when the Base Capacity Demand Resource Constraint is binding.

**Base Capacity Energy Efficiency Resource:**

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

**Base Capacity Resource:**

“Base Capacity Resource” shall mean a Capacity Resource as described in section 5.5A(b).

**Base Capacity Resource Constraint:**

“Base Capacity Resource Reliability Constraint” for the PJM Region or an LDA, shall mean, for the 2018/2019 and 2019/2020 Delivery Years, the maximum Unforced Capacity amount, determined by PJM, of Base Capacity Resources, including Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources, that is consistent with the maintenance of reliability. As more fully set forth in the PJM Manuals, PJM calculates the above Base Capacity Resource Constraint for the PJM Region or an LDA, by first determining a reference annual loss of load expectation (“LOLE”) assuming no Base Capacity Resources, including no Base Capacity Demand Resources or Base Capacity Energy Efficiency Resources. The calculation for the PJM Region uses the weekly load distribution from the Installed Reserve Margin study for the Delivery Year in question (based on the most recent load forecast and iteratively shifting the load distributions to result in the Installed Reserve Margin established for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). The calculation for each relevant LDA uses a weekly load distribution (based on the Installed Reserve Margin study and the most recent load forecast for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). For the relevant LDA calculation, the weekly capacity distributions are adjusted to reflect the Capacity Emergency Transfer Limit for the Delivery Year in question. Additionally, for the PJM Region and relevant LDA calculation, the weekly capacity distributions are adjusted to reflect winter ratings.

For both the PJM Region and LDA analyses, PJM models the commitment of an amount of Base Capacity Demand Resources and Base Capacity Energy Efficiency Resources equal to the Base Capacity Demand Resource Constraint (displacing otherwise committed generation). PJM then models the commitment of varying amounts of Base Capacity Resources (displacing otherwise committed generation) as unavailable during the peak week of winter and available the rest of the Delivery Year in question and calculates the LOLE at each Base Capacity Resource level. The Base Capacity Resource Constraint is the combined amount of Base Capacity Demand Resources, Base Capacity Energy Efficiency Resources and Base Capacity Resources, stated as a percentage of the unrestricted annual peak load, that produces no more than a ten percent increase in the LOLE, compared to the reference value. The Base Capacity Resource Constraint shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [one minus the pool-wide average EFORD] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

“Base Capacity Resource Price Decrement” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a difference between the clearing price for Base Capacity Resources and the clearing price for Capacity Performance Resources, representing the cost to procure additional Capacity Performance Resources out of merit order when the Base Capacity Resource Constraint is binding.

**Base Capacity Resource Price Decrement:**

“Base Capacity Resource Price Decrement” shall mean, for the 2018/2019 and 2019/2020 Delivery Years, a difference between the clearing price for Base Capacity Resources and the clearing price for Capacity Performance Resources, representing the cost to procure additional Capacity Performance Resources out of merit order when the Base Capacity Resource Constraint is binding.

**Base Day-ahead Scheduling Reserves Requirement:**

“Base Day-ahead Scheduling Reserves Requirement” shall mean the thirty-minute reserve requirement for the PJM Region established consistent with the Applicable Standards, plus any additional thirty-minute reserves scheduled in response to an RTO-wide Hot or Cold Weather Alert or other reasons for conservative operations.

**Base Load Generation Resource**

“Base Load Generation Resource” shall mean a Generation Capacity Resource that operates at least 90 percent of the hours that it is available to operate, as determined by the Office of the Interconnection in accordance with the PJM Manuals.

**Base Offer Segment:**

“Base Offer Segment” shall mean a component of a Sell Offer based on an existing Generation Capacity Resource, equal to the Unforced Capacity of such resource, as determined in accordance with the PJM Manuals. If the Sell Offers of multiple Market Sellers are based on a single Existing Generation Capacity Resource, the Base Offer Segments of such Market Sellers shall be determined pro rata based on their entitlements to Unforced Capacity from such resource.

**Base Residual Auction:**

“Base Residual Auction” shall mean the auction conducted three years prior to the start of the Delivery Year to secure commitments from Capacity Resources as necessary to satisfy any portion of the Unforced Capacity Obligation of the PJM Region not satisfied through Self-Supply.

**Batch Load Demand Resource:**

“Batch Load Demand Resource” shall mean a Demand Resource that has a cyclical production process such that at most times during the process it is consuming energy, but at consistent regular intervals, ordinarily for periods of less than ten minutes, it reduces its consumption of energy for its production processes to minimal or zero megawatts.

**Behind The Meter Generation:**

Behind The Meter Generation refers to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit’s capacity that is designated as a Generation Capacity Resource; or (ii) in an hour, any portion of the output of such generating unit[s] that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

**Black Start Service:**

Black Start Service is the capability of generating units to start without an outside electrical supply or the demonstrated ability of a generating unit with a high operating factor (subject to Transmission Provider concurrence) to automatically remain operating at reduced levels when disconnected from the grid.

**Breach:**

The failure of a party to perform or observe any material term or condition of Part IV or Part VI of the Tariff, or any agreement entered into thereunder as described in the relevant provisions of such agreement.

**Breaching Party:**

A party that is in Breach of Part IV or Part VI and/or an agreement entered into thereunder.

**Business Day:**

A Business Day is a day in which the Federal Reserve System is open for business and is not a scheduled PJM holiday.

**Buy Bid**

| “Buy Bid” shall mean a bid to buy Capacity Resources in any Incremental Auction.



## Definitions – C-D

### Canadian Guaranty:

Canadian Guaranty is a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in Canada, and meets all of the provisions of ~~this credit policy~~ Attachment Q of the Tariff.

### Cancellation Costs:

The Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Part IV and/or Part VI of the Tariff.

### Capacity:

~~Capacity is the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.~~

Formatted: Highlight

### Capacity Credit:

“Capacity Credit” shall have the meaning specified in Schedule 11 of the Operating Agreement, including Capacity Credits obtained prior to the termination of such Schedule applicable to periods after the termination of such Schedule.

### Capacity Emergency Transfer Limit:

“Capacity Emergency Transfer Limit” or “CETL” shall have the meaning provided in the Reliability Assurance Agreement.

### Capacity Emergency Transfer Objective:

“Capacity Emergency Transfer Objective” or “CETO” shall have the meaning provided in the Reliability Assurance Agreement.

### Capacity Export Transmission Customer:

“Capacity Export Transmission Customer” shall mean a customer taking point to point transmission service under Part II of this Tariff to export capacity from a generation resource located in the PJM Region that has qualified for an exception to the RPM must-offer requirement as described in section 6.6(g).

**Capacity Import Limit:**

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

**Capacity Interconnection Rights:**

The rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

**Capacity Market Buyer:**

“Capacity Market Buyer” shall mean a Member that submits bids to buy Capacity Resources in any Incremental Auction.

**Capacity Market Seller:**

“Capacity Market Seller” shall mean a Member that owns, or has the contractual authority to control the output or load reduction capability of, a Capacity Resource, that has not transferred such authority to another entity, and that offers such resource in the Base Residual Auction or an Incremental Auction.

**Capacity Performance Resource:**

“Capacity Performance Resource” shall mean a Capacity Resource as described in section 5.5A(a).

**Capacity Performance Transition Incremental Auction:**

“Capacity Performance Transition Incremental Auction” shall have the meaning specified in section 5.14D.

**Capacity Resource:**

Shall have the meaning provided in the Reliability Assurance Agreement.

**Capacity Resource Clearing Price:**

“Capacity Resource Clearing Price” shall mean the price calculated for a Capacity Resource that offered and cleared in a Base Residual Auction or Incremental Auction, in accordance with Section 5.

**Capacity Storage Resource:**

“Capacity Storage Resource” shall mean any hydroelectric power plant, flywheel, battery storage, or other such facility solely used for short term storage and injection of energy at a later time to participate in the PJM energy and/or Ancillary Services markets and which participates in the Reliability Pricing Model.

**Capacity Transfer Right:**

“Capacity Transfer Right” shall mean a right, allocated to LSEs serving load in a Locational Deliverability Area, to receive payments, based on the transmission import capability into such Locational Deliverability Area, that offset, in whole or in part, the charges attributable to the Locational Price Adder, if any, included in the Zonal Capacity Price calculated for a Locational Delivery Area.

**Capacity Transmission Injection Rights:**

The rights to schedule energy and capacity deliveries at a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

**Cold Weather Alert:**

“Cold Weather Alert” shall mean the notice that PJM provides to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for expected extreme cold weather conditions.

**Collateral:**

“Collateral” is a cash deposit, including any interest, or letter of credit in an amount and form determined by and acceptable to PJMSettlement, provided by a Participant to PJMSettlement as security in order to participate in the PJM Markets or take Transmission Service.

**Collateral Call:**

Collateral Call is a notice to a Participant that additional ~~Financial Security Collateral~~, or possibly early payment, is required in order to remain in, or to regain, compliance with ~~this credit policy~~ Attachment Q of the Tariff.

**Commencement Date:**

The date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**Commission:**

The Federal Energy Regulatory Commission or FERC.

**Committed Offer:**

*“Committed Offer” shall mean an offer on which a resource was scheduled by the Office of the Interconnection for a particular clock hour for the Operating Day.*

**Completed Application:**

An Application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Compliance Aggregation Area (CAA):**

“Compliance Aggregation Area” or “CAA” shall mean a geographic area of Zones or sub-Zones that are electrically-contiguous and experience for the relevant Delivery Year, based on Resource Clearing Prices of, for Delivery Years through May 31, 2018, Annual Resources and for the 2018/2019 Delivery Year and subsequent Delivery Years, Capacity Performance Resources, the same locational price separation in the Base Residual Auction, the same locational price separation in the First Incremental Auction, the same locational price separation in the Second Incremental Auction, or the same locational price separation in the Third Incremental Auction.

**Conditional Incremental Auction:**

“Conditional Incremental Auction” shall mean an Incremental Auction conducted for a Delivery Year if and when necessary to secure commitments of additional capacity to address reliability criteria violations arising from the delay in a Backbone Transmission upgrade that was modeled in the Base Residual Auction for such Delivery Year.

**CONE Area:**

“CONE Area” shall mean the areas listed in section 5.10(a)(iv)(A) and any LDAs established as CONE Areas pursuant to section 5.10(a)(iv)(B).

**Confidential Information:**

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another

such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

**Congestion Price:**

“Congestion Price” shall mean the congestion component of the Locational Marginal Price, which is the effect on transmission congestion costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource, based on the effect of increased generation from or consumption by the resource on transmission line loadings, calculated as specified in Section 2 of Schedule 1 of this Agreement.

**Consolidated Transmission Owners Agreement:**

The certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

**Constructing Entity:**

Either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

**Construction Party:**

A party to a Construction Service Agreement. “Construction Parties” shall mean all of the Parties to a Construction Service Agreement.

**Construction Service Agreement:**

Either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**Control Area:**

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

(1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Control Zone:**

Shall have the meaning given in the Operating Agreement.

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

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

**Coordinated External Transaction:**

“Coordinated External Transaction” shall mean a transaction to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Section 1.13 of this Schedule 1 of this Agreement.

**Coordinated Transaction Scheduling:**

“Coordinated Transaction Scheduling” or “CTS” shall mean the scheduling of Coordinated External Transactions at a CTS Enabled Interface in accordance with the procedures of Section 1.13 of Schedule 1 of this Agreement.

**Corporate Guaranty:**

Corporate Guaranty is a legal document used by [onean](#) entity to guaranty the obligations of another entity.

**Cost of New Entry:**

“Cost of New Entry” or “CONE” shall mean the nominal levelized cost of a Reference Resource, as determined in accordance with section 5.

**Costs:**

As used in Part IV, Part VI and related attachments to the Tariff, costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Counterparty:**

“Counterparty” shall mean PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a Market Participant or other entities, including the agreements and transactions with customers regarding transmission service and other transactions under the PJM Tariff and the Operating Agreement. PJMSettlement shall not be a counterparty to (i) any bilateral transactions between Members, or (ii) any Member’s self-supply of energy to serve its load, or (iii) any Member’s self-schedule of energy reported to the Office of the Interconnection to the extent that energy serves that Member’s own .

**Credit Available for Export Transactions:**

Credit Available for Export Transactions is a [set-aside designation](#) of credit to be used for Export Transactions that is allocated by each Market Participant from its Credit Available for Virtual Transactions, and which reduces the Market Participant’s Credit Available for Virtual Transactions accordingly.

**Credit Available for Virtual Transactions:**

A Market Participant’s Credit Available for Virtual Transactions is the Market Participant’s Working Credit Limit for Virtual Transactions calculated on its credit provided in compliance with its Peak Market Activity requirement plus available credit submitted above that amount, less any unpaid billed and unbilled amounts owed to PJMSettlement, plus any unpaid unbilled amounts owed by PJMSettlement to the Market Participant, less any applicable credit required for Minimum Participation Requirements, FTRs, RPM activity, [Export Transactions](#), or other credit requirement determinants as defined in [this policy Attachment Q of the Tariff](#).

**Credit Breach:**

Credit Breach is the status of a Participant that does not currently meet the requirements of Attachment Q or other provisions of this Agreement.

**Credit-Limited Offer:**

Credit-Limited Offer shall mean a Sell Offer that is submitted by a [Market SellerMarket Participant](#) in an RPM Auction subject to a maximum credit requirement specified by such [Market SellerMarket Participant](#).

**Credit Score:**

Credit Score is a composite numerical score scaled from 0-100 as calculated by PJMSettlement that incorporates various predictors of creditworthiness.

**CTS Enabled Interface:**

“CTS Enabled Interface” shall mean an interface between the PJM Control Area and an adjacent Control Area at which the Office of the Interconnection has authorized the use of Coordinated Transaction Scheduling (“CTS”), designated in Schedule A to the Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 45).

**CTS Interface Bid:**

“CTS Interface Bid” shall mean a unified real-time bid to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of Section 1.13 of this Schedule 1 of this Agreement.

**Curtailement:**

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

**Curtailement Service Provider:**

“Curtailement Service Provider” or “CSP” shall mean a Member or a Special Member, which action on behalf of itself or one or more other Members or non-Members, participates in the PJM Interchange Energy Market, Ancillary Services markets, and/or Reliability Pricing Model by causing a reduction in demand.

**Customer Facility:**

Generation facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Subparts A of Part IV of the Tariff.

**Customer-Funded Upgrade:**

Any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Section 217 of the Tariff, or (ii) is voluntarily undertaken by a New Service Customer in fulfillment of an Upgrade Request. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**Customer Interconnection Facilities:**

All facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer’s side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or



upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

**Daily Deficiency Rate:**

“Daily Deficiency Rate” shall mean the rate employed to assess certain deficiency charges under sections 7, 8, 9, or 13.

**Daily Unforced Capacity Obligation:**

“Daily Unforced Capacity Obligation” shall mean the capacity obligation of a Load Serving Entity during the Delivery Year, determined in accordance with Schedule 8 of the Reliability Assurance Agreement, or, as to an FRR entity, in Schedule 8.1 of the Reliability Assurance Agreement or, as to an FRR Entity in Schedule 8.1 of the RAA.

