

## **Attachment E**

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**[Showing Effectuating Changes to  
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**(Marked / Redlined Format)**

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**Procedures for Determination of Peak Load Contributions and Hourly Load  
Obligations for Retail Customers**

**ATTACHMENT M-2 (Duke Energy Ohio, Inc.)**

**Procedures for Determination of Peak Load Contributions, Network Service Peak  
Load and Hourly Load Obligations for Retail Customers**

**ATTACHMENT M-3**

**Additional Procedures for Planning of Supplemental Projects**

**ATTACHMENT N**

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**Form of System Impact Study Agreement**

**ATTACHMENT N-2**

**Form of Facilities Study Agreement**

**ATTACHMENT N-3**

**Form of Optional Interconnection Study Agreement**

**ATTACHMENT O**

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- 1.0 Parties
- 2.0 Authority
- 3.0 Customer Facility Specifications
- 4.0 Effective Date
- 5.0 Security
- 6.0 Project Specific Milestones
- 7.0 Provision of Interconnection Service
- 8.0 Assumption of Tariff Obligations
- 9.0 Facilities Study
- 10.0 Construction of Transmission Owner Interconnection Facilities
- 11.0 Interconnection Specifications
- 12.0 Power Factor Requirement
- 12.0A RTU
- 13.0 Charges
- 14.0 Third Party Benefits
- 15.0 Waiver
- 16.0 Amendment
- 17.0 Construction With Other Parts Of The Tariff
- 18.0 Notices
- 19.0 Incorporation Of Other Documents
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 22.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 23.0 Infrastructure Security of Electric System Equipment and Operations and Control Hardware and Software is Essential to Ensure Day-to-Day Reliability and Operational Security

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- 3.0 Construction Responsibility and Ownership of Interconnection Facilities
- 4.0 Subject to Modification Pursuant to the Negotiated Contract Option
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- 1.2 Conditions Precedent
- 1.3 Term
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- 1.4A Other Interconnection Options
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  - 2.4 Use of Distribution Facilities
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  - 3.2 Interconnection Request
  - 3.3 Standards
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  - 4.6 No Ancillary Services
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  - 4.9 System Protection and Power Quality
  - 4.10 Access Rights
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  - 4.12 Communications and Data Protocol
  - 4.13 Nuclear Generating Facilities
- 5 Maintenance**
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  - 5.2 [Reserved]
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  - 5.4 Inspections and Testing
  - 5.5 Right to Observe Testing
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- 6 Emergency Operations**
  - 6.1 Obligations
  - 6.2 Notice
  - 6.3 Immediate Action
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- 7 Safety**
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- 7.2 Environmental Releases
- 8 Metering**
  - 8.1 General
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- 9 Force Majeure**
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  - 9.3 Obligation to Make Payments
  - 9.4 Definition of Force Majeure
- 10 Charges**
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- 11 Security, Billing And Payments**
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  - 11.2 Costs for Transmission Owner Interconnection Facilities
  - 11.3 No Waiver
  - 11.4 Interest
- 12 Assignment**
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  - 12.2 Assignment Without Prior Consent
  - 12.3 Successors and Assigns
- 13 Insurance**
  - 13.1 Required Coverages for Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
  - 13.1A Required Coverages for Generation Resources Of 20 Megawatts Or Less
  - 13.2 Additional Insureds
  - 13.3 Other Required Terms
  - 13.3A No Limitation of Liability
  - 13.4 Self-Insurance
  - 13.5 Notices; Certificates of Insurance
  - 13.6 Subcontractor Insurance
  - 13.7 Reporting Incidents
- 14 Indemnity**
  - 14.1 Indemnity
  - 14.2 Indemnity Procedures
  - 14.3 Indemnified Person
  - 14.4 Amount Owing
  - 14.5 Limitation on Damages
  - 14.6 Limitation of Liability in Event of Breach
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- 15 Breach, Cure And Default**
  - 15.1 Breach

- 15.2 Continued Operation
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- 15.4 Cure and Default
- 15.5 Right to Compel Performance
- 15.6 Remedies Cumulative
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  - 16.4 Survival of Rights
- 17 Confidentiality**
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  - 17.2 Scope
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  - 17.4 Rights
  - 17.5 No Warranties
  - 17.6 Standard of Care
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  - 17.9 Remedies
  - 17.10 Disclosure to FERC or its Staff
  - 17.11 No Interconnection Party Shall Disclose Confidential Information
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- 18 Subcontractors**
  - 18.1 Use of Subcontractors
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  - 18.4 Subcontractors Not Beneficiaries
- 19 Information Access And Audit Rights**
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  - 20.2 Rights Under The Federal Power Act
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- 5.0 Construction Responsibility
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- 7.0 Scope of Work
- 8.0 Schedule of Work
- 9.0 [Reserved.]
- 10.0 Notices
- 11.0 Waiver
- 12.0 Amendment
- 13.0 Incorporation Of Other Documents
- 14.0 Addendum of Interconnection Customer’s Agreement  
to Conform with IRS Safe Harbor Provisions for Non-Taxable Status
- 15.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service
- 16.0 Addendum of Interconnection Requirements for a Wind Generation Facility
- 17.0 Infrastructure Security of Electric System Equipment and Operations and Control  
Hardware and Software is Essential to Ensure Day-to-Day Reliability and  
Operational Security

**ATTACHMENT P - APPENDIX 1 – DEFINITIONS**

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- 2.2A Scope of Applicable Technical Requirements and Standards
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- 8 [Reserved.]**
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  - 9.5 Interest
  - 9.6 No Waiver
- 10 Assignment**
  - 10.1 Assignment with Prior Consent
  - 10.2 Assignment Without Prior Consent
  - 10.3 Successors and Assigns
- 11 Insurance**
  - 11.1 Required Coverages For Generation Resources Of More Than 20 Megawatts and Merchant Transmission Facilities
  - 11.1A Required Coverages For Generation Resources of 20 Megawatts Or Less
  - 11.2 Additional Insureds
  - 11.3 Other Required Terms
  - 11.3A No Limitation of Liability
  - 11.4 Self-Insurance
  - 11.5 Notices; Certificates of Insurance
  - 11.6 Subcontractor Insurance
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- 12 Indemnity**
  - 12.1 Indemnity
  - 12.2 Indemnity Procedures
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- 12.5 Limitation on Damages
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- 12.7 Limited Liability in Emergency Conditions
- 13 Breach, Cure And Default**
  - 13.1 Breach
  - 13.2 Notice of Breach
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    - 13.3.1 Cure of Breach
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  - 13.5 Remedies Cumulative
- 14 Termination**
  - 14.1 Termination
  - 14.2 [Reserved.]
  - 14.3 Cancellation By Interconnection Customer
  - 14.4 Survival of Rights
- 15 Force Majeure**
  - 15.1 Notice
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  - 15.3 Obligation to Make Payments
  - 15.4 Definition of Force Majeure
- 16 Subcontractors**
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- 17 Confidentiality**
  - 17.1 Term
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  - 17.3 Release of Confidential Information
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  - 17.5 No Warranties
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- 18 Information Access And Audit Rights**
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- 19 Disputes**
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  - 4.7 Tax Status
- 5.0 Safety
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  - 6.2 Option to Build
  - 6.3 Revisions to Schedule and Scope of Work
  - 6.4 Suspension
- 7.0 Suspension of Work Upon Default
  - 7.1 Notification and Correction of Defects
- 8.0 Transmission Outages
  - 8.1 Outages; Coordination
- 9.0 Security, Billing and Payments
  - 9.1 Adjustments to Security
  - 9.2 Invoice
  - 9.3 Final Invoice
  - 9.4 Disputes
  - 9.5 Interest
  - 9.6 No Waiver
- 10.0 Assignment
  - 10.1 Assignment with Prior Consent
  - 10.2 Assignment Without Prior Consent
  - 10.3 Successors and Assigns
- 11.0 Insurance
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  - 11.3 Other Required Terms
  - 11.4 No Limitation of Liability
  - 11.5 Self-Insurance
  - 11.6 Notices: Certificates of Insurance
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  - 11.8 Reporting Incidents
- 12.0 Indemnity
  - 12.1 Indemnity
  - 12.2 Indemnity Procedures
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  - 12.4 Amount Owing

- 12.5 Limitation on Damages
- 12.6 Limitation of Liability in Event of Breach
- 12.7 Limited Liability in Emergency Conditions
- 13.0 Breach, Cure And Default
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- 15.0 Force Majeure
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- 16.0 Confidentiality
  - 16.1 Term
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  - 16.3 Release of Confidential Information
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  - 16.7 Order of Disclosure
  - 16.8 Termination of Upgrade Construction Service Agreement
  - 16.9 Remedies
  - 16.10 Disclosure to FERC or its Staff
  - 16.11 No Party Shall Disclose Confidential Information of Party 16.12  
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  - 16.13 Return or Destruction of Confidential Information
- 17.0 Information Access And Audit Rights
  - 17.1 Information Access
  - 17.2 Reporting of Non-Force Majeure Events
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  - 17.5 Amendments and Rights under the Federal Power Act
  - 17.6 Regulatory Requirements
- 18.0 Representation and Warranties
  - 18.1 General
- 19.0 Inspection and Testing of Completed Facilities
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- 19.5 Notification of Results
- 20.0 Energization of Completed Facilities
- 21.0 Transmission Owner's Acceptance of Facilities Constructed  
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- 22.0 Transfer of Title to Certain Facilities Constructed By New Service Customer
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**ATTACHMENT HH – RATES, TERMS, AND CONDITIONS OF SERVICE FOR  
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**ATTACHMENT II – MTEP PROJECT COST RECOVERY FOR ATSI ZONE**

**ATTACHMENT JJ – MTEP PROJECT COST RECOVERY FOR DEOK ZONE**

**ATTACHMENT KK - FORM OF DESIGNATED ENTITY AGREEMENT**

**ATTACHMENT LL - FORM OF INTERCONNECTION COORDINATION  
AGREEMENT**

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

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

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

**ATTACHMENT PP – FORM OF FIRM TRANSMISSION FEASIBILITY STUDY  
AGREEMENT**



## **Tariff, Definitions C-D**

## **Definitions – C - D**

### **Canadian Guaranty:**

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

### **Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install 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 Tariff, Part IV and/or Tariff, Part VI.

### **Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

### **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 Tariff, Part II 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 Tariff, Attachment DD, section 6.6(g).

### **Capacity Import Limit:**

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

### **Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection 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 Tariff, Attachment DD, section 5.5A(a).

**Capacity Performance Transition Incremental Auction:**

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

**Capacity Resource:**

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

**Capacity Resource with State Subsidy:**

“Capacity Resource with State Subsidy” shall mean (1) a Capacity Resource that is offered into an RPM Auction or otherwise assumes an RPM commitment for which the Capacity Market Seller receives or is entitled to receive one or more State Subsidies for the applicable Delivery Year; (2) a Capacity Resource that has not cleared an RPM Auction for the Delivery Year for which the Capacity Market Seller last received a State Subsidy (or any subsequent Delivery Year) shall still be considered a Capacity Resource with State Subsidy upon the expiration of such State Subsidy until the resource clears an RPM Auction; (3) a Capacity Resource that is the subject of a bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6) shall be deemed a Capacity Resource with State Subsidy to the extent an owner of the facility supporting the Capacity Resource is entitled to a State Subsidy associated with such facility even if the Capacity Market Seller is not entitled to a State Subsidy; and (4) any Jointly Owned Cross-Subsidized Capacity Resource.

**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 Tariff, Attachment DD, section 5.

**Capacity Storage Resource:**

“Capacity Storage Resource” shall mean any Energy Storage Resource that participates in the Reliability Pricing Model or is otherwise treated as capacity in PJM’s markets such as through a Fixed Resource Requirement Capacity Plan.

**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:**

“Capacity Transmission Injection Rights” shall mean 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.

**Charge Economic Maximum Megawatts:**

“Charge Economic Maximum Megawatts” shall mean the greatest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant in Continuous Mode or in Charge Mode. Charge Economic Maximum Megawatts shall be the Economic Minimum for an Energy Storage Resource in Charge Mode or in Continuous Mode.

**Charge Economic Minimum Megawatts:**

“Charge Economic Minimum Megawatts” shall mean the smallest magnitude of megawatt power consumption available for charging in economic dispatch by an Energy Storage Resource Model Participant in Charge Mode. Charge Economic Minimum Megawatts shall be the Economic Maximum for an Energy Storage Resource in Charge Mode.

**Charge Mode:**

“Charge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant that only includes negative megawatt quantities (i.e., the Energy Storage Resource Model Participant is only withdrawing megawatts from the grid).

**Charge Ramp Rate:**

“Charge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant in Charge Mode.

**Cleared Capacity Resource with State Subsidy:**

“Cleared Capacity Resource with State Subsidy” shall mean a Capacity Resource with State Subsidy that has cleared in an RPM Auction for a Delivery Year that is prior to the 2022/2023 Delivery Year or, starting with 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have cleared an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price and since then, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy have been, the subject of a Sell Offer into the Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for the relevant Delivery Year.

**Closed-Loop Hybrid Resource:**

“Closed-Loop Hybrid Resource” shall mean a Hybrid Resource that is physically or contractually incapable of charging from the grid.

**Cold/Warm/Hot Notification Time:**

“Cold/Warm/Hot Notification Time” shall mean the time interval between PJM notification and the beginning of the start sequence for a generating unit that is currently in its cold/warm/hot temperature state. The start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc.

**Cold/Warm/Hot Start-up Time:**

For all generating units that are not combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval, measured in hours, from the beginning of the start sequence to the point after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero for a generating unit in its cold/warm/hot temperature state. For combined cycle units, “Cold/Warm/Hot Start-up Time” shall mean the time interval from the beginning of the start sequence to the point after first combustion turbine generator breaker closure in its cold/warm/hot temperature state, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For all generating units,

the start sequence may include steps such as any valve operation, starting feed water pumps, startup of auxiliary equipment, etc. Other more detailed actions that could signal the beginning of the start sequence could include, but are not limited to, the operation of pumps, condensers, fans, water chemistry evaluations, checklists, valves, fuel systems, combustion turbines, starting engines or systems, maintaining stable fuel/air ratios, and other auxiliary equipment necessary for startup.

**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” shall be a cash deposit, including any interest thereon, or a Letter of Credit issued for the benefit of PJM or PJMSettlement, in an amount and form determined by and acceptable to PJM or PJMSettlement, provided by a Participant to PJM or PJMSettlement as credit support in order to participate in the PJM Markets or take Transmission Service. “Collateral” shall also include surety bonds, except for the purpose of satisfying the FTR Credit Requirement, in which case only a cash deposit or Letter of Credit will be acceptable.

**Collateral Call:**

“Collateral Call” shall mean a notice to a Participant that additional Collateral, or possibly early payment, is required in order to remain in, or to regain, compliance with Tariff, Attachment Q.

**Co-Located Resource:**

“Co-Located Resource” shall mean a component of a Mixed Technology Facility that operates in the capacity, energy, and/or ancillary services market(s) as a separate resource from the other components of such facility.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**Committed Offer:**

The “Committed Offer” shall mean 1) for pool-scheduled resources, an offer on which a resource was scheduled by the Office of the Interconnection for a particular clock hour for an Operating Day, and 2) for self-scheduled resources, either the offer on which the Market Seller has elected to schedule the resource or the applicable offer for the resource determined pursuant to Operating Agreement, Schedule 1, section 6.4, and the parallel provisions of Tariff, Attachment K-Appendix, section 6.4, or Operating Agreement, Schedule 1, section 6.6, and the parallel

provisions of Tariff, Attachment K-Appendix, section 6.6, for a particular clock hour for an Operating Day.

**Completed Application:**

“Completed Application” shall mean 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, the same locational price separation in the Third Incremental Auction.

**Composite Energy Offer:**

“Composite Energy Offer” for generation resources shall mean the sum (in \$/MWh) of the Incremental Energy Offer and amortized Start-Up Costs and amortized No-load Costs, and for Economic Load Response Participant resources the sum (in \$/MWh) of the Incremental Energy Offer and amortized shutdown costs, as determined in accordance with Tariff, Attachment K-Appendix, section 2.4 and Tariff, Attachment K-Appendix, section 2.4A and the PJM Manuals.

**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.

**Conditioned State Support:**

“Conditioned State Support” shall mean any financial benefit required or incentivized by a state, or political subdivision of a state acting in its sovereign capacity, that is provided outside of PJM Markets and in exchange for the sale of a FERC-jurisdictional product conditioned on clearing in any RPM Auction, where “conditioned on clearing in any RPM Auction” refers to specific directives as to the level of the offer that must be entered for the relevant Generation Capacity Resource in the RPM Auction or directives that the Generation Capacity Resource is required to clear in any RPM Auction. Conditioned State Support shall not include any Legacy Policy.

**CONE Area:**

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

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a 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 Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constraint Relaxation Logic:**

“Constraint Relaxation Logic” shall mean the logic applied in the market clearing software where the transmission limit is increased to prevent the Transmission Constraint Penalty Factor from setting the Marginal Value of a transmission constraint.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Tariff, 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:**

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

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Continuous Mode:**

“Continuous Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant that includes both negative and positive megawatt quantities (i.e., the Energy Storage Resource Model Participant is capable of continually and immediately transitioning from withdrawing megawatt quantities from the grid to injecting megawatt quantities onto the grid or injecting megawatts to withdrawing megawatts). Energy Storage Resource Model Participants operating in Continuous Mode are considered to have an unlimited ramp rate. Continuous Mode requires Discharge Economic Maximum Megawatts to be zero or correspond to an injection, and Charge Economic Maximum Megawatts to be zero or correspond to a withdrawal.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

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

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

**Control Zone:**

“Control Zone” shall have the meaning given in the Operating Agreement.

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

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

**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 Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**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 Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Corporate Guaranty:**

“Corporate Guaranty” shall mean a legal document, in a form acceptable to PJM and/or PJMSettlement, used by a Credit Affiliate of an 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 Tariff, Attachment DD, section 5.

**Costs:**

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

**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 load.

**Credit Affiliate:**

“Credit Affiliate” shall mean Principals, corporations, partnerships, firms, joint ventures, associations, joint stock companies, trusts, unincorporated organizations or entities, one of which directly or indirectly controls the other or that are both under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity.

**Credit Available for Export Transactions:**

“Credit Available for Export Transactions” shall mean a 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:**

“Credit Available for Virtual Transactions” shall mean 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, or other credit requirement determinants as defined in Tariff, Attachment Q.

**Credit Breach:**

“Credit Breach” shall mean (a) the failure of a Participant to perform, observe, meet or comply with any requirements of Tariff, Attachment Q or other provisions of the Agreements, other than a Financial Default, or (b) a determination by PJM and notice to the Participant that a Participant

represents an unreasonable credit risk to the PJM Markets; that, in either event, has not been cured or remedied after any required notice has been given and any cure period has elapsed.

**Credit-Limited Offer:**

“Credit-Limited Offer” shall mean a Sell Offer that is submitted by a Market Participant in an RPM Auction subject to a maximum credit requirement specified by such Market Participant.

**Credit Support Default:**

“Credit Support Default,” shall mean (a) the failure of any Guarantor of a Market Participant to make any payment, or to perform, observe, meet or comply with any provisions of the applicable Guaranty or Credit Support Document that has not been cured or remedied, after any required notice has been given and an opportunity to cure (if any) has elapsed, (b) a representation made or deemed made by a Guarantor in any Credit Support Document that proves to be false, incorrect or misleading in any material respect when made or deemed made, (c) the failure of a Guaranty or other Credit Support Document to be in full force and effect prior to the satisfaction of all obligations of such Participant to PJM, without PJM’s consent, or (d) a Guarantor repudiating, disaffirming, disclaiming or rejecting, in whole or in part, its obligations under the Guaranty or challenging the validity of the Guaranty.

**Credit Support Document:**

“Credit Support Document” shall mean any agreement or instrument in any way guaranteeing or securing any or all of a Participant’s obligations under the Agreements (including, without limitation, the provisions of Tariff, Attachment Q), any agreement entered into under, pursuant to, or in connection with the Agreements or any agreement entered into under, pursuant to, or in connection with the Agreements and/or any other agreement to which PJM, PJMSettlement and the Participant are parties, including, without limitation, any Corporate Guaranty, Letter of Credit, or agreement granting PJM and PJMSettlement a security interest.

**Critical Natural Gas Infrastructure:**

“Critical Natural Gas Infrastructure” shall mean locations with electrical loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility as defined by NERC/FERC standard(s); and until such NERC/FERC standard(s) is developed, is defined as electric loads that are involved in natural gas production, processing, intrastate and interstate transmission and distribution pipeline facility, which if curtailed, will impact the delivery of natural gas to bulk-power system natural gas-fired generation.

**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”). The CTS Enabled Interfaces between the PJM Control Area and the New York Independent System Operator, Inc. Control Area shall be designated in the

Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C., Schedule A (PJM Rate Schedule FERC No. 45). The CTS Enabled Interfaces between the PJM Control Area and the Midcontinent Independent System Operator, Inc. shall be designated consistent with Attachment 3, section 2 of the Joint Operating Agreement between Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C.

**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 Operating Agreement, Schedule 1, section 1.13, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.13.

**Curtailement:**

“Curtailement” shall mean 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:**

“Customer Facility” shall mean Generation Facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Tariff, Part IV.

**Customer-Funded Upgrade:**

“Customer-Funded Upgrade” shall mean 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 Tariff, Part VI, section 217, 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:**

“Customer Interconnection Facilities” shall mean 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 Tariff, Attachment DD, section 7, Tariff, Attachment DD, section 8, Tariff, Attachment DD, section 9, or Tariff, Attachment DD, section 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 Reliability Assurance Agreement, Schedule 8, or, as to an FRR entity, in Reliability Assurance Agreement, Schedule 8.1.

**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 Operating Agreement, Schedule 1, section 1.10 and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.

**Day-ahead Energy Market Injection Congestion Credits:**

“Day-ahead Energy Market Injection Congestion Credits” shall mean those congestion credits paid to Market Participants for supply transactions in the Day-ahead Energy Market including generation schedules, Increment Offers, Up-to Congestion Transactions, import transactions, and Day-Ahead Pseudo-Tie Transactions.

**Day-ahead Energy Market Transmission Congestion Charges:**

“Day-ahead Energy Market Transmission Congestion Charges” shall be equal to the sum of Day-ahead Energy Market Withdrawal Congestion Charges minus [the sum of Day-ahead Energy Market Injection Congestion Credits plus any congestion charges calculated pursuant to the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38), plus any congestion

charges calculated pursuant 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), plus any congestion charges calculated pursuant to agreements between the Office of the Interconnection and other entities, as applicable)].

**Day-ahead Energy Market Withdrawal Congestion Charges:**

“Day-ahead Energy Market Withdrawal Congestion Charges” shall mean those congestion charges collected from Market Participants for withdrawal transactions in the Day-ahead Energy Market from transactions including Demand Bids, Decrement Bids, Up-to Congestion Transactions, Export Transactions, and Day-Ahead Pseudo-Tie Transactions.

**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 Pseudo-Tie Transaction:**

“Day-Ahead Pseudo-Tie Transaction” shall mean a transaction scheduled in the Day-ahead Energy Market to the PJM-MISO interface from a generator within the PJM balancing authority area that Pseudo-Ties into the MISO balancing authority area.

**Day-ahead Settlement Interval:**

“Day-ahead Settlement Interval” shall mean the interval used by settlements, which shall be every one clock hour.

**Day-ahead System Energy Price:**

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

**Deactivation:**

“Deactivation” shall mean the retirement or mothballing of a generating unit governed by Tariff, Part V.

**Deactivation Avoidable Cost Credit:**

“Deactivation Avoidable Cost Credit” shall mean the credit paid to Generation Owners pursuant to Tariff, Part V, section 114.

**Deactivation Avoidable Cost Rate:**

“Deactivation Avoidable Cost Rate” shall mean the formula rate established pursuant to Tariff, Part V, section 115.

**Deactivation Date:**

“Deactivation Date” shall mean 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, “Default” shall mean 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:**

“Delivering Party” shall mean 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 Tariff, Attachment DD, or pursuant to an FRR Capacity Plan under Reliability Assurance Agreement, Schedule 8.1.

**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 Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**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 Operating Agreement, Schedule 1, section 1.10.1B, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1B.

**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:**

“Designated Agent” shall mean 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 mean an entity, including an existing Transmission Owner or Nonincumbent Developer, designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain, and finance Immediate-need Reliability Projects, Short-term Projects, Long-lead Projects, or Economic-based Enhancements or Expansions pursuant to Tariff, Schedule 19, section 1.5.8.~~have the same meaning provided in the Operating Agreement.~~

**Direct Assignment Facilities:**

“Direct Assignment Facilities” shall mean 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 Charging Energy:**

“Direct Charging Energy” shall mean the energy that an Energy Storage Resource purchases from the PJM Interchange Energy Market and (i) later resells to the PJM Interchange Energy

Market; or (ii) is lost to conversion inefficiencies, provided that such inefficiencies are an unavoidable component of the conversion, storage, and discharge process that is used to resell energy back to the PJM Interchange Energy Market.

**Direct Load Control:**

“Direct Load Control” shall mean load reduction that is controlled directly by the Curtailment Service Provider’s market operations center or its agent, in response to PJM instructions.

**Discharge Economic Maximum Megawatts:**

“Discharge Economic Maximum Megawatts” shall mean the maximum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant in Continuous Mode or in Discharge Mode. Discharge Economic Maximum Megawatts shall be the Economic Maximum for an Energy Storage Resource in Discharge Mode or in Continuous Mode.

**Discharge Economic Minimum Megawatts:**

“Discharge Economic Minimum Megawatts” shall mean the minimum megawatt power output available for discharge in economic dispatch by an Energy Storage Resource Model Participant in Discharge Mode. Discharge Economic Minimum Megawatts shall be the Economic Minimum for an Energy Storage Resource in Discharge Mode.

**Discharge Mode:**

“Discharge Mode” shall mean the mode of operation of an Energy Storage Resource Model Participant that only includes positive megawatt quantities (i.e., the Energy Storage Resource Model Participant is only injecting megawatts onto the grid).

**Discharge Ramp Rate:**

“Discharge Ramp Rate” shall mean the Ramping Capability of an Energy Storage Resource Model Participant in Discharge Mode.

**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.

**Dispatched Charging Energy:**

“Dispatched Charging Energy” shall mean Direct Charging Energy that an Energy Storage Resource Model Participant receives from the electric grid pursuant to PJM dispatch while

providing one of the following services in the PJM markets: Energy Imbalance Service pursuant to Tariff, Schedule 4; Regulation; Tier 2 Synchronized Reserves; or Reactive Service. Energy Storage Resource Model Participants shall be considered to be providing Energy Imbalance Service when they are dispatchable by PJM in real-time.

**Dynamic Schedule:**

“Dynamic Schedule” shall have the same meaning provided in the Operating Agreement.

**Dynamic Transfer:**

“Dynamic Transfer” shall have the same meaning provided in the Operating Agreement.

## **Tariff, Definitions E-F**

## Definitions – E - F

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

“Economic-based Enhancement or Expansion” shall mean an enhancement or expansion described in Tariff, Schedule 19, section 1.5.7(b) (i) – (iii) that is designed to relieve transmission constraints that have an economic impact~~have the same meaning provided in the Operating Agreement.~~

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

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

### **Economic Maximum:**

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

### **Economic Minimum:**

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

### **Effective FTR Holder:**

“Effective FTR Holder” shall mean:

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

wholly or partly, directly or indirectly, in any third entity which is a PJM Member (e.g., a joint venture).

**EFORd:**

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

**Electrical Distance:**

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

**Eligible Customer:**

“Eligible Customer” shall mean:

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

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

**Eligible Fast-Start Resource:**

“Eligible Fast-Start Resource” shall mean a Fast-Start Resource that is eligible for the application of Integer Relaxation during the calculation of Locational Marginal Prices as set forth in Tariff, Attachment K-Appendix, section 2.2.

**Emergency Action:**

“Emergency Action” shall mean (1) any megawatt shortage of the Primary Reserve Requirement (as specified in the PJM Manuals) in a Reserve Zone or Reserve Sub-zone, inclusive of any adjustments to such requirement to account for system conditions, as determined by the dispatch run from the security constrained economic dispatch and where, as specified in the PJM

Manuals, there is also a Voltage Reduction Warning and reduction of non-critical plant load, Manual Load Dump Warning, Maximum Generation Emergency Action, or the curtailment of non-essential building loads and Voltage Reduction Warning that encompasses such Reserve Zone or Reserve Sub-zone or (2) anytime the Office of Interconnection identifies an emergency and issues a load shed directive, Manual Load Dump Action, Voltage Reduction Action, or deploy all resources action for an entire Reserve Zone or Reserve Sub-zone.

**Emergency Condition:**

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

**Emergency Load Response Program:**

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

**Energy Efficiency Resource:**

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

**Energy Market Opportunity Cost:**

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

Energy Market Opportunity Costs shall be limited to those resources which are specifically delineated in Operating Agreement, Schedule 2.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Settlement Area:**

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

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant. Open-Loop Hybrid Resources are not Energy Storage Resources.

**Energy Storage Resource Model Participant:**

“Energy Storage Resource Model Participant” shall mean an Energy Storage Resource utilizing the Energy Storage Resource Participation Model.

**Energy Storage Resource Participation Model:**

“Energy Storage Resource Participation Model” shall mean the participation model accepted by the Commission in Docket No. ER19-469-000.

**Energy Transmission Injection Rights:**

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

**Entity Providing Supply Services to Default Retail Service Provider:**

“Entity Providing Supply Services to Default Retail Service Provider” shall mean any entity, including but not limited to a load aggregator or power marketer, providing supply services to an electric distribution company when that electric distribution company is serving as the default retail service provider, and that enters into a contract or similar obligation with such electric distribution company to serve retail customers who have not selected a competitive retail service provider.



**Environmental Laws:**

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

**Environmentally-Limited Resource:**

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

**Equivalent Load:**

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

**Event of Default:**

“Event of Default,” as that term is used in Tariff, Attachment Q, shall mean a Financial Default, Credit Breach, or Credit Support Default.

**Exercise of Buyer-Side Market Power:**

“Exercise of Buyer-Side Market Power” shall mean anti-competitive behavior of a Capacity Market Seller with a Load Interest, or directed by an entity with a Load Interest, to uneconomically lower RPM Auction Sell Offer(s) in order to suppress RPM Auction clearing prices for the overall benefit of the Capacity Market Seller’s (and/or affiliates of Capacity Market Seller) portfolio of generation and load or that of the directing entity with a Load Interest as determined pursuant to Tariff, Attachment DD, section 5.14(h-2)(2)(B). A bilateral contract between the Capacity Market Seller and an entity with a Load Interest with the express purpose of lowering capacity market clearing prices shall be evidence of the Exercise of Buyer-Side Market Power.

**Existing Generation Capacity Resource:**

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

**Export Credit Exposure:**

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

**Export Nodal Reference Price:**

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

**Export Transaction:**

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

**Export Transaction Price Factor:**

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

**Export Transaction Screening:**

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

**Export Transactions Net Activity:**

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

**Extended Primary Reserve Requirement:**

“Extended Primary Reserve Requirement” shall equal the Primary Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under

emergency conditions necessary to address operational uncertainty. The Extended Primary Reserve Requirement is calculated in accordance with the PJM Manuals.

**Extended Summer Demand Resource:**

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

**Extended Summer Resource Price Adder:**

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

**Extended Synchronized Reserve Requirement:**

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

**Extended 30-minute Reserve Requirement:**

“Extended 30-minute Reserve Requirement” shall equal the 30-minute Reserve Requirement in a Reserve Zone or Reserve Sub-zone, plus 190 MW, plus any additional reserves scheduled under emergency conditions necessary to address operational uncertainty. The Extended 30-minute Reserve Requirement is calculated in accordance with the PJM Manuals.

**External Market Buyer:**

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

**External Resource:**

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

**Facilities Study:**

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider’s Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses

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

**Fast-Start Resource:**

"Fast-Start Resource" shall have the meaning set forth in Tariff, Attachment K-Appendix, section 2.2A

**Federal Power Act:**

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

**FERC or Commission:**

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

**FERC Market Rules:**

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

**Final Offer:**

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

**Final RTO Unforced Capacity Obligation:**

"Final RTO Unforced Capacity Obligation" shall mean the capacity obligation for the PJM Region, determined in accordance with RAA, Schedule 8.

**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 Default:**

“Financial Default” shall mean (a) the failure of a Member or Transmission Customer to make any payment for obligations under the Agreements when due, including but not limited to an invoice payment that has not been cured or remedied after notice has been given and any cure period has elapsed, (b) a bankruptcy proceeding filed by a Member, Transmission Customer or its Guarantor, or filed against a Member, Transmission Customer or its Guarantor and to which the Member, Transmission Customer or Guarantor, as applicable, acquiesces or that is not dismissed within 60 days, (c) a Member, Transmission Customer or its Guarantor, if any, is unable to meet its financial obligations as they become due, or (d) a Merger Without Assumption occurs in respect of the Member, Transmission Customer or any Guarantor of such Member or Transmission Customer.

**Financial Transmission Right:**

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

**Financial Transmission Right Obligation:**

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

**Financial Transmission Right Option:**

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

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

“Firm Point-To-Point Transmission Service” shall mean Transmission Service under the Tariff, Part II, section 13 that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Tariff, Part II.

**Firm Transmission Feasibility Study:**

“Firm Transmission Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part II, section 19.3 and Tariff, Part III, section 32.3.

**Firm Transmission Withdrawal Rights:**

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

**First Incremental Auction:**

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

**Flexible Resource:**

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

**Forecast Pool Requirement:**

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

**Foreign Guaranty:**

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

**Form 715 Planning Criteria:**

“Form 715 Planning Criteria” shall mean individual Transmission Owner FERC-filed planning criteria as described in Tariff, Schedule 19, section 1.2(e) and filed with FERC Form No. 715 and posted on the PJM website ~~have the same meaning provided in the Operating Agreement.~~

**Forward Daily Natural Gas Prices:**

“Forward Daily Natural Gas Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(E).

**Forward Hourly Ancillary Services Prices:**

“Forward Hourly Ancillary Services Prices” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(D).

**Forward Hourly LMPs:**

“Forward Hourly LMPs” shall have the meaning provided in Tariff, Attachment DD, section 5.10(a)(v-1)(C).

**FTR Credit Limit:**

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

**FTR Credit Requirement:**

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

**FTR Flow Undiversified:**

“FTR Flow Undiversified” shall have the meaning established in Tariff, Attachment Q, section VI.C.6.

**FTR Historical Value:**

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

**FTR Holder:**

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

**FTR Monthly Credit Requirement Contribution:**

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

**FTR Net Activity:**

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

**FTR Participant:**

"FTR Participant" shall mean any Market Participant that provides or is required to provide Collateral in order to participate in PJM's FTR market.

**FTR Portfolio Auction Value:**

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

**Fuel Cost Policy:**

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

**Full Notice to Proceed:**

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



## **Tariff, Definitions I-J-K**

## Definitions – I – J - K

### **IDR Transfer Agreement:**

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

### **Immediate-need Reliability Project:**

“Immediate-need Reliability Project” shall mean a reliability-based transmission enhancement or expansion that the Office of the Interconnection has identified to resolve a need that must be addressed within three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in Tariff, Schedule 19, section 1.5.3~~have the same meaning provided in the Operating Agreement.~~

### **Inadvertent Interchange:**

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

### **Incidental Expenses:**

“Incidental Expenses” shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

### **Incremental Auction:**

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

(i) allowing Market Sellers that committed Capacity Resources in the Base Residual Auction for a Delivery Year, which subsequently are determined to be unavailable to deliver the committed Unforced Capacity in such Delivery Year (due to resource retirement, resource cancellation or construction delay, resource derating, EFORD increase, a decrease in the Nominated Demand Resource Value of a Planned Demand Resource, delay or cancellation of a

Qualifying Transmission Upgrade, or similar occurrences) to submit Buy Bids for replacement Capacity Resources; and

(ii) allowing the Office of the Interconnection to reduce or increase the amount of committed capacity secured in prior auctions for such Delivery Year if, as a result of changed circumstances or expectations since the prior auction(s), there is, respectively, a significant excess or significant deficit of committed capacity for such Delivery Year, for the PJM Region or for an LDA.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Available Transfer Capability Revenue Rights:**

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

**Incremental Capacity Transfer Right:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” or “IDRs” shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Incremental Energy Offer:**

“Incremental Energy Offer” shall mean the cost in dollars per MWh of providing an additional MWh from a synchronized unit. It consists primarily of the cost of fuel, as determined by the unit’s incremental heat rate (adjusted by the performance factor) times the fuel cost. It also

includes operating costs, Maintenance Adders, emissions allowances, tax credits, and energy market opportunity costs.

**Incremental Multi-Driver Project:**

“Incremental Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h)~~have the same meaning provided in the Operating Agreement.~~

**Incremental Rights-Eligible Required Transmission Enhancements:**

“Incremental Rights-Eligible Required Transmission Enhancements” shall mean Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Tariff, Schedule 12) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

**Increment Offer:**

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

**Independent Auditor:**

“Independent Auditor” shall mean an external accountant or external accounting firm who is not an employee of, not otherwise related to, not obligated to, has no interest in, and is independent in the performance of professional services for, the entity he/she/it is auditing, its management and/or its owners.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Tariff, Attachment O-Appendix 2, section 1.4 (an Interconnection Service Agreement).

**Integer Relaxation:**

“Integer Relaxation” shall mean the process by which the commitment status variable for an Eligible Fast-Start Resource is allowed to vary between zero and one, inclusive of zero and one, as further described in Tariff, Attachment K-Appendix, section 2.2.

**Interconnected Entity:**

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

**Interconnected Transmission Owner:**

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

**Interconnection Construction Service Agreement:**

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

**Interconnection Customer:**

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

**Interconnection Facilities:**

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

**Interconnection Feasibility Study:**

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

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

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

**Interconnection Service Agreement:**

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

**Interconnection Studies:**

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

**Interface Pricing Point:**

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

**Intermittent Resource:**

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

**Internal Credit Score:**

“Internal Credit Score” shall mean a composite numerical score determined by PJM Settlement using quantitative and qualitative metrics to estimate various predictors of a credit event happening to a Market Participant that may trigger a credit event.

**Internal Market Buyer:**

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

**Interregional Transmission Project:**

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

**Interruption:**

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

**IROL Critical Resource:**

“IROL Critical Resource” shall mean a generation resource that the Office of the Interconnection designates, pursuant to NERC Reliability Standards, as having an interconnection reliability operating limit that, if violated, could lead to instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the bulk electric system.

**Jointly Owned Cross-Subsidized Capacity Resource:**

“Jointly Owned Cross-Subsidized Capacity Resource” shall mean a Capacity Resource that is supported by a facility that is jointly owned, where at least one owner is entitled to or receives a State Subsidy associated with such Capacity Resource, and therefore shall be considered a Capacity Resource with State Subsidy; provided however, in the event that the material rights and obligations of such generating facility are in pari passu, meaning that such rights and obligations are allocated among the owners pro rata based on ownership share, only Capacity Resources of those owners entitled to receive or receiving a State Subsidy shall have their share of such resource considered a Capacity Resource with a State Subsidy and Capacity Resources of owners not entitled to a State Subsidy shall not be considered a Capacity Resource with a State Subsidy. Each of these designations may be overcome by either Capacity Market Seller demonstrating to the Office of Interconnection, with advice and input from the Market Monitoring Unit, that there is no cross-subsidization or the Office of the Interconnection, with review and input from the Market Monitor, finds based on sufficient evidence, that there is cross-subsidization.

## **Tariff, Definitions L-M-N**



## **Definitions – L – M – N**

### **Legacy Policy:**

“Legacy Policy” shall mean any legislative, executive, or regulatory action that specifically directs a payment outside of PJM Markets to a designated or prospective Generation Capacity Resource and the enactment of such action predates October 1, 2021, regardless of when any implementing governmental action to effectuate the action to direct payment outside of PJM Markets occurs.

### **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 Tariff, Attachment DD, section 5.10(a) 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:**

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

**Load Interest:**

“Load Interest” shall mean, for the purposes of the minimum offer price rule, responsibility for serving load within the PJM Region, whether by the Capacity Market Seller, an affiliate of the Capacity Market Seller, or by an entity with which the Capacity Market Seller is in contractual privity with respect to the subject Generation Capacity Resource.

**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:**

“Load Ratio Share” shall mean the 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 Charging Energy:**

“Load Serving Charging Energy” shall mean energy that is purchased from the PJM Interchange Energy Market and stored in an Energy Storage Resource for later resale to end-use load.

**Load Serving Entity (LSE):**

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

**Load Shedding:**

“Load Shedding” shall mean 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 Tariff, Part II or Part III.

**Local Plan:**

“Local Plan” shall include Supplemental Projects as identified by the Transmission Owners within their Zone and Subregional RTEP projects developed to comply with all applicable reliability criteria, including Transmission Owners’ planning criteria or based on market efficiency analysis and in consideration of Public Policy Requirements.

**Local Upgrades:**

“Local Upgrades” shall mean 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.

**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 curve corresponding to the Real-time Settlement Interval real-time Locational Marginal Price at the resource’s bus and adjusted for any reduction in megawatts due to Regulation, Synchronized Reserve, or Secondary Reserve assignments and limited to the lesser of the unit’s Economic Maximum or the unit’s Generation Resource Maximum Output, minus the actual output of the unit. For wind units, the LOC Deviation shall mean 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 curve corresponding to the Real-time Settlement Interval 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 output of the unit.

**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 Reliability Assurance Agreement, Schedule 10.1.

**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. Notwithstanding the foregoing, effective with the 2024/2025 Delivery Year, during the auction process, the Office of Interconnection shall exclude from the Locational Deliverability Area Reliability Requirement any Planned Generation Capacity Resource in an LDA that does not participate in the relevant RPM Auction as projected internal capacity and in the Capacity Emergency Transfer Objective model where the Locational Deliverability Area Reliability Requirement for the Base Residual Auction increases by more than one percent over the reliability requirement used from the prior Delivery Year's Base Residual Auction (for Incremental Auctions the Locational Deliverability Area Reliability Requirement would be compared with the reliability requirement used in the prior relevant RPM Auction associated with the same Delivery Year) for that LDA due to the cumulative addition of such Planned Generation Capacity Resources.

**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.

**Long-lead Project:**

“Long-lead Project” shall mean a transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion have the same meaning provided in the Operating Agreement.

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

“Long-Term Firm Point-To-Point Transmission Service” shall mean firm Point-To-Point Transmission Service under Tariff, Part II 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 Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**M2M Flowgate:**

“M2M Flowgate” shall have the meaning provided in the Joint Operating Agreement between the Midcontinent Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.

**Maintenance Adder:**

“Maintenance Adder” shall mean an adder that may be included to account for variable operation and maintenance expenses in a Market Seller’s Fuel Cost Policy. The Maintenance Adder is calculated in accordance with the applicable provisions of PJM Manual 15, and may only include expenses incurred as a result of electric production.

**Manual Load Dump Action:**

“Manual Load Dump Action” shall mean an Operating Instruction, as defined by NERC, from PJM to shed firm load when the PJM Region cannot provide adequate capacity to meet the PJM Region’s load and tie schedules, or to alleviate critically overloaded transmission lines or other equipment.

**Manual Load Dump Warning:**

“Manual Load Dump Warning” shall mean a notification from PJM to warn Members of an increasingly critical condition of present operations that may require manually shedding load.

**Marginal Value:**

“Marginal Value” shall mean the incremental change in system dispatch costs, measured as a \$/MW value incurred by providing one additional MW of relief to the transmission constraint.

**Market Monitor:**

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

**Market Monitoring Unit or MMU:**

“Market Monitoring Unit” or “MMU” means the independent Market Monitoring Unit defined in 18 CFR § 35.28(a)(7) and established under the PJM Market Monitoring Plan (Attachment M) to the PJM Tariff that is responsible for implementing the Market Monitoring Plan, including the Market Monitor. The Market Monitoring Unit may also be referred to as the IMM or Independent Market Monitor for PJM

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

“Market Monitoring Unit Advisory Committee” or “MMU Advisory Committee” shall mean the committee established under Tariff, Attachment M, 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 used in Tariff, Attachment M, 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 Participant Energy Injection:**

“Market Participant Energy Injection” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Day-ahead generation schedules, real-time generation output, Increment Offers, internal bilateral transactions and import transactions, as further described in the PJM Manuals.

**Market Participant Energy Withdrawal:**

“Market Participant Energy Withdrawal” shall mean transactions in the Day-ahead Energy Market and Real-time Energy Market, including but not limited to Demand Bids, Decrement Bids, real-time load (net of Behind The Meter Generation expected to be operating, but not to be less than zero), internal bilateral transactions and Export Transactions, as further described in the PJM Manuals.

**Market Revenue Neutrality Offset:**

“Market Revenue Neutrality Offset” shall mean the revenue in excess of the cost for a resource from the energy, Synchronized Reserve, Non-Synchronized Reserve, and Secondary Reserve markets realized from an increase in real-time market megawatt assignment from a day-ahead market megawatt assignment in any of these markets due to the decrease in the real-time reserve market megawatt assignment from a day-ahead reserve market megawatt assignment in any of the reserve markets.

**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 Tariff, Attachment DD, section 6 and Tariff, Attachment M-Appendix, section II.E.

**Market Violation:**

“Market Violation” shall mean 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 Modification:**

“Material Modification” shall mean 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 Daily Starts:**

“Maximum Daily Starts” shall mean the maximum number of times that a generating unit can be started in an Operating Day under normal operating conditions.

**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:**

“Maximum Facility Output” shall mean 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.

**Maximum Run Time:**

“Maximum Run Time” shall mean the maximum number of hours a generating unit can run over the course of an Operating Day, as measured by PJM’s State Estimator.

**Maximum Weekly Starts:**

“Maximum Weekly Starts” shall mean the maximum number of times that a generating unit can be started in one week, defined as the 168 hour period starting Monday 0001 hour, under normal operating conditions.

**Member:**

“Member” shall have the meaning provided in the Operating Agreement.

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

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

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

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

**Merchant Network Upgrades:**

“Merchant Network Upgrades” shall mean 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:**

“Merchant Transmission Facilities” shall mean A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Tariff, Part IV and Part VI and that are so identified in Tariff, Attachment T, 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:**

“Merchant Transmission Provider” shall mean 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 Tariff, Part IV, section 36, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Tariff, section 38.

**Metering Equipment:**

“Metering Equipment” shall mean 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 Tariff, Attachment DD, section 5.10(a) 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 Down Time:**

For all generating units that are not combined cycle units, “Minimum Down Time” shall mean the minimum number of hours under normal operating conditions between unit shutdown and unit startup, calculated as the shortest time difference between the unit’s generator breaker opening and after the unit’s generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero. For combined cycle units, “Minimum Down Time” shall mean the minimum number of hours between the last generator breaker opening and after first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero.

**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 Tariff, Attachment DD, section 5.10(a) 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:**

“Minimum Participation Requirements” shall mean 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 Tariff, Attachment Q, Appendix 1. 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 Tariff, Attachment Q, Appendix 1.

**Minimum Run Time:**

For all generating units that are not combined cycle units, “Minimum Run Time” shall mean the minimum number of hours a unit must run, in real-time operations, from the time after generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero, to the time of generator breaker opening, as measured by PJM's State Estimator. For combined cycle units, “Minimum Run Time” shall mean the time period after the first combustion turbine generator breaker closure, which is typically indicated by telemetered or aggregated State Estimator megawatts greater than zero, and the last generator breaker opening as measured by PJM’s State Estimator.

**MISO:**

“MISO” shall mean the Midcontinent Independent System Operator, Inc. or any successor thereto.

**Mixed Technology Facility:**

“Mixed Technology Facility” shall mean a facility composed of distinct generation and/or electric storage technology types behind the same Point of Interconnection. Co-Located Resources and Hybrid Resources form all or part of Mixed Technology Facilities.

**MOPR Floor Offer Price:**

“MOPR Floor Offer Price” shall mean a minimum offer price applicable to certain Market Seller’s Capacity Resources under certain conditions, as determined in accordance with Tariff, Attachment DD, sections 5.14(h), 5.14(h-1), and 5.14(h-2).

**Multi-Driver Project:**

“Multi-Driver Project” shall mean a transmission enhancement or expansion that addresses more than one of the following: reliability violations, economic constraints or State Agreement Approach initiatives ~~have the same meaning provided in the Operating Agreement.~~

**Native Load Customers:**

“Native Load Customers” shall mean 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:**

“NERC” shall mean 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.

**NERC Reliability Standards:**

“NERC Reliability Standards” shall mean those standards that have been developed by NERC and approved by FERC to ensure the reliability of the electric bulk power system.

**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 Operating Agreement, Schedule 1, section 3.3A.4 and the parallel provisions of Tariff, Attachment K-Appendix, section 3.3A.4.

**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” shall mean the amount owed to PJMSettlement and PJM for purchases from the PJM Markets, Transmission Service, (under Tariff, Parts II and III , 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” shall mean the amount of Net Obligation when Net Obligation is negative.

**Network Customer:**

“Network Customer” shall mean an entity receiving transmission service pursuant to the terms of the Transmission Provider’s Network Integration Transmission Service under Tariff, Part III.

**Network External Designated Transmission Service:**

“Network External Designated Transmission Service” shall have the meaning set forth in Reliability Assurance Agreement, Article I.

**Network Integration Transmission Service:**

“Network Integration Transmission Service” shall mean the transmission service provided under Tariff, Part III.

**Network Load:**

“Network Load” shall mean the load that a Network Customer designates for Network Integration Transmission Service under Tariff, Part III. The Network Customer’s Network Load shall include all load (including losses, Non-Dispatched Charging Energy, and Load Serving Charging Energy) 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 Tariff, Part II for any Point-To-Point Transmission Service that may be necessary for such non-designated load. Network Load shall not include Dispatched Charging Energy.

**Network Operating Agreement:**

“Network Operating Agreement” shall mean 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 Tariff, Part III.

**Network Operating Committee:**

“Network Operating Committee” shall mean 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 Tariff, Part III.

**Network Resource:**

“Network Resource” shall mean 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 Tariff, Part III, or transmission service comparable to such service that is provided to a Load Serving Entity that is also a Transmission Owner.

**Network Upgrades:**

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

(i) **Direct Connection Network Upgrades** which are Network Upgrades that are not part of an Affected System; only serve the Customer Interconnection Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Interconnection Customer must agree as to what constitutes Direct Connection Network Upgrades and identify them in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Direct Connection Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Direct Connection Network Upgrade within 15 days of its determination.

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

**Neutral Party:**

“Neutral Party” shall have the meaning provided in Tariff, Part I, section 9.3(v).

**New Entry Capacity Resource with State Subsidy:**

“New Entry Capacity Resource with State Subsidy” shall mean (1) starting with the 2022/2023 Delivery Year, the MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that have not cleared in an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price or (2) starting with the Base Residual Auction for the 2022/2023 Delivery Year, any of those MWs (in installed capacity) comprising a Capacity Resource with State Subsidy that was not included in an FRR Capacity Plan at the time of the Base Residual Auction or the subject of a Sell Offer in a Base Residual Auction occurring for a Delivery Year after it last cleared an RPM Auction and since then has yet to clear an RPM Auction pursuant to its Sell Offer at or above its resource-specific MOPR Floor Offer Price or the applicable default New Entry MOPR Floor Offer Price. Notwithstanding the foregoing, any Capacity Resource that previously cleared an RPM Auction before it became entitled to receive a State Subsidy shall not be deemed a New Entry Capacity Resource, unless, starting with the Base Residual Auction for the 2022/2023 Delivery Year, the Capacity Resource with State Subsidy was not the subject of a

Sell Offer in a Base Residual Auction or included in an FRR Capacity Plan at the time of the Base Residual Auction for a Delivery Year after it last cleared an RPM Auction.

**New PJM Zone(s):**

“New PJM Zone(s)” shall mean the Zone included in the 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:**

“New Service Customers” shall mean 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:**

“New Service Request” shall mean an Interconnection Request, a Completed Application, or an Upgrade Request.

**New Services Queue:**

“New Services Queue” shall mean all Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each six-month period ending on March 31 and September 30 of each year shall collectively comprise a New Services Queue.

**New York ISO or NYISO:**

“New York ISO” or “NYISO” shall mean the New York Independent System Operator, Inc. or any successor thereto.

**Nodal Reference Price:**

The “Nodal Reference Price” at each location shall mean the 97th percentile price differential between day-ahead and real-time prices experienced over the corresponding two-month reference period in the prior calendar year. Reference periods will be 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.

**No-load Cost:**

“No-load Cost” shall mean the hourly cost required to theoretically operate a synchronized unit at zero MW. It consists primarily of the cost of fuel, as determined by the unit’s no load heat



(adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, and emissions allowances.

**Nominal Rated Capability:**

“Nominal Rated Capability” shall mean 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-Dispatched Charging Energy:**

“Non-Dispatched Charging Energy” shall mean all Direct Charging Energy that an Energy Storage Resource Model Participant receives from the electric grid that is not otherwise Dispatched Charging Energy.

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

“Non-Firm Point-To-Point Transmission Service” shall mean 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 Tariff, Part II, section 14.7. 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:**

“Non-Firm Sale” shall mean 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:**

“No-Firm Transmission Withdrawal Rights” shall mean 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.

**Non-Performance Charge:**

“Non-Performance Charge” shall mean the charge applicable to Capacity Performance Resources as defined in Tariff, Attachment DD, section 10A(e).

**Nonincumbent Developer:**

“Nonincumbent Developer” shall mean: (1) a transmission developer that does not have an existing Zone in the PJM Region as set forth in Tariff, Attachment J; or (2) a Transmission Owner that proposes a transmission project outside of its existing Zone in the PJM Region as set forth in Tariff, Attachment J.~~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 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 Operating Agreement, Schedule 2.

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

“Non-Retail Behind The Meter Generation” shall mean 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 Operating Agreement, Schedule 1, section 1.5A.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.6.

**Non-Zone Network Load:**

“Non-Zone Network Load shall mean 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.

## **Tariff, Definitions O-P-Q**

## **Definitions – O – P - Q**

### **Obligation:**

“Obligation” shall mean all amounts owed to PJM Settlement for purchases from the PJM Markets, Transmission Service, (under both Tariff, Part II and Tariff, Part III), and other services or obligations pursuant to the Agreements. In addition, aggregate amounts that will be owed to PJM Settlement in the future for capacity purchases within the PJM capacity 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) or PJM Open Access Same-Time Information System:**

“Open Access Same-Time Information System,” “PJM Open Access Same-Time Information System” or “OASIS” shall mean the electronic communication and information system and

standards of conduct contained in Part 37 and Part 38 of the Commission’s regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS for the collection and dissemination of information about transmission services in the PJM Region, established and operated by the Office of the Interconnection in accordance with FERC standards and requirements.

**Open-Loop Hybrid Resource:**

“Open-Loop Hybrid Resource” shall mean a Hybrid Resource with a storage component that is physically and contractually capable of charging its storage component from the grid.

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

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C., on file with the Commission.

**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.

**Operating Reserve Demand Curve:**

“Operating Reserve Demand Curve” shall mean a curve with prices on the y-axis and megawatts on the x-axis, which defines the relationship between each incremental megawatt of reserves that can be used to meet a given reserve requirement.

**Operationally Deliverable:**

“Operationally Deliverable” shall mean, as determined by the Office of the Interconnection, that there are no operational conditions, arrangements or limitations experienced or required that threaten, impair or degrade effectuation or maintenance of deliverability of capacity or energy from the external Generation Capacity Resource to loads in the PJM Region in a manner comparable to the deliverability of capacity or energy to such loads from Generation Capacity Resources located inside the metered boundaries of the PJM Region, including, without limitation, an identified need by an external Balancing Authority Area for a remedial action scheme or manual generation trip protocol, transmission facility switching arrangements that would have the effect of radializing load, or excessive or unacceptable frequency of regional reliability limit violations or (outside an interregional agreed congestion management process) of local reliability dispatch instructions and commitments.

**Opportunity Cost:**

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

**OPSI Advisory Committee:**

“OPSI Advisory Committee” shall mean the committee established under Tariff, Attachment M, section III.G.

**Option to Build:**

“Option to Build” shall mean 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:**

“Optional Interconnection Study” shall mean 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:**

“Optional Interconnection Study Agreement” shall mean the form of agreement for preparation of an Optional Interconnection Study, as set forth in Tariff, Attachment N-3.

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part V:**

“Part V” shall mean Tariff, Part V, sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

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

**Participant:**

“Participant” shall mean a Market Participant and/or Transmission Customer and/or Applicant requesting to be an active Market Participant and/or Transmission Customer.

**Parties:**

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

**Peak-Hour Dispatch:**

“Peak-Hour Dispatch” shall mean, for purposes of calculating the Energy and Ancillary Services Revenue Offset under Tariff, Attachment DD, section 5, 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), plus 10% of such costs *only for the 2022/2023 Delivery Year*, 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, plus 10% of such costs *only for the 2022/2023 Delivery Year*, under the same conditions as described above for the Day-ahead Energy Market.

**Peak Market Activity:**

“Peak Market Activity” shall mean a measure of exposure for which credit is required, calculated in accordance with Tariff, Attachment Q, section VII.A.