**Day-ahead Congestion Price:**

“Day-ahead Congestion Price” shall mean the Congestion Price resulting from the Day-ahead Energy Market.

**Day-ahead Energy Market:**

“Day-ahead Energy Market” shall mean the schedule of commitments for the purchase or sale of energy and payment of Transmission Congestion Charges developed by the Office of the Interconnection as a result of the offers and specifications submitted in accordance with Section 1.10 of this Schedule.

**Day-ahead Loss Price:**

“Day-ahead Loss Price” shall mean the Loss Price resulting from the Day-ahead Energy Market.

**Day-ahead Prices:**

“Day-ahead Prices” shall mean the Locational Marginal Prices resulting from the Day-ahead Energy Market.

**Day-ahead Scheduling Reserves:**

“Day-ahead Scheduling Reserves” shall mean thirty-minute reserves as defined by the Reliability *First* Corporation and SERC.

**Day-ahead Scheduling Reserves Market:**

“Day-ahead Scheduling Reserves Market” shall mean the schedule of commitments for the purchase or sale of Day-ahead Scheduling Reserves developed by the Office of the

Interconnection as a result of the offers and specifications submitted in accordance with Section 1.10 of this Schedule.

**Day-ahead Scheduling Reserves Requirement:**

“Day-ahead Scheduling Reserves Requirement” shall mean the sum of Base Day-ahead Scheduling Reserves Requirement and Additional Day-ahead Scheduling Reserves Requirement.

**Day-ahead Scheduling Reserves Resources:**

“Day-ahead Scheduling Reserves Resources” shall mean synchronized and non-synchronized generation resources and Demand Resources electrically located within the PJM Region that are capable of providing Day-ahead Scheduling Reserves.

**Day-ahead System Energy Price:**

“Day-ahead System Energy Price” shall mean the System Energy Price resulting from the Day-ahead Energy Market.

**Deactivation:**

The retirement or mothballing of a generating unit governed by Part V of this Tariff.

**Deactivation Avoidable Cost Credit:**

The credit paid to Generation Owners pursuant to section 114 of this Tariff.

**Deactivation Avoidable Cost Rate:**

The formula rate established pursuant to section 115 of this Tariff.

**Deactivation Date:**

The date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

**Decrement Bid:**

“Decrement Bid” shall mean a type of Virtual Transaction that is a bid to purchase energy at a specified location in the Day-ahead Energy Market. A cleared Decrement Bid results in scheduled load at the specified location in the Day-ahead Energy Market.

**Default:**

As used in the Interconnection Service Agreement and Construction Service Agreement, the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

**Delivering Party:**

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

**Delivery Year:**

Delivery Year shall mean the Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Section 5, hereof, or pursuant to an FRR Capacity Plan.

**Demand Bid:**

“Demand Bid” shall mean a bid, submitted by a Load Serving Entity in the Day-ahead Energy Market, to purchase energy at its contracted load location, for a specified timeframe and megawatt quantity, that if cleared will result in energy being scheduled at the specified location in the Day-ahead Energy Market and in the physical transfer of energy during the relevant Operating Day.

**Demand Bid Limit:**

“Demand Bid Limit” shall mean the largest MW volume of Demand Bids that may be submitted by a Load Serving Entity for any hour of an Operating Day, as determined pursuant to Section 1.10.1B of Schedule 1 of the Operating Agreement.

**Demand Bid Screening:**

“Demand Bid Screening” shall mean the process by which Demand Bids are reviewed against the applicable Demand Bid Limit, and rejected if they would exceed that limit, as determined pursuant to Section 1.10.1B of Schedule 1 of the Operating Agreement.

**Demand Resource:**

“Demand Resource” shall mean a resource with the capability to provide a reduction in demand.

**Demand Resource Factor or DR Factor:**

“Demand Resource Factor” or (“DR Factor”) shall have the meaning specified in the Reliability Assurance Agreement.

**Designated Agent:**

Any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

**Designated Entity:**

“Designated Entity” shall have the same meaning provided in the Operating Agreement.

**Direct Assignment Facilities:**

Facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

**Direct Load Control:**

Load reduction that is controlled directly by the Curtailment Service Provider’s market operations center or its agent, in response to PJM instructions.

**Dispatch Rate:**

“Dispatch Rate” shall mean the control signal, expressed in dollars per megawatt-hour, calculated and transmitted continuously and dynamically to direct the output level of all generation resources dispatched by the Office of the Interconnection in accordance with the Offer Data.

## **Definitions – E - F**

### **Economic-based Enhancement or Expansion:**

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

### **Economic Load Response Participant:**

“Economic Load Response Participant” shall mean a Member or Special Member that qualifies under Section 1.5A of this Schedule to participate in the PJM Interchange Energy Market and/or Ancillary Services markets through reductions in demand.

### **Economic Maximum:**

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

### **Effective FTR Holder:**

“Effective FTR Holder” shall mean:

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

### **EFORd:**

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

**Eligible Customer:**

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

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

**Emergency Action:**

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

**Emergency Condition:**

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

**Emergency Load Response Program:**

The Emergency Load Response Program is the program by which Curtailment Service Providers may be compensated by PJM for Demand Resources that will reduce load when dispatched by

PJM during emergency conditions, and is described in Section 8 of Schedule 1 of the Operating Agreement and the parallel provisions of Section 8 of Attachment K-Appendix of the Tariff.

**Energy Efficiency Resource:**

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

**Energy Market Opportunity Cost:**

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

**Energy Resource:**

A generating facility that is not a Capacity Resource.

**Energy Settlement Area:**

The bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

**Energy Storage Resource:**

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

**Energy Transmission Injection Rights:**

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

**Environmental Laws:**

Applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

**Environmentally-Limited Resource:**

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

**Equivalent Load:**

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

**Existing Generation Capacity Resource:**

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

**Export Credit Exposure:**

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

**Export Nodal Reference Price:**

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

**Export Transaction:**

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

**Export Transaction Price Factor:**

The Export Transaction Price Factor for a prospective time interval shall be the greater of (i) PJM’s forecast price for the time interval, if available, or (ii) the Export Nodal Reference Price, but shall not exceed the Export Transaction’s dispatch ceiling price cap, if any, for that time



interval. The Export Transaction Price Factor for a past time interval shall be calculated in the same manner as for a prospective time interval, except that the Export Transaction Price Factor may use a tentative or final settlement price, as available. If an Export Nodal Reference Price is not available for a particular time interval, PJM may use an Export Transaction Price Factor for that time interval based on an appropriate alternate reference price.

**Export Transaction Screening:**

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

**Export Transactions Net Activity:**

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

**Extended Primary Reserve Requirement:**

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

**Extended Summer Demand Resource:**

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

**Extended Summer Resource Price Adder:**

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

**Extended Synchronized Reserve Requirement:**

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

**External Market Buyer:**

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

**External Resource:**

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

**Facilities Study:**

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

**Federal Power Act:**

The Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

**FERC:**

The Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over this Agreement.

**FERC Market Rules:**

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

***Final Offer:***

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

**Final RTO Unforced Capacity Obligation:**

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

**Financial Close:**

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

**Financial Security:**

~~Financial Security is a cash deposit or letter of credit in an amount and form determined by and acceptable to PJMSettlement, provided by a Participant to PJMSettlement as security in order to participate in the PJM Markets or take Transmission Service.~~

**Financial Transmission Right:**

“Financial Transmission Right” or “FTR” shall mean a right to receive Transmission Congestion Credits as specified in Section 5.2.2 of this Schedule.

**Financial Transmission Right Obligation:**

“Financial Transmission Right Obligation” shall mean a right to receive Transmission Congestion Credits as specified in Section 5.2.2(b) of this Schedule.

**Financial Transmission Right Option:**

“Financial Transmission Right Option” shall mean a right to receive Transmission Congestion Credits as specified in Section 5.2.2(c) of this Schedule.

**Firm Point-To-Point Transmission Service:**

Transmission Service under this Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Part II of this Tariff.

**Firm Transmission Withdrawal Rights:**

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

**First Incremental Auction:**

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

**Forecast Pool Requirement:**

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

**Foreign Guaranty:**

Foreign Guaranty is a Corporate Guaranty provided by an Affiliate of a Participant that is domiciled in a foreign country, and meets all of the provisions of ~~this credit policy~~[Attachment Q of the Tariff](#).

**FTR Credit Limit:**

FTR Credit Limit will be equal to the amount of credit established with PJMSettlement that an [FTR](#) Participant has specifically designated ~~to PJMSettlement~~ to be ~~set aside and~~ used for FTR activity [in a specific customer account](#). Any such credit so set aside shall not be considered available to satisfy any other credit requirement the [FTR](#) Participant may have with PJMSettlement.

**FTR Credit Requirement:**

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

**~~FTR Flow Undiversified:~~**

~~FTR Flow Undiversified shall have the meaning established in section V.G of this Attachment Q.~~

**~~FTR Geographically Undiversified:~~**

~~FTR Geographically Undiversified shall have the meaning established in section V.G of Attachment Q.~~

**FTR Historical Value:**

FTR Historical Value – For each FTR for each month, this is the historical weighted average value over three years for the FTR path using the following weightings: 50% - most recent year; 30% - second year; 20% - third year. 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 (10%) for cleared counterflow or normal flow FTRs, respectively, in order to mitigate exposure due to uncertainty and fluctuations in actual FTR value.

**FTR Holder.**

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

**FTR Monthly Credit Requirement Contribution:**

FTR Monthly Credit Requirement Contribution - For each FTR for each month, this is the total FTR cost for the month, prorated on a daily basis, less the FTR Historical Value for the month. For cleared FTRs, this contribution may be negative; prior to clearing, FTRs with negative contribution shall be deemed to have zero contribution.

**FTR Net Activity:**

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

**FTR Participant:**

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

**FTR Portfolio Auction Value:**

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

**Full Notice to Proceed:**

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

## **Definitions – G - H**

### **Generating Market Buyer:**

“Generating Market Buyer” shall mean an Internal Market Buyer that is a Load Serving Entity that owns or has contractual rights to the output of generation resources capable of serving the Market Buyer’s load in the PJM Region, or of selling energy or related services in the PJM Interchange Energy Market or elsewhere.

### **Generation Capacity Resource:**

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

### **Generation Interconnection Customer:**

An entity that submits an Interconnection Request to interconnect a new generation facility or to increase the capacity of an existing generation facility interconnected with the Transmission System in the PJM Region.

### **Generation Interconnection Facilities Study:**

A Facilities Study related to a Generation Interconnection Request.

### **Generation Interconnection Feasibility Study:**

A study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 36.2 of this Tariff.

### **Generation Interconnection Request:**

A request by a Generation Interconnection Customer pursuant to Subpart A of Part IV of the Tariff to interconnect a generating unit with the Transmission System or to increase the capacity of a generating unit interconnected with the Transmission System in the PJM Region.

### **Generation Owner:**

An entity that owns or otherwise controls and operates one or more operating generating units in the PJM Region.

### **Generation Resource Maximum Output:**

“Generation Resource Maximum Output” shall mean, for Customer Facilities identified in an Interconnection Service Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output for a generating unit shall equal the unit’s pro rata share of the Maximum Facility Output, determined by the Economic Maximum values for the

available units at the Customer Facility. For generating units not identified in an Interconnection Service Agreement or Wholesale Market Participation Agreement, the Generation Resource Maximum Output shall equal the generating unit's Economic Maximum.

**Generator Forced Outage:**

“Generator Forced Outage” shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

**Generator Maintenance Outage:**

“Generator Maintenance Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform necessary repairs on specific components of the facility, if removal of the facility meets the guidelines specified in the PJM Manuals.

**Generator Planned Outage:**

“Generator Planned Outage” shall mean the scheduled removal from service, in whole or in part, of a generating unit for inspection, maintenance or repair with the approval of the Office of the Interconnection in accordance with the PJM Manuals.

**Good Utility Practice:**

Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act Section 215(a)(4).

**Governmental Authority:**

Any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over any Interconnection Party or Construction Party or regarding any matter relating to an Interconnection Service Agreement or Construction Service Agreement, as applicable.

**Guarantor**



Guarantor shall mean an entity providing to PJM a Corporate Guaranty on behalf of a Participant and acceptable to PJM pursuant to provisions of the Agreements.

**Hazardous Substances:**

Any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Hot Weather Alert:**

“Hot Weather Alert” shall mean the notice provided by PJM to PJM Members, Transmission Owners, resource owners and operators, customers, and regulators to prepare personnel and facilities for extreme hot and/or humid weather conditions which may cause capacity requirements and/or unit unavailability to be substantially higher than forecast are expected to persist for an extended period.

## **Definitions – L – M - N**

### **Limited Demand Resource:**

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

### **Limited Demand Resource Reliability Target:**

“Limited Demand Resource Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of Limited Demand Resources determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity that shall be used to calculate the Minimum Extended Summer Demand Resource Requirement for Delivery Years through May 31, 2017 and the Limited Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years for the PJM Region or such LDA. As more fully set forth in the PJM Manuals, PJM calculates the Limited Demand Resource Reliability Target by first: i) testing the effects of the ten-interruption requirement by comparing possible loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using the cumulative capacity distributions employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) more than ten times over those peak days; ii) testing the six-hour duration requirement by calculating the MW difference between the highest hourly unrestricted peak load and seventh highest hourly unrestricted peak load on certain high peak load days (e.g., the annual peak, loads above the weather normalized peak, or days where load management was called) in recent years, then dividing those loads by the forecast peak for those years and averaging the result; and (iii) (for the 2016/2017 and 2017/2018 Delivery Years) testing the effects of the six-hour duration requirement by comparing possible hourly loads on peak days under a range of weather conditions (from the daily load forecast distributions for the Delivery Year in question) against possible generation capacity on such days under a range of conditions (using a Monte Carlo model of hourly capacity levels that is consistent with the capacity model employed in the Installed Reserve Margin study for the PJM Region and in the Capacity Emergency Transfer Objective study for the relevant LDAs for such Delivery Year) and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will not be called (based on the applicable operating reserve margin for the PJM Region and for the relevant LDAs) for more than six hours over any one or more of the tested peak days. Second, PJM adopts the lowest result from these three tests as the Limited Demand Resource Reliability Target. The Limited Demand Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Limited Resource Constraint:**

“Limited Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and Delivery Years, for the PJM Region or each LDA for which the Office of the Interconnection is required under section 5.10(a) of this Attachment DD to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Limited Demand Resource Reliability Target for the PJM Region or such LDA, respectively, minus the Short Term Resource Procurement Target for the PJM Region or such LDA, respectively.

**Limited Resource Price Decrement:**

“Limited Resource Price Decrement” shall mean, for the 2017/2018 Delivery Year, a difference between the clearing price for Limited Demand Resources and the clearing price for Extended Summer Demand Resources and Annual Resources, representing the cost to procure additional Extended Summer Demand Resources or Annual Resources out of merit order when the Limited Resource Constraint is binding.