**Peak Market Activity Shortfall:**

“Peak Market Activity Shortfall” shall mean, for any given week, the amount by which a Participant’s current Peak Market Activity exceeds such Participant’s Peak Market Activity credit requirement from the prior week.

**Peak Market Activity Surplus:**

“Peak Market Activity Surplus” shall mean, for any given week, the amount by which a Participant’s Peak Market Activity credit requirement from the prior week exceeds such Participant’s current Peak Market 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 Interval:**

“Performance Assessment Interval” shall mean each Real-time Settlement Interval for which an Emergency Action has been declared by the Office of the Interconnection, provided, however,

that Performance Assessment Intervals for a Base Capacity Resource shall not include any intervals outside the calendar months of June through September.

**Permissible Technological Advancement:**

“Permissible Technological Advancement” shall mean a proposed technological change such as an advancement to turbines, inverters, plant supervisory controls or other similar advancements to the technology proposed in the Interconnection Request that is submitted to the Transmission Provider no later than the return of an executed Facilities Study Agreement (or, if a Facilities Study is not required, prior to the return of an executed Interconnection Service Agreement). Provided such change may not: (i) increase the capability of the Generating Facility as specified in the original Interconnection Request; (ii) represent a different fuel type from the original Interconnection Request; or (iii) cause any material adverse impact(s) on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response. If the proposed technological advancement is a Permissible Technological Advancement, no additional study will be necessary and the proposed technological advancement will not be considered a Material Modification.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Administrative Service:**

“PJM Administrative Service” shall mean the services provided by PJM pursuant to Tariff, Schedule 9.

**PJM Board:**

“PJM Board” shall mean the Board of Managers of the LLC, acting pursuant to the Operating Agreement except when such term is being used in Tariff, Attachment M, 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:**

“PJM Control Area” shall mean the Control Area recognized by NERC as the PJM Control Area.

**PJM Entities:**

“PJM Entities” shall 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 Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds, or is exceeded by, the sum of the interval 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 interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller; or (e) the interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (f) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Interchange Energy Market:**

“PJM Interchange Energy Market” shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Operating Agreement, Schedule 1, and the parallel provisions of Tariff, Attachment K – Appendix.

**PJM Interchange Export:**

“PJM Interchange Export” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load is exceeded by the sum of the interval 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 interval scheduled deliveries of Spot Market Energy by a Market Seller from an External Resource; or (d) the interval net metered output of any other Market Seller.

**PJM Interchange Import:**

“PJM Interchange Import” shall mean the following, as determined in accordance with the Operating Agreement and Tariff: (a) for a Market Participant that is a Network Service User, the amount by which its interval Equivalent Load exceeds the sum of the interval 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 interval scheduled deliveries of Spot Market Energy to an External Market Buyer; or (d) the interval scheduled deliveries to an Internal Market Buyer that is not a Network Service User.

**PJM Liaison:**

“PJM Liaison” shall mean the liaison established under Tariff, Attachment M, section III.I.

**PJM Management:**

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

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Markets:**

“PJM Markets” shall mean the PJM Interchange Energy Market, capacity markets, including the RPM auctions, and any other market operated by PJM, together with all bilateral or other wholesale electric power and energy transactions, capacity transactions, ancillary services transactions (including black start service), transmission transactions, Financial Transmission Rights transactions, or transactions in any other market operated under the Agreements within the PJM Region, wherein Market Participants may incur Obligations to PJM and/or PJMSettlement.

**PJM Market Rules:**

“PJM Market Rules” shall 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 Operating Agreement, Schedule 1, section 5.2.6, and the parallel provisions of Tariff, Attachment K-Appendix, section 5.2.6).

**PJM Region:**

“PJM Region” shall mean the aggregate of the Zones within PJM as set forth in Tariff, Attachment J.~~shall have the meaning specified in the Operating Agreement.~~

**PJM Regional Practices Document:**

“PJM Regional Practices Document” shall mean 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 mean the percent installed reserve margin for the PJM Region required pursuant to RAA, Schedule 4.1, as approved by the PJM Board.

**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 Tariff, Attachment DD, 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 Settlement:**

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

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

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

**Plan:**

“Plan” shall mean the PJM market monitoring plan set forth in Tariff, 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 mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

**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) of Delivery” shall mean the 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 Tariff, Part II. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**Point(s) of Receipt:**

“Point(s) of Receipt” shall mean 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 Tariff, Part II. 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:**

“Point-To-Point Transmission Service shall mean 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 Tariff, Part II.

**Power Purchaser:**

“Power Purchaser” shall mean 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:**

“Pre-Confirmed Application” shall be 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:**

“Pre-Emergency Load Response Program” shall be 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 Operating Agreement, Schedule 1, section 8 and the parallel provisions of Tariff, Attachment K-Appendix, section 8.

**Pre-Expansion PJM Zones:**

“Pre-Expansion PJM Zones” shall be zones included in the 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, Mid-Atlantic Interstate Transmission, LLC (“MAIT”) (MAIT owns and operates the transmission facilities in the Metropolitan Edison Company Zone and the Pennsylvania Electric Company Zone), PECO Energy 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 Economic Load Response Participant 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 Alert**

“Primary Reserve Alert” shall mean a notification from PJM to alert Members of an anticipated shortage of Operating Reserve capacity for a future critical period.

**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. The requirement can be satisfied by any combination of Synchronized Reserve or Non-Synchronized Reserve resources.

**Principal:**

“Principal” shall mean (i) the chief executive officer or senior manager that controls or directs strategy for the Participant, (ii) the chief legal officer or general counsel, (iii) the chief financial



officer or senior manager that controls or directs the financial affairs and investments of the Participant, (iv) the chief risk officer or senior manager responsible for managing commodity and derivatives market risks, and (v) the officer or senior manager responsible for or to be responsible for transactions in the applicable PJM Markets. If, due to the Participant's business enterprise, structure or otherwise, the functions attributed to any of such Principals are performed by an individual or entity separate from the Participant (such as a risk management department in an affiliate, or a director or manager at an entity that controls or invests in the Participant), then for that Participant the term Principal shall mean that individual, or the senior officer or manager of that entity, that performs such function.

**Prior CIL Exception External Resource:**

“Prior CIL Exception External Resource” shall mean an external Generation Capacity Resource for which (1) a Capacity Market Seller had, prior to May 9, 2017, cleared a Sell Offer in an RPM Auction under the exception provided to the definition of Capacity Import Limit as set forth in RAA, Article I or (2) an FRR Entity committed, prior to May 9, 2017, in an FRR Capacity Plan under the exception provided in the definition of Capacity Import Limit. In the event only a portion (in MW) of an external Generation Capacity Resource has a Pseudo-Tie into the PJM Region, that portion of the external Generation Capacity Resource, which can include up to the maximum megawatt amount cleared in any prior RPM auction or committed in an FRR Capacity Plan (and no other portion thereof) is eligible for treatment as a Prior CIL Exception External Resource if such portion satisfies the requirements of the first sentence of this definition.

**Project Financing:**

“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:**

“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 EAS Dispatch:**

“Projected EAS Dispatch” shall mean, for purposes of calculating the Net Energy and Ancillary Services Revenue Offset, a simulated dispatch with the objective of committing and dispatching a resource for the purpose of maximizing its net revenues. The calculation shall take inputs

including Forward Hourly LMPs, Forward Hourly Ancillary Service Prices, and Forward Daily Natural Gas Prices or forecasted fuel prices, as applicable, in addition to the operating parameters and costs of the specific resource, including the cost emission allowances. Using operating parameters, forward or forecasted fuel prices, as applicable and other cost pricing inputs, a composite, cost-based energy offer is created for the resource such that its commitment and dispatch is co-optimized between energy and ancillary services in the Day-Ahead Energy Market and then the Real-Time Energy Market considering the electricity and ancillary service price inputs. In the Real-Time Energy Market co-optimization, the resource is assumed to be operating in the hours it was scheduled in the Day-Ahead Energy Market but is dispatched according to the real-time price inputs. In the hours where the resource was not committed in the Day-Ahead Market, the resource may be committed and dispatched in real-time only subject to the real-time electricity and ancillary service price inputs and the resource's offer and operating parameters. For combustion turbine units only, the cost-based energy offer will include a 10 percent adder *only for the 2022/2023 Delivery Year*.

#### **Projected PJM Market Revenues:**

“Projected PJM Market Revenues” shall mean a component of the Market Seller Offer Cap calculated in accordance with Tariff, Attachment DD, section 6.

#### **Proportional Multi-Driver Project:**

“Proportional Multi-Driver Project” shall mean a Multi-Driver Project that is planned as described in Tariff, Schedule 19, section 1.5.10(h)~~have the same meaning provided in the Operating Agreement.~~

#### **Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

#### **Pseudo-Tie:**

“Pseudo-Tie” shall have the same meaning provided in the Operating Agreement.

#### **Public Policy Objectives:**

“Public Policy Objectives” shall refer to Public Policy Requirements, as well as public policy initiatives of state or federal entities that have not been codified into law or regulation but which nonetheless may have important impacts on long term planning considerations~~have the same meaning provided in the Operating Agreement.~~

**Public Policy Requirements:**

“Public Policy Requirements” shall refer to policies pursued by: (a) state or federal entities, where such policies are reflected in duly enacted statutes or regulations, including but not limited to, state renewable portfolio standards and requirements under Environmental Protection Agency regulations; and (b) local governmental entities such as a municipal or county government, where such policies are reflected in duly enacted laws or regulations passed by the local governmental entity~~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:**

“Queue Position” shall mean the priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Tariff, Part VI.

## **Tariff, Definitions R-S**

## **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 for use 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 Settlement Interval:**

“Real-time Settlement Interval” shall mean the interval used by settlements, which shall be every five minutes.

### **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:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Tariff, Part IV or Part VI, 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:**

“Receiving Party” shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

**Referral:**

“Referral” shall mean 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 Tariff, Attachment M, section IV.I.

**Reference Resource:**

“Reference Resource” shall mean a combustion turbine generating station, configured with a single General Electric Frame 7HA turbine with evaporative cooling, Selective Catalytic Reduction technology all CONE Areas, dual fuel capability, and a heat rate of 9.134 Mmbtu/MWh.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Network Integration Transmission Service:**

“Regional Network Integration Transmission Service” shall mean firm transmission service taken by Network Customers that involves the delivery of energy and/or capacity from Network Resources physically interconnected to the Transmission Provider’s transmission system to Network Load physically interconnected to the Transmission Provider’s transmission system.

**Regional RTEP Project:**

“Regional RTEP Project” shall mean a transmission expansion or enhancement rated at 230 kV or above which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 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):**

“Regional Transmission Group” or “RTG” shall mean 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:**

“Regulation Zone” shall mean 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:**

“Relevant Electric Retail Regulatory Authority” shall mean 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 or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**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.

**Required Transmission Enhancements:**

“Regional Transmission Enhancements” shall mean enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ or (2) any joint planning or coordination agreement between PJM and another region or transmission planning authority set forth in Tariff, 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:**

“Reserved Capacity” shall mean 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 Tariff, Part II. 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:**

“Reserve Sub-zone” shall mean 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:**

“Reserve Zone” shall mean 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 Operating Agreement, Schedule 1, section 7.5 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.5 in compliance with Operating Agreement, Schedule 1, section 7.4.2 (h)



and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2(h), and, if modeled, would have increased the amount of stage 1 Auction Revenue Rights allocated pursuant to Operating Agreement, Schedule 1, section 7.4.2 and the parallel provisions of Tariff, Attachment K-Appendix, section 7.4.2; provided that, the foregoing notwithstanding, Residual Auction Revenue Rights shall exclude: 1) Incremental Auction Revenue Rights allocated pursuant to Tariff, Part VI; and 2) Auction Revenue Rights allocated to entities that are assigned cost responsibility pursuant to ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 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.

**Revenue Data for Settlements:**

“Revenue Data for Settlements” shall mean energy quantities used in accounting and billing as determined pursuant to Tariff, Attachment K-Appendix and the corresponding provisions of Operating Agreement, Schedule 1.

**RPM Seller Credit:**

“RPM Seller Credit” shall mean an additional form of Unsecured Credit defined in Tariff, Attachment Q, section IV.

**Scheduled Incremental Auctions:**

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

**Schedule of Work:**

“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:**

“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.

**Seasonal Capacity Performance Resource:**

“Seasonal Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Secondary Reserve:**

“Secondary Reserve” shall mean the reserve capability of generation resources that can be converted fully into energy or Economic Load Response Participant resources whose demand can be reduced within 30 minutes (less the capability of such resources to provide Primary Reserve), from the request of the Office of the Interconnection, regardless of whether the equipment providing the reserve is electrically synchronized to the Transmission System or not.

**Secondary Systems:**

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

**Second Incremental Auction:**

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

**Security:**

“Security” shall mean the security provided by the New Service Customer pursuant to Tariff, section 212.4 or Tariff, Part VI, section 213.4 to secure the New Service Customer’s responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Tariff, Part VI, section 217.

**Segment:**

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

**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.

**Self-Supply Entity:**

"Self-Supply Entity" shall mean the following types of Load Serving Entity that operate under long-standing business models: single customer entity, public power entity, or vertically integrated utility, where "vertically integrated utility" means a utility that owns generation, includes such generation in its regulated rates, and earns a regulated return on its investment in such generation or receives any cost recovery for such generation through bilateral contracts; "single customer entity" means a Load Serving Entity that serves at retail only customers that are under common control with such Load Serving Entity, where such control means holding 51% or more of the voting securities or voting interests of the Load Serving Entity and all its retail customers; and "public power entity" means cooperative and municipal utilities, including public power supply entities comprised of either or both of the same and rural electric cooperatives, and joint action agencies.

**Self-Supply Seller:**

"Self-Supply Seller" shall mean, for purposes of evaluating Buyer-Side Market Power, the following types of Load Serving Entities that operate under long-standing business models: vertically integrated utility or public power entity, where "vertically integrated utility" means a utility that owns generation, includes such generation in its state-regulated rates, and earns a state-regulated return on its investment in such generation; and "public power entity" means electric cooperatives that are either rate regulated by the state or have their long-term resource plan approved or otherwise reviewed and accepted by a Relevant Electric Retail Regulatory Authority and municipal utilities or joint action agencies that are subject to direct regulation by a Relevant Electric Retail Regulatory Authority.

**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:**

"Service Agreement" shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Service Commencement Date:**

“Service Commencement Date” shall mean 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 Tariff, Part II, section 15.3 or Tariff, Part III, section 29.1.

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

“Short-Term Firm Point-To-Point Transmission Service” shall mean Firm Point-To-Point Transmission Service under Tariff, Part II with a term of less than one year.

**Short-term Project:**

“Short-term Project” shall mean a transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to Tariff, Schedule 19, section 1.5.8(c), the Office of the Interconnection posts the violations, system conditions, or Public Policy Requirements to be addressed by the enhancement or expansion 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:**

“Site” shall mean 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 RAA, Schedule 6 and Tariff, Attachment DD-1, 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:**

“Small Generation Resource” shall mean 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:**

“Small Inverter Facility” shall mean an Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

**Small Inverter ISA:**

“Small Inverter ISA” shall mean an agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under Tariff, Part IV, section 112B.

**Special Member:**

“Special Member” shall mean an entity that satisfies the requirements of Operating Agreement, Schedule 1, section 1.5A.02, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.5A.02, 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 Operating Agreement, Schedule 1, section 2, and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**Start Additional Labor Costs:**

“Start Additional Labor Costs” shall mean additional labor costs for startup required above normal station manning levels.

**Start Fuel:**

For units without a soak process, “Start Fuel” shall consist of fuel consumed from first fire of the start process to first breaker closing, plus any fuel expended from last breaker opening to shutdown.

For units with a soak process, “Start Fuel” is fuel consumed from first fire of the start process (initial reactor criticality for nuclear units) to dispatchable output (including auxiliary boiler fuel), plus any fuel expended from last breaker opening to shutdown, excluding normal plant heating/auxiliary equipment fuel requirements. Start Fuel included for each temperature state from breaker closure to dispatchable output shall not exceed the unit specific soak time period reviewed and approved as part of the unit-specific parameter process detailed in Tariff, Attachment K-Appendix, section 6.6(c) or the defaults below:

- Cold Soak Time =  $0.73 * \text{unit specific Minimum Run Time (in hours)}$
- Intermediate Soak Time =  $0.61 * \text{unit specific Minimum Run Time (in hours)}$
- Hot Soak Time =  $0.43 * \text{unit specific Minimum Run Time (in hours)}$

**Start-Up Costs:**

“Start-Up Costs” shall consist primarily of the cost of fuel, as determined by the unit’s start heat input (adjusted by the performance factor) times the fuel cost. It also includes operating costs, Maintenance Adders, emissions allowances/adders, and station service cost. Start-Up Costs can vary with the unit offline time being categorized in three unit temperature conditions: hot, intermediate and cold.

For units with a steam turbine and a soak process (nuclear, steam, and combined cycle), “Start Fuel” is fuel consumed from first fire of start process (initial reactor criticality for nuclear units): Start-Up Costs shall mean the net unit costs from PJM’s notification to the level at which the unit can follow PJM’s dispatch, and from last breaker open to shutdown.

For units without a steam turbine and no soak process (engines, combustion turbines, Intermittent Resources, and Energy Storage Resources): Start-Up Costs shall mean the unit costs from PJM’s notification to first breaker close and from last breaker open to shutdown.

**State:**

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

**State Commission:**

“State Commission” shall mean 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 Operating Agreement, Schedule 1, section 2.3 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.3.

**State Subsidy:**

“State Subsidy” shall mean a direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is as a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that

- (1) is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce; or
- (2) will support the construction, development, or operation of a new or existing Capacity Resource; or
- (3) could have the effect of allowing the unit to clear in any PJM capacity auction.

Notwithstanding the foregoing, State Subsidy shall not include (a) payments, concessions, rebates, subsidies, or incentives designed to incent, or participation in a program, contract or other arrangement that utilizes criteria designed to incent or promote, general industrial development in an area or designed to incent siting facilities in that county or locality rather than another county or locality; (b) state action that imposes a tax or assesses a charge utilizing the parameters of a regional program on a given set of resources notwithstanding the tax or cost having indirect benefits on resources not subject to the tax or cost (e.g., Regional Greenhouse Gas Initiative); (c) any indirect benefits to a Capacity Resource as a result of any transmission project approved as part of the Regional Transmission Expansion Plan; (d) any contract, legally enforceable obligation, or rate pursuant to the Public Utility Regulatory Policies Act or any other state-administered federal regulatory program (e.g., the Cross-State Air Pollution Rule); (e) any revenues from the sale or allocation, either direct or indirect, to an Entity Providing Supply Services to Default Retail Service Provider where such entity’s obligations was awarded through a state default procurement auction that was subject to independent oversight by a consultant or manager who certifies that the auction was conducted through a non-discriminatory and competitive bidding process, subject to the below condition, and provided further that nothing herein would exempt a Capacity Resource that would otherwise be subject to the minimum offer price rule pursuant to this Tariff; (f) any revenues for providing capacity as part of an FRR

Capacity Plan or through bilateral transactions with FRR Entities; or (g) any voluntary and arm's length bilateral transaction (including but not limited to those reported pursuant to Tariff, Attachment DD, section 4.6), such as a power purchase agreement or other similar contract where the buyer is a Self-Supply Entity and the transaction is (1) a short term transaction (one-year or less) or (2) a long-term transaction that is the result of a competitive process that was not fuel-specific and is not used for the purpose of supporting uneconomic construction, development, or operation of the subject Capacity Resource, provided however that if the Self-Supply Entity is responsible for offering the Capacity Resource into an RPM Auction, the specified amount of installed capacity purchased by such Self-Supply Entity shall be considered to receive a State Subsidy in the same manner, under the same conditions, and to the same extent as any other Capacity Resource of a Self-Supply Entity. For purposes of subsection (e) of this definition, a state default procurement auction that has been certified to be a result of a non-discriminatory and competitive bidding process shall:

- (i) have no conditions based on the ownership (except supplier diversity requirements or limits), location (except to meet PJM deliverability requirements), affiliation, fuel type, technology, or emissions of any resources or supply (except state-mandated renewable portfolio standards for which Capacity Resources are separately subject to the minimum offer price rule or eligible for an exemption);
- (ii) result in contracts between an Entity Providing Supply Services to Default Retail Service Provider and the electric distribution company for a retail default generation supply product and none of those contracts require that the retail obligation be sourced from any specific Capacity Resource or resource type as set forth in subsection (i) above; and
- (iii) establish market-based compensation for a retail default generation supply product that retail customers can avoid paying for by obtaining supply from a competitive retail supplier of their choice.

### **State of Charge:**

“State of Charge” shall mean the quantity of physical energy stored in an Energy Storage Resource Model Participant or in a storage component of a Hybrid Resource in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

### **State of Charge Management:**

“State of Charge Management” shall mean the control of State of Charge of an Energy Storage Resource Market Participant or a storage component of a Hybrid Resource using minimum and maximum discharge (and, as applicable, charge) limits, changes in operating mode (as applicable), discharging (and, as applicable, charging) offer curves, and self-scheduling of non-dispatchable sales (and, as applicable, purchases) of energy in the PJM markets. State of Charge Management shall not interfere with the obligation of a Market Seller of an Energy Storage Resource Model Participant or of a Hybrid Resource to follow PJM dispatch, consistent with all other resources.



**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**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 Tariff, Attachment DD, section 5.10(a) 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.

**Subregional RTEP Project:**

“Subregional RTEP Project” shall mean a transmission expansion or enhancement rated below 230 kV which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

**Supplemental Project:**

“Supplemental Project” shall mean a transmission expansion or enhancement that is not required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection and is not a state public policy project pursuant to Tariff, Schedule 19, section 1.5.9(a)(ii). Any system upgrades required to maintain the reliability of the system that are driven by a Supplemental Project are considered part of that Supplemental Project and are the responsibility of the entity sponsoring that Supplemental Project.

**Summer-Period Capacity Performance Resource:**

“Summer-Period Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

**Surplus Interconnection Customer:**

“Surplus Interconnection Customer” shall mean either an Interconnection Customer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Customer is not a New Service Customer.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Interconnection Customer, pursuant to Tariff, Attachment RR, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in an Interconnection Service Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of 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 Economic Load Response Participant 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 Economic Load Response Participant 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. This requirement can only be satisfied by Synchronized Reserve resources.

**System Condition:**

“System Condition” shall mean 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 Tariff, Part II, 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 Operating Agreement, Schedule 1, section 2 and the parallel provisions of Tariff, Attachment K-Appendix, section 2.

**System Impact Study:**

“System Impact Study” shall mean 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:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the 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.

## **Tariff, Definitions T-U-V**

## **Definitions – T – U - V**

### **Tangible Net Worth:**

“Tangible Net Worth” shall mean total assets less goodwill and other intangible assets, minus total liabilities.

### **Target Allocation:**

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

### **Third Incremental Auction:**

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

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

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

### **Tie Line:**

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

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

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

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

**Total Net Obligation:**

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

**Total Net Sell Position:**

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

**Total Operating Reserve Offer:**

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

**Trade Reference:**

“Trade Reference” shall mean a reference from a contact or firm that had or has a material business relationship with a Participant.

**Transmission Congestion Charge:**

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



Schedule 1, section 5.1 and the parallel provisions of Tariff, Attachment K-Appendix, section 5.1.

**Transmission Congestion Credit:**

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

**Transmission Constraint Penalty Factor:**

“Transmission Constraint Penalty Factor” shall mean the maximum cost of the re-dispatch incurred to control the flows across a transmission constraint and establishes the maximum limit on the Marginal Value.

**Transmission Customer:**

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

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

**Transmission Facilities:**

“Transmission Facilities” shall ~~have the meaning set forth in the Operating Agreement~~mean facilities that: (i) are within the PJM Region; (ii) 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; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

**Transmission Forced Outage:**

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

**Transmission Injection Rights:**

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

**Transmission Interconnection Customer:**

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to ~~Operating Agreement, Schedule 6~~ [Tariff, Schedule 19](#)).

**Transmission Interconnection Facilities Study:**

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

**Transmission Interconnection Feasibility Study:**

“Transmission Interconnection Feasibility Study” shall mean a study conducted by the Transmission Provider in accordance with Tariff, Part IV, section 36.2.

**Transmission Interconnection Request:**

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

**Transmission Loading Relief:**

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

**Transmission Loss Charge:**

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

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Consolidated Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Transmission Owner Attachment Facilities:**

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

**Transmission Owner Interconnection Facilities:**

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Tariff, Attachment P, Appendix 2, section 5.5 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 mean an upgrade to a Transmission Owner’s own transmission facilities, which is an improvement to, addition to, or replacement of a part of, an existing facility and is not an entirely new transmission facility~~have the same meaning provided in the Operating Agreement.~~

**Transmission Planned Outage:**

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

**Transmission Provider:**

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

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

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

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

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

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

**Transmission Service:**

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

**Transmission Service Request:**

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

**Transmission System:**

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

**Transmission Withdrawal Rights:**

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

**Turn Down Ratio:**

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

**Unconstrained LDA Group:**

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

**Unforced Capacity:**

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

**Unsecured Credit:**

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

**Unsecured Credit Allowance:**

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

**Updated VRR Curve:**

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

**Updated VRR Curve Decrement:**

“Updated VRR Curve Decrement” shall mean the portion of the Updated VRR Curve to the left of a vertical line at the level of Unforced Capacity on the x-axis of such curve equal to the net Unforced Capacity committed to the PJM Region as a result of all prior auctions conducted for such Delivery Year and adjusted, if applicable, by a change in Unforced Capacity commitments associated with the transition provision of Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E, and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**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 Tariff, Attachment DD, section 5.14C, Tariff, Attachment DD, section 5.14D (as related to the 2016/2017 Delivery Year), Tariff, Attachment DD, section 5.14E and Tariff, Attachment DD, section 5.5A(c)(i)(B), and RAA, Schedule 6, section L.9.

**Upgrade Construction Service Agreement:**

“Upgrade Construction Service Agreement” shall mean that agreement entered into by an Eligible Customer, Upgrade Customer or Interconnection Customer proposing Merchant Network Upgrades, a Transmission Owner, and the Transmission Provider, pursuant to Tariff, Part VI, Subpart B, and in the form set forth in Tariff, Attachment GG.

**Upgrade Customer:**

“Upgrade Customer” shall mean a customer that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Upgrade Feasibility Study:**

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

**Upgrade-Related Rights:**

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

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Attachment EE, 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 Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Up-to Congestion Counterflow Transaction:**

“Up-to Congestion Counterflow Transaction” shall mean an Up-to Congestion Transaction will be deemed an Up-to Congestion Counterflow Transaction if the following value is negative: (a)

when bidding, the lower of the bid price and the prior Up-to Congestion Historical Month's average real-time value for the transaction; or (b) for cleared Virtual Transactions, the cleared day-ahead price of the Virtual Transactions.

**Up-to Congestion Historical Month:**

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

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

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

**Up-to Congestion Reference Price:**

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

- For Up-to Congestion Prevailing Flow Transactions: 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 Operating Agreement, Schedule 1, section 1.10.1A, and the parallel provisions of Tariff, Attachment K-Appendix, section 1.10.1A.

**Variable Loads:**

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

**Variable Resource Requirement Curve:**

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

**Virtual Credit Exposure:**

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

**Virtual Transaction:**

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

**Virtual Transaction Screening:**

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

**Virtual Transactions Net Activity:**

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

**Voltage Reduction Action:**

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

**Voltage Reduction Alert:**

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

**Voltage Reduction Warning:**

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



## **Tariff, Definitions W-X-Y-Z**

## **Definitions – W – X – Y - Z**

### **Wholesale Transaction:**

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

### **Winter-Period Capacity Performance Resource:**

“Winter-Period Capacity Performance Resource” shall have the same meaning specified in Tariff, Attachment DD, section 5.5A.

### **Working Credit Limit:**

“Working Credit Limit” shall mean an amount that is 75% of the Participant’s Unsecured Credit Allowance determined by PJMSettlement and/or 75% of the Collateral provided by the Participant to PJMSettlement. A Participant’s Total Net Obligation should not exceed its Working Credit Limit. The calculation of Working Credit Limit shall take into account applicable reductions for Minimum Participation Requirements, FTR participation (for which there is no Unsecured Credit Allowance available), RPM participation, or other credit requirement determinants as defined in Tariff, Attachment Q.

### **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 Collateral provided by the Market Participant to PJMSettlement when the Market Participant is at or below its Peak Market Activity credit requirements as specified in Tariff, Attachment Q, section VII.A. When the Market Participant has available Unsecured Credit Allowance and/or has provided Collateral in excess of its Peak Market Activity credit requirements, such additional Unsecured Credit Allowance and/or Financial Security 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 Tariff, Attachment Q.

### **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 or Zonal:**

“Zone” or “Zonal” shall mean an area within the PJM Region, as set forth in Tariff, Attachment J and RAA, Schedule 15, or as such areas may be (i) combined as a result of mergers or acquisitions or (ii) added as a result of the expansion of the boundaries of the PJM Region. A Zone shall include any Non-Zone Network Load located outside the PJM Region that is served from such Zone under Tariff, Attachment H-A.

**Zone Network Load:**

“Zone Network Load” shall mean Network Load that is located inside of the area comprised of the PJM Region.

**Tariff, 15.4 Obligation to Provide Transmission Service that  
Requires Expansion or Modification of the Transmission System or  
Redispatch**

#### 15.4 Obligation to Provide Transmission Service that Requires Expansion or Modification of the Transmission System or Redispatch:

(a) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on the Transmission System, the Transmission Owners will be obligated and shall use due diligence to expand or modify, the Transmission System to provide the requested Firm Transmission Service consistent with the planning obligations in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19, provided the Transmission Customer agrees to compensate the Transmission Provider or the affected Transmission Owner(s) for such costs pursuant to the terms of Tariff, Part II, section 27. The Transmission Provider and the affected Transmission Owners will conform to Good Utility Practice and the planning obligations in ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 in determining the need for new facilities and the affected Transmission Owner(s) will conform to Good Utility Practice in the design and construction of such facilities. The obligation applies only to those facilities that the Transmission Owners have the right to expand or modify.

(b) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will use due diligence to provide redispatch until Network Upgrades are completed for the Transmission Customer.

## **Tariff, 16.1 Conditions Required of Transmission Customers**

## 16.1 Conditions Required of Transmission Customers:

Point-To-Point Transmission Service shall be provided by the Transmission Provider only if the following conditions are satisfied by the Transmission Customer:

- a. The Transmission Customer has pending a Completed Application for service;
- b. The Transmission Customer meets the creditworthiness criteria set forth in Tariff, Part I, section 11;
- c. The Transmission Customer will have arrangements in place for any other transmission service necessary to effect the delivery from the generating source to the Transmission Provider prior to the time service under Tariff, Part II commences;
- d. The Transmission Customer agrees to pay for any facilities constructed and chargeable to such Transmission Customer under Tariff, Part II, whether or not the Transmission Customer takes service for the full term of its reservation;
- e. The Transmission Customer provides the information required by the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19; and
- f. The Transmission Customer has executed a Point-To-Point Service Agreement or has agreed to receive service pursuant to Tariff, Part II, section 15.3.

## **Tariff, 17.2 Completed Application**



## 17.2 Completed Application:

If requested by the Transmission Provider, a Completed Application shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the entity requesting service;
- (ii) A statement that the entity requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) The location of the Point(s) of Receipt and Point(s) of Delivery and the identities of the Delivering Parties and the Receiving Parties;
- (iv) The location of the generating facility(ies) supplying the capacity and energy and the location of the load ultimately served by the capacity and energy transmitted. The Transmission Provider will treat this information as confidential except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice or pursuant to Applicable Regional Entity transmission information sharing agreements. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations;
- (v) A description of the supply characteristics of the capacity and energy to be delivered;
- (vi) An estimate of the capacity and energy expected to be delivered to the Receiving Party;
- (vii) The Service Commencement Date and the term of the requested Transmission Service;
- (viii) The transmission capacity requested for each Point of Receipt and each Point of Delivery on the Transmission Provider's Transmission System; customers may combine their requests for service in order to satisfy the minimum transmission capacity requirement;
- (ix) A statement indicating that, if the Eligible Customer submits a Pre-Confirmed Application, the Eligible Customer will execute a Service Agreement upon receipt of notification that Transmission Provider can provide the requested Transmission Service; and
- (x) Any additional information required by the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6 Tariff, Schedule 19.~~

The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

## **Tariff, 28.2 Transmission Provider Responsibilities**

## 28.2 Transmission Provider Responsibilities:

In order to provide the Network Customer with Network Integration Transmission Service over the Transmission Provider's Transmission Systems: (a) the Transmission Provider will plan and operate the Transmission System in accordance with Good Utility Practice and its planning obligations in ~~Operating Agreement, Schedule 6~~ the Tariff; and (b) the Transmission Owners will be obligated to construct and maintain the Transmission System in accordance with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice. Each Transmission Owner, on behalf of its Native Load Customers, shall be required to designate resources and loads in the same manner as any Network Customer under Tariff, Part III. This information must be consistent with the information used by the Transmission Provider to calculate available transfer capability. The Transmission Provider shall include the Network Customer's Network Load in the Transmission System planning and the Transmission Owners shall, consistent with the terms and conditions of the Tariff, the Operating Agreement, and Good Utility Practice, endeavor to construct and place into service sufficient transfer capability to deliver the Network Customer's Network Resources to serve its Network Load on a basis comparable to the delivery of each Transmission Owner's own generating and purchased resources to its Native Load Customers.

## **Tariff, 29.2 Application Procedures**

## 29.2 Application Procedures:

An Eligible Customer requesting service under Tariff, Part III must submit an Application to the Transmission Provider as far as possible in advance of the month in which service is to commence. Unless subject to the procedures in Tariff, Part I, section 2, Completed Applications for Network Integration Transmission Service will be assigned a Project Identifier according to the date and time the Application is received, with the earliest Application receiving the highest priority. For Transmission Service requests that require a Phase I System Impact Study, a Completed Application must be submitted and received by the Transmission Provider by the cycle Application Deadline in order to be assigned a Project Identifier in such cycle. If requested by Transmission Provider, Applications should be submitted by entering the information listed below (except for applications for Network Integration Transmission Service pursuant to state required retail access programs for which Transmission Customers shall provide the information required under the Service Agreement) on the Transmission Provider's OASIS. For applications pursuant to state required retail access programs, the information required under the Service Agreement should be submitted on the Transmission Provider's specified electronic information system established for such programs. Each of these methods will provide a time-stamped record for establishing the service priority of the Application. If requested by Transmission Provider, a Completed Application (other than applications for Network Integration Transmission Service pursuant to a state required retail access program, which shall be governed by Tariff, Attachment F-1 and the specifications thereto) shall provide all of the information included in 18 C.F.R. § 2.20 including but not limited to the following:

- (i) The identity, address, telephone number and facsimile number of the party requesting service;
- (ii) A statement that the party requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;
- (iii) A description of the Network Load at each delivery point. This description should separately identify and provide the Eligible Customer's best estimate of the total loads to be served at each transmission voltage level, and the loads to be served from each Transmission Provider substation at the same transmission voltage level. The description should include a ten (10) year forecast of summer and winter load and resource requirements beginning with the first year after the service is scheduled to commence;
- (iv) The amount and location of any interruptible loads included in the Network Load. This shall include the summer and winter capacity requirements for each interruptible load (had such load not been interruptible), that portion of the load subject to interruption, the conditions under which an interruption can be implemented and any limitations on the amount and frequency of interruptions. An Eligible Customer should identify the amount of interruptible customer load (if any) included in the 10 year load forecast provided in response to (iii) above;

(v) A description of Network Resources (current and 10-year projection). For each on-system Network Resource, such description shall include:

- Unit size and amount of capacity from that unit to be designated as Network Resource
- VAR capability (both leading and lagging) of all generators
- Operating restrictions
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit
  - Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
- Approximate variable generating cost (\$/MWH) for redispatch computations
- Arrangements governing sale and delivery of power to third parties from generating facilities located in the Transmission Provider Control Areas, where only a portion of unit output is designated as a Network Resource
- For each off-system Network Resource, such description shall include:
  - Identification of the Network Resource as an off-system resource
- Amount of power to which the customer has rights
  - Identification of the control area from which the power will originate
  - Delivery point(s) to the Transmission Provider's Transmission System
  - Transmission arrangements on the external transmission system(s)
- Operating restrictions, if any
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit

- Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
  - Approximate variable generating cost (\$/MWH) for redispatch computations;
- (vi) Description of Eligible Customer's transmission system:
- Load flow and stability data, such as real and reactive parts of the load, lines, transformers, reactive devices and load type, including normal and emergency ratings of all transmission equipment in a load flow format compatible with that used by the Transmission Provider
  - Operating restrictions needed for reliability
  - Operating guides employed by system operators
  - Contractual restrictions or committed uses of the Eligible Customer's transmission system, other than the Eligible Customer's Network Loads and Resources
  - Location of Network Resources described in subsection (v) above
  - 10 year projection of system expansions or upgrades
  - Transmission System maps that include any proposed expansions or upgrades
  - Thermal ratings of Eligible Customer's Control Area ties with other Control Areas;
- (vii) Service Commencement Date and the term of the requested Network Integration Transmission Service. The minimum term for Network Integration Transmission Service is one year except that, for service provided with respect to a state required retail access program, the minimum term is one day;
- (viii) A statement signed by an authorized officer from or agent of the Network Customer attesting that all of the network resources listed pursuant to Tariff, Part III, section 29.2(v) satisfy the following conditions: (1) the Network Customer owns the resource, has committed to purchase generation pursuant to an executed contract, or has committed to purchase generation where execution of a contract is contingent upon the availability of transmission service under Tariff, Part III; and (2) the Network Resources do not include any resources, or any portion thereof, that are committed for sale to non-designated third party load 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; and



(ix) Any additional information required of the Transmission Customer as specified in the Transmission Provider's planning process established in ~~Operating Agreement, Schedule 6 Tariff, Schedule 19.~~

In addition, a party requesting Transmission Service shall provide the information specified in, and otherwise comply with, the "PJM Credit Policy" set forth in Tariff, Attachment Q hereto. Unless the Parties agree to a different time frame, the Transmission Provider must acknowledge the request within ten (10) days of receipt. The acknowledgement must include a date by which a response, including a Service Agreement, will be sent to the Eligible Customer. If an Application fails to meet the requirements of this section, the Transmission Provider shall notify the Eligible Customer requesting service within fifteen (15) days of receipt and specify the reasons for such failure. Wherever possible, the Transmission Provider will attempt to remedy deficiencies in the Application through informal communications with the Eligible Customer. If such efforts are unsuccessful, the Transmission Provider shall return the Application without prejudice to the Eligible Customer filing a new or revised Application that fully complies with the requirements of this section. The Eligible Customer will be assigned a new Project Identifier consistent with the date of the new or revised Application. The Transmission Provider shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

## **Tariff, 31.6 Annual Load and Resource Information Updates**

### **31.6 Annual Load and Resource Information Updates:**

Even if an Application is no longer required, the Network Customer shall provide the Transmission Provider with annual updates of Network Load and Network Resource forecasts consistent with those included in its Application for Network Integration Transmission Service under Tariff, Part III including, but not limited to, any information provided under Tariff, Part III, section 29.2(ix) pursuant to the Transmission Provider's planning process in ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19. Even if an Application is no longer required, the Network Customer also shall provide the Transmission Provider with timely written or electronic notice of material changes in any other information listed in Tariff, Part III, section 29.2 or provided in its Application relating to the Network Customer's Network Load, Network Resources, its transmission system or other aspects of its facilities or operations affecting the Transmission Provider's ability to provide reliable service.

## **Tariff, 36.1 General**

### **36.1 General:**

Generation Interconnection Requests and Transmission Interconnection Requests shall be governed by Tariff, Part IV, Subpart A, section 36.

#### **36.1.01 Generation Interconnection Request:**

Except as otherwise provided in this Subpart A with respect to Behind The Meter Generation, an Interconnection Customer that seeks to interconnect new generation in, to increase the capacity of generation already interconnected in, the PJM Region shall submit to the Transmission Provider a Generation Interconnection Request. The Transmission Provider shall acknowledge receipt of the Generation Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Generation Interconnection Request.

1. Generation Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part IV, Preamble, section 201, a Generation Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment N. To be considered complete at the time of submission, the Interconnection Customer's Generation Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. specification of the location of the proposed Generating Facility site or existing Generating Facility (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. evidence of an ownership interest in, or right to acquire or control the Generating Facility site for a minimum of three years, such as a deed, option agreement, lease, or other similar document acceptable to the Transmission Provider; and
  - c. the MW size of the proposed Generating Facility or the amount of increase in MW capability of an existing Generating Facility, and identification of any MW portion of the facility's capability that will be a Capacity Resource; and
  - d. identification of the fuel type of the proposed generating unit or upgrade thereto; and
  - e. a description of the equipment configuration, and a set of preliminary electrical design specifications, and, if the generating unit is a wind generation facility, then the set of preliminary electrical design specifications must depict the wind plant as a single equivalent generator; and

- f. the planned date the proposed generating unit or increase in MW capability of an existing generating unit will be in service, where such date is to be no more than seven years from the date that a complete and fully executed Generation Interconnection Feasibility Study Agreement is received by the Transmission Provider unless the Interconnection Customer demonstrates that engineering, permitting, and construction of the generating unit or increase in capability will take more than seven years; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals, including a description of how the full electrical generating capability of the generating unit will be limited to the Maximum Facility Output requested if the Maximum Facility Output of the generating unit is less than the full electrical generating capability of the Generating Facility; and
- h. if Behind The Meter Generation is identified in the Generation Interconnection Feasibility Study Agreement, all of the requirements in Tariff, Part IV, Subpart A, section 36.1A must also be met; and
- i. Deposit.
  - i. A deposit shall be submitted to Transmission Provider, as follows:
    - (1) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the first four calendar months of the current New Services Queue shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Generation Interconnection Request is received in the first four calendar months of the current New Services Queue; or
    - (2) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Generation Interconnection Request is received in the fifth calendar month of the current New Services Queue; or
    - (3) Provided that the maximum total deposit amount for a Generation Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000 a deposit of \$30,000 plus \$200 for each MW requested, if the Generation Interconnection Request is received in the sixth calendar month of the current New Services Queue.

- ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Generation Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Generation Interconnection Customer withdraws its Generation Interconnection Request, or the Generation Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:
  - (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
  - (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
  - (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
  - (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Generation Interconnection Request (to determine whether the Generation Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Generation Interconnection Feasibility Study; and
  - (4) If the Generation Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to

cover all of the costs incurred by the Transmission Provider up to the point of such Generation Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:

- (a) The costs of any restudies required as a result of the modification (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejection, termination and/or withdrawal of such Generation Interconnection Request; and/or
  - (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Generation Interconnection Request and/or associated Queue Position; and/or
  - (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer.
  - (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Generation Interconnection Customer in accordance with the PJM Manuals.
- iv. Upon completion of the Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:
- (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Generation Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
  - (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related



to prior Generation Interconnection Requests by the Interconnection Customer.

- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Generation Interconnection Customer.
  - vi. The Interconnection Customer must submit the total required deposit amount with the Generation Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Generation Interconnection Request, the Generation Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Generation Interconnection Request shall be terminated prior to reaching the deficiency review stage).
  - vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or in part to a different New Service Request or Interconnection Request or Queue Position.
  - j. Primary frequency response operating range for Energy Storage Resources.
2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Generation Interconnection Request to determine whether the Interconnection Customer submitted a valid Generation Interconnection Request.
- a. With the exception of evidence of an ownership interest in, or right to acquire or control the generating unit site for a minimum of three years, if a Generation Interconnection Request meets all requirements set forth above the Transmission Provider shall start the deficiency review. While deficiency reviews may commence for Generation Interconnection Requests that are submitted without site control evidence that is acceptable to the Transmission Provider, such Generation Interconnection Requests shall not be assigned a Queue Position until the Transmission Provider receives site control evidence that is acceptable to the Transmission Provider.
  - b. Pursuant to Tariff, Attachment N, section 9, Cost Responsibility, of the Generation Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed

the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.

- i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
  - (1) Withdraw the Generation Interconnection Request during the deficiency response period (as described below); or
  - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
  - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs, then the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- c. If there are deficiencies in the Generation Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Generation Interconnection Request that such Generation Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt

of the Generation Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.

- i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
- ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
  - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or evidence (such as generation site control) and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Generation Interconnection Request.
  - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
- iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review each Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Generation Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Generation

Interconnection Request shall be deemed to be terminated and withdrawn.

- iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Generation Interconnection Request shall be deemed to be terminated and withdrawn.
3. The Interconnection Customer must submit a complete and fully executed Generation Interconnection Feasibility Study Agreement (Tariff, Attachment N) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Generation Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
4. In accordance with Tariff, Part VI, Preamble, section 201, the Transmission Provider shall assign Queue Positions as of the date and time of receipt of all information required pursuant to this section 36.1.01. If the information required pursuant to this section 36.1.01 is provided to the Transmission Provider in separate submissions, the Queue Position shall be assigned based on the date and time of receipt of the last required piece of information.
5. Deficiency notices shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
6. Transmission Provider Website Postings.
  - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Generation Interconnection Requests that identifies:
    - i. the proposed maximum summer and winter megawatt electrical output;
    - ii. the location of the generation by county and state;
    - iii. the station or transmission line or lines where the interconnection will be made;
    - iv. the facility's projected date of Initial Operation;
    - v. the status of the Generation Interconnection Request, including its Queue Position;

- vi. the type of Generation Interconnection Service requested;
  - vii. the availability of any studies related to the Interconnection Request;
  - viii. the date of the Generation Interconnection Request;
  - ix. the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and
  - x. for each Generation Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
- b. This list will not disclose the identity of the Generation Interconnection Customer, except as otherwise provided in Tariff, Part IV. The list and the priority of Generation Interconnection Requests shall be included on the Transmission Provider's website as part of the New Services Queue.

### **36.1.02 Generation Interconnection Requests of 20 Megawatts or Less:**

The Transmission Provider has developed streamlined processes for Generation Interconnection Requests involving new generation resources of 20 MW or less and increases in the capacity of a generating unit by 20 MW or less over any consecutive 24-month period. The processes for Generation Interconnection Requests involving increases in capacity by 20 MW or less are set forth in Tariff, Part IV, Subpart G and the PJM Manuals.

### **36.1.03 Transmission Interconnection Request:**

An Interconnection Customer that seeks 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 shall submit to the Transmission Provider a Transmission Interconnection Request. The Transmission Provider shall acknowledge receipt of the Transmission Interconnection Request (electronically when available to all parties, otherwise written) within five Business Days after receipt of the Transmission Interconnection Request.

1. Transmission Interconnection Request Requirements. To be assigned a PJM Queue Position pursuant to Tariff, Part VI, Preamble, section 201, a Transmission Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement, a form of which is located in the Tariff, Attachment S. To be considered complete at the time of submission, the Interconnection Customer's Transmission Interconnection Feasibility Study Agreement must include, at a minimum, each of the following:
  - a. the location of the proposed Merchant Transmission Facilities and of the substation(s) or other location(s) where the Transmission Interconnection

Customer proposes to interconnect or add its Merchant Transmission Facilities to the Transmission System; and

- b. a description of the proposed Merchant Transmission Facilities; and
- c. the nominal capability or increase in capability (in megawatts) of the proposed Merchant Transmission Facilities; and
- d. the planned date the proposed Merchant Transmission Facilities will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Transmission Interconnection Customer demonstrates that engineering, permitting, and construction of the Merchant Transmission Facilities will take more than seven years; and
- e. if the request relates to proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that will interconnect with the Transmission System and with another control area outside the PJM Region, the Transmission Interconnection Customer's election to receive either; and
  - i. Transmission Injection Rights and/or Transmission Withdrawal Rights, or
  - ii. Incremental Deliverability Rights, Incremental Auction Revenue Rights, Incremental Capacity Transfer Rights, and Incremental Available Transfer Capability Revenue Rights, associated with the capability of the proposed Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities;
- f. if the Transmission Interconnection Customer will be eligible to receive Incremental Deliverability Rights under Tariff, Part VI, Subpart C, section 235, identification of the point on the Transmission System where the Transmission Interconnection Customer wishes to receive Incremental Deliverability Rights created by the construction or installation of its proposed Merchant Transmission Facilities; and
- g. any additional information as may be prescribed by the Transmission Provider in the PJM Manuals; and
- h. Deposit.
  - i. A deposit shall be submitted to the Transmission Provider as follows:
    - (1) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the first four calendar months of the current New Services Queue

shall not exceed \$110,000, a deposit of \$10,000 plus \$100 for each MW requested if the Transmission Interconnection Request is received in the first four calendar months of the current New Services Queue; or

- (2) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the fifth calendar month of the current New Services Queue shall not exceed \$120,000, a deposit of \$20,000 plus \$150 for each MW requested if the Transmission Interconnection Request is received within the fifth calendar month of the current New Services Queue; or
- (3) Provided that the maximum total deposit amount for a Transmission Interconnection Request submitted in the sixth calendar month of the current New Services Queue shall not exceed \$130,000, a deposit of \$30,000 plus \$200 for each MW requested, if the Transmission Interconnection Request is received within the sixth calendar month of the current New Services Queue.

ii. 10% of each total deposit amount is non-refundable. Any unused non-refundable deposit monies shall be returned to the Transmission Interconnection Customer upon Initial Operation. However, if, before reaching Initial Operation, the Transmission Interconnection Customer withdraws its Transmission Interconnection Request, or the Transmission Interconnection Request is otherwise deemed rejected or terminated and withdrawn, any unused portion of the non-refundable deposit monies shall be used to fund:

- (1) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
- (2) Any restudies required as a result of the rejection, termination and/or withdrawal of such Transmission Interconnection Request; and/or
- (3) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or

Generation Interconnection Requests by the  
Interconnection Customer.

- iii. 90% of each total deposit amount is refundable, and the Transmission Provider shall utilize, in no particular order, the refundable portion of each total deposit amount to cover the following:
- (1) The cost of the Queue Position acceptance review; and
  - (2) The cost of the deficiency review of the Interconnection Customer's Transmission Interconnection Request (to determine whether the Transmission Interconnection Request is valid); and
  - (3) The dollar amount of the Interconnection Customer's cost responsibility for the Transmission Interconnection Feasibility Study; and
  - (4) If the Transmission Interconnection Request is deemed to be modified (pursuant to Tariff, Part IV, Subpart A, section 36.2A), rejected, terminated and/or withdrawn during the deficiency review and/or deficiency response period (as described further below), or during the Feasibility Study period, the refundable deposit money shall be applied to cover all of the costs incurred by the Transmission Provider up to the point of such Transmission Interconnection Request being modified, rejected, terminated and/or withdrawn, and any remaining refundable deposit monies shall be applied to cover:
    - (a) The costs of any restudies required as a result of the modification, rejection termination and/or withdrawal of such Transmission Interconnection Request; and/or
    - (b) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices due to Transmission Provider, Interconnected Transmission Owner(s) and/or third party contractors, as applicable, as a result of any failure of the Interconnection Customer to pay actual costs for the Transmission Interconnection Request and/or associated Queue Position; and/or
    - (c) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service



Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.

- (d) If any refundable deposit monies remain after all costs and outstanding monies owed, as described in this section, are covered, such remaining refundable deposit monies shall be returned to the Interconnection Customer in accordance with the PJM Manuals.
- iv. Upon completion of the Transmission Interconnection Feasibility Study, the Transmission Provider shall apply any remaining refundable deposit monies toward:
  - (1) The Interconnection Customer's cost responsibility for any other studies conducted for the Transmission Interconnection Request under Tariff, Part VI, which shall be applied prior to the deposit monies collected for such other studies; and/or
  - (2) Any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer.
- v. If any refundable deposit monies remain after the Feasibility Study is complete and any outstanding monies owed by the Interconnection Customer in connection with outstanding invoices related to prior New Service Requests and/or Transmission and/or Generation Interconnection Requests by the Interconnection Customer have been paid, such remaining deposit monies shall be returned to the Interconnection Customer.
- vi. The Interconnection Customer must submit the total required deposit amount with the Transmission Interconnection Request. If the Interconnection Customer fails to submit the total required deposit amount with the Transmission Interconnection Request, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn (i.e., the Transmission Interconnection Request shall be terminated prior to reaching the deficiency review stage).
- vii. Deposit monies are non-transferrable. Under no circumstances may refundable or non-refundable deposit monies for a specific Interconnection Request or Queue Position be applied in whole or

in part to a different New Service Request or Interconnection Request or Queue Position.

2. Deficiency Review. Transmission Provider shall provide a deficiency review of the Transmission Interconnection Request to determine whether the Interconnection Customer submitted a valid Transmission Interconnection Request.
  - a. If a Transmission Interconnection Request meets all requirements set forth above, the Transmission Provider shall start the deficiency review.
  - b. Pursuant to Tariff, Attachment S, section 9, Cost Responsibility, of the Transmission Interconnection Feasibility Study Agreement, if the Transmission Provider anticipates that the actual study costs will exceed the refundable portion of the required deposit, the Transmission Provider shall provide the Interconnection Customer with an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by the Transmission Provider. Regardless of whether the Transmission Provider provides the Interconnection Customer with estimated additional study costs, the Interconnection Customer is responsible for and must pay all actual study costs.
    - i. If the Transmission Provider sends the Interconnection Customer notification of estimated additional study costs during the deficiency review period (as described below), then the Interconnection Customer must either:
      - (1) Withdraw the Interconnection Request during the deficiency response period (as described below); or
      - (2) Pay all estimated additional study costs prior to the expiration of the deficiency response period (as described below).
      - (3) If the Interconnection Customer fails to complete either (1) or (2) above, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
    - ii. If at any time after the deficiency review period the Transmission Provider provides the Interconnection Customer with notification of estimated additional study costs, the Interconnection Customer must pay such estimated additional study costs within ten Business Days of Transmission Provider sending the Interconnection Customer notification of such estimated additional study costs. If the Interconnection Customer fails to pay such estimated additional study costs within ten Business Days of Transmission Provider

sending the Interconnection Customer notification of such estimated additional study costs, then the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

- c. If there are deficiencies in the Transmission Interconnection Request for any of the requirements set forth above, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to notify the Interconnection Customer (electronically when available to all parties, otherwise written) within fifteen Business Days of receipt of the Transmission Interconnection Request that such Transmission Interconnection Request is deficient. If Transmission Provider is unable to provide a deficiency review within fifteen Business Days from receipt of the Transmission Interconnection Request, Transmission Provider shall use Reasonable Efforts to complete and issue the deficiency review to the Interconnection Customer as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. This notification is referred to as a deficiency notice.
  - i. The deficiency notice shall clearly set forth the basis upon which the deficiency determination was made.
  - ii. The Interconnection Customer shall be provided ten Business Days to respond to the deficiency notice. This ten Business Day period is referred to as the deficiency response period.
    - (1) Within the deficiency response period, the Interconnection Customer shall provide, in full, the additional information and/or monies that the Transmission Provider's deficiency notice identified as being required to constitute a valid Transmission Interconnection Request.
    - (2) If the Interconnection Customer fails to clear within the deficiency response period all deficiencies identified by the Transmission Provider in the deficiency notice, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.
  - iii. Without regard to the timing of the Interconnection Customer's deficiency response period, the Transmission Provider shall use Reasonable Efforts consistent with the volume of the New Services Queue to review the Interconnection Customer's response to the deficiency notice within fifteen Business Days of the Interconnection Customer submitting its response to the deficiency

notice. If Transmission Provider is unable to complete its review of Interconnection Customer's response to the deficiency notice within fifteen Business Days of receiving the response, Transmission Provider shall use Reasonable Efforts to complete such review as soon thereafter as practicable, but, in no event shall the Transmission Provider's response herein serve as a basis to delaying Transmission Provider's compliance with the Interconnection Feasibility Study provisions of the Tariff, Part IV, Subpart A, section 36.2. If the Transmission Interconnection Request is still deficient after the Transmission Provider's review of Interconnection Customer's response to the deficiency notice and the full ten Business Days of the Interconnection Customer's deficiency response period have expired, the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

iv. If the Interconnection Customer fails to respond in full to the Transmission Provider's deficiency notice (including failing to provide all of the additional required information, evidence and/or make payments on any outstanding invoices required by the Transmission Provider's deficiency notice), the Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

3. The Interconnection Customer must submit a complete and fully executed Transmission Interconnection Feasibility Study Agreement (Tariff, Attachment S) to the Transmission Provider by March 10 for the New Services Queue ending March 31, and by September 10 for the New Services Queue ending September 30. No Transmission Interconnection Requests shall be accepted for the relevant New Services Queue after such dates.
4. The Transmission Provider shall assign Queue Positions pursuant to Tariff, Part VI, Preamble, section 201 on the date and time of receipt of all the required information set forth in this section 36.1.03.
5. Deficiencies shall be considered cleared as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information deemed acceptable by the Transmission Provider to clear such deficiency notice.
6. Adjacent Control Area Stipulation. If applicable, within 30 calendar days of submitting its Transmission Interconnection Request, the Interconnection Customer shall provide evidence acceptable to the Transmission Provider that Interconnection Customer has submitted a valid interconnection request with the adjacent Control Area(s) in which it is interconnecting. Transmission Interconnection Customer shall maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request

process for the relevant PJM Transmission Interconnection Request. If Interconnection Customer fails to maintain its queue position(s) with such adjacent Control Area(s) throughout the entire PJM Transmission Interconnection Request process for the relevant PJM Transmission Interconnection Request, the relevant PJM Transmission Interconnection Request shall be deemed to be terminated and withdrawn.