**List of Approved Contractors:**

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

**Load Management:**

“Load Management” shall mean a Demand Resource (“DR”) as defined in the Reliability Assurance Agreement.

**Load Management Event:**

“Load Management Event” shall mean a) a single temporally contiguous dispatch of Demand Resources in a Compliance Aggregation Area during an Operating Day, or b) multiple dispatches of Demand Resources in a Compliance Aggregation Area during an Operating Day that are temporally contiguous.

**Load Ratio Share:**

Ratio of a Transmission Customer’s Network Load to the Transmission Provider’s total load.

**Load Reduction Event:**

“Load Reduction Event” shall mean a reduction in demand by a Member or Special Member for the purpose of participating in the PJM Interchange Energy Market.

**Load Serving Entity (LSE):**

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

**Load Shedding:**

The systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Part II or Part III of the Tariff.

**Local Upgrades:**

Modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

**Location:**

“Location” as used in the Economic Load Response rules shall mean an end-use customer site as defined by the relevant electric distribution company account number.

**Locational Deliverability Area (LDA):**

“Locational Deliverability Area” or “LDA” shall mean a geographic area within the PJM Region that has limited transmission capability to import capacity to satisfy such area’s reliability requirement, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, and as specified in Schedule 10.1 of the Reliability Assurance Agreement.

**Locational Deliverability Area Reliability Requirement:**

“Locational Deliverability Area Reliability Requirement” shall mean the projected internal capacity in the Locational Deliverability Area plus the Capacity Emergency Transfer Objective

for the Delivery Year, as determined by the Office of the Interconnection in connection with preparation of the Regional Transmission Expansion Plan, less the minimum internal resources required for all FRR Entities in such Locational Deliverability Area.

**Locational Price Adder:**

“Locational Price Adder” shall mean an addition to the marginal value of Unforced Capacity within an LDA as necessary to reflect the price of Capacity Resources required to relieve applicable binding locational constraints.

**Locational Reliability Charge:**

“Locational Reliability Charge” shall have the meaning specified in the Reliability Assurance Agreement.

**Locational UCAP:**

“Locational UCAP” shall mean unforced capacity that a Member with available uncommitted capacity sells in a bilateral transaction to a Member that previously committed capacity through an RPM Auction but now requires replacement capacity to fulfill its RPM Auction commitment. The Locational UCAP Seller retains responsibility for performance of the resource providing such replacement capacity.

**Locational UCAP Seller:**

“Locational UCAP Seller” shall mean a Member that sells Locational UCAP.

**LOC Deviation:**

“LOC Deviation” shall mean, for units other than wind units, the LOC Deviation shall equal the desired megawatt amount for the resource determined according to the point on the Final Offer corresponding to the hourly integrated real-time Locational Marginal Price at the resource’s bus and adjusted for any Regulation or Tier 2 Synchronized Reserve assignments and limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual hourly integrated output of the unit. For wind units, the LOC Deviation shall be the deviation of the generating unit’s output equal to the lesser of the PJM forecasted output for the unit or the desired megawatt amount for the resource determined according to the point on the Final Offer corresponding to the hourly integrated real-time Locational Marginal Price at the resource’s bus, and shall be limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual hourly integrated output of the unit.

**Long-lead Project:**

“Long-lead Project” shall have the same meaning provided in the Operating Agreement.

**Long-Term Firm Point-To-Point Transmission Service:**

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of one year or more.

**Loss Price:**

“Loss Price” shall mean the loss component of the Locational Marginal Price, which is the effect on transmission loss costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource based on the effect of increased generation from or consumption by the resource on transmission losses, calculated as specified in Section 2 of Schedule 1 of this Agreement.

**Market Monitor:**

“Market Monitor” means the head of the Market Monitoring Unit.

**Market Monitoring Unit or MMU:**

“Market Monitoring Unit” or “MMU” means the organization that is responsible for implementing this Plan, including the Market Monitor.

**Market Monitoring Unit Advisory Committee or MMU Advisory Committee:**

“Market Monitoring Unit Advisory Committee” or “MMU Advisory Committee” means the committee established under Section III.H.

**Market Operations Center:**

“Market Operations Center” shall mean the equipment, facilities and personnel used by or on behalf of a Market Participant to communicate and coordinate with the Office of the Interconnection in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

**Market Participant:**

“Market Participant” shall mean a Market Buyer, a Market Seller, an Economic Load Response Participant, or all three, except when such term is being used in Attachment M of the Tariff, in which case Market Participant shall mean an entity that generates, transmits, distributes, purchases, or sells electricity, ancillary services, or any other product or service provided under the PJM Tariff or Operating Agreement within, into, out of, or through the PJM Region, but it shall not include an Authorized Government Agency that consumes energy for its own use but does not purchase or sell energy at wholesale.

**Market Seller Offer Cap:**

“Market Seller Offer Cap” shall mean a maximum offer price applicable to certain Market Sellers under certain conditions, as determined in accordance with section 6 of Attachment DD and section II.E of Attachment M - Appendix.

**Market Violation:**

“Market Violation” means a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies, as defined in 18 C.F.R. § 35.28(b)(8).

**Material:**

~~For these purposes, material is defined in §1.B.3, Material Changes. For the purposes herein, the use of the term "material" is not necessarily synonymous with use of the term by governmental agencies and regulatory bodies.~~

**Material Modification:**

Any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

**Maximum Emergency:**

“Maximum Emergency” shall mean the designation of all or part of the output of a generating unit for which the designated output levels may require extraordinary procedures and therefore are available to the Office of the Interconnection only when the Office of the Interconnection declares a Maximum Generation Emergency and requests generation designated as Maximum Emergency to run. The Office of the Interconnection shall post on the PJM website the aggregate amount of megawatts that are classified as Maximum Emergency.

**Maximum Facility Output:**

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

**Maximum Generation Emergency:**

“Maximum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection to address either a generation or transmission emergency in which the Office of the Interconnection anticipates requesting one or more Generation Capacity Resources, or Non-Retail Behind The Meter Generation resources to operate at its maximum net or gross electrical

power output, subject to the equipment stress limits for such Generation Capacity Resource or Non-Retail Behind The Meter resource in order to manage, alleviate, or end the Emergency.

**Maximum Generation Emergency Alert:**

“Maximum Generation Emergency Alert” shall mean an alert issued by the Office of the Interconnection to notify PJM Members, Transmission Owners, resource owners and operators, customers, and regulators that a Maximum Generation Emergency may be declared, for any Operating Day in either, as applicable, the Day-ahead Energy Market or the Real-time Energy Market, for all or any part of such Operating Day.

**Member:**

~~Member shall have the meaning provided in the Operating Agreement.~~

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

Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

**Merchant D.C. Transmission Facilities:**

Direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

**Merchant Network Upgrades:**

Additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer’s Upgrade Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

**Merchant Transmission Facilities:**

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

**Merchant Transmission Provider:**



An Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Section 36 of the Tariff, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Section 38 below.

**Metering Equipment:**

All metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

**Minimum Annual Resource Requirement:**

“Minimum Annual Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under section 5.10(a) of this Attachment DD to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Annual Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Sub-Annual Resource Reliability Target for the RTO in Unforced Capacity]. For an LDA, the Minimum Annual Resource Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Sub-Annual Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Extended Summer Resource Requirement:**

“Minimum Extended Summer Resource Requirement” shall mean, for Delivery Years through May 31, 2017, the minimum amount of capacity that PJM will seek to procure from Extended Summer Demand Resources and Annual Resources for the PJM Region and for each Locational Deliverability Area for which the Office of the Interconnection is required under section 5.10(a) of this Attachment DD to establish a separate VRR Curve for such Delivery Year. For the PJM Region, the Minimum Extended Summer Resource Requirement shall be equal to the RTO Reliability Requirement minus [the Limited Demand Resource Reliability Target for the PJM Region in Unforced Capacity]. For an LDA, the Minimum Extended Summer Resource Requirement shall be equal to the LDA Reliability Requirement minus [the LDA CETL] minus [the Limited Demand Resource Reliability Target for such LDA in Unforced Capacity]. The LDA CETL may be adjusted pro rata for the amount of load served under the FRR Alternative.

**Minimum Generation Emergency:**

“Minimum Generation Emergency” shall mean an Emergency declared by the Office of the Interconnection in which the Office of the Interconnection anticipates requesting one or more

generating resources to operate at or below Normal Minimum Generation, in order to manage, alleviate, or end the Emergency.

**Minimum Participation Requirements:**

A set of minimum training, risk management, communication and capital or collateral requirements required for Participants in the PJM Markets, as set forth herein and in the Form of Annual Certification set forth as Appendix 1 to this Attachment Q. Participants transacting in FTRs in certain circumstances will be required to demonstrate additional risk management procedures and controls as further set forth in the Annual Certification found in Appendix 1 to this Attachment Q

**MISO:**

*Midcontinent Independent System Operator, Inc. or any successor thereto.*

**Multi-Driver Project:**

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

**Native Load Customers:**

The wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner’s system to meet the reliable electric needs of such customers.

**NERC:**

The North American Electric Reliability Corporation or any successor thereto.

**NERC Interchange Distribution Calculator:**

“NERC Interchange Distribution Calculator” shall mean the NERC mechanism that is in effect and being used to calculate the distribution of energy, over specific transmission interfaces, from energy transactions.

**Net Benefits Test:**

“Net Benefits Test” shall mean a calculation to determine whether the benefits of a reduction in price resulting from the dispatch of Economic Load Response exceeds the cost to other loads resulting from the billing unit effects of the load reduction, as specified in Section 3.3A.4 of this Schedule.

**Net Cost of New Entry:**

“Net Cost of New Entry” shall mean the Cost of New Entry minus the Net Energy and Ancillary Service Revenue Offset.

**Net Obligation:**

Net Obligation is the amount owed to PJMSettlement and PJM for purchases from the PJM Markets, Transmission Service, (under both Part II and Part III of the O.A.T.T.), and other services pursuant to the Agreements, after applying a deduction for amounts owed to a Participant by PJMSettlement as it pertains to monthly market activity and services. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

**Net Sell Position:**

Net Sell Position is the amount of Net Obligation when Net Obligation is negative.

**Network Customer:**

An entity receiving transmission service pursuant to the terms of the Transmission Provider’s Network Integration Transmission Service under Part III of the Tariff.

**Network Integration Transmission Service:**

The transmission service provided under Part III of the Tariff.

**Network Load:**

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer’s Network Load shall include all load (including losses) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

**Network Operating Agreement:**

An executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Part III of the Tariff.

**Network Operating Committee:**

A group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part III of this Tariff.

**Network Resource:**

Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

**Network Service User:**

"Network Service User" shall mean an entity using Network Transmission Service.

**Network Transmission Service:**

"Network Transmission Service" shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Part III of the PJM Tariff, or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Network Upgrades:**

Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

**Neutral Party:**

Shall have the meaning provided in Section 9.3(v).

**New PJM Zone(s):**

The Zone included in this Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

**New Service Customers:**

All customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

**New Service Request:**

An Interconnection Request, a Completed Application, or an Upgrade Request.

**New Services Queue:**

All Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each three-month period ending on January 31, April 30, July 31, and October 31 of each year shall collectively comprise a New Services Queue.

**New Services Queue Closing Date:**

Each January 31, April 30, July 31, and October 31 shall be the Queue Closing Date for the New Services Queue comprised of Interconnection Requests, Completed Applications, and Upgrade Requests received during the three-month period ending on such date.

**New York ISO or NYISO:**

New York Independent System Operator, Inc. or any successor thereto.

**Nodal Reference Price:**

The Nodal Reference Price at each location is the 97th percentile price differential between hourly day-ahead and real-time prices experienced over the corresponding two-month reference period in the prior calendar year. ~~In order to capture seasonality effects and maintain a two-month reference period, reference periods will be months will be grouped by two, starting with January (e.g., Jan-Feb, Mar-Apr, May-Jun, Jul-Aug, Sept-Oct, Nov-Dec).~~ For any given current-year month, the reference period months will be the set of two months in the prior calendar year that include the month corresponding to the current month. For example, July and August 2003 would each use July-August 2002 as their reference period.

**Nominal Rated Capability:**

The nominal maximum rated capability in megawatts of a Transmission Interconnection Customer's Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer's Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

**Nominated Demand Resource Value:**

“Nominated Demand Resource Value” shall mean the amount of load reduction that a Demand Resource commits to provide either through direct load control, firm service level or guaranteed load drop programs. For existing Demand Resources, the maximum Nominated Demand Resource Value is limited, in accordance with the PJM Manuals, to the value appropriate for the method by which the load reduction would be accomplished, at the time the Base Residual Auction or Incremental Auction is being conducted.

**Nominated Energy Efficiency Value:**

“Nominated Energy Efficiency Value” shall mean the amount of load reduction that an Energy Efficiency Resource commits to provide through installation of more efficient devices or equipment or implementation of more efficient processes or systems.

**Non-Firm Point-To-Point Transmission Service:**

Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of this Tariff. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

**Non-Firm Sale:**

An energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

**Non-Firm Transmission Withdrawal Rights:**

The rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**Nonincumbent Developer:**

“Nonincumbent Developer” shall have the same meaning provided in the Operating Agreement.

**Non-Regulatory Opportunity Cost:**

“Non-Regulatory Opportunity Cost” shall mean the difference between (a) the forecasted cost to operate a specific generating unit when the unit only has a limited number of starts or available run hours resulting from (i) the physical equipment limitations of the unit, for up to one year, due to original equipment manufacturer recommendations or insurance carrier restrictions, (ii) a fuel supply limitation, for up to one year, resulting from an event of Catastrophic Force Majeure; and, (b) the forecasted future hourly Locational Marginal Price at which the generating unit could run while not violating such limitations. Non-Regulatory Opportunity Cost therefore is the value

associated with a specific generating unit's lost opportunity to produce energy during a higher valued period of time occurring within the same period of time in which the unit is bound by the referenced restrictions, and is reflected in the rules set forth in PJM Manual 15. Non-Regulatory Opportunity Costs shall be limited to those resources which are specifically delineated in Schedule 2 of the Operating Agreement.

**Non-Retail Behind The Meter Generation:**

Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

**Non-Synchronized Reserve:**

"Non-Synchronized Reserve" shall mean the reserve capability of non-emergency generation resources that can be converted fully into energy within ten minutes of a request from the Office of the Interconnection dispatcher, and is provided by equipment that is not electrically synchronized to the Transmission System.

**Non-Synchronized Reserve Event:**

"Non-Synchronized Reserve Event" shall mean a request from the Office of the Interconnection to generation resources able and assigned to provide Non-Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes to increase the energy output by the amount of assigned Non-Synchronized Reserve capability.

**Non-Variable Loads:**

"Non-Variable Loads" shall have the meaning specified in section 1.5A.6 of this Schedule.

**Non-Zone Network Load:**

Network Load that is located outside of the PJM Region.

**Normal Maximum Generation:**

"Normal Maximum Generation" shall mean the highest output level of a generating resource under normal operating conditions.

**Normal Minimum Generation:**

"Normal Minimum Generation" shall mean the lowest output level of a generating resource under normal operating conditions.

## **Definitions – O – P - Q**

### **Obligation:**

Obligation is all amounts owed to PJMSettlement for purchases from the PJM Markets, Transmission Service, (under both Part II and Part III of the O.A.T.T.), and other services or obligations pursuant to the Agreements. In addition, aggregate amounts that will be owed to PJMSettlement in the future for [c](#)apacity purchases within the PJM [c](#)apacity markets will be added to this figure. Should other markets be formed such that Participants may incur future Obligations in those markets, then the aggregate amount of those Obligations will also be added to the Net Obligation.

### **Offer Data:**

“Offer Data” shall mean the scheduling, operations planning, dispatch, new resource, and other data and information necessary to schedule and dispatch generation resources and Demand Resource(s) for the provision of energy and other services and the maintenance of the reliability and security of the Transmission System in the PJM Region, and specified for submission to the PJM Interchange Energy Market for such purposes by the Office of the Interconnection.

### **Office of the Interconnection:**

Office of the Interconnection shall mean the employees and agents of PJM Interconnection, L.L.C. subject to the supervision and oversight of the PJM Board, acting pursuant to the Operating Agreement.

### **Office of the Interconnection Control Center:**

“Office of the Interconnection Control Center” shall mean the equipment, facilities and personnel used by the Office of the Interconnection to coordinate and direct the operation of the PJM Region and to administer the PJM Interchange Energy Market, including facilities and equipment used to communicate and coordinate with the Market Participants in connection with transactions in the PJM Interchange Energy Market or the operation of the PJM Region.

### **On-Site Generators:**

“On-Site Generators” shall mean generation facilities (including Behind The Meter Generation) that (i) are not Capacity Resources, (ii) are not injecting into the grid, (iii) are either synchronized or non-synchronized to the Transmission System, and (iv) can be used to reduce demand for the purpose of participating in the PJM Interchange Energy Market.

### **Open Access Same-Time Information System (OASIS):**

The information system and standards of conduct contained in Part 37 and Part 38 of the Commission’s regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.



**Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement:**

That agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C.

**Operating Day:**

“Operating Day” shall mean the daily 24 hour period beginning at midnight for which transactions on the PJM Interchange Energy Market are scheduled.

**Operating Margin:**

“Operating Margin” shall mean the incremental adjustments, measured in megawatts, required in PJM Region operations in order to accommodate, on a first contingency basis, an operating contingency in the PJM Region resulting from operations in an interconnected Control Area. Such adjustments may result in constraints causing Transmission Congestion Charges, or may result in Ancillary Services charges pursuant to the PJM Tariff.

**Operating Margin Customer:**

“Operating Margin Customer” shall mean a Control Area purchasing Operating Margin pursuant to an agreement between such other Control Area and the LLC.

**Opportunity Cost:**

“Opportunity Cost” shall mean a component of the Market Seller Offer Cap calculated in accordance with section 6.

**OPSI Advisory Committee:**

“OPSI Advisory Committee” means the committee established under Section III.G.

**Option to Build:**

The option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

**Optional Interconnection Study:**

A sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement:**

The form of agreement for preparation of an Optional Interconnection Study, as set forth in Attachment N-3 of the Tariff.

**Part I:**

Tariff Definitions and Common Service Provisions contained in Sections 2 through 12.

**Part II:**

Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**Part III:**

Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**Part IV:**

Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**Part V:**

Tariff Sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**Part VI:**

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

**Participant:**

A Participant is a Market Participant and/or Transmission Customer and/or Applicant requesting to be an active Market Participant and/or Transmission Customer.

**Parties:**

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

**Peak-Hour Dispatch:**

“Peak-Hour Dispatch” shall mean, for purposes of calculating the Energy and Ancillary Services Revenue Offset under section 5 of this Attachment, an assumption, as more fully set forth in the PJM Manuals, that the Reference Resource is committed in the Day-Ahead Energy Market in four distinct blocks of four hours of continuous output for each block from the peak-hour period beginning with the hour ending 0800 EPT through to the hour ending 2300 EPT for any day when the average day-ahead LMP for the area for which the Net Cost of New Entry is being determined is greater than, or equal to, the cost to generate (including the cost for a complete start and shutdown cycle) for at least two hours during each four-hour block, where such blocks shall be assumed to be committed independently; provided that, if there are not at least two economic hours in any given four-hour block, then the Reference Resource shall be assumed not to be committed for such block; and to the extent not committed in any such block in the Day-Ahead Energy Market under the above conditions based on Day-Ahead LMPs, is dispatched in the Real-Time Energy Market for such block if the Real-Time LMP is greater than or equal to the cost to generate under the same conditions as described above for the Day-Ahead Energy Market.

**Peak Market Activity:**

Peak Market Activity is a measure of exposure for which credit is required, involving peak exposures in rolling three-week periods over a year timeframe, with two semi-annual reset points, pursuant to provisions of section [H.D.V.A](#) of ~~this Credit Policy~~ [Attachment Q of the Tariff](#). [Peak Market Activity shall exclude FTR Net Activity, Virtual Transactions Net Activity, and Export Transactions Net Activity.](#)

**Peak Season:**

“Peak Season” shall mean the weeks containing the 24th through 36th Wednesdays of the calendar year. Each such week shall begin on a Monday and end on the following Sunday, except for the week containing the 36th Wednesday, which shall end on the following Friday.

**Percentage Internal Resources Required:**

“Percentage Internal Resources Required” shall have the meaning specified in the Reliability Assurance Agreement.

**Performance Assessment Hour:**

“Performance Assessment Hour” shall mean each whole or partial clock-hour for which an Emergency Action has been declared by the Office of the Interconnection, provided, however, that Performance Assessment Hours for a Base Capacity Resource shall not include any hours outside the calendar months of June through September.

**PJM:**

PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement.

**PJM Administrative Service:**

The services provided by PJM pursuant to Schedule 9 of this Tariff.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, except when such term is being used in Attachment M of the Tariff, in which case PJM Board shall mean the Board of Managers of PJM or its designated representative, exclusive of any members of PJM Management.

**PJM Control Area:**

The Control Area that is recognized by NERC as the PJM Control Area.

**PJM Entities:**

“PJM Entities” mean PJM, including the Market Monitoring Unit, the PJM Board, and PJM’s officers, employees, representatives, advisors, contractors, and consultants.

**PJM Interchange:**

“PJM Interchange” shall mean the following, as determined in accordance with the Schedules to this Agreement: (a) for a Market Participant that is a Network Service User, the amount by which its hourly Equivalent Load exceeds, or is exceeded by, the sum of the hourly outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup; or (c) the hourly scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the hourly net metered output of any other Market Seller; or (e) the hourly scheduled deliveries of Spot Market Energy to an External Market Buyer; or (f) the hourly scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Interchange Energy Market:**

The regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the Tariff and Schedule 1 to the Operating Agreement.

**PJM Interchange Export:**

“PJM Interchange Export” shall mean the following, as determined in accordance with the Schedules to this Agreement: (a) for a Market Participant that is a Network Service User, the amount by which its hourly Equivalent Load is exceeded by the sum of the hourly outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup sales; or (c) the hourly scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the hourly net metered output of any other Market Seller.

**PJM Interchange Import:**

“PJM Interchange Import” shall mean the following, as determined in accordance with the Schedules to this Agreement: (a) for a Market Participant that is a Network Service User, the amount by which its hourly Equivalent Load exceeds the sum of the hourly outputs of its operating generating resources; or (b) for a Market Participant that is not a Network Service User, the amount of its Spot Market Backup purchases; or (c) the hourly scheduled deliveries of Spot Market Energy to an External Market Buyer; or (d) the hourly scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Liaison:**

“PJM Liaison” means the liaison established under Section III.I.

**PJM Management:**

“PJM Management” means the officers, executives, supervisors and employee managers of PJM.

**PJM Manuals:**

The instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Markets:**

“PJM Markets” mean the PJM Interchange Energy and capacity markets, including the RPM auctions, together with all bilateral or other wholesale electric power and energy transactions, capacity transactions, ancillary services transactions (including black start service), transmission transactions and any other market operated under the PJM Tariff or Operating Agreement within the PJM Region, wherein [Market](#) Participants may incur Obligations to PJM Settlement.

**PJM Market Rules:**

“PJM Market Rules” mean the rules, standards, procedures, and practices of the PJM Markets set forth in the PJM Tariff, the PJM Operating Agreement, the PJM Reliability Assurance Agreement, the PJM Consolidated Transmission Owners Agreement, the PJM Manuals, the PJM

Regional Practices Document, the PJM-Midwest Independent Transmission System Operator Joint Operating Agreement or any other document setting forth market rules.

**PJM Net Assets:**

“PJM Net Assets” shall mean the total assets per PJM’s consolidated quarterly or year-end financial statements most recently issued as of the date of the receipt of written notice of a claim less amounts for which PJM is acting as a temporary custodian on behalf of its Members, transmission developers/Designated Entities, and generation developers, including, but not limited to, cash deposits related to credit requirement compliance, study and/or interconnection receivables, member prepayments, invoiced amounts collected from Net Buyers but have not yet been paid to Net Sellers, and excess congestion (as described in Section 5.2.6).

**PJM Open Access Transmission Tariff (“O.A.T.T.”):**

The Open Access Transmission Tariff of PJM Interconnection, L.L.C., on file with the Federal Energy Regulatory Commission, and as revised from time to time.

**PJM Open Access Same-time Information System:**

“PJM Open Access Same-time Information System” shall mean the electronic communication system for the collection and dissemination of information about transmission services in the PJM Region, established and operated by the Office of the Interconnection in accordance with FERC standards and requirements.

**PJM Operating Agreement:**

“PJM Operating Agreement” means the Amended and Restated Operating Agreement of PJM on file with the Commission.

**PJM Region:**

Shall have the meaning specified in the Operating Agreement.

**PJM Regional Practices Document:**

“PJM Regional Practices Document” means the document of that title that compiles and describes the practices in the PJM Markets and that is made available in hard copy and on the Internet.

**PJM Region Installed Reserve Margin:**

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

**PJM Region Peak Load Forecast:**

“PJM Region Peak Load Forecast” shall mean the peak load forecast used by the Office of the Interconnection in determining the PJM Region Reliability Requirement, and shall be determined on both a preliminary and final basis as set forth in section 5.

**PJM Region Reliability Requirement:**

“PJM Region Reliability Requirement” shall mean, for purposes of the Base Residual Auction, the Forecast Pool Requirement multiplied by the Preliminary PJM Region Peak Load Forecast, less the sum of all Preliminary Unforced Capacity Obligations of FRR Entities in the PJM Region; and, for purposes of the Incremental Auctions, the Forecast Pool Requirement multiplied by the updated PJM Region Peak Load Forecast, less the sum of all updated Unforced Capacity Obligations of FRR Entities in the PJM Region.

**PJM Reliability Assurance Agreement:**

“PJM Reliability Assurance Agreement” means the Reliability Assurance Agreement among Load Serving Entities in the PJM Region on file with the Commission.

**PJM Settlement:**

“PJM Settlement” or “PJM Settlement, Inc.” shall mean PJM Settlement, Inc. (or its successor), established by PJM as set forth in Section 3.3 of the Operating Agreement.

**PJM Tariff:**

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

**PJM Transmission Owners Agreement:**

“PJM Transmission Owners Agreement” means the PJM Consolidated Transmission Owners Agreement on file with the Commission.

**Plan:**

“Plan” means the PJM market monitoring plan set forth in this Attachment M.

**Planned Demand Resource:**

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

**Planned External Financed Generation Capacity Resource:**

Planned External Financed Generation Capacity Resource shall mean a Planned External Generation Capacity Resource that, prior to August 7, 2015, has an effective agreement that is the equivalent of an Interconnection Service Agreement, has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close, and has secured at least 50 percent of the MWs of firm transmission service required to qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

**Planned External Generation Capacity Resource:**

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

**Planned Financed Generation Capacity Resource:**

Planned Financed Generation Capacity Resource shall mean a Planned Generation Capacity Resource that, prior to August 7, 2015, has an effective Interconnection Service Agreement and has submitted to the Office of the Interconnection the appropriate certification attesting achievement of Financial Close.

**Planned Generation Capacity Resource:**

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

**Planning Period:**

“Planning Period” shall have the meaning specified in the Reliability Assurance Agreement.

**Planning Period Balance:**

“Planning Period Balance” shall mean the entire period of time remaining in the Planning Period following the month that a monthly auction is conducted.

**Planning Period Quarter:**

“Planning Period Quarter” shall mean any of the following three month periods in the Planning Period: June, July and August; September, October and November; December, January and February; or March, April and May.

**Point(s) of Delivery:**

Point(s) on the Transmission Provider’s Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Part II of the Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point of Interconnection:**



The point or points, shown in the appropriate appendix to the Interconnection Service Agreement and the Interconnection Construction Service Agreement, where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**Point(s) of Receipt:**

Point(s) of interconnection on the Transmission Provider's Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Part II of the Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point-To-Point Transmission Service:**

The reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Part II of the Tariff.

**Power Purchaser:**

The entity that is purchasing the capacity and energy to be transmitted under the Tariff.

**PRD Curve**

PRD Curve shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Provider**

PRD Provider shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Reservation Price**

PRD Reservation Price shall have the meaning provided in the Reliability Assurance Agreement.

**PRD Substation:**

PRD Substation shall have the meaning provided in the Reliability Assurance Agreement.

**Pre-Confirmed Application:**

An Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

**Pre-Emergency Load Response Program:**

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

**Pre-Expansion PJM Zones:**

Zones included in this Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

**Price Responsive Demand**

Price Responsive Demand shall have the meaning provided in the Reliability Assurance Agreement.

**Primary Reserve:**

“Primary Reserve” shall mean the total reserve capability of generation resources that can be converted fully into energy or Demand Resources whose demand can be reduced within ten minutes of a request from the Office of the Interconnection dispatcher, and is comprised of both Synchronized Reserve and Non-Synchronized Reserve.

**Primary Reserve Requirement:**

“Primary Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Primary Reserve, absent any increase to account for additional reserves scheduled to address operational uncertainty. The Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

**Project Financing:**

Shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to which Interconnection Customer’s obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

**Project Finance Entity:**

Shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

**Projected PJM Market Revenues:**

"Projected PJM Market Revenues" shall mean a component of the Market Seller Offer Cap calculated in accordance with section 6.

**Proportional Multi-Driver Project:**

"Proportional Multi-Driver Project" shall have the same meaning provided in the Operating Agreement.

**Public Policy Objectives:**

"Public Policy Objectives" shall have the same meaning provided in the Operating Agreement.

**Public Policy Requirements:**

"Public Policy Requirements" shall have the same meaning provided in the Operating Agreement.