7. Transmission Provider Website Postings.
  - a. The Transmission Provider shall maintain on the Transmission Provider's website a list of all Transmission Interconnection Requests that identifies:
    - i. in megawatts the potential nominal capability or increase in capability;
    - ii. the location of the Merchant Transmission Facilities by county and state;
    - iii. the station or transmission line or lines where the interconnection will be made;
    - iv. the facility's projected date of Initial Operation;
    - v. the status of the Transmission Interconnection Request, including its Queue Position;
    - vi. the availability of any studies related to the Interconnection Request;
    - vii. the date of the Transmission Interconnection Request;
    - viii. the type of Merchant Transmission Facilities to be constructed; and
    - ix. for each Transmission Interconnection Request that has not resulted in a completed interconnection, an explanation of why it was not completed.
  - b. This list will not disclose the identity of the Transmission Interconnection Customer, except as otherwise provided in Tariff, Part IV or Tariff, Part VI. The list and the priority of Transmission Interconnection Requests shall be included on the Transmission Provider's website as a part of the New Services Queue.

### **36.1.03A Transmission Interconnection Customers Requesting Merchant Network Upgrades**

Notwithstanding Tariff, Part IV, Subpart A, section 36.1.03, an Interconnection Customer that proposes Merchant Network Upgrades (including advancing pursuant to Tariff, Part VI, Subpart

B, section 220 or 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 ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19) shall submit an Upgrade Request, with the required information and the required deposit for a System Impact Study, as set forth in Tariff, Attachment EE.

### **36.1.1 Interconnection Services for Generation:**

Generation Interconnection Customers may request either of two forms of Interconnection Service, i.e., interconnection as a Capacity Resource or as an Energy Resource. Energy Resource status allows the generator to participate in the PJM Interchange Energy Market pursuant to the PJM Operating Agreement. Capacity Resource status allows the generator to participate in the PJM Interchange Energy Market to be utilized by load-serving entities in the PJM Region to meet capacity obligations imposed under the Reliability Assurance Agreement and/or to be designated as a Network Resource under Tariff, Part III. Capacity Resources also may participate in Reliability Pricing Model Auctions and in Ancillary Services markets pursuant to the Tariff or the Operating Agreement. Capacity Resource status is based on providing sufficient transmission capability to ensure deliverability of generator output to the aggregate PJM Network Load and to satisfy the contingency criteria in the Applicable Standards. Specific tests performed during the Generation Interconnection Feasibility Study and later System Impact Study will identify those upgrades required to satisfy the contingency criteria applicable at the generator's location.

Consistent with Operating Agreement, Schedule 1, section 1.7.4(i), to the extent its Generating Facility is dispatchable, an Interconnection Customer shall submit an Economic Minimum in the real-time market that is no greater than the higher of its physical operating minimum or its Capacity Interconnection Rights.

#### **36.1.1A Service Below Generating Capability**

The Transmission Provider shall consider requests for Interconnection Service below the full electrical generating capability of the Generating Facility. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of determining Interconnection Facilities, Network Upgrades, and associated costs, but may be subject to other studies at the full electrical generating capability of the Generating Facility to ensure the safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (i) specify which additional Network Upgrade costs are based on which studies; and (ii) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrades costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of these technologies as set forth in the Interconnection Service Agreement. The necessary control technologies and protection systems shall be established in Tariff, Attachment O, Schedule K (Requirements for Interconnection

Service Below Full Electrical Generating Capability) of the executed, or requested to be filed unexecuted Interconnection Service Agreement.

### **36.1.1B Surplus Interconnection Service Request**

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

1. Surplus Interconnection Request Requirements. A Surplus Interconnection Customer seeking Surplus Interconnection Service must submit a complete and fully executed Surplus Interconnection Study Agreement, which form is located at Tariff, Attachment RR. To be considered complete at the time of submission, the Surplus Interconnection Customer's Surplus Interconnection Study Agreement must include, at a minimum, each of the following:
  - a. Specification of the location of the proposed surplus generating unit site or existing surplus generating unit (include both a written description (e.g., street address, global positioning coordinates) and attach a map in PDF format depicting the property boundaries and the location of the generating unit site); and
  - b. Evidence of an ownership interest in, or right to acquire or control the surplus generating unit site for a minimum of three years, such as a deed, option agreement, lease or other similar document acceptable to the Transmission Provider; and

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



- i. Written evidence from the owner of the existing Generating Facility granting Surplus Interconnection Customer permission to utilize the existing Generating Facility’s unused portion of Interconnection Service established in the existing Generating Facility’s Interconnection Service Agreement; and
  - ii. Written documentation stating that the owner of the surplus generating unit and the owner of the existing Generating Facility will have entered into, prior to the owner of the existing Generating Facility executing a revised Interconnection Service Agreement, a shared facilities agreement between the owner of the existing Generating Facility and the owner of the surplus generating unit detailing their respective roles and responsibilities relative to the Surplus Interconnection Service.
- 1. If an Energy Storage Resource, Surplus Interconnection Customer must submit primary frequency response operating range for the surplus generating unit.
- 2. **Deficiency Review.** Following the receipt of the Surplus Interconnection Study Agreement and requisite information and/or monies listed in section 36.1.1B.1.a – l above, Transmission Provider shall determine whether the listed requirements were submitted as valid or deficient. If deemed deficient by Transmission Provider, Surplus Interconnection Customer must submit the requisite information and/or monies acceptable to the Transmission Provider within ten Business Days of receipt of the Transmission Provider’s notice of deficiency. Failure of the Interconnection Customer to timely provide information and/or monies identified in the deficiency notice shall result in the Surplus Interconnection Request being terminated and withdrawn. The Surplus Interconnection Service Request shall be considered valid as of the date and time the Transmission Provider receives from the Interconnection Customer the last piece of required information and/or monies deemed acceptable by the Transmission Provider to clear such deficiency notice.

**36.1.2 No Applicability to Transmission Service:**

Nothing in this Tariff, Part IV shall constitute a request for transmission service, or confer upon an Interconnection Customer any right to receive transmission service, under Tariff, Part II or Tariff, Part III.

**36.1.3 [Reserved]**

**36.1.4 [Reserved]**

**36.1.5 Scoping Meeting:**

After a valid Interconnection Request has been established, the Transmission Provider shall provide each Interconnection Customer with an opportunity for a scoping meeting among the Transmission Provider, the prospective Interconnected Transmission Owner and the Interconnection Customer. The purpose of the scoping meeting will be to identify one alternative Point(s) of Interconnection and configurations to evaluate in the Interconnection Studies and to attempt to select the best alternatives in a reasonable fashion given resources and information available. The Interconnection Customer may select a maximum of two Point(s) of Interconnection to be studied during the Interconnection Feasibility Study, a primary and secondary Point of Interconnection may be selected by the Interconnection Customer. After establishing a valid Interconnection Request, Transmission Provider shall offer to arrange, within seven Business Days of establishing such valid Interconnection Request, for the scoping meeting, and shall provide a minimum of three suggested meeting dates and times for the scoping meeting. The scoping meeting shall be held, or waived by mutual agreement of the parties within 45 days after establishment of a valid Interconnection Request if the valid Interconnection Request is established in the first four calendar months of the current New Services Queue; or within 30 days if the valid Interconnection Request is established within the fifth calendar month of the current New Services Queue; or in 20 days if the valid Interconnection Request is established in the sixth calendar month of the date of the beginning of the current New Services Queue. The Interconnection Customer may choose to divide the scoping meeting into two sessions, one between the Transmission Provider and Interconnection Customer and one among Transmission Provider, the Interconnection Customer and the prospective Interconnected Transmission Owner. Such meetings may be held consecutively on the same day. Scoping meetings may be held in person or by telephone or video conference. In the event the Interconnection Customer fails to waive or complete the scoping meeting requirement, its Interconnection Request shall be deemed to be terminated and withdrawn.

#### **36.1.6 Coordination with Affected Systems:**

The Transmission Provider will coordinate with Affected System Operators the conduct of any required studies in accordance with Tariff, Part VI, Subpart A, section 202.

#### **36.1.7 Base Case Data:**

Transmission Provider shall maintain base case power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on a password-protected website, subject to the confidentiality provisions of Tariff, Part VI, Subpart B, section 223. In addition, Transmission Provider shall maintain base case power flows and underlying assumptions on a password-protected website. Such base case power flows and underlying assumptions should reasonably represent those used during the most recent interconnection study. Transmission Provider may require Interconnection Customers and password-protected website users to sign any required confidentiality agreement(s) before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects, that are included in the then-current, approved Regional Transmission Expansion Plan.

**Tariff, 212.3 Specification of Transmission Owners Responsible for  
Facilities and Upgrades**

### **212.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Interconnection Construction Service Agreement(s), for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~.

## **Tariff, 212.4 Retaining Priority and Security**

## 212.4 Retaining Priority and Security:

(a) Retaining Priority: To retain the assigned Queue Position of its Interconnection Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have executed the tendered Interconnection Service Agreement and it must be in the possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or (ii) that the Interconnection Service Agreement be filed unexecuted with the Commission. In addition, to retain the assigned priority, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study or, if a Surplus Interconnection Service Request, after receipt of the Feasibility Study), the Interconnection Customer must have met the milestones specified in Tariff, Part VI, Subpart B, section 212.5.

(b) Security: (1) At the time the Interconnection Customer executes and returns to the Transmission Provider the Interconnection Service Agreement (or requests dispute resolution or that it be filed unexecuted), the Interconnection Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Non-Direct Connection Local Upgrades and Non-Direct Connection Network Upgrades, (ii) any Network Upgrades that the Interconnected Transmission Owner will be responsible for constructing (including with respect to both items (i) and (ii) required upgrades for which another Interconnection Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), and either (iii) the estimated cost of the work that the Transmission Owner will be responsible for performing on the required Attachment Facilities, Direct Connection Local Upgrades, and Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, or (iv) in the event that the Interconnection Customer exercises the Option to Build pursuant to Interconnection Construction Service Agreement, Tariff, Attachment P, Appendix 2, section 3.2.3.1, all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs (i.e., costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Interconnection Customer is complying with the Transmission Owner's standards and specifications for the construction of facilities) associated with Interconnection Customer building Transmission Owner Attachment Facilities and Direct Connection Network Upgrades, including but not limited to Costs for tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. . Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment P, Appendix 2, section 3.2.3.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction. The Transmission Provider shall provide the affected Transmission Owner(s) with

a copy of the letter of credit or other form of security. After execution of the Interconnection Service Agreement, the amount of security required may be adjusted from time to time in accordance with the Interconnection Service Agreement, Tariff, Attachment O, Appendix 2, section 11.2.1

(2) Transmission Provider shall invoice Interconnection Customer for work by the Interconnected Transmission Owner and Transmission Provider on a quarterly basis for the costs to be expended in the subsequent three months. Interconnection Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. Interconnection Customer may request in the Interconnection Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment O, Appendix 2, section 11.2.3, Interconnection Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Transmission Provider shall hold the security related to construction until as-built drawings are received and settlement of the final invoice; security related to construction may be reduced as construction progresses.

(c) **Deferred Security:** Interconnection Customer may request to defer providing security under subsection (b) of this section 212.4 until no later than 120 days after Interconnection Customer executes the Interconnection Service Agreement. Upon Interconnection Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which Interconnection Customer has cost responsibility under the Interconnection Service Agreement. Interconnection Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided Interconnection Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the Interconnection Customer terminates the Interconnection Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to an Interconnection Customer upon Initial Operation.

(d) **Withdrawal:** If an Interconnection Customer fails to timely execute the Interconnection Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), meet the milestones (unless extended) set forth in Tariff, Part VI, Subpart B, section 212.5, or provide the security prescribed in this section 212.4, its Interconnection Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn Interconnection Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with Tariff, Part VI, Subpart C, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the

Facilities Study, shall re-determine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned priority pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement with each remaining Interconnection Customer setting forth its revised cost obligation. In such event, if the amount of an Interconnection Customer's cost responsibility increases, the Interconnection Customer shall provide additional security pursuant to this section 212.4.



**Tariff, 212.6 Interconnection Construction Service Agreement and  
Commencement of Construction**

## **212.6 Interconnection Construction Service Agreement and Commencement of Construction:**

For all interconnections within the scope of this section 212 for which construction of facilities is required, Transmission Provider shall tender to the Interconnection Customer an Interconnection Construction Service Agreement relating to such facilities within 45 days after receipt of the executed Interconnection Service Agreement. In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Interconnection Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. The Transmission Provider shall provide the Transmission Owner(s) with a copy of the Interconnection Construction Service Agreement when this agreement is provided to the Interconnection Customer for execution. Within ninety (90) calendar days of receipt thereof, unless otherwise specified in the project specific milestones of the Interconnection Service Agreement, Interconnection Customer either shall have executed the tendered Interconnection Construction Service Agreement and it must be in possession of the Transmission Provider, or, alternatively, shall request dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or that the Interconnection Construction Service Agreement be filed unexecuted with the Commission. In the event that the Interconnection Customer has requested dispute resolution or that the Interconnection Service Agreement be filed unexecuted, construction of facilities and upgrades shall be deferred until any disputes are resolved, unless otherwise agreed by the Interconnection Customer, the Interconnected Transmission Owner and the Transmission Provider.

**Tariff, 213.3 Specification of Transmission Owners Responsible for  
Facilities and Upgrades**

### **213.3 Specification of Transmission Owners Responsible for Facilities and Upgrades:**

The Facilities Study shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~.

## **Tariff, 213.4 Retaining Priority and Security**

#### 213.4 Retaining Priority and Security:

(a) Retaining Priority: To retain the assigned Queue Position of its New Service Request pursuant to Tariff, Part VI, Preamble, section 201, within sixty (60) days after receipt of the Facilities Study (or, if no Facilities Study was required, after receipt of the System Impact Study), the New Service Customer either shall have executed the tendered Upgrade Construction Service Agreement and it must be in possession of the Transmission Provider or, alternatively, request (i) dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable Operating Agreement, Schedule 5, or (ii) that the Upgrade Construction Service Agreement be filed unexecuted with the Commission.

(b) Security: (1) At the time the New Service Customer executes and returns to the Transmission Provider the Upgrade Construction Service Agreement (or requests dispute resolution or that it be filed unexecuted), the New Service Customer also shall, unless otherwise deferred as set forth in subsection (c) below, provide the Transmission Provider (for the benefit of the affected Transmission Owner(s)) with a letter of credit or other reasonable form of security acceptable to the Transmission Provider that names the Transmission Provider as beneficiary and is in an amount equivalent to the sum of the estimated costs determined by the Transmission Provider of (i) the required Direct Assignment Facilities, Non-Direct Connection Local Upgrades and/or Non-Direct Connection Network Upgrades (including required upgrades for which another New Service Customer also has cost responsibility pursuant to Tariff, Part VI, Subpart B, section 217), (ii) the estimated cost of work that the New Service Customer will be responsible for performing on the required Direct Assignment Facilities, Direct Connection Local Upgrades, and/or Direct Connection Network Upgrades that are scheduled to be completed during the first three months after such work commences in earnest, and (iii) in the event that the New Service Customer exercised the Option to Build pursuant to Upgrade Construction Service Agreement, Tariff, Attachment GG, Appendix III, section 6.2.1 , all Cancellation Costs and the first three months of estimated Transmission Owner's oversight costs associated with the New Service Customer's building Direct Assignment Facilities and/or Direct Connection Network Upgrades, including but not limited to Costs for inspections, testing, and tie-in work, consistent with commercial practices as established by the Uniform Commercial Code. Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment GG, Appendix III, section 6.2.2(a)(12). Notwithstanding the foregoing, for projects that are estimated to require three months or less to construct, the sum of such security and the payment for the first quarterly invoice for the project shall not exceed an amount equal to 125% of the total estimated cost of construction.

The Transmission Provider shall provide the affected Transmission Owner(s) with a copy of the letter of credit or other form of security. After execution of the Upgrade Construction Service Agreement, the amount of Security required may be adjusted from time to time in accordance with Tariff, Attachment GG, Appendix III, section 9.1 of the Upgrade Construction Service Agreement.

(2) Transmission Provider shall invoice New Service Customer for work by the Transmission Owner on a quarterly basis for the costs to be expended in the subsequent three months. Customer shall pay invoiced amounts within twenty (20) days of receipt of the invoice. New Service Customer may request in the Upgrade Construction Service Agreement that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Tariff, Attachment GG, Appendix III, section 9.3 of the Upgrade Construction Service Agreement shall govern the timing of the final cost reconciliation upon completion of the work.

(3) Security related to construction of Local Upgrades and/or Network Upgrades may be reduced as construction progresses.

(c) **Deferred Security:** New Service Customer may request to defer providing security under subsection (b) of this section 213.4 until no later than 120 days after New Service Customer executes the Upgrade Construction Service Agreement. Upon New Service Customer's request to defer security, PJM shall determine if any other queued New Service Customer with a completed System Impact Study would require any Local Upgrade(s) and/or Network Upgrade(s) for which New Service Customer has cost responsibility under the Upgrade Construction Service Agreement. New Service Customer may defer security only for Local Upgrade(s) and/or Network Upgrade(s) for which no other such queued New Service Customer may require, provided New Service Customer shall pay a deposit of at least \$200,000 or 125% of the estimated costs that will be incurred during the 120-day period, whichever is greater, to fund continued design work and/or procurement activities on such non-shared Local Upgrade(s) and/or Network Upgrade(s), with \$100,000 of such deposit being non-refundable. If the New Service Customer terminates the Upgrade Construction Service Agreement or is otherwise withdrawn, any unused portion of the non-refundable deposit will be used to fund re-studies due to such termination or withdrawal. Any remaining deposit monies, refundable or non-refundable, will be returned to a New Service Customer upon Stage Two Energization of Completed Facilities.

(d) **Withdrawal:** If a New Service Customer fails to timely execute the Upgrade Construction Service Agreement (or request dispute resolution or that the agreement be filed unexecuted), or to provide the security prescribed in this Section, its New Service Request shall be deemed terminated and withdrawn. In the event that a terminated and withdrawn New Service Request was included in a Facilities Study that evaluated more than one New Service Request, or in the event that a New Service Customer's participation in and cost responsibility for a Network Upgrade or Local Upgrade is terminated in accordance with the Upgrade Construction Service Agreement, the Transmission Provider shall reevaluate the need for the facilities and upgrades indicated by the Facilities Study, shall redetermine the cost responsibility of each remaining New Service Customer for the necessary facilities and upgrades based on its assigned Queue Position pursuant to Tariff, Part VI, Preamble, section 201, and shall enter into an amended Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, with each remaining New Service Customer setting forth its revised cost obligation. In such

event, if the amount of a New Service Customer's cost responsibility increases, the New Service Customer shall provide additional security pursuant to this section.



## **Tariff, 216 Interconnection Requests Designated as Market Solutions**

## 216 Interconnection Requests Designated as Market Solutions:

The provisions of this section shall apply to any Interconnection Request related to a project that Transmission Provider determines, in accordance with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~, section 1.5.7(h) could relieve a transmission constraint and which, in the judgment of the Transmission Provider, is economically justified (hereafter, a “market solution”).

## **Tariff, 217.4 Additional Upgrades**

#### 217.4 Additional Upgrades:

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request. The New Service Customer shall have the right of first refusal to pay for any or all of the upgrades in addition to the minimum, and to hold all rights associated with the additional upgrades for which it agrees to pay, in accordance with Tariff, Part VI, Subpart C. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners. If, based upon the date of the submission of a subsequent New Service Request, the Transmission Provider determines that a New Service Customer will make use of additional economic capacity that exists or will exist as a result of facilities and upgrades constructed as a result of an earlier New Service Request, then the Transmission Provider may require the subsequent New Service Customer to pay an appropriate portion of the cost of the facilities and upgrades that produced the additional economic capacity.

## **Tariff, 217.5 Specification of Costs in Agreement**

### **217.5 Specification of Costs in Agreement:**

The cost responsibility of a New Service Customer shall be specified, (a) in the case of an Interconnection Customer that proposes facilities other than Merchant Network Upgrades, in the Interconnection Service Agreement, and (b) in the case of all other New Service Customers, in the Upgrade Construction Service Agreement. If a New Service Customer does not agree with the Transmission Provider's determination of such cost responsibility, it may request that the matter be submitted to Dispute Resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~, or request that an unexecuted Interconnection Service Agreement or Upgrade Construction Service Agreement, as applicable, be filed with the Commission in accordance with the Tariff.

## **Tariff, 221.1 Construction Obligation**

### **221.1 Construction Obligation:**

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VI, Subpart B, section 218.2, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~. Except to the extent otherwise provided in a Construction Service Agreement entered into pursuant to this Tariff, Part VI, the Transmission Owners shall own all Attachment Facilities, Direct Assignment Facilities, Local Upgrades, and Network Upgrades constructed to accommodate New Service Requests.



## **Tariff, 221.2 Alternative Facilities and Upgrades**

## 221.2 Alternative Facilities and Upgrades:

Upon completion of the studies of a New Service Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s) or the New Service Customer may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s) or the New Service Customer may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected New Service Customer may participate in any such Dispute Resolution process.

## **Tariff, 230.1 Purpose**

### **230.1 Purpose:**

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

## **Tariff, 236.2 Upgrades to Merchant Transmission Facilities**

## 236.2 Upgrades to Merchant Transmission Facilities:

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6 Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

## **Tariff, 237.4 Confirmation by Transmission Provider**

## **237.4 Confirmation by Transmission Provider:**

### **237.4.1**

Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to section 237.6 below. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5.~~

### **237.4.2**

To the extent that an election of the Buyer Customer under section 237.2.2(b) above or section 237.3 above to terminate participation in any Network Upgrade or Local Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VI, Subpart B, section 217, as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.



**Tariff, Part VII, Subpart A, Section 300, Definitions R**

**Tariff, Part VII, Subpart A, section 300**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VII, Subpart A, section 301(A)(3)(b).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VII, a Generation Interconnection 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.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Tariff, Part VII, Subpart A, Section 300, Definitions U**

**Tariff, Part VII, Subpart A, section 300**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or 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 ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, 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 Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Tariff, Part VII, Subpart D, Section 314,  
Final Agreement Negotiation Phase**

**Tariff, Part VII, Subpart D, section 314**  
**Final Agreement Negotiation Phase**

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

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business

Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC, or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
  - iv. and provide any required adjustments to Security.

- b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
    - i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
    - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
    - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
      - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.



**Tariff, Part VII, Subpart E, Section 323 Additional Upgrades**

**Tariff, Part VII, Subpart E, section 323**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VII, Subpart E, Section 324, IDR Transfer Agreement**

**Tariff, Part VII, Subpart E, section 324**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VII, Subpart E, section 324 by submitting an IDR Transfer Agreement in accordance with Tariff, Part VII, Subpart E, section 324(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VII, Subpart E, section 324(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VII, Subpart E, section 324(B) the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VII, Subpart E, section 324(B) the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;

- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of an Interconnection Service Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VII, Subpart E, section 324(B).

4. Confirmation by Transmission Provider:

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VII, Subpart E, section 324. Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VII, Subpart E, sections 324(B)(2)(b) and 324(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VII, Subpart D, section 307(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request

In the event that the Buyer Customer, pursuant to a confirmed election under this section 324(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.

**Tariff, Part VII, Subpart E, Section 326, Transmission Owner  
Construction Obligation for Necessary Facilities and Upgrades**



**Tariff, Part VII, Subpart E, section 326**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VII, Subpart G, section 336, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Tariff, Part VII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VII, Subpart E, Section 328, Capacity Interconnection  
Rights**

**Tariff, Part VII, Subpart E, section 328**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VII, Subpart E, section 328 shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a Generation Capacity Resource fails to meet the operational standards set forth in Tariff, Part

VII, Subpart E, section 328(C)(1) for any consecutive three-year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VII, Subpart E, section 328(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VII, Subpart C, section 306(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection

Rights will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 328(C) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VII, Subpart E, Section 330, Rights for Transmission Interconnections**

**Tariff, Part VII, Subpart E, section 330**  
**Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VII, Subpart E, section 330, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this section 330, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VII, Subpart E, section 330(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as



Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VII, Subpart E, section 330(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VII, Subpart E, section 330(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the

Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VII, Subpart E, section 330, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VII, Subpart E, section 330 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.

**Tariff, Part VII, Subpart G, Section 336, Affected System Rules**

**Tariff, Part VII, Subpart G, section 336**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VII, Subpart D, section 310, as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.

- i. Transmission Provider shall assign to Affected System Customer's project the same project identification or reference number used by the Affected System Operator.
  - b. Transmission Provider shall not start the review of the Affected System Customer Facility Study Agreement until such agreement is complete and the required Study Deposit is received by the Transmission Provider.
  - c. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - i. Affected System Customer is responsible for, and must pay, all actual study costs.
    - ii. If Transmission Provider sends Affected System Customer notification of additional study costs, then Affected System Customer must either: (i) pay all additional study costs within 20 Business Days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Affected System Customer Facility Study Agreement. If Affected System Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Affected System Customer Facility Study Agreement to be terminated and withdrawn.
2. Transmission Provider shall cooperate with the Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System.
3. Upon receipt of the Affected System Customer Facility Study report, Transmission Provider and the Affected System Customer shall enter into a stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) for the construction of the upgrades with each Transmission Owner responsible for constructing such upgrades if a Construction Service Agreement is required, or for each set of Common Use Upgrades on the system of such Transmission Owner if a Network Upgrade Cost Responsibility Agreement is required. Transmission Provider shall provide in electronic form a draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form.
  - a. For purposes of applying the stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) to the construction of such upgrades, the developer of the Affected System Facility shall be deemed to be a Project Developer pursuant to Tariff, Part VII.
  - b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission

Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.

- i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with the FERC.
- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall elect one of the following:

- i. to execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement in unexecuted form.
    - (a) The unexecuted Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider.
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.



## **Tariff, Part VII, Subpart H, Section 337, Upgrade Requests**

**Tariff, Part VII, Subpart H, section 337**  
**Upgrade Requests**

A. Applicability

Tariff, Part VII Subpart H applies to valid Upgrade Requests submitted on or after October 1, 2020 and up to and including September 10, 2021, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.
    - i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)
    - ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the

Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.
  - a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
    - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
      - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
      - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
    - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
      - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
      - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.
  - b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network

Upgrades identified in the Upgrade Customer's System Impact Study. If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- i. Readiness Deposit refunds will be handled as follows:
  - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
  - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
- c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.
6. Tariff, Part VII, Subpart C (Base Case Data) requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.

8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.
2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.
  - a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

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

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

b. Application Requirements for Merchant Network Upgrade Requests

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

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
5. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and construction of the Merchant Network Upgrade will take more than seven years; and
6. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VII, Subpart H, section 337(B)(2), above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.

2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.
- c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

(i) Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or

contributing at least five percent of the facility rating in the applicable model.

(ii) Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

(iii) Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

F. Facilities Study



The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

G. Upgrade Customer Final Agreement Negotiation Phase

1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

b. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements

in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

c. Impasse

If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall elect one of the following:

(a) to execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) to request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

(c) to request in writing that Transmission Provider file with FERC the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement unexecuted, with terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM

sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

- (a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
- (b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

## H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system. In order to exercise the Option to Build, as set forth in Upgrade Construction Service Agreement, Tariff, Part IX, Subpart E, Appendix III, section 6.2.1, Upgrade Customer must provide Transmission Provider and the Transmission Owner with written notice of its election to exercise the option no later than 30 days from the date the Upgrade Customer receives the results of the Facilities Study (or the System Impact performed, if a Facilities Study was not required).

### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VII, Subpart D, section 307(A)(5), of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities

pursuant to Tariff, Part VII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VII, Subpart H, section 337(H)(1) to the affected Transmission Owner(s).

2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330, except to the extent the applicable terms of Tariff, Part VII, Subpart E, sections 324, 328, 329, and 330 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.

- c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);
3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

**Tariff, Part VIII, Subpart A, section 400, Definitions R**

**Tariff, Part VIII, Subpart A, section 400**  
**Definitions R**

**Readiness Deposit:**

“Readiness Deposit” shall mean the deposit or deposits required by Tariff, Part VIII, Subpart A, section 401(D).

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party under the Tariff, Part VIII, a Generation Interconnection 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.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Tariff, Part VIII, Subpart A, Section 400, Definitions U**



**Tariff, Part VIII, Subpart A, section 400**  
**Definitions U**

**Upgrade Customer:**

“Upgrade Customer” shall mean an entity that submits an Upgrade Request pursuant to Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8, or 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 ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19).

**Upgrade Request:**

“Upgrade Request” shall mean a request submitted in the form prescribed in Tariff, Part IX, Subpart K, 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 Operating Agreement, Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8.