**Qualifying Transmission Upgrade:**

"Qualifying Transmission Upgrade" shall mean a proposed enhancement or addition to the Transmission System that: (a) will increase the Capacity Emergency Transfer Limit into an LDA by a megawatt quantity certified by the Office of the Interconnection; (b) the Office of the Interconnection has determined will be in service on or before the commencement of the first Delivery Year for which such upgrade is the subject of a Sell Offer in the Base Residual Auction; (c) is the subject of a Facilities Study Agreement executed before the conduct of the Base Residual Auction for such Delivery Year and (d) a New Service Customer is obligated to fund through a rate or charge specific to such facility or upgrade.

**Queue Position:**

The priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Part VI.

## **Definitions – R - S**

### **Ramping Capability:**

“Ramping Capability” shall mean the sustained rate of change of generator output, in megawatts per minute.

### **Real-time Congestion Price:**

“Real-time Congestion Price” shall mean the Congestion Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Loss Price:**

“Real-time Loss Price” shall mean the Loss Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time Energy Market:**

“Real-time Energy Market” shall mean the purchase or sale of energy and payment of Transmission Congestion Charges for quantity deviations from the Day-ahead Energy Market in the Operating Day.

### ***Real-time Offer:***

*“Real-time Offer” shall mean a new offer or an update to a Market Seller’s existing cost-based or market-based offer for a clock hour, submitted after the close of the Day-ahead Energy Market.*

### **Real-time Prices:**

“Real-time Prices” shall mean the Locational Marginal Prices resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Real-time System Energy Price:**

“Real-time System Energy Price” shall mean the System Energy Price resulting from the Office of the Interconnection’s dispatch of the PJM Interchange Energy Market in the Operating Day.

### **Reasonable Efforts:**

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

**Receiving Party:**

The entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

**Referral:**

“Referral” means a formal report of the Market Monitoring Unit to the Commission for investigation of behavior of a Market Participant, of behavior of PJM, or of a market design flaw, pursuant to Section IV.I of Attachment M.

**Reference Resource:**

“Reference Resource” shall mean a combustion turbine generating station, configured with two General Electric Frame 7FA turbines with inlet air cooling to 50 degrees, Selective Catalytic Reduction technology all CONE Areas, dual fuel capability, and a heat rate of 10.096 Mmbtu/MWh.

**Regional Entity**

Shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

The plan prepared by the Office of the Interconnection pursuant to Schedule 6 of the Operating Agreement for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Regional Transmission Group (RTG):**

A voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

**Regulation:**

“Regulation” shall mean the capability of a specific generation resource or Demand Resource with appropriate telecommunications, control and response capability to *separately* increase and decrease its output or adjust load in response to a regulating control signal, in accordance with the specifications in the PJM Manuals.

**Regulation Zone:**

Any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

**Relevant Electric Retail Regulatory Authority:**

An entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

**Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“R-A-A” or “Reliability Assurance Agreement”):**

The Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Rate Schedule No. 44, dated as of May 28, 2009, on file with the Federal Energy Regulatory Commission, as amended from time to time.

**Reliability Pricing Model Auction:**

“Reliability Pricing Model Auction” or “RPM Auction” shall mean the Base Residual Auction or any Incremental Auction, or, for the 2016/2017 and 2017/2018 Delivery Years, any Capacity Performance Transition Incremental Auction.

**Repowered / Repowering**

“Repowered” or “Repowering” shall refer to a partial or total replacement of existing steam production equipment with new technology or a partial or total replacement of steam production process and power generation equipment, or an addition of steam production and/or power generation equipment, or a change in the primary fuel being used at the plant. A resource can be considered Repowered whether or not such aforementioned replacement, addition, or fuel change provides an increase in installed capacity, and whether or not the pre-existing plant capability is formally deactivated or retired.

**Required Transmission Enhancements:**

Enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to Schedule 6 of the Operating Agreement or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Schedule 12-Appendix B (“Appendix B Agreement”) designates one or more of the Transmission Owner(s) to construct and own or finance. Required Transmission Enhancements shall also include enhancements and expansions of facilities in another region or planning authority that meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities constructed pursuant to an Appendix B Agreement cost responsibility for which has been assigned at least in part to PJM pursuant to such Appendix B Agreement.

**Reserved Capacity:**

The maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider's Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Tariff. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

**Reserve Penalty Factor:**

"Reserve Penalty Factor" shall mean the cost, in \$/MWh, associated with being unable to meet a specific reserve requirement in a Reserve Zone or Reserve Sub-zone. A Reserve Penalty Factor will be defined for each reserve requirement in a Reserve Zone or Reserve Sub-zone.

**Reserve Sub-zone:**

Any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Reserve Zone:**

Any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**Residual Auction Revenue Rights:**

"Residual Auction Revenue Rights" shall mean incremental stage 1 Auction Revenue Rights created within a Planning Period by an increase in transmission system capability, including the return to service of existing transmission capability, that was not modeled pursuant to section 7.5 of Schedule 1 of this Agreement in compliance with section 7.4.2 (h) of Schedule 1 of this Agreement, and, if modeled, would have increased the amount of stage 1 Auction Revenue Rights allocated pursuant to section 7.4.2 of Schedule 1 of this Agreement; provided that, the foregoing notwithstanding, Residual Auction Revenue Rights shall exclude: 1) Incremental Auction Revenue Rights allocated pursuant to Part VI of the Tariff; and 2) Auction Revenue Rights allocated to entities that are assigned cost responsibility pursuant to Schedule 6 of this Agreement for transmission upgrades that create such rights.

**Residual Metered Load:**

"Residual Metered Load" shall mean all load remaining in an electric distribution company's fully metered franchise area(s) or service territory(ies) after all nodally priced load of entities serving load in such area(s) or territory(ies) has been carved out.

**Resource Substitution Charge:**

“Resource Substitution Charge” shall mean a charge assessed on Capacity Market Buyers in an Incremental Auction to recover the cost of replacement Capacity Resources.

**RPM Seller Credit:**

RPM Seller Credit is an additional form of Unsecured Credit defined in section IV of this document.

**Scheduled Incremental Auctions:**

“Scheduled Incremental Auctions” shall refer to the First, Second, or Third Incremental Auction.

**Schedule of Work:**

Shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

Shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

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

**Second Incremental Auction**

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

**Security:**

The security provided by the New Service Customer pursuant to Section 212.4 or Section 213.4 of the Tariff to secure the New Service Customer’s responsibility for Costs under the



Interconnection Service Agreement or Upgrade Construction Service Agreement and Section 217 of the Tariff.

**Segment:**

*“Segment” shall have the same meaning as described in section 3.2.3(e) of Schedule 1 of this Agreement.*

**Self-Supply:**

“Self-Supply” shall mean Capacity Resources secured by a Load-Serving Entity, by ownership or contract, outside a Reliability Pricing Model Auction, and used to meet obligations under this Attachment or the Reliability Assurance Agreement through submission in a Base Residual Auction or an Incremental Auction of a Sell Offer indicating such Market Seller’s intent that such Capacity Resource be Self-Supply. Self-Supply may be either committed regardless of clearing price or submitted as a Sell Offer with a price bid. A Load Serving Entity’s Sell Offer with a price bid for an owned or contracted Capacity Resource shall not be deemed “Self-Supply,” unless it is designated as Self-Supply and used by the LSE to meet obligations under this Attachment or the Reliability Assurance Agreement.

**Sell Offer:**

“Sell Offer” shall mean an offer to sell Capacity Resources in a Base Residual Auction, Incremental Auction, or Reliability Backstop Auction.

**Service Agreement:**

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Service Commencement Date:**

The date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Section 15.3 or Section 29.1 under the Tariff.

**Short-Term Firm Point-To-Point Transmission Service:**

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of less than one year.

**Short-term Project:**

“Short-term Project” shall have the same meaning provided in the Operating Agreement.

**Short-Term Resource Procurement Target:**

“Short-Term Resource Procurement Target” shall mean, for Delivery Years through May 31, 2018, as to the PJM Region, for purposes of the Base Residual Auction, 2.5% of the PJM Region Reliability Requirement determined for such Base Residual Auction, for purposes of the First Incremental Auction, 2% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, for purposes of the Second Incremental Auction, 1.5% of the of the PJM Region Reliability Requirement as calculated at the time of the Base Residual Auction; and, as to any Zone, an allocation of the PJM Region Short-Term Resource Procurement Target based on the Preliminary Zonal Forecast Peak Load, reduced by the amount of load served under the FRR Alternative. For any LDA, the LDA Short-Term Resource Procurement Target shall be the sum of the Short-Term Resource Procurement Targets of all Zones in the LDA.

**Short-Term Resource Procurement Target Applicable Share:**

“Short-Term Resource Procurement Target Applicable Share” shall mean, for Delivery Years through May 31, 2018: (i) for the PJM Region, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction and, as to the Third Incremental Auction for the PJM Region, 0.6 times such target; and (ii) for an LDA, as to the First and Second Incremental Auctions, 0.2 times the Short-Term Resource Procurement Target used in the Base Residual Auction for such LDA and, as to the Third Incremental Auction, 0.6 times such target.

**Site:**

All of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

**Small Commercial Customer:**

“Small Commercial Customer,” as used in Schedule 6 of the RAA and Attachment DD-1 of the Tariff, shall mean a commercial retail electric end-use customer of an electric distribution company that participates in a mass market demand response program under the jurisdiction of a RERRA and satisfies the definition of a “small commercial customer” under the terms of the applicable RERRA’s program, provided that the customer has an annual peak demand no greater than 100kW.

**Small Generation Resource**

An Interconnection Customer’s device of 20 MW or less for the production and/or storage for later injection of electricity identified in an Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities. This term shall include Energy Storage Resources and/or other devices for storage for later injection of energy.

**Small Inverter Facility:**

An Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

**Small Inverter ISA:**

An agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under section 112B of Part IV of the Tariff.

**Special Member:**

“Special Member” shall mean an entity that satisfies the requirements of Section 1.5A.02 of this Schedule or the special membership provisions established under the Emergency Load Response and Pre-Emergency Load Response Programs.

**Spot Market Backup:**

“Spot Market Backup” shall mean the purchase of energy from, or the delivery of energy to, the PJM Interchange Energy Market in quantities sufficient to complete the delivery or receipt obligations of a bilateral contract that has been curtailed or interrupted for any reason.

**Spot Market Energy:**

“Spot Market Energy” shall mean energy bought or sold by Market Participants through the PJM Interchange Energy Market at System Energy Prices determined as specified in Section 2 of this Schedule.

**State:**

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

**State Commission:**

“State Commission” means any state regulatory agency having jurisdiction over retail electricity sales in any State in the PJM Region.

**State Estimator:**

“State Estimator” shall mean the computer model of power flows specified in Section 2.3 of this Schedule.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the

operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used for compressors at a compressed air energy storage facility; (iv) used for charging an Energy Storage Resource or a Capacity Storage Resource; or (v) used in association with restoration or black start service.

**Sub-Annual Resource Constraint:**

“Sub-Annual Resource Constraint” shall mean, for the 2017/2018 Delivery Year and for FRR Capacity Plans the 2017/2018 and 2018/2019 Delivery Years, for the PJM Region or for each LDA for which the Office of the Interconnection is required under section 5.10(a) of this Attachment DD to establish a separate VRR Curve for a Delivery Year, a limit on the total amount of Unforced Capacity that can be committed as Limited Demand Resources and Extended Summer Demand Resources for the 2017/2018 Delivery Year in the PJM Region or in such LDA, calculated as the Sub-Annual Resource Reliability Target for the PJM Region or for such LDA, respectively, minus the Short-Term Resource Procurement Target for the PJM Region or for such LDA, respectively.

**Sub-Annual Resource Price Decrement:**

“Sub-Annual Resource Price Decrement” shall mean, for the 2017/2018 Delivery Year, a difference between the clearing price for Extended Summer Demand Resources and the clearing price for Annual Resources, representing the cost to procure additional Annual Resources out of merit order when the Sub-Annual Resource Constraint is binding.

**Sub-Annual Resource Reliability Target:**

“Sub-Annual Reliability Target” for the PJM Region or an LDA, shall mean the maximum amount of the combination of Extended Summer Demand Resources and Limited Demand Resources in Unforced Capacity determined by PJM to be consistent with the maintenance of reliability, stated in Unforced Capacity, that shall be used to calculate the Minimum Annual Resource Requirement for Delivery Years through May 31, 2017 and the Sub-Annual Resource Constraint for the 2017/2018 and 2018/2019 Delivery Years. As more fully set forth in the PJM Manuals, PJM calculates the Sub-Annual Resource Reliability Target, by first determining a reference annual loss of load expectation (“LOLE”) assuming no Demand Resources. The calculation for the unconstrained portion of the PJM Region uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast and iteratively shifting the load distributions to result in the Installed Reserve Margin established for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Installed Reserve Margin study for the Delivery Year in question). The calculation for each relevant LDA uses a daily distribution of loads under a range of weather scenarios (based on the most recent load forecast for the Delivery Year in question) and a weekly capacity distribution (based on the cumulative capacity availability distributions developed for the Capacity Emergency Transfer Objective study for the Delivery Year in question). For the relevant LDA calculation, the weekly capacity distributions are adjusted to reflect the Capacity Emergency Transfer Limit for the Delivery Year in question.

For both the PJM Region and LDA analyses, PJM then models the commitment of varying amounts of DR (displacing otherwise committed generation) as interruptible from May 1 through October 31 and unavailable from November 1 through April 30 and calculates the LOLE at each DR level. The Extended Summer DR Reliability Target is the DR amount, stated as a percentage of the unrestricted peak load, that produces no more than a ten percent increase in the LOLE, compared to the reference value. The Sub-Annual Resource Reliability Target shall be expressed as a percentage of the forecasted peak load of the PJM Region or such LDA and is converted to Unforced Capacity by multiplying [the reliability target percentage] times [the Forecast Pool Requirement] times [the DR Factor] times [the forecasted peak load of the PJM Region or such LDA, reduced by the amount of load served under the FRR Alternative].

**Sub-meter:**

“Sub-meter” shall mean a metering point for electricity consumption that does not include all electricity consumption for the end-use customer as defined by the electric distribution company account number. PJM shall only accept sub-meter load data from end-use customers for measurement and verification of Regulation service as set forth in the Economic Load Response rules and PJM Manuals.

**Switching and Tagging Rules:**

The switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

**Synchronized Reserve:**

“Synchronized Reserve” shall mean the reserve capability of generation resources that can be converted fully into energy or Demand Resources whose demand can be reduced within ten minutes from the request of the Office of the Interconnection dispatcher, and is provided by equipment that is electrically synchronized to the Transmission System.

**Synchronized Reserve Event:**

“Synchronized Reserve Event” shall mean a request from the Office of the Interconnection to generation resources and/or Demand Resources able, assigned or self-scheduled to provide Synchronized Reserve in one or more specified Reserve Zones or Reserve Sub-zones, within ten minutes, to increase the energy output or reduce load by the amount of assigned or self-scheduled Synchronized Reserve capability.

**Synchronized Reserve Requirement:**

“Synchronized Reserve Requirement” shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Synchronized Reserve, absent any increase to account for additional reserves scheduled to address operational uncertainty. The Synchronized Reserve Requirement is calculated in accordance with the PJM Manuals.

**System Condition:**

A specified condition on the Transmission Provider's system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Section 13.6. Such conditions must be identified in the Transmission Customer's Service Agreement.

**System Energy Price:**

"System Energy Price" shall mean the energy component of the Locational Marginal Price, which is the price at which the Market Seller has offered to supply an additional increment of energy from a resource, calculated as specified in Section 2 of Schedule 1 of this Agreement.

**System Impact Study:**

An assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer's Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer's cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

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

## **Definitions – T – U - V**

### **Tangible Net Worth:**

Tangible Net Worth is all assets (not including any intangible assets such as goodwill) less all liabilities. Any such calculation may be reduced by PJMSettlement upon review of the available financial information.

### **Target Allocation:**

“Target Allocation” shall mean the allocation of Transmission Congestion Credits as set forth in Section 5.2.3 of this Schedule or the allocation of Auction Revenue Rights Credits as set forth in Section 7.4.3 of this Schedule.

### **Third Incremental Auction:**

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

### **Third-Party Sale:**

Any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

### **Total Lost Opportunity Offer:**

“Total Lost Opportunity Offer” is the applicable offer used to calculate lost opportunity credits. For pool-scheduled generating units specified in section 3.2.3(f-1) of this Schedule, the Total Lost Opportunity Offer shall equal the hourly offer integrated under the applicable offer curve for the LOC Deviation, as determined by the greater of the Committed Offer or last Real-Time Offer submitted for the offer on which the resource was committed in the Day-Ahead Energy Market for each hour in an Operating Day. For all other pool-scheduled generating units, the Total Lost Opportunity Offer shall equal the hourly offer integrated under the applicable offer curve for the LOC Deviation, as determined by the offer curve associated with the greater of the Committed Offer or Final Offer for each hour in an Operating Day. For self-scheduled generating units, the Total Lost Opportunity Offer shall equal the hourly offer integrated under the applicable offer curve for the LOC Deviation, as determined by the either the cost-based offer on which the resource was dispatched or the offer curve associated with the highest available offer submitted by the Market Seller for each hour in an Operating Day.

### **Total Net Obligation:**

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

**Total Net Sell Position:**

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

**Total Operating Reserve Offer:**

“Total Operating Reserve Offer” is the applicable offer used to calculate Operating Reserve credits. The Total Operating Reserve Offer shall equal the sum of all individual hourly energy offers, inclusive of start-up costs (shut-down costs for Demand Resources) and no-load costs, for every hour in a Segment, integrated under the applicable offer curve up to the applicable megawatt output as further described in the PJM Manuals. The applicable offer curve shall be the lesser of the Committed Offer or Final Offer for each hour in an Operating Day.

**Transmission Congestion Charge:**

“Transmission Congestion Charge” shall mean a charge attributable to the increased cost of energy delivered at a given load bus when the transmission system serving that load bus is operating under constrained conditions, or as necessary to provide energy for third-party transmission losses in accordance with Section 9.3, which shall be calculated and allocated as specified in Section 5.1 of this Schedule.

**Transmission Congestion Credit:**

“Transmission Congestion Credit” shall mean the allocated share of total Transmission Congestion Charges credited to each *FTR Holder*, calculated and allocated as specified in Section 5.2 of this Schedule.

**Transmission Customer:**

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

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

**Transmission Facilities**

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



**Transmission Forced Outage:**

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

**Transmission Injection Rights:**

Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

**Transmission Interconnection Customer:**

An entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Schedule 6 of the Operating Agreement).

**Transmission Interconnection Facilities Study:**

A Facilities Study related to a Transmission Interconnection Request.

**Transmission Interconnection Feasibility Study:**

A study conducted by the Transmission Provider in accordance with Section 36.2 of the Tariff.

**Transmission Interconnection Request:**

A request by a Transmission Interconnection Customer pursuant to Part IV of the Tariff to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

**Transmission Loading Relief:**

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

**Transmission Loading Relief Customer:**

“Transmission Loading Relief Customer” shall mean an entity that, in accordance with Section 1.10.6A, has elected to pay Transmission Congestion Charges during Transmission Loading Relief in order to continue energy schedules over contract paths outside the PJM Region that are increasing the cost of energy in the PJM Region.

**Transmission Loss Charge:**

“Transmission Loss Charge” shall mean the charges to each Market Participant, Network Customer, or Transmission Customer for the cost of energy lost in the transmission of electricity from a generation resource to load as specified in Section 5 of this Schedule.

**Transmission Owner:**

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

**Transmission Owner Attachment Facilities:**

That portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

**Transmission Owner Interconnection Facilities:**

All Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Section 5.5 of Appendix 2 to Attachment P of the PJM Tariff to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner’s side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System or interconnected distribution facilities.

**Transmission Owner Upgrade:**

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

**Transmission Planned Outage:**

“Transmission Planned Outage” shall mean any transmission outage scheduled in advance for a pre-determined duration and which meets the notification requirements for such outages specified in this Agreement or the PJM Manuals.

**Transmission Provider:**

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

- (a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to direct the operation and maintenance of those transmission facilities that are not listed in the PJM Designated Facilities List contained in the PJM Manual on Transmission Operations;
- (b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and
- (c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff, Operating Agreement and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

**Transmission Provider's Monthly Transmission System Peak:**

The maximum firm usage of the Transmission Provider's Transmission System in a calendar month.

**Transmission Service:**

Point-To-Point Transmission Service provided under Part II of the Tariff on a firm and non-firm basis.

**Transmission Service Request:**

A request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

**Transmission System:**

The facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the Tariff.

**Transmission Withdrawal Rights:**

Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

**Uncleared Bid Exposure:**

~~Uncleared Bid Exposure is a measure of exposure from Increment Offers and Decrement Bids activity relative to a Market Participant's established credit as defined in this policy Attachment Q of the Tariff. It is used only as a pre-screen to determine whether a Market Participant's Increment Offers and Decrement Bids should be subject to Increment Offer and Decrement Bid Screening.~~

**Unconstrained LDA Group:**

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

**Unforced Capacity:**

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

**Unsecured Credit:**

Unsecured Credit is any credit granted by PJM Settlement to a Participant that is not secured by a ~~form of Financial Security Collateral~~.

**Unsecured Credit Allowance:**

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

**Updated VRR Curve:**

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

**Updated VRR Curve Decrement:**

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments

associated with the transition provision of section 5.14C, 5.14D (as related to the 2016/2017 Delivery Year), and 5.14E of this Attachment DD.

**Updated VRR Curve Increment:**

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

**Upgrade Construction Service Agreement:**

That agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Subpart B of Part VI of the Tariff, and in the form set forth in Attachment GG of the Tariff.

**Upgrade Customer:**

A customer that submits an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement.

**Upgrade-Related Rights:**

Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights.

**Upgrade Request:**

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

**Up-to Congestion Counterflow Transaction:**

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

**Up-to Congestion Historical Month:**

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

**Up-to Congestion Prevailing Flow Transaction:**

An Up-to Congestion Transaction will be deemed an Up-to Congestion Prevailing Flow Transaction if it is not an Up-to Congestion Counterflow Transaction.

**Up-to Congestion Reference Price:**

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

- For Up-to Congestion Prevailing Flow Transactions: 30<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when bid: 20<sup>th</sup> percentile
- For Up-to Congestion Counterflow Transactions when cleared: 5<sup>th</sup> percentile

**Up-to Congestion Transaction:**

“Up-to Congestion Transaction” shall have the meaning specified in Section 1.10.1A of this Schedule.

**Variable Loads:**

“Variable Loads” shall have the meaning specified in section 1.5A.6 of this Schedule.

**Variable Resource Requirement Curve:**

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

**Virtual Credit Exposure:**

Virtual Credit Exposure is the amount of potential credit exposure created by a market participant’s bid submitted into the Day-ahead market, as defined in [this policy Attachment Q of the Tariff](#).

**Virtual Transaction:**

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

**Virtual Transaction Screening:**

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

**Virtual Transactions Net Activity:**

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

## Definitions – W – X – Y - Z

### Wholesale Transaction:

As used in Part IV of the Tariff, “Wholesale Transaction” means any transaction involving the transmission or sale for resale of electricity in interstate commerce that utilizes any portion of the Transmission System.

### Working Credit Limit:

Working Credit Limit amount is 75% of the ~~Market~~ Participant’s Unsecured Credit Allowance and/or 75% of the ~~Financial Security Collateral~~ provided by the ~~Market~~ Participant to PJM Settlement. The Working Credit Limit establishes the maximum amount of Total Net Obligation that a ~~Market~~ Participant may have outstanding at any time. The calculation of Working Credit Limit shall take into account applicable reductions for Minimum Participation Requirements, FTR, or other credit requirement determinants as defined in ~~this~~ Policy Attachment Q of the Tariff.

### Working Credit Limit for Virtual Transactions:

The Working Credit Limit for Virtual Transactions shall be calculated as 75% of the Market Participant’s Unsecured Credit Allowance and/or 75% of the ~~Financial Security Collateral~~ provided by the Market Participant to PJM Settlement when the Market Participant is at or below its Peak Market Activity credit requirements as specified in section ~~H.DV.A~~ of ~~this~~ Credit Policy Attachment Q of the Tariff. When the Market Participant provides additional Unsecured Credit Allowance and/or ~~Financial Security Collateral~~ in excess of its Peak Market Activity credit requirements, such additional Unsecured Credit Allowance and/or ~~Financial Security Collateral~~ shall not be discounted by 25% when calculating the Working Credit Limit for Virtual Transactions. The Working Credit Limit for Virtual Transactions is a component in the calculation of Credit Available for Virtual Transactions. The calculation of Working Credit Limit for Virtual Transactions shall take into account applicable reductions for Minimum Participation Requirements, FTR, or other credit requirement determinants as defined in ~~this~~ Policy Attachment Q of the Tariff.

### Zonal Base Load:

“Zonal Base Load” shall mean the lowest daily zonal peak load from the twelve month period ending October 21 of the calendar year immediately preceding the calendar year in which an annual Auction Revenue Right allocation is conducted, increased by the projected load growth rate for the relevant Zone, when non-extraordinary conditions exist for the applicable twelve month period, as determined by PJM. If the lowest daily zonal peak load from the applicable twelve month period is abnormally low due to extraordinary conditions, as determined by PJM, Zonal Base Load shall mean the next lowest daily zonal peak load that was not affected by extraordinary conditions during the applicable twelve month period, increased by the projected load growth rate for the relevant Zone. For the purposes of this definition, extraordinary conditions shall mean a significant event, or combination of events, that affect the operation of



the bulk power system in an atypical manner and results in an abnormal reduction in the consumption of energy within a Zone.

**Zonal Capacity Price:**

“Zonal Capacity Price” shall mean the clearing price required in each Zone to meet the demand for Unforced Capacity and satisfy Locational Deliverability Requirements for the LDA or LDAs associated with such Zone. If the Zone contains multiple LDAs with different Capacity Resource Clearing Prices, the Zonal Capacity Price shall be a weighted average of the Capacity Resource Clearing Prices for such LDAs, weighted by the Unforced Capacity of Capacity Resources cleared in each such LDA.

**Zone:**

An area within the PJM Region, as set forth in Attachment J.

**Zone Network Load:**

Network Load that is located inside of the area comprised of the PJM Region.

Formatted: Left

NOTE: Section References will be updated before filing

## ATTACHMENT Q

### PJM CREDIT POLICY

#### POLICY STATEMENT 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 ~~demonstrate its ability to~~ meet PJM Settlement's credit requirements.

Prior to becoming a Market Participant ~~and/or~~ Transmission Customer, ~~and/or Member~~ of PJM, PJM Settlement must accept and approve a ~~c~~Credit ~~a~~Application (including ~~c~~Credit ~~a~~Agreement) from such entity ~~and establish a Working Credit Limit with PJM Settlement.~~ PJM Settlement shall approve or deny ~~an accepted submitted~~ ~~c~~Credit ~~a~~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.

#### POLICY INTENT:

~~This credit policy describes requirements for: (1) the establishment and maintenance of credit by Market Participants, Transmission Customers, and entities seeking either such status (collectively "Participants"), pursuant to one or more of the Agreements, and (2) forms of security that will be deemed acceptable (hereinafter the "Financial Security") in the event that the Participant does not satisfy the financial or other requirements to establish Unsecured Credit.~~

~~This policy also sets forth the credit limitations that will be imposed on Participants in order to minimize the possibility of failure of payment for services rendered pursuant to the Agreements, and conditions that will be considered an event of default pursuant to this policy and the Agreements.~~

These credit rules may establish certain restrictions on available credit by requiring that some amounts set asides of credit ~~before~~ 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 set asides shall be construed to be applicable to calculation of credit requirements only, and shall not restrict PJM Settlement's ability to apply such designated credit to any obligation(s) in case of a default.

PJM Settlement 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. PJM Settlement 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 Qcredit policy, 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.

#### **APPLICABILITY:**

This policy applies to all Participants.

#### **IMPLEMENTATION:**

##### **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 ~~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 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 ~~VIII.B of Attachment Q~~ 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 ~~c~~Credit ~~a~~Application and the annual certification set forth in Appendix 1 to this Attachment Q 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 PJM

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 set forth in Appendix 1 to this Attachment Q) 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 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 Mmarkets. 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 Mmarkets 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 Mmarkets in which the Participant is transacting, the magnitude of the Participant's transactions in the PJM Mmarkets, or the volume of the Participant's open positions in the PJM Mmarkets. 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 Mmarket activities and shall also provide such further information or documentation pertaining to the Participants' activities in the PJM Mmarkets 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 Mmarkets 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, 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 ~~credit policy~~ 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 ~~credit policy~~ 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 ~~credit policy~~ 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 ~~credit policy~~ 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 ~~credit policy~~ 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) the applicable Unsecured Credit Allowance available to the Participant by the Corporate Guaranty pursuant to the creditworthiness provisions of this ~~credit policy~~ Attachment Q, or,
- (2) the face value of the Corporate Guaranty, reduced by 10%.