**Tariff, Part VIII, Subpart D, Section 411, Final Agreement  
Negotiation Phase**

**Tariff, Part VIII, Subpart D, section 411**  
**Final Agreement Negotiation Phase**

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

2. Negotiation

Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60th day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Project Developer or Eligible Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

3. Impasse

If the Project Developer or Eligible Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted agreement with the FERC.

4. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final interconnection related agreement, along with any applicable schedules, to the parties in electronic form.

- a. Not later than 15 Business Days after receipt of the final interconnection related agreement, Project Developer or Eligible Customer shall either:
  - i. execute the final interconnection related service agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

- iii. request in writing that Transmission Provider file with FERC the final interconnection related service agreement in unexecuted form
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
  - iv. and provide any required adjustments to Security.
- b. If Project Developer or Eligible Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
- i. execute the final interconnection related agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final interconnection related serviced agreement in unexecuted form.
    - (a) The unexecuted interconnection related service agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the New Service Request.
5. Parties may not proceed under such interconnection related service agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

**Tariff, Part VIII, Subpart E, Section 421, Additional Upgrades**

**Tariff, Part VIII, Subpart E, section 421**  
**Additional Upgrades**

In the event that, in the context of the Regional Transmission Expansion Plan, it is determined that, to accommodate a New Service Request or Upgrade Request, it is more economical or beneficial to the Transmission System to construct upgrades in addition to the minimum necessary to accommodate the New Service Request or Upgrade Request, a New Service Customer shall be obligated to pay only the costs of the minimum upgrades necessary to accommodate its New Service Request or Upgrade Request. The remaining costs shall be borne by the Transmission Owners in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 and, subject to FERC approval, may be included in the revenue requirements of the Transmission Owners.

**Tariff, Part VIII, Subpart E, Section 422, IDR Transfer Agreement**



**Tariff, Part VIII, Subpart E, section 422**  
**IDR Transfer Agreement**

A. Effect of IDR Transfer Agreement

A Project Developer may modify its cost responsibility for Network Upgrades and/or Distribution Upgrades as determined under this Tariff, Part VIII, Subpart C, section 404(A)(5) by submitting an IDR Transfer Agreement in accordance with Tariff, Part VIII, Subpart E, section 422(B) that transfers to the Project Developer Incremental Deliverability Rights associated with Merchant Transmission Facilities. As provided in Tariff, Part VIII, Subpart E, section 422(B), the Project Developer's cost responsibility shall be modified only if it elects to terminate, and Transmission Provider confirms termination of, its participation in and cost responsibility for any Network Upgrade or Distribution Upgrade.

B. IDR Transfer Agreements

1. Purpose

A Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B) the "Buyer Customer") may acquire Incremental Deliverability Rights assigned to another Project Developer (hereafter in this Tariff, Part VIII, Subpart E, section 422(B), the "Seller Customer") by entering into an IDR Transfer Agreement with the Seller Customer. Subject to the terms of this Tariff, Part VIII, Subpart E, section 422(B), the Buyer Customer may rely upon such Incremental Deliverability Rights to satisfy, in whole or in part, its responsibility for Network Upgrades and/or Distribution Upgrades otherwise necessary to accommodate the Buyer Customer's Interconnection Request.

2. Requirements

A Buyer Customer may rely upon Incremental Deliverability Rights to satisfy, in whole or in part, the deliverability requirements applicable to its Interconnection Request only if it submits to Transmission Provider an IDR Transfer Agreement executed by both the Buyer Customer and the Seller Customer and only if such agreement meets all of the following requirements:

a. Required Elements

Any IDR Transfer Agreement submitted to Transmission Provider under this section:

- i. shall identify the Buyer Customer and the Seller Customer by full legal name, including the name of a contact person, with address and telephone number, for each party;

- ii. shall identify the System Impact Study in which the Transmission Provider determined and assigned the Incremental Deliverability Rights transferred under the agreement;
- iii. if the Seller Customer acquired the Incremental Deliverability Rights to be transferred under the proffered agreement from another party, shall describe the chain of title of such Incremental Deliverability Rights from their original holder to the Seller Customer;
- iv. shall provide for the unconditional and irrevocable transfer of the subject Incremental Deliverability Rights to the Buyer Customer;
- v. shall include a warranty of the Seller Customer to the Buyer Customer and to the Transmission Provider that the Seller Customer holds, or has a legal right to acquire, the Incremental Deliverability Rights to be transferred under the proffered agreement;
- vi. shall identify the location and shall state unequivocally the quantity of Incremental Deliverability Rights transferred under the agreement, provided that the transferred quantity may not exceed the total quantity of Incremental Deliverability Rights that the Seller Customer holds or has legal rights to acquire at the relevant location; and
- vii. shall identify any IDR Transfer Agreement under which the Seller Customer previously transferred any Incremental Deliverability Rights associated with the same location.

b. Optional Election

When it submits the IDR Transfer Agreement to Transmission Provider, the Buyer Customer also (a) may identify any Network Upgrade or Distribution Upgrade for which the Buyer Customer has been assigned cost responsibility in association with a then-pending Interconnection Request submitted by it and for which it believes the Incremental Deliverability Rights transferred to it under the proffered IDR Transfer Agreement would satisfy the deliverability requirement applicable to such Interconnection Request; and (b) shall state whether it chooses to terminate its participation in (and cost responsibility for) any such Network Upgrade or Distribution Upgrade.

3. Subsequent Election

A Buyer Customer that has submitted a valid IDR Transfer Agreement may elect to terminate its participation in any Network Upgrade or Distribution Upgrade for which it has not previously made such an election, at any time prior to its execution of a Generation Interconnection Agreement related to the Interconnection Request with respect to which it was assigned responsibility for the affected facility or upgrade. The Buyer Customer must notify Transmission Provider in writing of such an election and its election shall be subject to Transmission Provider's determination and confirmation under Tariff, Part VIII, Subpart E, section 422(B)(4).

4. Confirmation by Transmission Provider

- a. Transmission Provider shall determine whether and to what extent the Incremental Deliverability Rights transferred under an IDR Transfer Agreement would satisfy the deliverability requirements applicable to the Buyer Customer's Interconnection Request. Transmission Provider shall notify the parties to the IDR Transfer Agreement of its determination within 30 days after receipt of the agreement. If the Transmission Provider determines that the IDRs transferred under the proffered agreement would not satisfy, in whole or in part, the deliverability requirement applicable to the Buyer Customer's Interconnection Request, its notice to the parties shall explain the reasons for its determination and, to the extent of Transmission Provider's negative determination, the parties' IDR Transfer Agreement shall not be queued as an Interconnection Request pursuant to Tariff, Part VIII, Subpart E, section 422(B)(6). Any dispute regarding Transmission Provider's determination may be submitted to dispute resolution under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~.
- b. To the extent that an election of the Buyer Customer under Tariff, Part VIII, Subpart E, section 422(B)(2)(b) or section 422(B)(3) to terminate participation in any Network Upgrade or Distribution Upgrade is consistent with Transmission Provider's determination, Transmission Provider shall confirm Buyer's termination election and shall recalculate accordingly the Buyer Customer's cost responsibility under Tariff, Part VIII, Subpart C, section 404(A)(5), as applicable. Transmission Provider shall provide its confirmation, along with any recalculation of cost responsibility, under this section in writing to the Buyer Customer within 30 days after receipt of notice of the Buyer Customer's election to terminate participation.

5. Effect of Election on Interconnection Request

In the event that the Buyer Customer, pursuant to a confirmed election under this Tariff, Part VIII, Subpart E, section 422(B), terminates its participation in any Network Upgrade or Distribution Upgrade and the Interconnection Request underlying the Incremental Deliverability Rights acquired by the Buyer Customer under its IDR Transfer Agreement subsequently is terminated and withdrawn, or deemed to be so, then the Buyer Customer's New Service Request also shall be deemed to be concurrently terminated and withdrawn.

6. Effect on Interconnection Studies

Each IDR Transfer Agreement shall be deemed to be a New Service Request and shall be queued, and shall be reflected as appropriate in subsequent System Impact Studies, with other New Service Requests received under the Tariff. The Buyer Customer shall be the Project Developer for purposes of application of the provisions of Tariff, Part VIII, including, in the event that Transmission Provider determines that further analysis of the relevant IDRs is necessary, provisions relating to responsibility for the costs of Interconnection Studies.

**Tariff, Part VIII, Subpart E, Section 424, Transmission Owner  
Construction Obligation for Necessary Facilities and Upgrades**

**Tariff, Part VIII, Subpart E, section 424**  
**Transmission Owner Construction Obligation for Necessary Facilities and Upgrades**

A. Construction Obligation

The determination of the Transmission Owners' obligations to build the necessary facilities and upgrades to accommodate New Service Requests, or interconnections with Affected Systems in accordance with Tariff, Part VIII, Subpart G, section 434, shall be made in the same manner as such responsibilities are determined under ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19. Except to the extent otherwise provided in a Generation Interconnection Agreement or Construction Service Agreement entered into pursuant to this Part VIII, the Transmission Owners shall own all Interconnection Facilities and Network Upgrades constructed to accommodate New Service Requests.

B. Alternative Facilities and Upgrades

Upon completion of the studies of a New Service Request or Upgrade Request prescribed in the Tariff, the Transmission Provider shall recommend the necessary facilities and upgrades to accommodate the New Service Request or Upgrade Request, and the Transmission Owner's construction obligation to build such facilities and upgrades. The Transmission Owner(s), or the Project Developer, Eligible Customer or Upgrade Customer, may offer alternatives to the Transmission Provider's recommendation. If, based upon its review of the relative costs and benefits, the ability of the alternative(s) to accommodate the New Service Request or Upgrade Request, and the alternative's(s') impact on the reliability of the Transmission System, the Transmission Provider does not adopt such alternative(s), the Transmission Owner(s), or the Project Developer, Eligible Customer, or Upgrade Customer, may require that the alternative(s) be submitted to Dispute Resolution in accordance with Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. The affected Project Developer, Eligible Customer, Upgrade Customer may participate in any such Dispute Resolution process.

**Tariff, Part VIII, Subpart E, Section 426, Capacity Interconnection  
Rights**

**Tariff, Part VIII, Subpart E, section 426**  
**Capacity Interconnection Rights**

A. Purpose

Capacity Interconnection Rights shall entitle the holder to deliver the output of a Generation Capacity Resource at the bus where the Generation Capacity Resource interconnects to the Transmission System. The Transmission Provider shall plan the enhancement and expansion of the Transmission System in accordance with ~~Operating Agreement, Schedule 6~~Tariff, Schedule 19 such that the holder of Capacity Interconnection Rights can integrate its Capacity Resources in a manner comparable to that in which each Transmission Owner integrates its Capacity Resources to serve its Native Load Customers.

B. Receipt of Capacity Interconnection Rights

Generation accredited under the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (“RAA”) as a Generation Capacity Resource prior to the original effective date of Tariff, Part IV shall have Capacity Interconnection Rights commensurate with the size in megawatts of the accredited generation. When a Generation Project Developer’s generation is accredited as deliverable through the applicable procedures of the Tariff, the Generation Project Developer also shall receive Capacity Interconnection Rights commensurate with the size in megawatts of the generation as identified in the Generation Interconnection Agreement. Pursuant to the applicable terms of RAA, Schedule 10, a Transmission Project Developer may combine Incremental Deliverability Rights associated with Merchant Transmission Facilities with generation capacity that is not otherwise accredited as a Generation Capacity Resource for the purposes of obtaining accreditation of such generation as a Generation Capacity Resource and associated Capacity Interconnection Rights.

C. Loss of Capacity Interconnection Rights

1. Operational Standards

To retain Capacity Interconnection Rights, the Generation Capacity Resource associated with the rights must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with RAA, Schedule 9 and the PJM Manuals. Generation Capacity Resources that meet these operational standards shall retain their Capacity Interconnection Rights regardless of whether they are available as a Generation Capacity Resource or are making sales outside the PJM Region.

2. Failure to Meet Operational Standards

This Tariff, Part VIII, Subpart E, section 426(C)(2) shall apply only in circumstances other than Deactivation of a Generation Capacity Resource. In the event a Generation Capacity Resource fails to meet the operational standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) for any consecutive three-



year period (with the first such period commencing on the date Generation Project Developer must demonstrate commercial operation of the generating unit(s) as specified in the Generation Interconnection Agreement), the holder of the Capacity Interconnection Rights associated with such Generation Capacity Resource will lose its Capacity Interconnection Rights in an amount commensurate with the loss of generating capability. Any period during which the Generation Capacity Resource fails to meet the standards set forth in Tariff, Part VIII, Subpart E, section 426(C)(1) as a result of an event that meets the standards of a Force Majeure event as defined in Tariff, Part I, section 1 shall be excluded from such consecutive three-year period, provided that the holder of the Capacity Interconnection Rights exercises due diligence to remedy the event. A Generation Capacity Resource that loses Capacity Interconnection Rights pursuant to this section may continue Interconnection Service, to the extent of such lost rights, as an Energy Resource in accordance with (and for the remaining term of) its Generation Interconnection Agreement and/or applicable terms of the Tariff.

### 3. Replacement of Generation

In the event of the Deactivation of a Generation Capacity Resource (in accordance with Tariff, Part V and any Applicable Standards), or removal of Capacity Resource status (in accordance with Tariff, Attachment DD, section 6.6 or Tariff, Attachment DD, section 6.6A), any Capacity Interconnection Rights associated with such Generating Facility shall terminate one year from the Deactivation Date, or one year from the date the Capacity Resource status change takes effect, unless the holder of such rights (including any holder that acquired the rights after Deactivation or removal of Capacity Resource status) has submitted a completed Generation Interconnection Request up to one year after the Deactivation Date, or up to one year from the date the Capacity Resource status changes take effect, which claims the same Capacity Interconnection Rights in accordance with Tariff, Part VIII, Subpart B, section 403(D). A Generation Project Developer must submit any claim for Capacity Interconnection Rights from deactivating units concurrently with its Application for Interconnection Service, and the claim must be received by Transmission Provider prior to the Application Deadline, or Transmission Provider will not process the claim. Such new Generation Interconnection Request may include a request to increase Capacity Interconnection Rights in addition to the replacement of the previously deactivated amount, or amount removed from Capacity Resource status, as a single Generation Interconnection Request. Transmission Provider may perform thermal, short circuit, and/or stability studies, as necessary and in accordance with the PJM Manuals, due to any changes in the electrical characteristics of any newly proposed equipment, or where there is a change in Point of Interconnection, which may result in the loss of a portion or all of the Capacity Interconnection Rights as determined by such studies.

Upon execution of a Generation Interconnection Agreement reflecting its new Generation Interconnection Request, the holder of the Capacity Interconnection Rights will retain only such rights that are commensurate with the size in megawatts

of the replacement generation, not to exceed the amount of the holder's Capacity Interconnection Rights associated with the facility upon Deactivation or removal of Capacity Resource status. Any desired increase in Capacity Interconnection Rights must be reflected in the new Generation Interconnection Request and be accredited through the applicable procedures in Tariff, Part IV and Tariff, Part VI. In the event the new Generation Interconnection Request to which this section refers is, or is deemed to be, terminated and/or withdrawn for any reason at any time, the pertinent Capacity Interconnection Rights shall not terminate until the end of the one-year period from the Deactivation Date, or the end of the one year period from the date the Capacity Resource status change takes effect.

4. Transfer of Capacity Interconnection Rights

Capacity Interconnection Rights may be sold or otherwise transferred subject to compliance with such procedures as may be established by Transmission Provider regarding such transfer and notice to Transmission Provider of any Generating Facilities that will use the Capacity Interconnection Rights after the transfer. The transfer of Capacity Interconnection Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 426(C)(2) regarding loss of Capacity Interconnection Rights.

**Tariff, Part VIII, Subpart E, Section 428, Rights for Transmission Interconnections**

**Tariff, Part VIII, Subpart E, section 428  
Rights for Transmission Interconnections**

A. Transmission Injection Rights and Transmission Withdrawal Rights

1. Purpose

Transmission Injection Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule energy transmitted on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities for injection into the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System. Transmission Withdrawal Rights shall entitle the holder, as provided in this Tariff, Part VIII, Subpart E, section 428, to schedule for transmission on the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities energy to be withdrawn from the Transmission System, at a Point of Interconnection of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities with the Transmission System.

2. Receipt of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of this Tariff, Part VIII, Subpart E, section 428, a Transmission Project Developer that constructs Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that interconnect with the Transmission System and with another control area outside the PJM Region shall be entitled to receive Transmission Injection Rights and/or Transmission Withdrawal Rights at each terminal where such Transmission Project Developer's Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. A Transmission Project Developer that is granted Firm Transmission Withdrawal Rights and/or transmission service customers that have a Point of Delivery at the border of the PJM Region where the Transmission System interconnects with the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, may be responsible for a reasonable allocation of transmission upgrade costs added to the Regional Transmission Expansion Plan, in accordance with Tariff, Part I, section 3E and Tariff, Schedule 12. Notwithstanding the foregoing, any Transmission Injection Rights and Transmission Withdrawal Rights awarded to a Transmission Project Developer that interconnects Controllable A.C. Merchant Transmission Facilities shall be, throughout the duration of the Service Agreement applicable to such interconnection, conditioned on such Transmission Project Developer's continuous operation of its Controllable A.C. Merchant Transmission Facilities in a controllable manner, i.e., in a manner effectively the same as operation of D.C. transmission facilities.

a. Total Capability

A Transmission Project Developer or other party may hold Transmission Injection Rights and Transmission Withdrawal Rights simultaneously at the same terminal on the Transmission System. However, neither the aggregate Transmission Injection Rights nor the aggregate Transmission Withdrawal Rights held at a terminal may exceed the Nominal Rated Capability of the interconnected Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities, as stated in the associated Service Agreement(s).

3. Determination of Transmission Injection Rights and Transmission Withdrawal Rights to be Provided to Transmission Project Developer

The Office of the Interconnection shall determine the Transmission Injection Rights and the Transmission Withdrawal Rights associated with Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities to be provided to eligible Transmission Project Developer(s) pursuant to the procedures specified in the PJM Manuals. The Office of the Interconnection shall state in the System Impact Studies the Transmission Injection Rights and Transmission Withdrawal Rights (including the quantity of each type of such rights) to be made available to the Transmission Project Developer at the terminal(s) where the pertinent Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities interconnect with the Transmission System. Such rights shall become available to the Transmission Project Developer pursuant to the Interconnection Agreement and upon commencement of Interconnection Service thereunder.

4. Duration of Transmission Injection Rights and Transmission Withdrawal Rights

Subject to the terms of Tariff, Part VIII, Subpart E, section 428(A)(7), Transmission Injection Rights and/or Transmission Withdrawal Rights received by a Transmission Project Developer shall be effective for the life of the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities.

5. Rate-based Facilities

No Transmission Injection Rights or Transmission Withdrawal Rights shall be received by a Transmission Project Developer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.

6. Transfer of Transmission Injection Rights and Transmission Withdrawal Rights

Transmission Injection Rights and/or Transmission Withdrawal Rights may be sold or otherwise transferred subject to compliance with such procedures as

Transmission Provider may establish, by publication in the PJM Manuals, regarding such transfer and required notice to Transmission Provider of use of such rights after the transfer. The transfer of Transmission Injection Rights or of Transmission Withdrawal Rights shall not itself extend the periods set forth in Tariff, Part VIII, Subpart E, section 428(A)(7) regarding loss of such rights.

7. Loss of Transmission Injection Rights and Transmission Withdrawal Rights

a. Operational Standards

To retain Transmission Injection Rights and Transmission Withdrawal Rights, the associated Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities must operate or be capable of operating at the capacity level associated with the rights. Operational capability shall be established consistent with applicable criteria stated in the PJM Manuals. Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that meet these operational standards shall retain their Transmission Injection Rights and Transmission Withdrawal Rights regardless of whether they are used to transmit energy within or to points outside the PJM Region.

b. Failure to Meet Operational Standards

In the event that any Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities fail to meet the operational standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) for any consecutive three-year period, the holder(s) of the associated Transmission Injection Rights and Transmission Withdrawal Rights will lose such rights in an amount reflecting the loss of first contingency transfer capability. Any period during which the transmission facility fails to meet the standards set forth in this Tariff, Part VIII, Subpart E, section 428(A)(7) as a result of an event that meets the standards of a Force Majeure event shall be excluded from such consecutive three-year period, provided that the owner of the Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities exercises due diligence to remedy the event.

B. Interconnection Rights for Certain Transmission Interconnections

1. Qualification to Receive Certain Rights

In order to obtain the rights associated with Merchant Transmission Facilities (other than Merchant Network Upgrades) provided under the Tariff, prior to the commencement of Interconnection Service associated with such facilities, a Transmission Interconnection Customer that interconnects or adds Merchant Transmission Facilities (other than Merchant Network Upgrades) to the

Transmission System must become and remain a signatory to the Consolidated Transmission Owners Agreement.

2. Upgrades to Merchant Transmission Facilities

In the event that Transmission Provider determines in accordance with the Regional Transmission Expansion Planning Protocol of ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~ that an addition or upgrade to Merchant A.C. Transmission Facilities is necessary, the owner of such Merchant A.C. Transmission Facilities shall undertake such addition or upgrade and shall operate and maintain all facilities so constructed or installed in accordance with Good Utility Practice and with applicable terms of the Operating Agreement and the Consolidated Transmission Owners Agreement, as applicable. Cost responsibility for each such addition or upgrade shall be assigned in accordance with ~~Operating Agreement, Schedule 6Tariff, Schedule 19~~. Each Transmission Owner to whom cost responsibility for such an upgrade is assigned shall further be responsible for all costs of operating and maintaining the addition or upgrade in proportion to its respective assigned cost responsibilities.

3. Limited Duration of Rights in Certain Cases

Notwithstanding any other provision of this Tariff, Part VIII, Subpart E, section 428, in the case of any Merchant Transmission Facilities that solely involves advancing the construction of a transmission enhancement or expansion other than a Merchant Transmission Facility that is included in the Regional Transmission Expansion Plan, any rights available to such facility under this Tariff, Part VIII, Subpart E, section 428 shall be limited in duration to the period from the inception of Interconnection Service for the affected Merchant Transmission Facilities until the time when the Regional Transmission Expansion Plan originally provided for the pertinent transmission enhancement or expansion to be completed.

**Tariff, Part VIII, Subpart G, Section 434, Affected System Rules**



**Tariff, Part VIII, Subpart G, section 434**  
**Affected System Rules**

- A. New Service Request Affected System Rules Where Affected System is an Electric System other than Transmission Provider's Transmission System
1. The Transmission Provider will coordinate with Affected System Operators the conduct of any studies required to determine the impact of a New Service Request on any Affected System and will include those results in the Phase II System Impact Study, if available from the Affected System.
    - a. The Transmission Provider will invite such Affected System Operators to participate in meetings held with the Project Developer as necessary, as determined by the Transmission Provider.
    - b. The Project Developer or Eligible Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies by Affected System Operators and the determination of modifications to Affected Systems needed to accommodate the New Service Request.
    - c. Transmission Provider shall contact any potential Affected System Operators and provide or otherwise coordinate information regarding each relevant New Service Request as required for the Affected System Operator's studies of the effects of such request.
    - d. If an affected system study agreement is required by the Affected System Operator, in order to remain in the relevant Cycle, Project Developer or Eligible Customer shall enter into an affected system study agreement with the Affected System Operator the later of: (i) the conclusion of Decision Point II of the relevant Cycle, or (ii) 60 days of Transmission Provider sending notification to Project Developer or Eligible Customer of the need to enter into such Affected System Study Agreement. If Project Developer or Eligible Customer fails to comply with these requirements, its New Service Request at issue shall be deemed terminated and withdrawn.
    - e. Affected System Study results will be provided by Phase II of the relevant Cycle, if available. To the extent Affected System results are included in the Phase II System Impact Study, the Project Developer shall be provided the opportunity to review such study results consistent with Tariff, Part VIII, Subpart C, section 407(A)(1)(c), as applicable
    - f.
      - i. The Project Developer or Eligible Customer shall be responsible for the costs of any identified facilities commensurate with the Affected System Operator's tariff's allocation of responsibility for

such costs to such Project Developer or Eligible Customer if their project request has been initiated pursuant to such Affected System Operator's tariff.

ii. Neither the Transmission Provider, the relevant Transmission Owner(s) associated with such New Service Request, nor the Affected System Operator shall be responsible for making arrangements for any necessary engineering, permitting, and/or construction of transmission or distribution facilities on any Affected System or for obtaining any regulatory approval for such facilities.

(a) The Transmission Provider and the relevant Transmission Owner(s) will undertake Reasonable Efforts to assist the Project Developer or Eligible Customer in obtaining such arrangements, including, without limitation, providing any information or data required by such other Affected System Operator pursuant to Good Utility Practice.

2. In no event shall the need for upgrades to an Affected System delay Initial Operation of a Project Developer's Generating Facility or Merchant Transmission Facility. Notwithstanding the start of Initial Operation, Transmission Provider reserves the right to limit Generating Facility injections in the event of potential Affected System impacts, in accordance with Good Utility Practice. Total injections may be limited pending coordination and completion of any necessary deliverability studies by the Affect System Operator.

B. Affected System Rules Where Transmission Provider's Transmission System is the Affected System

1. An Affected System Customer responsible for an Affected System Facility that requires Network Upgrades to Transmission Provider's Transmission System must contact Transmission Provider as set forth in the PJM Manuals. Upon contact by the Affected System Customer, Transmission Provider will provide Affected System Customer with an Affected System Customer Facility Study Agreement (a form of which is found in Tariff, Part IX). The Affected System Customer must electronically sign Affected System Customer Facility Study Agreement, and concurrently provide the required Study Deposit, by wire transfer, of \$100,000.

a. Affected System Customer shall include the project identification or reference number assigned to the Affected System Facility by the Affected System Operator and attach the relevant Affected System Operator Study that identified the need for such Facilities Study Agreement.



- b. Such stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX) shall be negotiated and executed within 60 days of the Transmission Provider's issuance of a draft version thereof. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day. The 60 days shall run concurrently with the relevant Cycle process.
- i. Security is required within 30 days of the Transmission Provider's issuance of the draft stand-alone Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement (forms of which are found in Tariff, Part IX). The Security obligation may be adjusted based on additional factors, including, but not limited to, New Service Requests or Upgrade Requests being withdrawn in the relevant Cycle. If the 30th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.
  - ii. Parties may use not more than 60 days to conduct negotiations concerning the draft Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement. Upon receipt of the draft agreement(s), Affected System Customer and Transmission Owner(s), as applicable, shall have no more than 20 Business Days to return written comments on the draft agreement(s). Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised draft(s) of the agreement(s) in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.
- c. If the Affected System Customer or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the other parties of the impasse, and may file the unexecuted Construction Service Agreement with the FERC.

- d. Not later than 15 Business Days after receipt of the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement, Project Developer or Affected System Customer shall either:
  - i. execute the final Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement or Network Upgrade Cost Responsibility Agreement unexecuted, with the unexecuted Construction Service Agreement or Network Upgrade Cost Responsibility Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- e. If Affected System Customer executes the final interconnection related service agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:
  - i. execute the final Construction Service Agreement in electronic form and return it to Transmission Provider electronically;
  - ii. request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or
  - iii. request in writing that Transmission Provider file with FERC the final Construction Service Agreement unexecuted, with the unexecuted Construction Service Agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.
  
- f. Parties may not proceed under such Construction Service Agreement or a Network Upgrade Cost Responsibility Agreement until: (i) 30 days after

such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

## **Tariff, Part VIII, Subpart H, Section 435, Upgrade Requests**

**Tariff, Part VIII, Subpart H, section 435**  
**Upgrade Requests**

A. Applicability

Tariff, Part VIII, Subpart H, section 435 applies to valid Upgrade Requests submitted on or after October 1, 2020, and sets forth the procedures and other terms governing the Transmission Provider's administration of Upgrade Requests for Upgrade Customers; procedures and other terms regarding studies and other processing of Upgrade Requests; the nature and timing of the agreements required in connection with the studies and construction of required facilities; and terms and conditions relating to the rights available to Upgrade Customers.

1. The Upgrade Request process applies to:
  - a. Incremental Auction Revenue Rights (IARRs) requested Pursuant to the Operating Agreement of the PJM Interconnection, L.L.C. (Operating Agreement), Schedule 1, section 7.8, and the parallel provisions of Tariff, Attachment K-Appendix, section 7.8; and
  - b. Merchant Network Upgrades that either upgrade facilities or advance existing Network Upgrades

B. Overview

1. Upgrade Requests are initiated by submission of a complete and executed Upgrade Application and Studies Agreement (a form of which is located in Tariff, Part IX, Subpart K).
  - a. Upgrade Requests are processed serially, in the order in which an Upgrade Request is received.
    - i. An Upgrade Request shall be assigned a Request Number.
    - ii. Priority for Upgrade Requests is determined by the Request Number assigned.
    - iii. If the Upgrade Request is withdrawn or deemed to be terminated, such Upgrade Request project shall concurrently lose its priority position and will not be included in any further studies.
  - b. Transmission Provider will use Reasonable Efforts to process an Upgrade Request within 15 months of receiving a valid Upgrade Request.



- i. A valid Upgrade Request that completes the Upgrade Request process shall ultimately enter into an Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E)
- ii. If the Transmission Provider is unable to process an Upgrade Request within 15 months of receiving a valid Upgrade Request, the Transmission Provider shall notify the impacted Upgrade Customer by posting on Transmission Provider's website a revised estimated completion date along with an explanation of the reasons why additional time is required to complete the Upgrade Request process.

2. Required Study Deposits and Readiness Deposits.

- a. Upgrade Customers must submit, by wire transfer, a \$150,000 Study Deposit together with a completed and fully executed Upgrade Request. Ten percent of the Study Deposit is non-refundable. Upgrade Customers are responsible for actual study costs, which may exceed the Study Deposit amount.
  - i. If a Study Deposit monies remain after the System Impact Study is completed and any outstanding monies owed by Upgrade Customer in connection with outstanding invoices related to the present or prior Upgrade Requests or other New Service Requests have been paid, such remaining deposit monies shall be either:
    - (a) If Upgrade Customer decides to remain in the Upgrade Request process, applied to the Facilities Study; or
    - (b) If Upgrade Customer decides to withdraw its Upgrade Request from the Upgrade Request process, such remaining monies shall be returned, less actual study costs incurred, to the Upgrade Customer at the conclusion of the required studies for the Upgrade Request.
  - ii. The Study Deposit is non-binding, and actual study costs may exceed the Study Deposit.
    - (a) Upgrade Customer is responsible for, and must pay, all actual study costs.
    - (b) If Transmission Provider sends Upgrade Customer notification of additional study costs, then Upgrade Customer must either: (i) pay all additional study costs within 20 days of Transmission Provider sending the notification of such additional study costs or (ii) withdraw its Upgrade Request. If Upgrade Customer fails to complete either (i) or (ii), then

Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn.

- b. If, after receiving the System Impact Study report, Upgrade Customer decides to remain in the Upgrade Request process, then Upgrade Customer must submit by wire transfer a Readiness Deposit within 30 days from the date that Transmission Provider provides the System Impact Study Report. The Readiness Deposit shall equal 20 percent of the cost of the Network Upgrades identified in the Upgrade Customer's System Impact Study. If the 30<sup>th</sup> day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.
    - i. Readiness Deposit refunds will be handled as follows:
      - (a) If the Upgrade Request is withdrawn or terminated after the Readiness Deposit has been provided, the Readiness Deposit refund amount will be determined by point at which the Upgrade Request was withdrawn or terminated, and the need for any additional subsequent restudies as a result of the withdraw or termination.
      - (b) If the project proceeds to a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), the Readiness Deposit will be refunded upon Upgrade Customer fully executing such agreement.
  - c. Study Deposits and Readiness Deposits are non-transferrable. Under no circumstances may refundable or non-refundable Study Deposit or Readiness Deposit monies for a specific Upgrade Request be applied in whole or in part to a different Upgrade Request, a New Service Request, or any other type of request.
3. Upgrade Request scope cannot include upgrades that are already included in the Regional Transmission Expansion Plan (with the exception of advancements) or subject to an existing, fully executed interconnection related agreement, such as a Generation Interconnection Agreement, stand-alone Construction Service Agreement, Network Upgrade Cost Responsibility Agreement or Upgrade Construction Service Agreement.
  4. No Incremental Auction Revenue Rights shall be received by an Upgrade Customer with respect to transmission investment that is included in the rate base of a public utility and on which a regulated return is earned.
  5. An Upgrade Customer cannot transfer, combine, swap or exchange all or part of an Upgrade Request with any other Upgrade Request or any other New Service Request within the same cycle.

6. Tariff, Part VIII, Subpart E, section 416, Base Case Data, requirements shall apply to Upgrade Requests. Transmission Provider will coordinate with Affected Systems as needed as set forth in the PJM Manuals.
7. Prior to entering into a final Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E), an Upgrade Customer may assign its Upgrade Request to another entity only if the acquiring entity accepts and acquires all rights and obligations as identified in the Upgrade Request for such project.
8. Cost Allocation: Each Upgrade Customer shall be obligated to pay for 100 percent of the costs of the minimum amount of Network Upgrades necessary to accommodate its Upgrade Request and that would not have been incurred under the Regional Transmission Expansion Plan but for such Upgrade Request, net of benefits resulting from the construction of the upgrades, such costs not to be less than zero. Such costs and benefits shall include costs and benefits such as those associated with accelerating, deferring, or eliminating the construction of Network Upgrades included in the Regional Transmission Expansion Plan either for reliability, or to relieve one or more transmission constraints and which, in the judgment of the Transmission Provider, are economically justified; the construction of Network Upgrades resulting from modifications to the Regional Transmission Expansion Plan to accommodate the Upgrade Request; or the construction of Supplemental Projects.
9. Where the Upgrade Request calls for accelerating the construction of a Network Upgrade that is included in the Regional Transmission Expansion Plan and provided that the party(ies) with responsibility for such construction can accomplish such an acceleration, the Upgrade Customer shall pay all costs that would not have been incurred under the Regional Transmission Expansion Plan but for the acceleration of the construction of the upgrade. The Responsible Customer(s) designated pursuant to Schedule 12 of the Tariff as having cost responsibility for such Network Upgrade shall be responsible for payment of only those costs that the Responsible Customer(s) would have incurred under the Regional Transmission Expansion Plan in the absence of the New Service Request to accelerate the construction of the Network Upgrade.

C. Initiating an Upgrade Request

An Upgrade Customer must submit to Transmission Provider, electronically through Transmission Provider's website, a completed and signed Upgrade Application and Studies Agreement ("Application"), a form of which is provided in Tariff, Part IX, Subpart K, including the required Study Deposit.

1. A Request Number shall be assigned based upon the date and time a completed and executed Upgrade Application and Studies Agreement and deposit is received by the Transmission Provider.

2. A valid Upgrade Request shall be established when the Transmission Provider receives the last required agreement element, including the required deposits, from the Upgrade Customer, and the deficiency review for such Upgrade Request is complete.

a. Application Requirements for Upgrade Requests Pursuant to Operating Agreement, Schedule 1, section 7.8

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

- i. The MW amount of requested Incremental Auction Revenue Rights (IARRs), including the source and sink locations and desired commencement date, and;
- ii. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

b. Application Requirements for Merchant Network Upgrade Requests

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

- i. the MVA or MW amount by which the normal or emergency rating of the identified facility is to be increased, together with the desired in-service date; or the Regional Transmission Expansion Plan project number and planned and requested advancement dates;
- ii. the substation or transmission facility or facilities where the upgrade(s) will be made;
- iii. the increase in capability (in MW or MVA) of the proposed Merchant Network Upgrade;
- iv. if requesting Incremental Capacity Transfer Rights (ICTRs), identification of up to three Locational Deliverability Areas (LDAs) in which to determine the ICTRs;
- v. the planned date the proposed Merchant Network Upgrade will be in service, such date to be no more than seven years from the date the request is received by the Transmission Provider, unless the Upgrade Customer demonstrates that engineering, permitting, and

construction of the Merchant Network Upgrade will take more than seven years; and

- vi. A Study Deposit in the amount of \$150,000, in accordance with Tariff, Part VIII, Subpart H, section 435(B) Overview, above.

D. Deficiency Review

Upon receiving a completed and executed Application, together with the Study Deposit, Transmission Provider will review the Application and establish the validity of the request, beginning with a deficiency review, as follows:

1. Transmission Provider will exercise Reasonable Efforts to inform Upgrade Customer of Application deficiencies within 15 Business Days after Transmission Provider's receipt of the completed Application.
2. Upgrade Customer then has 10 Business Days to respond to Transmission Provider's deficiency determination.
3. Transmission Provider then will exercise Reasonable Efforts to review Upgrade Customer's response within 15 Business Days, and then will either validate or reject the Application.

E. System Impact Study

After receiving a valid Upgrade Request, the Transmission Provider, in collaboration with the Transmission Owner, shall conduct a System Impact Study. Prior to the commencement of the System Impact Study, the Transmission Provider may have a scoping meeting with the Upgrade Customer to discuss the Upgrade Request.

1. System Impact Study Requirements

The System Impact Study shall identify the system constraints, identified with specificity by transmission element or flowgate, relating to the Upgrade Request included therein and any resulting Network Upgrades or Contingent Facilities required to accommodate such Upgrade Request.

The System Impact Study shall also include:

- a. the list and facility loading of all reliability criteria violations specific to the Upgrade Request.
- b. estimates of cost responsibility and construction lead times for new facilities and system upgrades.

c. include the amount of incremental rights available, as applicable

2. Contingent Facilities.

Transmission Provider shall identify the Contingent Facilities in the System Impact Studies by reviewing unbuilt Network Upgrades, upon which the Upgrade Customer's cost, timing and study findings are dependent and, if delayed or not built, could cause a need for interconnection restudies of the Upgrade Request or reassessment of the unbuilt Network Upgrades. The method for identifying Contingent Facilities shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall include the list of the Contingent Facilities in the System Impact Study(ies), including why a specific Contingent Facility was identified and how it relates to the Upgrade Request. Transmission Provider shall also provide, upon request of the Upgrade Customer, the Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and non-commercially sensitive.

a. Minimum Thresholds to Identify Contingent Facilities

i. Load Flow Violations

Load flow violations will be identified based on an impact on an overload of at least five percent distribution factor (DFAX) or contributing at least five percent of the facility rating in the applicable model.

ii. Short Circuit Violations

Short circuit violations will be identified based on the following criteria: any contribution to an overloaded facility where the New Service Request increases the fault current impact by at least one percent or greater of the rating in the applicable model.

iii. Stability and Dynamic Criteria Violations

Stability and dynamic criteria violations will be identified based on any contribution to a stability violation.

3. System Impact Study Results

Transmission Provider shall conduct a System Impact Study, and provide the Upgrade Customer a System Impact report on Transmission Provider's website.

To proceed with the Upgrade Request process, within 30 days of Transmission Provider issuing the System Impact Study report, Transmission Provider must receive from the Upgrade Customer:

- a. a Readiness Deposit, by wire transfer, equal to 20 percent of the cost allocation for the Network Upgrades as calculated in the System Impact Study report.
- b. Notification in writing that Upgrade Customer elects to exercise the Option to Build for Stand Alone Network Upgrades identified with respect to its Upgrade Request.

If the 30th day does not fall on a Business Day, then the Readiness Deposit shall be due on the next Business Day thereafter.

- c. If Transmission Provider does not receive the Readiness Deposit equal to 20 percent from the Upgrade Customer within 30 days of Transmission Provider issuing the System Impact Study report, then Transmission Provider shall deem the Upgrade Request to be terminated and withdrawn, and the Upgrade Request will be removed from all studies and will lose its priority position.
  - d. No modifications of any type for any reason are permitted to the Upgrade Request at this point in the Upgrade Request process.
  - e. Upgrade Customer may not elect Option to Build after such date.
4. If the Readiness Deposit is received by the Transmission Provider within 30 days of the Transmission Provider issuing the System Impact Study report, Transmission Provider will proceed with the Facilities Study for the Upgrade Request.

#### F. Facilities Study

The Facilities Study will provide the final details regarding the type, scope and construction schedule of Network Upgrades and any other facilities that may be required to accommodate the Upgrade Request, and will provide the Upgrade Customer with a final estimate of the Upgrade Customer's cost responsibility for the Upgrade Request. Upon completion of the Facilities Study the Transmission Provider will provide the Facilities Study report on Transmission Provider's website, and provide a draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E).

#### G. Upgrade Customer Final Agreement Negotiation Phase

- 1. Transmission Provider shall use Reasonable Efforts to complete the Final Agreement Negotiation Phase within 60 days of the start of such Phase. The Final Agreement Negotiation Phase shall commence on the first Business Day immediately following the tendering of the Facilities Study. The purpose of the Final Agreement Negotiation Phase is to negotiate and enter into a final Upgrade Construction Service Agreement found in Tariff, Part IX, Subpart E; conduct any remaining analyses or updated analyses and adjust the Security obligation based on

higher priority Upgrade Request(s) withdrawn during the Final Agreement Negotiation Phase. If the 60th day does not fall on a Business Day, the phase shall be extended to end on the next Business Day.

- a. If an Upgrade Request is withdrawn during the Final Agreement Negotiation Phase, the Transmission Provider shall remove the Upgrade Request from the Cycle, and adjust the Security obligations of other Upgrade Requests based on the withdrawal.

2. Final Agreement Negotiation Phase Procedures. The Final Agreement Negotiation Phase shall consist of the following terms and procedures:

Transmission Provider shall provide in electronic form a draft Upgrade Construction Service Agreement to the parties to such agreement prior to the start of the Final Agreement Negotiation Phase.

- a. Security is required within 30 days of the Transmission Provider's issuance of the draft Upgrade Construction Service Agreement (a form of which is located in Tariff, Part IX, Subpart E). If the 30th day does not fall on a Business Day, the security due date shall be extended to end on the next Business Day.

- b. Negotiation  
Parties may use not more than 60 days following the start of the Final Agreement Negotiation Phase to conduct negotiations concerning the draft agreements. If the 60<sup>th</sup> day is not a Business Day, negotiations shall conclude on the next Business Day. Upon receipt of the draft agreements, Upgrade Customer, and Transmission Owner, as applicable, shall have no more than 20 Business Days to return written comments on the draft agreements. Transmission Provider shall have no more than 10 Business Days to respond and, if appropriate, provide revised drafts of the agreements in electronic form. Transmission Provider, in its sole discretion, may allow more than 60 days for the Final Agreement Negotiation Phase.

- c. Impasse  
If the Upgrade Customer, or Transmission Owner, as applicable, determines that final agreement negotiations are at an impasse, such party shall notify the other parties of the impasse, and such party may request Transmission Provider to file the unexecuted agreement with FERC or request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~. If Transmission Provider, in its sole discretion, determines that the negotiations are at an impasse, Transmission Provider shall notify the



other parties of the impasse, and may file the unexecuted agreement with the FERC.

d. Execution and Filing

Not later than five Business Days following the end of negotiations within the Final Agreement Negotiation Phase, Transmission Provider shall provide the final Upgrade Construction Service Agreement, to the parties in electronic form.

i. Not later than 15 Business Days after receipt of the final interconnection related agreement, Upgrade Customer shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

(c) request in writing that Transmission Provider file with FERC the final interconnection related service agreement unexecuted, with the final interconnection related service agreement containing terms and conditions deemed appropriate by Transmission Provider, and provide any required adjustments to Security.

ii. If an Upgrade Customer executes the final Upgrade Construction Service Agreement, then, not later than 15 Business Days after PJM sends notification to the relevant Transmission Owner, the relevant Transmission Owner shall either:

(a) execute the final Upgrade Construction Service Agreement in electronic form and return it to Transmission Provider electronically;

(b) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or

- (c) request in writing that Transmission Provider file with FERC the final Upgrade Construction Service Agreement in unexecuted form.

The unexecuted Upgrade Construction Service Agreement shall contain terms and conditions deemed appropriate by Transmission Provider for the Upgrade Request.

- iii. Parties may not proceed under such Upgrade Construction Service Agreement until: (i) 30 days after such agreement, if executed and nonconforming, has been filed with the Commission; (ii) such agreement, if unexecuted, has been filed with and accepted by the Commission; or (iii) the earlier of 30 days after such agreement, if conforming, has been executed or has been reported in Transmission Provider's Electronic Quarterly Reports.

## H. Upgrade Construction Service Agreement

In the event that construction of facilities by more than one Transmission Owner is required, the Transmission Provider will tender a separate Upgrade Construction Service Agreement for each such Transmission Owner and the facilities to be constructed on its transmission system.

### 1. Cost Reimbursement

Pursuant to the Upgrade Construction Service Agreement, a Upgrade Customer shall agree to reimburse the Transmission Provider (for the benefit of the affected Transmission Owners) for the Costs, determined in accordance with Tariff, Part VIII, Subpart C, section 404(A)(5) of constructing Distribution Upgrades, and/or Network Upgrades necessary to accommodate its New Service Request to the extent that the Transmission Owner is responsible for building such facilities pursuant to Tariff, Part VIII and the applicable Upgrade Construction Service Agreement. The Upgrade Construction Service Agreement shall obligate the Upgrade Customer to reimburse the Transmission Provider (for the benefit of the affected Transmission Owner(s)) as the Transmission Owner's expenditures for the design, engineering, and construction of the facilities that it is responsible for building pursuant to the Upgrade Construction Service Agreement are made. The Transmission Provider shall distribute the revenues received under this Tariff, Part VIII, Subpart H, section 435 to the affected Transmission Owner(s).

### 2. Upgrade-Related Rights

The Upgrade Construction Service Agreement shall specify Upgrade-Related Rights to which the Upgrade Customer is entitled pursuant to Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430, except to the extent the applicable terms of Tariff, Part VIII, Subpart E, sections 426, 427, 428, and 430 provide otherwise.

3. Specification of Transmission Owners Responsible for Facilities and Upgrades

The Facilities Study (or the System Impact Study, if a Facilities Study is not required) shall specify the Transmission Owner(s) that will be responsible, subject to the terms of the applicable Upgrade Construction Service Agreement, for the construction of facilities and upgrades, determined in a manner consistent with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19.

I. Withdraw or Termination

1. If an Upgrade Customer decides to withdraw its Upgrade Request, Transmission Provider must receive written notification from the Upgrade Customer of Upgrade Customer's decision to withdraw its Upgrade Request.
2. Transmission Provider may deem an Upgrade Request terminated and withdrawn for failing to meet any of the requirements, as set forth in this Tariff, Part VIII, Subpart H.
3. If an Upgrade Request is either withdrawn or deemed terminated and withdrawn, it will be removed from the Upgrade Request process and all relevant models, and, as applicable, the Readiness Deposits and Study Deposits will be disbursed as follows:
  - a. For Readiness Deposits: At the conclusion of Transmission Provider's Facility Study, refund to the Upgrade Customer 100 percent of Readiness Deposit paid by the Upgrade Customer.
  - b. For Study Deposits: At the point at which the Upgrade Customer requested to withdraw the Upgrade Request or the Transmission Provider terminated the Upgrade Request, refund to the Upgrade Customer up to 90 percent of its Study Deposit submitted with its Upgrade Request during the Application less any actual costs for studies conducted up to and including the point of withdraw or termination of such Upgrade Request.
  - c. Up to and including the point of withdraw or termination of such Upgrade Request.

J. Transmission Provider Website Postings

The Transmission Provider shall maintain on the Transmission Provider's website a list of all Upgrade Requests. The list will identify, as applicable:

1. the increase in capability in megawatts (MW) or megavolt-amperes (MVA);
2. the megawatt amount of requested Incremental Auction Revenue Rights (IARRs);

3. the station or transmission line or lines where the upgrade(s) will be made;
4. the requested source and sink locations
5. the proposed in-service or commencement date;
6. the status of the Upgrade Request, including its Request Number;
7. the availability of any studies related to the Upgrade Request;
8. the date of the Upgrade Request; and
9. for each Upgrade Request that has not resulted in a completed upgrade, an explanation of why it was not completed.

## **Tariff, Part IX, Section 500, Execution Deadlines**

## Tariff, Part IX, Section 500, Execution Deadlines

Unless otherwise stated in a specific agreement, the following provisions shall apply to any agreement under Tariff, Part IX, between Transmission Provider, a Project Developer, Eligible Customer or Upgrade Customer, and, where applicable, a Transmission Owner. In addition to any other requirements under such agreement, no later than 15 Business Days after Transmission Provider's tender for execution of such agreement, Project Developer, Eligible Customer or Upgrade Customer, shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) request in writing that the agreement be filed unexecuted with FERC. Such agreement shall be deemed to be terminated and withdrawn if Project Developer, Eligible Customer or Upgrade Customer, fails to comply with these requirements. If a Transmission Owner is party to the agreement, following tender of the agreement and no later than 15 Business Days after PJM sends notification to the relevant Transmission Owner that the Project Developer, Eligible Customer or Upgrade Customer has executed the agreement, Transmission Owner shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) request in writing that the agreement be filed unexecuted with FERC. Following execution by Transmission Owner (or by the Project Developer if there is not Transmission Owner that is subject to the agreement) Transmission Provider shall either: (i) execute the agreement; (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Operating Agreement, Schedule 5~~; or (iii) file with FERC the agreement in unexecuted form. Transmission Provider may also file the agreement with FERC in unexecuted form if Transmission Owner does not comply with the requirements above.

With the filing of any unexecuted agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between the parties.

## **Tariff, Section IX, Subpart B**

(Project Identifier #\_\_\_\_)

**GENERATION INTERCONNECTION AGREEMENT**  
**By and Between**  
**PJM INTERCONNECTION, L.L.C.**  
**And**

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**And**

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**GENERATION INTERCONNECTION AGREEMENT**

**By and Between**

**PJM Interconnection, L.L.C.**

**And**

**[Name of Project Developer]**

**And**

**[Name of Transmission Owner]**

(Project Identifier #\_\_)

- 1.0 Parties. This Generation Interconnection Agreement (“GIA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), \_\_\_\_\_ (“Project Developer” [OPTIONAL: or “[short name]”]) and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL: or “[short name]”]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). [Use as/when applicable: This GIA supersedes the \_\_\_\_\_ {insert details to identify the agreement being superseded, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]. [Use as/when applicable: Pursuant to the terms of an Agreement to Amend signed by all Parties effective {INSERT DATE}, this GIA reflects amends the {ISA/GIA} entered into by {Party 1}, {Party 2}, and Transmission Provider effective {INSERT DATE} and designated as Service Agreement No. {INSERT NUMBER}.]
- 2.0 Authority. This GIA is entered into pursuant to the Generation Interconnection Procedures set forth in [instruction: {use Part VII if this is a transition period GIA subject to Tariff, Part VII} {use Part VIII if this a new rules GIA subject to Part VIII}] of the Tariff. Project Developer has requested a Generation Interconnection Agreement under the Tariff, and Transmission Provider has determined that Project Developer is eligible under the Tariff to obtain this GIA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this GIA are hereby specifically incorporated as provisions of this GIA. Transmission Provider, Transmission Owner, and Project Developer agree to and assume all of the rights and obligations of the Transmission Provider, Transmission Owner, and Project Developer, respectively, as set forth in Appendix 2 to this GIA.
- 3.0 Generating Facility or Merchant Transmission Facility Specifications. Attached are Specifications for the Generating Facility or Merchant Transmission Facility that Project Developer proposes to interconnect with the Transmission System. Project Developer represents and warrants that, upon completion of construction of such facilities, it will own or control the Generating Facility or Merchant Transmission Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that

Project Developer will not own the Generating Facility or Merchant Transmission Facility, Project Developer represents and warrants that it is authorized by the owner(s) thereof to enter into this GIA and to represent such control.

- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this GIA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is filed with FERC unexecuted, upon the date specified by FERC. This GIA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this GIA. The term of the GIA shall be as provided in section 1.3 of Appendix 2 to this GIA. Interconnection Service shall commence as provided in section 1.2 of Appendix 2 to this GIA.
- 5.0 Security. In accord with the GIP, Project Developer shall provide the Transmission Provider (for the benefit of the Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmissions Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$\_\_\_\_\_. Such Security can also be applied to unpaid Cancellation Costs and for completion of some or all of the required Transmission Owner Interconnection Facilities, and/or Customer-Funded Upgrades. This amount represents the sum of the estimated Costs, determined in accordance with the GIP for which the Project Developer will be responsible, less any Costs already paid by Project Developer. Project Developer acknowledges that its ultimate cost responsibility will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.
- 6.0 Project Specific Milestones. In addition to the milestones stated in the GIP as applicable, during the term of this GIA, Project Developer shall ensure that it meets each of the following development milestones:

[Specify Project Specific Milestones]

[As appropriate include the following standard Milestones, with any revisions necessary for the project at hand (sections should be renumbered as appropriate):]

- 6.1 Substantial Site work completed. On or before \_\_\_\_\_, Project Developer must demonstrate completion of at least 20 percent of project site construction. At this time, Project Developer must submit to Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Project Developer Interconnection Facilities.
- 6.2 Delivery of major electrical equipment. On or before \_\_\_\_\_, Project Developer must demonstrate that \_\_\_\_ generating units have been delivered to Project Developer’s project site.  
[Instructions: the following provisions can be used be as mutually agreed upon, and as an alternative to the milestones set forth in the GIP (renumber sections as appropriate):]

6.2.1 \_\_\_\_\_ Fuel delivery agreement and water agreement. Project Developer must demonstrate it has entered into a fuel delivery agreement and water agreement, if necessary, and that it controls any necessary rights-of-way for fuel and water interconnection by \_\_\_\_\_.

6.2.2 \_\_\_\_\_ Local, county, and state site permits. Project Developer must obtain all necessary local, county, and state site permits by \_\_\_\_\_.

[Instruction to be used if the Project Developer has not provided evidence of the 100 percent Site Control for the Project Developer's Interconnection Facilities, and any Transmission Owner's Interconnection Facilities or Transmission Owner Upgrades at the Point of Interconnection that the Project Developer will develop prior to entering to a GIA (renumber remaining sections as appropriate):]

6.2.3 Project Developer shall provide evidence of 100 percent Site Control for the Generating Facility or Merchant Transmission Facility, Interconnection Facilities, and, if applicable, the Stand Alone Network Upgrades necessary to interconnect the project to the Transmission System consistent with GIP no later than six months after the effective date of this GIA. Notwithstanding any other provisions of this GIA, no extension of this milestone shall be granted and if the Project Developer fails to meet this milestone, its Interconnection Request and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

6.3 Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of all generating units in order to achieve the full Maximum Facility Output set forth in section 1.0(c) of the Specifications to this GIA. Failure to achieve this Maximum Facility Output may result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes achieving Initial Operation in accordance with section 1.4 of Appendix 2 to this GIA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Instructions: If this GIA is for an incremental increase in output for a facility that already is in commercial operation (i.e., an uprate), then, instead of the above, use the following language for the Commercial Operation milestone.]

[For an uprate where MFO and CIRs will increase, use this alternate language:]

Commercial Operation. On or before \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase over Project Developer's previous interconnection, as set forth in Specifications, section 1.0(c) of this GIA for increases in Maximum Facility Output and in Specifications, section 2.1 of this GIA for increases in Capacity Interconnection Rights. This incremental increase is a result of the Interconnection Request associated with this GIA. Failure to achieve this Maximum Facility Output shall result in a permanent reduction in Maximum Facility Output of the Generating Facility, and if, necessary, a permanent reduction of the Capacity Interconnection Rights, to the level achieved. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[For CIR-only uprates, use the alternate language that follows. The September 1, \_\_\_\_\_ date for CIR-only uprates is meant to align with Summer Capability Testing for the unit(s). Without this Commercial Operation milestone that is specific to CIR-only uprates, it can be difficult to implement or enforce a Commercial Operation milestone for CIR-only uprates, because the unit is already in Commercial Operation at its specified MFO:]

Commercial Operation. On or before September 1, \_\_\_\_\_, Project Developer must demonstrate commercial operation of an incremental increase in Capacity Interconnection Rights over Project Developer's previous interconnection, as set forth in Specifications, section 2.1 of this GIA. Failure to achieve this level of Capacity Interconnection Rights shall result in a permanent reduction of the Capacity Interconnection Rights to the level achieved. This incremental increase in Capacity Interconnection Rights is a result of the Interconnection Request associated with this GIA. Demonstrating commercial operation includes making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

[Additional instructions (separate from the Commercial Operation Date provisions): if a specific situation requires a separate Construction Service Agreement by a certain date then use the following:]

Construction Service Agreement. On or before \_\_\_\_\_, Project Developer must have either (a) executed a Construction Service Agreement for Interconnection Facilities or Transmission Owner Upgrades for which Project Developer has cost responsibility; (b) requested dispute resolution under section 12 of the PJM Tariff, or if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement")~~;

or (c) requested that the Transmission Provider file the Construction Service Agreement unexecuted with FERC.

- 6.4 Within one month following commercial operation of generating unit(s), Project Developer must provide certified documentation demonstrating that “as-built” Generating Facility or the Merchant Transmission Facilities, and Project Developer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Project Developer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

**[Add Additional Project Specific Milestones as appropriate]**

Project Developer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Project Developer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. Project Developer shall also have a one-time option to extend its milestone (other than any milestone related to Site Control) for a total period of one year regardless of cause. This option may only be applied one time for an Interconnection Request, and may only be applied to one single milestone specified in this GIA. Other milestone dates stated in this GIA shall be deemed to be extended coextensively with Project Developer’s use of this provision. Once this extension is used, it is no longer available with regard to any other milestones or other deadlines in this GIA. If the Project Developer fails to meet any of the milestones set forth above, including any extended milestones, its Interconnection Request shall be terminated and withdrawn, in accordance with the provisions of Appendix 2, sections 15 and 16. Transmission Provider shall take all necessary steps to effectuate this termination, including submitting the necessary filings with FERC.