## II. CREDIT EVALUATION UNSECURED CREDIT ALLOWANCE

~~Each Participant will be subject to a complete credit evaluation in order for PJMSettlement to determine creditworthiness and to establish an Unsecured Credit Allowance, if applicable; provided, however, that a Participant need not provide the information specified in section I.A or I.B if it notifies PJMSettlement in writing that it does not seek any Unsecured Credit Allowance. PJMSettlement will identify any necessary Financial Security requirements and establish a Working Credit Limit for each Participant. In addition, PJMSettlement will perform follow up credit evaluations on at least an annual basis.~~

~~If a Corporate Guaranty is being utilized to establish credit for a Participant, the guarantor will be evaluated and the Unsecured Credit Allowance or Financial Security requirement will be based on the financial strength of the Guarantor.~~

~~PJMSettlement will provide a Participant, upon request, with a written explanation for any change in credit levels or collateral requirements. PJMSettlement will provide such explanation within ten Business Days.~~

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

- ~~• A citation to the applicable section(s) of the PJMSettlement credit policy along with an explanation of how the respective provisions of the credit policy were not carried out in the determination as made~~
- ~~• A calculation of what the Participant believes should be the correct credit level or collateral requirement, according to terms of the credit policy~~

~~PJMSettlement will reconsider the determination and will provide a written response as promptly as practical, but no longer than ten Business Days of 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:~~

- ~~◆ A complete copy of the Participant's earlier request for reconsideration, including citations and calculations~~
- ~~◆ A copy of PJMSettlement's written response to its request for reconsideration~~
- ~~◆ An explanation of why it believes that the determination still does not comply with the credit policy~~

~~PJMSettlement will investigate and will respond to the Participant with a final determination on the matter as promptly as practical, but no longer than 20 Business Days.~~

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

#### ~~A. Initial Credit Evaluation~~

~~In completing the initial 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 must submit with its application audited financial statements for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the Participant, if shorter. All financial and related information considered for a Credit Score must~~

be audited by an outside entity, and must be accompanied by an unqualified audit letter acceptable to PJMSettlement.

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.~~
  
- 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) — References~~

~~PJMSettlement may request Participants to provide with their applications at least one (1) bank and three (3) utility credit references. In the case where a Participant does not have the required utility references, trade payable vendor references may be substituted.~~

### ~~4) — Litigation, Commitments and Contingencies~~

~~Each Participant is also required to provide with its application information as to any known Material litigation, commitments or contingencies as well as any prior bankruptcy declarations or Material defalcations by the Participant or its predecessors, subsidiaries or Affiliates, if any. These disclosures shall be made upon application, upon initiation or change, and at least annually thereafter, or as requested by PJMSettlement.~~

### ~~5) — Other Disclosures~~

~~Each Participant is required to disclose any Affiliates that are currently Members of PJMSettlement or are applying for membership with PJMSettlement. Each Participant is also~~

~~required to disclose the existence of any ongoing investigations by the Securities and Exchange Commission (“SEC”), Federal Energy Regulatory Commission (“FERC”), Commodity Futures Trading Commission (“CFTC”), or any other governing, regulatory, or standards body. These disclosures shall be made upon application, upon initiation or change, and at least annually thereafter, or as requested by PJMSettlement.~~

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

#### **AB. Ongoing Unsecured Credit Allowance Evaluation**

~~On at least an annual basis, PJMSettlement will perform follow-up credit evaluations 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. ~~Each Participant is also required to provide PJMSettlement with quarterly financial statements promptly upon their issuance, but no later than 60 days after the end of each quarter.~~ All financial and related information considered for an Unsecured Credit Allowance-Credit Score 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 mMaterial 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 purpose of this [policy Attachment Q](#), a [Material](#) change in financial condition may include, but 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 (EDF<sup>tm</sup>) that is noticeably greater than the increase in its peers' EDF<sup>tm</sup>

rates, or a collateral default swap (CDS) premium normally associated with an entity rated lower than investment grade.

If PJMSettlement determines that a ~~m~~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 Financial Security Collateral within two Business Days, ~~in an amount and form approved by PJMSettlement~~. If the Participant fails to provide the required Financial Security Collateral, the Participant shall be in default under this ~~credit policy~~ Attachment Q.

In the event that PJMSettlement determines that a ~~m~~Material change in the financial condition of a Participant warrants a requirement to provide Financial Security 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 Financial Security Collateral be deferred pending the issuance of such written explanation.

#### ~~4) Litigation, Commitments, and Contingencies~~

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

#### ~~5) Other Disclosures~~

~~Each Participant is required to disclose any Affiliates that are currently Members of PJM or are applying for membership within PJM. Each Participant is also required to disclose the existence of any ongoing investigations by the SEC, FERC, CFTC or any other governing, regulatory, or standards body. These disclosures shall be made upon initiation or change, or as requested by PJMSettlement.~~

### 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 ~~credit policy~~ Attachment Q, then the Participant may send a request for reconsideration in writing to PJMSettlement. Such a request should include:

- A citation to the applicable section(s) of the PJMSettlement credit policy this Attachment Q along with an explanation of how the respective provisions of the ~~credit policy~~ this Attachment Q were not carried out in the determination as made.

- A calculation of what the Participant believes should be the correct credit level or Collateral requirement, according to terms of ~~the credit policy~~ 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:

- ◆ A complete copy of the Participant's earlier request for reconsideration, including citations and calculations
- ◆ A copy of PJMSettlement's written response to its request for reconsideration
- ◆ An explanation of why it believes that the determination still does not comply with ~~the credit policy~~ 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 ~~credit policy~~ Attachment Q.

### **C. Corporate Guaranty**

~~If a Corporate Guaranty is being utilized to establish credit for a Participant, the Guarantor will be evaluated and the Unsecured Credit Allowance or Financial Security requirement will be based on the financial strength of the Guarantor.~~

~~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 as part of the credit evaluation process, but will not be considered a form of Financial Security Collateral. The Corporate Guaranty will be considered a transfer of credit from the Guarantor to the Participant. The Corporate Guaranty must guarantee the (i) full and prompt payment of all amounts payable by the Participant under the Agreements, and (ii) performance by the Participant under this policy.~~

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 should clearly state the identities of the "Guarantor," "Beneficiary" (PJMSettlement) and "Obligor" (Participant). 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 ~~c~~Corporate ~~s~~Seal on the Corporate Guaranty itself, or an accompanying executed and sealed ~~s~~Secretary's ~~c~~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. A Participant supplying a Corporate Guaranty must provide the same information regarding the Guarantor as is required in the "Initial Credit Evaluation" §I.A. and the "Ongoing Evaluation" §I.B. of this policy, including providing the Rating Agency Reports, Financial Statements and Related Information, References, Litigation Commitments and Contingencies, and Other Disclosures. A Participant supplying a Foreign or Canadian Guaranty must also satisfy the requirements of §I.C.1 or §I.C.2, as appropriate.

If PJM-Settlement determines that ~~if there is a m~~Material change in the financial condition of the Guarantor has occurred, or if the Corporate Guaranty comes within 30 days of expiring without renewal, ~~the Participant will be required to provide Financial Security either in the form of a cash deposit or a letter of credit. Failure to provide the required Financial Security within two Business Days after request by PJMSettlement will constitute an event of default under this credit policy. A Participant may request PJMSettlement to perform a credit evaluation in order to determine creditworthiness and to establish an Unsecured Credit Allowance, if applicable. If PJMSettlement determines that a Participant does qualify for a sufficient Unsecured Credit Allowance, then Financial Security will not be required. 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 credit policy.~~Attachment Q.

The PJMSettlement Credit Application contains an acceptable form of Corporate Guaranty 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. All costs associated with obtaining and maintaining a Corporate Guaranty and meeting the policy 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 ~~the PJM credit policy~~ [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 ~~s~~Senior ~~u~~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 Depository 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 ~~credit policy~~ 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

~~A Canadian Guaranty is a Corporate Guaranty that is provided by an Affiliate entity that is domiciled in Canada and satisfies all of the provisions below.~~ 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 ~~the PJM credit policy~~ 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 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 ~~eCredit pPolicy~~ Attachment Q.

**Ia. — MINIMUM PARTICIPATION REQUIREMENTS**

**A. — PJM Market Participation Eligibility Requirements**

~~To be eligible to transact in 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(e)(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 I.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, or;

5. a Market Participant providing a letter of credit of at least \$5 million to PJM Settlement in a form acceptable to PJM Settlement as described in Section VI.B of Attachment Q that the Market Participant acknowledges is separate from, and cannot be applied to meet, its credit requirements to PJM Settlement.

If, at any time, a Market Participant cannot meet the eligibility requirements set forth above, it shall immediately notify PJM Settlement and immediately cease conducting transactions in the PJM Markets. PJM Settlement 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 PJM's Markets, PJM Settlement 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 PJM Settlement.

#### **B. — Risk Management and Verification**

All Participants shall provide to PJM Settlement an executed copy of the annual certification set forth in Appendix 1 to this Attachment Q. This certification shall be provided before an entity is eligible to participate in the PJM Markets and shall be initially submitted to PJM Settlement together with the entity's Credit Application. Thereafter, it shall be submitted each calendar year by all Participants during a period beginning on January 1 and ending April 30, except that new Participants who became eligible to participate in PJM markets during the period of January through April shall not be required to resubmit such certification until the following calendar year. Except for certain FTR Participants (discussed below) or in cases of manifest error, PJM Settlement will accept such certifications as a matter of course and Participants will not need further notice from PJM Settlement 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 PJM Settlement receives the Participant's certification.

Participants acknowledge and understand that the annual certification constitutes a representation upon which PJM Settlement will rely. Such representation is additionally made under the PJM 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 set forth in Appendix 1 to this Attachment Q) 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 policies, practices and/or controls applicable to their FTR trading activities, they may instead submit to PJMSettlement a certification stating that no 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. If principles or best practices relating to risk management in FTR type markets are published, as may be modified from time to time, by a third party industry association, such as the Committee of Chief Risk Officers, 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 fundamental sufficiency of the FTR Participant's risk controls. Those FTR Participants subject to this provision shall make a one time payment of \$1,000.00 to PJMSettlement to cover costs associated with review and verification. 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 Operating Agreement.

An FTR Participant that makes the representation in paragraph 3.a of the annual certification understand that PJMSettlement, given the visibility it has over a Participant's overall market activity in performing billing and settlement functions, may at any time request 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 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 PJM type 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 14 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 14 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 14 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 I to this Attachment Q, 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 Credit Policy, 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 deemed Financial Security and available to satisfy the requirements of this Credit Policy.~~

~~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 Financial Security provided by the Participant and available to satisfy requirements of this Credit Policy.~~

~~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 Financial Security available to satisfy requirements of this Credit Policy.~~

~~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 Financial Security available to satisfy requirements of this Credit Policy.~~

~~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 Guaranty 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 credit policy, or,~~

~~(2) the face value of the Guaranty, reduced by 10%.~~



**HD. CREDIT ALLOWANCE AND WORKING CREDIT LIMIT**  
**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.

~~Participants who do not qualify for an Unsecured Credit Allowance will be required to provide Financial Security based on their Peak Market Activity, as provided below.~~

~~A corresponding Working Credit Limit will be established based on the Unsecured Credit Allowance and/or the Financial Security provided.~~

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

In its credit evaluation of cCooperatives and mMunicipalities, 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.

**A1. Credit Score**

For Pparticipants 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 uUnsecured 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. ~~Key factors in the scoring process include, financial ratios, and years in business.~~ 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

**B2): 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:

**a1)** 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

**b2)** 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:

- The limit imposed in the Corporate Guaranty;
- The Unsecured Credit Allowance calculated for the Guarantor; and
- 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 Financial Security Collateral as may be deemed reasonably necessary to support current market activity. Failure to remit pay the required amount of additional Financial Security 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 web-site in a secure, password-protected location. ~~Such information will be updated at least weekly.~~ Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

### **C. — Peak Market Activity and Financial Security Requirement**

~~A PJM Participant or Applicant that has an insufficient Unsecured Credit Allowance to satisfy its Peak Market Activity will be required to provide Financial Security such that its Unsecured Credit Allowance and Financial Security together are equal to its Peak Market Activity in order to secure its transactional activity in the PJM Market.~~

~~Peak Market Activity for Participants will be determined semi-annually beginning in 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, as explained below, 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.~~

~~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 Participants, calculated at the beginning of each respective 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 Credit Policy.~~

~~All 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 the Credit Policy; 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 Financial Security 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 Financial Security Requirement.

PJM Settlement may, at its discretion, adjust a Participant's Financial Security Requirement if PJM Settlement 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.

PJM Settlement may waive the Financial Security Requirement for a Participant that 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.

PJM Settlement will maintain a posting of each Participant's Financial Security Requirement on the PJM web site in a secure, password protected location. Such information will be updated at least weekly. Each Participant will be responsible for monitoring such information and recognizing changes that may occur.

#### **D. — Working Credit Limit**

PJM Settlement 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 Financial Security provided to PJM Settlement and/or 75% of the Unsecured Credit Allowance determined by PJM Settlement based on a credit evaluation, as reduced by any applicable credit requirement determinants defined in this policy. A Participant's Total Net Obligation should not exceed its Working Credit Limit.

Example: After a credit evaluation by PJM Settlement, a Participant is deemed able to support an Unsecured Credit Allowance of \$10.0 million. The Participant will be assigned a Working Credit Limit of \$8.5 million. PJM Settlement will monitor the Participant's Total Net Obligations against the Working Credit Limit.

A Participant with an Unsecured Credit Allowance may choose to provide Financial Security in order to increase its Working Credit Limit. A Participant with no Unsecured Credit Allowance may also choose to increase its Working Credit Limit by providing Financial Security in an amount greater than its Peak Market Activity.

If a Participant's Total Net Obligation approaches its Working Credit Limit, PJM Settlement may require the Participant to make an advance payment or increase its Financial Security in order to maintain its Total Net Obligation below its Working Credit Limit. Except as explicitly provided below, 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. PJM Settlement 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 Financial Security in an amount as may be deemed reasonably necessary to support its Total Net Obligation.~~

~~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.~~

### ~~3E. Credit Limit Setting For Unsecured Credit Limits For Affiliates~~

~~If two or more Participants are Affiliates and each is being granted an Unsecured Credit Allowance and a corresponding Working Credit Limit, PJMSettlement will consider the overall creditworthiness of the Affiliated Participants Affiliates when determining the Unsecured Credit Allowances and Working Credit Limits 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 Affiliated Participants 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 and Working Credit Limit amongst the group, assuring that no individual Participant or common guarantor, shall exceed the Unsecured Credit level appropriate for its credit strength and activity.~~

### ~~F. Working Credit Limit Violations~~

#### ~~1) Notification~~

~~A Participant is subject to notification when its Total Net Obligation to PJMSettlement approaches the Participant's established Working Credit Limit.~~

#### ~~2) Suspension~~

~~A Participant that exceeds its Working Credit Limit is subject to suspension from participation in the PJM markets and from scheduling any future Transmission Service unless and until Participant's credit standing is brought within acceptable limits. A Participant will have two Business Days from notification to remedy the situation in a manner deemed acceptable by PJMSettlement. Additionally, 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. Failure to comply with this policy will be considered an event of default under this credit policy.~~

**~~G. — PJM Administrative Charges~~**

~~Financial Security held by PJMSettlement shall also secure obligations to PJM for PJM administrative charges.~~

**~~H. — Pre-existing Financial Security~~**

~~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 Attachment Q. Financial Security held by PJM prior to the effective date of such amendments shall be held by PJM for the benefit of PJMSettlement.~~

**III. FORMS OF COLLATERAL**

In order to satisfy their PJM credit requirements Participants may provide Collateral in a PJMSettlement approved form and amount according 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 ~~credit policy~~ 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.

- 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 ~~credit policy~~ Attachment Q, including having its own acceptable credit rating.
- 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 ~~credit policy~~ Attachment Q and one of more of the Agreements.
- PJM Settlement will post on PJM's 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 meet its Collateral requirement with a letter of credit. If the letter

of credit varies in any way from the ~~standard PJM Settlement~~ format, it must first be reviewed and approved by PJM Settlement. All costs associated with obtaining and maintaining a letter of credit and meeting the ~~policy Attachment Q~~ provisions are the responsibility of the Participant.

- PJM Settlement may accept a letter of credit from a financial institution that does not meet the credit standards of this ~~policy Attachment Q~~ provided that the letter of credit has third-party support, in a form acceptable to PJM Settlement, from a financial institution that does meet the credit standards of this ~~policy Attachment Q~~.

### C. PJM Administrative Charges

Collateral held by PJM Settlement 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

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

## IIIV. CREDIT REQUIREMENTS FOR SCREENED TRANSACTIONS

### IIIA. VIRTUAL AND EXPORT TRANSACTION SCREENING

#### A1). Credit for Virtual and Export Transactions and Financial Security

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

PJM Settlement does not require a Market Participant to establish separate or additional credit for submitting Virtual or Export Transactions; however, once transactions are submitted and accepted by PJM, PJM Settlement 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 ~~Financial Security 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 ~~Financial Security Collateral~~ and/or Unsecured Credit Allowance available to increase a Market Participant's Credit Available for Virtual Transactions shall be the amount of ~~Financial Security Collateral~~ and/or Unsecured Credit Allowance available after subtracting any credit required for Minimum Participation Requirements, FTR, ~~RPME Export Transactions~~, or other credit requirement determinants as defined in this ~~policy Attachment Q~~, as applicable.



If a Market Participant chooses to provide additional Financial Security Collateral in order to increase its Credit Available for Virtual Transactions PJM Settlement may establish a reasonable timeframe, not to exceed three months, for which such Financial Security Collateral must be maintained. PJM Settlement 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 ~~wishing to~~ may increase its Credit Available for Virtual Transactions by providing additional Financial Security Collateral ~~to may make the appropriate arrangements with~~ PJM Settlement. PJM Settlement will make a good faith effort to make new Financial Security Collateral available as Credit Available for Virtual Transactions as soon as practicable after confirmation of receipt. In any event, however, Financial Security Collateral received and confirmed by noon on a business day will be applied (as provided under this policy Attachment Q) to Credit Available for Virtual Transactions no later than 10:00 am on the following business day. Receipt and acceptance of wired funds for cash deposit shall mean actual receipt by PJM Settlement's bank, deposit into PJM Settlement's customer deposit account, ~~and~~ confirmation by PJM Settlement 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, ~~and~~ confirmation from PJM Settlement's credit and legal staffs that such letter of credit or amendment thereto conforms to PJM Settlement'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 wiring funds for the purpose of increasing their Credit Available for Virtual Transactions are advised to submit such Collateral well in advance of the desired time, and to specifically notify PJM Settlement of such submission that a wire is being sent for such purpose.

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.

## **B2): Virtual Transaction Screening Process**

All Virtual Transactions submitted to PJM shall be subject to a credit screen prior to acceptance in the Day-ahead Energy Market ~~auction~~. 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 ~~PJM-M~~ market ~~P~~ participant in a customer account if the Market P 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 P participant's Virtual Transactions submitted, ~~Virtual Transactions~~ 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 ~~M~~ market ~~P~~ participant for the next ~~market day~~ Operating Day using the following equation:

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

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

(a.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 (b) ((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.

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

(a.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 (b) 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.

~~If a Market Participant's Virtual Transactions are rejected as a result of the credit screen process, the Market Participant will be notified via an Markets Gateway error message. A Market Participant whose Virtual Transactions are rejected may alter its Virtual Transactions so that its Virtual Credit Exposure does not exceed its Credit Available for Virtual Transactions, and may resubmit them. Virtual Transactions may be submitted in one or more groups during a day. If one or more groups of Virtual Transactions is submitted and accepted, and a subsequent group of submitted Virtual Transactions causes the total submitted Virtual Transactions to exceed the Virtual Credit Exposure, then only that subsequent set of Virtual Transactions will be rejected. Previously accepted Virtual Transactions will not be affected, though the Market Participant may choose to withdraw them voluntarily.~~

#### **IVB. RELIABILITY PRICING MODEL RPM AUCTION AND PRICE RESPONSIVE DEMAND CREDIT REQUIREMENTS**

Settlement during any Delivery Year of cleared positions resulting or expected to result from any Reliability Pricing Model 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.

#### **A.1) Applicability**

A ~~Market Seller~~Market Participant seeking to submit a Sell Offer in any ~~Reliability Pricing Model~~RPM Auction based on any Capacity Resource for which there is a materially increased risk of nonperformance must satisfy the credit requirement specified in section IV.B 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 in section IV.B 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.C.

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.

#### **B.2) Reliability Pricing Model Auction and Price Responsive Demand Credit Requirement**

Except as provided for Credit-Limited Offers below, for any resource specified in ~~s~~Section IV.A, other than Price Responsive Demand, the credit requirement shall be the RPM Auction Credit Rate, as provided in ~~s~~Section IV.D, times the megawatts to be offered for sale from such resource in an ~~Reliability Pricing Model~~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.D, 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 Seller~~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 Seller~~Market Participant in the auction or, as applicable, cleared by such ~~Market Seller~~Market Participant from in the relevant auctions. For Price Responsive Demand specified in section IV.A, 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.E.

Except for Credit-Limited Offers, the RPM Auction Credit Requirement for a ~~Market Seller~~ Market Participant will be reduced for any Delivery Year to the extent less than all of such ~~Market Seller~~ 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 Seller~~ 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.D.b.; and (ii) the maximum amount of Unforced Capacity specified in the Sell Offer. For a ~~Market Seller~~ 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.D.b, c. or d., 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.D, a ~~Market Seller~~ Market Participant's Auction Credit Requirement shall be determined separately for each Delivery Year.

### **C.3 Reduction in Credit Requirement**

As specified in Section IV.D, 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.

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 Seller~~ Market Participant that qualify such resource under the deliverability requirements of the Reliability Assurance Agreement.

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

<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit Requirement</b>
Effective Date of Interconnection Service Agreement	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.

<b>Credit Reduction Milestones for Planned External Generation Capacity Resources</b>	
<b>Milestones</b>	<b>Increment of reduction from</b>

	<b>initial RPM Auction Credit Requirement</b>
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.

Formatted: Font: Highlight

<b>Credit Reduction Milestones for Planned Financed Generation Capacity Resources</b>	
<b>Milestones</b>	<b>Increment of reduction from initial RPM Auction Credit Requirement</b>
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 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 (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.

Formatted: Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers

<b>Credit Reduction Milestones for Planned External Financed Generation Capacity</b>
--

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](#) 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.

**[D.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 [Reliability Pricing Model](#) 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.
- 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 (i) 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 (ii) 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).

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 (i) 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 (ii) 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).

e. For the purposes of this section IV.D, “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.

#### **E-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 (as defined in the RAA) 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.

#### **E-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 Sellers 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 Pparticipant’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.F.

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.

#### **G.7) Credit Responsibility for Traded Planned RPM Capacity Resources**

PJMSettlement may require that credit and financial responsibility for planned ~~RPM~~ Capacity Resources that are traded remain with the original party (which for these purposes, means the party bearing credit responsibility for the planned ~~RPM~~ Capacity Resource immediately prior to trade) unless the receiving party independently establishes consistent with ~~the PJM credit policy~~ 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 ~~RPM~~ Capacity Resource.

#### **V.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.

#### **A.1) FTR Credit Limit.**

~~PJMSettlement will establish an FTR Credit Limit for each Participant.~~ 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 Financial Security Collateral and designating the available credit to specific accounts.

#### **B.2) FTR Credit Requirement.**

For each Market Participant with FTR activity, PJMSettlement shall calculate an FTR Credit Requirement based on FTR cost less a discounted historical value. 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.

#### **C.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.

**D.4) FTR Credit Collateral Returns.**

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

**E.5) Credit Responsibility for Bilateral Transfers of Traded FTRs.**

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

**F.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 ~~both:~~

1. ~~Determine~~ determine the FTR Portfolio Auction Value for each customer account of a Market Participant, including the tentative cleared solution. Any customer accounts ~~Participants~~ with such FTR Portfolio Auction Values that are negative in one or more months shall be deemed "FTR Flow Undiversified".

2. ~~Measure the geographic concentration of the FTR Flow Undiversified portfolios by testing such portfolios using a simulation model including, one at a time, each planned transmission outage or other network change which would substantially affect the network for the specific auction period. A list of such planned outages or changes anticipated to be modeled shall be posted prior to commencement of the auction (or auction round). Any FTR Flow Undiversified portfolio that experiences a net reduction in calculated congestion credits as a result of any one or more of such modeled outages or changes shall be deemed FTR Geographically Undiversified.~~

For portfolios ~~customer accounts~~ that are FTR Flow Undiversified in a month, but not FTR Geographically Undiversified, PJM Settlement shall increment the FTR Credit Requirement by

~~an amount equal to twice the absolute value of the FTR Portfolio Auction Value, including the tentative cleared solution. For Participants with portfolios that are both FTR Flow Undiversified and FTR Geographically Undiversified, 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 the amount of credit required for the 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.

#### **G.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.

#### **H.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.

### **VI. 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.~~

## **~~VII. FORMS OF FINANCIAL SECURITY~~**

~~Participants that provide Financial Security must provide the security in a PJMSettlement approved form and amount according to the guidelines below.~~

~~Financial Security 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 Financial Security for another PJMSettlement approved form of Financial Security of equal value. The Participant must provide three (3) Business Days notice to PJMSettlement of its intent to substitute the Financial Security. PJMSettlement will release the replaced Financial Security with interest, if applicable, within (3) Business Days of receiving an approved form of substitute Financial Security.~~

### **~~B. Letter Of Credit~~**

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

- ~~• 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 credit policy, including having its own acceptable credit rating.~~

- ~~• 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 Financial Security, 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 credit policy and one of more of the Agreements.~~
- ~~• The letter of credit must clearly state the full names of the "Issuer", "Account Party" and "Beneficiary" (PJMSettlement), the dollar amount available for drawings, and shall specify that funds will be disbursed upon presentation of the drawing certificate in accordance with the instructions stated in the letter of credit. The letter of credit should specify any statement that is required to be on the drawing certificate, and any other terms and conditions that apply to such drawings.~~
- ~~• The PJMSettlement Credit Application contains an acceptable form of a letter of credit that should be utilized by a Participant choosing to meet its Financial Security requirement with a letter of credit. If the letter of credit varies in any way from the PJMSettlement format, it must first be reviewed and approved by PJMSettlement. All costs associated with obtaining and maintaining a letter of credit and meeting the policy provisions are the responsibility of the Participant~~
- ~~• PJMSettlement may accept a letter of credit from a Financial Institution that does not meet the credit standards of this policy 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 policy.~~

Formatted: Justified, Indent: Left: 0.25", Hanging: 0.25"

## **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.

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

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 ~~credit policy~~ 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 ~~the credit policy~~ this Attachment Q; provided that the initial Peak Market Activity shall not be less than the average value calculated using the weeks for which no early payment was made.

A Participant may reduce its Collateral Requirement by agreeing in writing (in a form acceptable to PJM Settlement) 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.

PJM Settlement may, at its discretion, adjust a Participant's Peak Market Activity requirement if PJM Settlement 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.

PJM Settlement 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 ~~policy~~ 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 \$87.5 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.

#### **VHVI. POLICY CREDIT BREACH AND EVENTS OF DEFAULT**

If PJMSettlement determines that a Participant is in 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* (~~including late payment notice~~) or ~~notification~~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 ~~policy~~ 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 ~~the policy~~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 default. Application of ~~Financial Security Collateral~~ towards a non-payment *Credit Breach* shall not be considered a satisfactory cure of ~~the such~~ *Credit Breach* if the Participant fails to meet all requirements of this ~~policy Attachment Q~~ after such application.

Failure to comply with this ~~policy Attachment Q~~ (except for the responsibility of a Participant to notify PJM Settlement of a ~~m~~Material change) shall be considered an event of default. Pursuant to ~~§section~~ 15.1.3(a) of the Operating Agreement ~~of PJM Interconnection, L.L.C.~~ and ~~§section~~ I.7.3 of the PJM ~~Open Access Transmission~~ Tariff, non-compliance with ~~the PJM Settlement credit policy this Attachment Q~~ is an event of default under those respective Agreements. In event of default under this ~~credit policy Attachment Q~~ or one or more of the Agreements, PJM Settlement, 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. PJM Settlement has the right to liquidate all or a portion of a Participant's ~~Financial Security Collateral~~ at its discretion to satisfy Total Net Obligations to PJM Settlement in the event of default under this ~~credit policy Attachment Q~~ or one or more of the Agreements.

In event of Breach or Default by a Participant of any requirements of this ~~credit policy Attachment Q~~, PJM Settlement may exercise any remedy or action allowed or prescribed by this ~~credit policy 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 PJM Settlement from exercising such remedy or action at a later time.

PJM Settlement may hold a defaulting Participant's ~~Financial Security Collateral~~ for as long as such party's positions exist and consistent with ~~the PJM credit policy in~~ 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 ~~policy Attachment Q~~ or the Agreements, or while a Collateral Call is outstanding. PJM Settlement 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, PJM Settlement may hold a Participant's ~~Financial Security 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, PJM Settlement may apply ~~such any~~ ~~Financial Security Collateral~~ to such Participant's Obligations, even if Participant had previously announced and effected its withdrawal from PJM.

~~IXVII. [Reserved for Future Use]~~

**Appendix 1 to Attachment Q**

**PJM MINIMUM PARTICIPATION CRITERIA**  
**OFFICER CERTIFICATION FORM**

Formatted: Font: Times New Roman

**Participant Name:** \_\_\_\_\_ (**"Participant"**)

Formatted: Font: (Default) Times New Roman, 11 pt

I, \_\_\_\_\_, a duly authorized officer of Participant, understanding that PJM Interconnection, L.L.C. and PJM Settlement, Inc. ("PJM Settlement") 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"), hereby certify that I have full authority to represent on behalf of Participant and further represent as follows, as evidenced by my initialing each representation in the space provided below:

1. All employees or agents transacting in markets or services provided pursuant to the PJM Tariff or PJM Amended and Restated Operating Agreement ("PJM Operating Agreement") on behalf of the Participant have received appropriate<sup>1</sup> 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 function<sup>2</sup> and applicable to transactions in the PJM ~~M~~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

<sup>1</sup> 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.

<sup>2</sup> 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 [Section I A.](#) 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 Attachment Q of the PJM Open Access Transmission Tariff that are applicable to the PJM ~~M~~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 sSection 4(c)(3), or successor provision, of the Commodity Exchange Act or an “eligible contract participant” as that term is defined under sSection 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 sSection I.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 ~~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's 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.\_\_\_\_\_

Formatted: Indent: Left: 0.75"

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 sSection VI.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 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: \_\_\_\_\_