- 7.0 Provision of Interconnection Service. Transmission Provider and Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Project Developer’s Generating Facility or Merchant Transmission Facility identified in the Specifications in accordance with the GIP, the Operating Agreement, and this GIA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Project Developer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 System Impact Study(ies) and/or Facilities Study(ies). In analyzing and preparing the [System Impact Study(ies) and/or Facilities Study(ies)], and in designing and constructing the Distribution Upgrades, Network Upgrades, Stand Alone Network

Upgrades and/or Transmission Owner Interconnection Facilities described in the Specifications attached to this GIA, Transmission Provider, the Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE SYSTEM IMPACT STUDY(IES) AND/OR FACILITIES STUDY(IES) OF THE DISTRIBUTION UPGRADES, NETWORK UPGRADES, STAND ALONE NETWORK UPGRADES AND/OR TRANSMISSION OWNER INTERCONNECTION FACILITIES. Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

10.0 Construction of Transmission Owner Interconnection Facilities and Transmission Owner Upgrades

10.1. Cost Responsibility. Project Developer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Generating Facility or Merchant Transmission Facility as specified in the GIP. These Costs may include, but are not limited to, a Distribution Upgrades charge, Network Upgrades charge, Stand Alone Network Upgrades charge, Transmission Owner Interconnection Facilities charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in sections 3.0 and 4.0 of the Specifications to this GIA.

10.2. Billing and Payments. Transmission Provider shall bill the Project Developer for the Costs associated with the facilities contemplated by this GIA, estimates of which are set forth in the Specifications to this GIA, and the Project Developer shall pay such Costs, in accordance with section 11 of Appendix 2 to this GIA and the applicable provisions of Schedule L. Upon receipt of each of Project Developer's payments of such bills, Transmission Provider shall reimburse the applicable Transmission Owner. Project Developer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

\_\_\_\_\_ No

10.3. Contract Option. In the event that the Project Developer and Transmission Owner agree to utilize the Negotiated Contract Option as set forth in Schedule L, Appendix 1 to establish, subject to FERC acceptance, non-standard terms regarding cost responsibility, payment, billing and/or financing, the terms of sections 10.1 and/or 10.2 of this section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in Schedule L to this GIA. The Negotiated Option can only be used in connection with a Network Upgrade subject to the Network Upgrade Cost Responsibility Agreement if all Project Developers and the relevant Transmission Owner agree.

\_\_\_\_\_ Yes

\_\_\_\_\_ No

#### 10.4 Interconnection Construction Terms and Conditions

10.4.1 Schedule L of this GIA sets forth the additional terms and conditions of service that apply in the event there are any there are Project Developer Interconnection Facilities, Transmission Owner Interconnection Facilities, or Transmission Owner Upgrades subject to this Agreement. In the event there is an additional Transmission Owner listed in Specification section 3.0(c), Transmission Provider, Project Developer and the additional Transmission Owner shall be required to enter into a separate Interconnection Construction Service Agreement in the form set forth in Tariff, Part IX, Subpart J. In the event there are any Common Use Upgrades listed in Specification section 3.0 of this GIA, Transmission Provider and Project Developer, along with the other relevant Project Developers, shall also be required to enter into a separate Network Upgrade Cost Responsibility Agreement in the form set forth in Tariff, Part IX, Subpart H.

10.4.2 In the event that the Project Developer elects to construct some or all of the Transmission Owner Interconnection Facilities or Stand Alone Network Upgrades under the Option to Build, billing and payment for the Costs associated with the facilities contemplated by this GIA shall relate only to such portion of the Interconnection Facilities and Transmission Owner Upgrades as the Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this GIA.

11.2 List and Ownership of Interconnection Facilities and Transmission Owner Upgrades. The Interconnection Facilities and Transmission Owner Upgrades and Transmission Owner Upgrades to be constructed and ownership of the

components thereof are identified in section 3.0 of the Specifications attached to this GIA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this GIA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Generating Facility or Merchant Transmission Facility and the Interconnection Facilities and Transmission Owner Upgrades are identified in Schedule D to this GIA.

## 12.0 Power Factor Requirement.

Consistent with section 4.6 of Appendix 2 to this GIA, the power factor requirement is as follows:

[For Generation Project Developers]

{The following language should be included for new large and small synchronous generation facilities that will have the Tariff specified power factor. This section does not apply if the Interconnection Request is for an incremental increase in generating capability.}

The Project Developer shall design its Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{Include the following language if the Interconnection Request is for an incremental increase in capacity or energy output to a synchronized generation facility}

The existing \_\_ MW portion of the Generating Facility shall retain its existing ability to maintain a power factor of at least 0.95 leading to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

The increase of \_\_\_ MW to the Generating Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 1.0 (unity) to 0.90 lagging measured at the [generator's terminals] [Point of Interconnection].

{For new wind or non-synchronous generation facilities which have submitted a New Service Request. after November 1, 2016, the following applies:}

The Generation Project Developer shall design its [wind-powered] [non-synchronous] Generating Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.



{For all wind or non-synchronous generation facilities requesting an incremental increase in capacity or energy output which have entered the New Services Queue after November 1, 2016, and were not commercially operable prior to November 1, 2016 include the following requirements:}

The existing [wind-powered] [non-synchronous] \_\_ MW portion of the Customer Facility shall retain the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

The increase of \_\_ MW to the [wind-powered] [non-synchronous] Customer Facility associated with this GIA shall be designed with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

[For Transmission Project Developers]

{The following language should be included only for new Merchant Transmission Facilities}

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

- 13.0 Charges. In accordance with sections 10 and 11 of Appendix 2 to this GIA, the Project Developer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this GIA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this GIA, except, however, that, subject to modification of the payment terms stated in section 10 of this GIA pursuant to the Negotiated Contract Option, payment obligations imposed on Project Developer under this GIA are agreed and acknowledged to be for the benefit of the Transmission Owner(s). Project Developer expressly agrees that the Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Project Developer for the payment of any Costs or charges authorized under this GIA or the GIP with respect to Interconnection Service for which Project Developer fails, in whole or in part, to pay as provided in this GIA, the GIP and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this GIA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.

- 16.0 Amendment. Except as set forth in Appendix 2, section 12.0 of this GIA, this GIA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto. Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution, dates of any milestones, or obligations contained therein.
- 17.0 Construction With Other Parts of The Tariff. This GIA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this GIA shall be made, in accordance with the terms of Appendix 2 to this GIA, to the representatives of the other party and as applicable, to the Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403  
interconnectionagreementnotices@pjm.com

Project Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmission Owner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 19.0 Incorporation of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this GIA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this GIA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this GIA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Project Developer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with section

- 24.1 of Appendix 2 to this GIA, Schedule G to this GIA shall set forth the Project Developer's agreement to conform with the IRS safe harbor provisions for non-taxable status.
- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this GIA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this GIA.
- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation. All Transmission Providers, Transmission Owners, market participants, and Project Developers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 24.0 This Agreement shall be deemed a contract made under, and the interpretation and performance of this Agreement and each of its provisions shall be governed and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without regard to conflicts of laws provisions that would apply the laws of another jurisdiction.

IN WITNESS WHEREOF, Transmission Provider, Project Developer and Transmission Owner have caused this GIA to be executed by their respective authorized officials.

(Project Identifier # \_\_\_)

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

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Project Developer: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

Transmission Owner: **[Name of Party]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Tariff, Section IX, Subpart B-Appendix 2, Section 22**

## **22 Miscellaneous**

### **22.1 Regulatory Filing:**

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

### **22.2 Waiver:**

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

### **22.3 Amendments and Rights Under the Federal Power Act:**

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

### **22.4 Binding Effect:**

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

## **22.5 Regulatory Requirements:**

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

## **Tariff, Section IX, Subpart H-Appendix 2**



**APPENDIX 2**  
**STANDARD TERMS AND CONDITIONS**

## **Preamble**

The cost responsibility of any Common Use Upgrades required to interconnect a Generating Facility or Merchant Transmission Facility with the Transmission System shall be in accordance with the following Standard Construction Terms and Conditions.

### **1 Facilitation by Transmission Provider**

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

### **2 Common Use Upgrade Cost Responsibility**

Responsibility for the Costs of Common Use Upgrades shall be assigned in accordance with the GIP. The cost responsibility of each Project Developer shall be shown in Schedule B.

### **3 Security, Billing and Payments**

#### **3.1 Security:**

Security associated with this NUCRA shall be the Security provided by each Project Developer as set forth in section 7 of this NUCRA above.

#### **3.2 Adjustments to Security:**

The Security provided by each Project Developer at or before execution of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to shall be increased or decreased in accordance with the provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs the Project Developer is a party to, and consistent with the Project Developer's cost responsibility set forth in Schedule B of this NUCRA.

#### **3.3 Invoice:**

In addition to the invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, Transmission Provider shall bill the Project Developers in accordance with the cost responsibility set forth in Schedule B of this NUCRA.

### **3.4 Final Invoice:**

In addition to the final invoice provisions set forth in the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party, for purposes of this NUCRA, the accounting and payments shall be in accordance with the cost responsibility set forth in Schedule B of this NUCRA.

### **3.5 Disputes:**

In the event of a billing dispute between any of the parties to this NUCRA, Transmission Provider shall continue to perform its obligations pursuant to this NUCRA so long as (a) Project Developer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Project Developer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Project Developer fails to meet any of these requirements, then Transmission Provider shall so inform the other parties to this NUCRA and Transmission Provider may provide notice to Project Developer of a Breach pursuant to section 6 of this Appendix 2.

### **3.6 No Waiver:**

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

### **3.7 Interest:**

Interest on any unpaid, delinquent amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) and shall apply from the due date of the bill to the date of payment.

## **4 Assignment**

### **4.1 Assignment with Prior Consent:**

Except as provided in section 4.2 to this Appendix 2, no party to this NUCRA shall assign its rights or delegate its duties, or any part of such rights or duties, under this NUCRA without the written consent of the other parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. A party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of the Common Use Upgrades which it owns or will own upon completion of construction and the transfer of title required by the applicable GIA or Construction Service Agreement, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this NUCRA.

## **4.2 Assignment Without Prior Consent:**

### **4.2.1 Assignment to Owners:**

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

### **4.2.2 Assignment to Lenders:**

Project Developer may, without the consent of any other party to this NUCRA, assign the NUCRA to any Project Finance Entity(ies), provided that such assignment shall not alter or diminish Project Developer's duties and obligations under this NUCRA. If Project Developer provides the parties to this NUCRA with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2, the Transmission Provider shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Appendix 2 in accordance with this Appendix 2. Transmission Provider shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the NUCRA, provided that such documents do not alter or diminish the rights of the Transmission Provider under this Appendix 2, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider's invoice therefor, Project Developer shall pay the Transmission Provider reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Project Developer from any of its obligations hereunder absent the written consent of the Transmission Provider.

## **4.3 Successors and Assigns:**

This NUCRA and all of its provisions are binding upon, and inure to the benefit of, the parties to this NUCRA and their respective successors and permitted assigns.

## **5 Indemnity**

### **5.1 Indemnity:**

Each Project Developer to this NUCRA shall indemnify and hold harmless the other parties to this NUCRA, and the other parties' officers, shareholders, stakeholders, members, managers,

representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with, or resulting from (i) the indemnifying party's breach of any of the representations or warranties made in, or failure of the indemnifying party or any of its subcontractors to perform any of its obligations under, this NUCRA (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying party or its contractors; provided, however, that no party shall have any indemnification obligations under this section 5.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the party seeking indemnity.

## **5.2 Indemnity Procedures:**

Promptly after receipt by a party entitled to indemnity ("Indemnified Person") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in section 5.1 may apply, the Indemnified Person shall notify the indemnifying party(ies) of such fact. Any failure of or delay in such notification shall not affect the indemnifying party's(ies) indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party(ies). The Indemnified Person shall cooperate with the indemnifying party(ies) with respect to the matter for which indemnification is claimed. The indemnifying party(ies) shall have the right to assume the defense thereof with counsel designated by such indemnifying party(ies) and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying party(ies) and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying party(ies), the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying party(ies) shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying party(ies). Notwithstanding the foregoing, the indemnifying party(ies) (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying party(ies), in such event the indemnifying party(ies) shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

### **5.3 Indemnified Person:**

If an Indemnified Person is entitled to indemnification under this section 5 as a result of a claim by a third party, and the indemnifying party(ies) fails, after notice and reasonable opportunity to proceed under section 5.2 of this Appendix 2, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying party(ies) contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

### **5.4 Amount Owing:**

If an indemnifying party(ies) is obligated to indemnify and hold any Indemnified Person harmless under this section 5, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

### **5.5 Limitation on Damages:**

Except as otherwise provided in this section 5, the liability of a party(ies) under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any party(ies) or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this section 5.5 are without regard to the cause or causes related thereto, including the negligence of any party(ies), whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this section 5.5 shall survive the termination or expiration of this NUCRA.

### **5.6 Limited Liability in Emergency Conditions:**

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

## **6 Breach, Cure and Default**

### **6.1 Breach:**

A Breach of the NUCRA shall include, but not be limited to:

- (a) The failure to pay any amount when due;

(b) The failure to comply with any material term or condition of this NUCRA including but not limited to any material breach of a representation, warranty or covenant (other than in sections 6.1(a) and (c)-(d) hereof) made in this Appendix 2;

(c) Assignment of the NUCRA in a manner inconsistent with the terms of this Appendix 2; or

(d) Failure of any party to provide information or data required to be provided to another party under this Appendix 2 for such other party to satisfy its obligations under this NUCRA.

## **6.2 Notice of Breach:**

A party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Project Developer, Transmission Provider agrees to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to section 12 of this Appendix 2.

## **6.3 Cure and Default:**

A party that commits a Breach and does not take steps to cure the Breach pursuant to this section 6.3 is automatically in Default of this Appendix 2 and of the NUCRA without further notice from the non-Breaching Parties.

## **6.4 Cure of Breach:**

**6.4.1** Except for the event of Breach set forth in section 6.1(a) above, the Breaching Party (a) may cure the Breach within 30 days of the time the non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within 30 days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such 30 day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the parties to the NUCRA. Such agreement shall not be unreasonably withheld.

**6.4.2** In an event of Breach set forth in section 6.1(a), the Breaching Party shall cure the Breach within five days from the receipt of notice of the Breach. If the Breaching Party is a Project Developer, and the Project Developer fails to pay an amount due within five days from the receipt of notice of the Breach, Transmission Provider may use the Security provided by the Project Developer as set forth in section 7.0

of this NUCRA. Upon drawing on such Security, Project Developer shall automatically be deemed in default of this NUCRA.

## **6.5 Right to Compel Performance:**

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting party(ies) shall be entitled to exercise such other rights and remedies as it may have in equity or at law. Subject to section 11 of this Appendix 2, no remedy conferred by any provision of this Appendix 2 is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **7 Termination**

### **7.1 Termination of the NUCRA:**

This NUCRA may be terminated by the following means:

#### **7.1.1 By Mutual Consent:**

This NUCRA may be terminated as of the date on which the parties mutually agree to terminate this NUCRA.

#### **7.1.2 By All Project Developers:**

Subject to payment of Cancellation Costs and of all other unpaid Costs, all Project Developers that are parties to this NUCRA may at the same time unilaterally terminate the NUCRA pursuant to Applicable Laws and Regulations upon providing Transmission Provider sixty days prior written notice thereof. Termination under this section must be performed in parallel with the termination provisions of the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party. Project Developers' terminating under this section forfeit Security provided related to the applicable GIA, Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party.

#### **7.1.3 Notification of Final Payment:**

This NUCRA shall terminate upon the date Transmission Provider receives written notice, in a form acceptable to the Transmission Provider from the Transmission Owner that Transmission Owner has received final payment of all Costs for the Common Use Upgrades shown on Schedule A.

### **7.2 Upon Default by Project Developer:**

#### **7.2.1 Consequences of Default by Project Developer:**



If one or more, but not all, Project Developers that are parties to this NUCRA are in Default, such Project Developers shall remain liable for any portion of their cost responsibility for the Costs of the Common Use Upgrades, and Cancellation Costs, in accordance with Schedule B of this NUCRA. Transmission Provider shall draw on and apply such defaulting Project Developer's Security to any amount under this NUCRA not paid by that Project Developer. Upon drawing on such Security, Project Developer is automatically in default of this NUCRA, and Project Developer's GIA and Construction Service Agreement; and all such agreements shall be deemed terminated and withdrawn, and Project Developer's project shall be removed from the relevant Cycle.

### **7.2.2 Reallocation of Costs upon Default by Project Developer:**

If a defaulting Project Developer cannot pay its amount due after exhausting all available Security, the unpaid costs shall be reallocated to the remaining Project Developers in proportion to the cost responsibility percentages set forth in Schedule B. A remaining Project Developer shall be entitled to exercise such other rights and remedies as it may have in equity or at law against the defaulting Project Developer that caused the reallocation of Costs under this section.

### **7.3 Survival of Rights:**

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

## **8 Force Majeure**

### **8.1 Notice:**

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

### **8.2 Duration of Force Majeure:**

A party shall not be considered to be in Default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other parties in writing as soon as reasonably possible after the occurrence of the cause relied upon. Those notices shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. Written notices given pursuant to this Article shall be acknowledged in writing as soon as reasonably possible. The party affected shall exercise

Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance. The party affected has a continuing notice obligation to the other parties, and must update the particulars of the original Force Majeure notice and subsequent notices, in writing, as the particulars change. The affected party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such party shall resume performance and give prompt written notice thereof to the other parties.

### **8.3 Obligation to Make Payments:**

Any party's obligation to make payments pursuant to applicable GIA, Construction Service Agreement, this NUCRA, or other relevant NUCRAs to which the Project Developer is a party shall not be suspended by Force Majeure.

### **8.4 Definition of Force Majeure:**

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

## **9 Confidentiality**

The Confidentiality provisions of the applicable GIA Construction Service Agreement or other relevant NUCRAs to which the Project Developer is a party are incorporated by reference and shall apply to this NUCRA.

## **10 Information Access and Audit Rights**

### **10.1 Information Access:**

Subject to Applicable Laws and Regulations, each party to this NUCRA shall make available to each other party information necessary (i) to verify the costs incurred by the other party for which the requesting party is responsible under this Appendix 2, and (ii) to carry out obligations and responsibilities under this Appendix 2. The parties shall not use such information for

purposes other than those set forth in this section and to enforce their rights under this Appendix 2.

### **10.2 Reporting of Non-Force Majeure Events:**

Each party to this NUCRA shall notify each other party when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than an event of force majeure as defined in section 8 of this Appendix 2. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this section shall not entitle the receiving party to allege a cause of action for anticipatory breach of this Appendix 2.

### **10.3 Audit Rights:**

Subject to the requirements of confidentiality under section 9 of this Appendix 2, each party to this NUCRA shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent party, to audit at its own expense the other party's accounts and records pertaining to such party's performance and/or satisfaction of obligations arising under this NUCRA. Any audit authorized by this section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the other party not later than 24 months after the event as to which the audit is sought. Each party shall preserve all records held by it for the duration of the audit period.

## **11 Disputes**

### **11.1 Submission:**

Any claim or dispute that any party to this NUCRA may have against another party arising out of this Appendix 2 may be submitted for resolution in accordance with the dispute resolution provisions of Tariff, Part I, section 12.

### **11.2 Rights Under The Federal Power Act:**

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

### **11.3 Equitable Remedies:**

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

## **12 Notices**

### **12.1 General:**

Any notice, demand or request required or permitted to be given by any party to this NUCRA to another and any instrument required or permitted to be tendered or delivered by any party, in writing to another shall be provided electronically or may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the party, or personally delivered to the party, at the electronic or other address specified in the NUCRA.

### **12.2 Operational Contacts:**

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

## **13 Miscellaneous**

### **13.1 Regulatory Filing:**

In the event that this NUCRA contains any terms that deviate materially from the form included in Tariff, Part IX or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed NUCRA on behalf of itself with FERC as a service schedule under the Tariff. Project Developer may request that any information so provided be subject to the confidentiality provisions of section 9 of this Appendix 2. A Project Developer shall have the right, with respect to any NUCRA tendered to it, to request in writing (a) dispute resolution under section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement~~, or (b) that Transmission Provider file the agreement unexecuted with FERC. With the filing of any unexecuted NUCRA, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any parties to this NUCRA.

### **13.2 Waiver:**

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

### **13.3 Amendments and Rights Under the Federal Power Act:**

This NUCRA may be amended or supplemented only by a written instrument duly executed by all parties to this NUCRA. An amendment to the NUCRA shall become effective and a part of this NUCRA upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the

foregoing, nothing contained in this NUCRA shall be construed as affecting in any way any of the rights of any party with respect to changes in applicable rates or charges under section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any party under section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this NUCRA and every appendix referred to therein shall be amended, as mutually agreed by the parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

#### **13.4 Binding Effect:**

This NUCRA, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the parties.

#### **13.5 Regulatory Requirements:**

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

### **14 Representations and Warranties**

#### **14.1 General:**

Each party to this NUCRA hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the party during the time the NUCRA is effective:

##### **14.1.1 Good Standing:**

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

##### **14.1.2 Authority:**

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

**14.1.3 No Conflict:**

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

**14.1.4 Consent and Approval:**

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

## **Tariff, Attachment K-Appendix, Section 1.9**

## **1.9 Prescheduling.**

The following procedures and principles shall govern the prescheduling activities necessary to plan for the reliable operation of the PJM Region and for the efficient operation of the PJM Interchange Energy Market.

### **1.9.1 Outage Scheduling.**

The Office of the Interconnection shall be responsible for coordinating and approving requests for outages of generation and transmission facilities as necessary for the reliable operation of the PJM Region, in accordance with the PJM Manuals. The Office of the Interconnection shall maintain records of outages and outage requests of these facilities.

### **1.9.2 Planned Outages.**

(a) A Generator Planned Outage shall be included in Generator Planned Outage schedules established prior to the scheduled start date for the outage, in accordance with standards and procedures specified in the PJM Manuals.

(b) The Office of the Interconnection shall conduct Generator Planned Outage scheduling for Generation Capacity Resources in accordance with the Reliability Assurance Agreement and the PJM Manuals and in consultation with the Market Sellers owning or controlling the output of such resources. A Market Seller shall not be expected to submit offers for the sale of energy or other services, or to satisfy delivery obligations, from all or part of a generation resource undergoing an approved Generator Planned Outage. If the Office of the Interconnection determines that approval of a Generator Planned Outage would significantly affect the reliable operation of the PJM Region, the Office of the Interconnection may withhold approval or withdraw a prior approval. Approval of a Generator Planned Outage of a Generation Capacity Resource shall be withheld or withdrawn only as necessary to ensure the adequacy of reserves or the reliability of the PJM Region in connection with anticipated implementation or avoidance of Emergency procedures. The Market Seller shall provide the Office of the Interconnection with an estimate of the amount of time it needs to return to service any Generation Capacity Resource on Generator Planned Outage that is already underway. If the Office of the Interconnection withholds or withdraws its approval of a Generator Planned Outage, it shall coordinate with the Market Seller owning or controlling the resource to reschedule the Generator Planned Outage at the earliest practical time. The Office of the Interconnection shall if possible propose alternative schedules with the intent of minimizing the economic impact on the Market Seller of a Generator Planned Outage.

(c) The Office of the Interconnection shall conduct Transmission Planned Outage scheduling in accordance with procedures specified in the Consolidated Transmission Owners Agreement and the PJM Manuals, and in accordance with the following procedures:

(i) Transmission Owners shall use reasonable efforts to submit Transmission Planned Outage schedules one year in advance but by no later than the first of the month six months in advance of the requested start date for all outages that are expected to



exceed five working days duration, with regular (at least monthly) updates as new information becomes available.

(ii) If notice of a Transmission Planned Outage is not provided in accordance with the requirements in subsection (i) above, and if such outage is determined by the Office of the Interconnection to have the potential to cause significant system impacts, including but not limited to reliability impacts and transmission system congestion, then the Office of the Interconnection may require the Transmission Owner to implement an alternative outage schedule to reduce or avoid such impacts. The Office of the Interconnection may, however, if requested by the Transmission Owner, dispatch generation or reductions in demand in order to avoid implementing an alternative outage schedule for its Transmission Facilities to extent consistent with its obligations under the Operating Agreement or PJM Tariff and provided the Office of the Interconnection determines that such dispatch would not adversely affect reliability in the PJM Region or otherwise not be in accordance with Good Utility Practices. A Transmission Owner that makes such a dispatch request pursuant to this section shall be responsible for all generation and other costs resulting from its request that would not have been incurred had the Office of the Interconnection implemented an alternative outage schedule to reduce or avoid reliability and congestion impacts. The Office of the Interconnection may, at the Transmission Owner's consent, directly assign to the Transmission Owner all generation and other costs resulting from the Office of the Interconnection's dispatch of generation or reductions in demand arising from outages associated with RTEP upgrades not submitted consistent with the timelines set forth in the Tariff and the PJM Operating Agreement and where such outage is required to meet the reliability-based in-service date of the RTEP upgrade project.

(iii) Transmission Owners shall submit notice of all Transmission Planned Outages to the Office of the Interconnection by the first day of the month preceding the month the outage will commence, with updates as new information becomes available.

(iv) If notice of a Transmission Planned Outage is not provided by the first day of the month preceding the month the outage will commence, and if such outage is determined by the Office of the Interconnection to have the potential to cause significant system impacts, including but not limited to reliability impacts and transmission system congestion, then the Office of the Interconnection may require the Transmission Owner to implement an alternative outage schedule to reduce or avoid such impacts. The Office of the Interconnection shall perform this analysis and notify the Transmission Owner in a timely manner if it will require rescheduling of the outage. The Office of the Interconnection may, however, if requested by the Transmission Owner, dispatch generation or reductions in demand in order to avoid implementing an alternative outage schedule for its Transmission Facilities to extent consistent with its obligations under the Operating Agreement or PJM Tariff and provided the Office of the Interconnection determines that such dispatch would not adversely affect reliability in the PJM Region or otherwise not be in accordance with Good Utility Practices. A Transmission Owner that makes such a dispatch request pursuant to this section shall be responsible for all generation and other costs resulting from its request that would not have been incurred had the Office of the Interconnection implemented an alternative outage schedule to reduce or avoid reliability and congestion impacts. The Office of the Interconnection may, at the Transmission Owner's

consent, directly assign to the Transmission Owner all generation and other costs resulting from the Office of the Interconnection's dispatch of generation or reductions in demand arising from outages associated with RTEP upgrades not submitted consistent with the timelines set forth in the Tariff and the PJM Operating Agreement and where such outage is required to meet the reliability-based in-service date of the RTEP upgrade project.

(v) The Office of the Interconnection reserves the right to approve, deny, or reschedule any outage deemed necessary to ensure reliable system operations on a case by case basis regardless of duration or date of submission.

(vi) The Office of the Interconnection shall post notice of Transmission Planned Outages on OASIS upon receipt of such notice from the Transmission Owner; provided, however, that the Office of the Interconnection shall not post on OASIS notice of any component of a Transmission Planned Outage to the extent such component shall directly reveal a generator outage. In such cases, the Transmission Owner, in addition to providing notice to the Office of the Interconnection as required above, concurrently shall inform the affected Generation Owner of such outage, limiting such communication to that necessary to describe the outage and to coordinate with the Generation Owner on matters of safety to persons, facilities, and equipment. The Transmission Owner shall not notify any other Market Participant of such outage and shall arrange any other necessary coordination through the Office of the Interconnection.

In addition, if the Office of the Interconnection determines that transmission maintenance schedules proposed by one or more Members would significantly affect the efficient and reliable operation of the PJM Region, the Office of the Interconnection may establish alternative schedules, but such alternative shall minimize the economic impact on the Member or Members whose maintenance schedules the Office of the Interconnection proposes to modify.

(d) The Office of the Interconnection shall coordinate resolution of outage or other planning conflicts that may give rise to unreliable system conditions. The Members shall comply with all maintenance schedules established by the Office of the Interconnection.

### **1.9.3 Generator Maintenance Outages.**

(a) A Generator Maintenance Outage may only be scheduled if approved by the Office of the Interconnection prior to the requested start date for the outage, in accordance with subsection (b) hereof and the standards and procedures specified in the PJM Manuals.

(b) The Office of the Interconnection shall schedule Generator Maintenance Outages for Generation Capacity Resources in accordance with the procedures specified in the PJM Manuals and in consultation with the Market Seller owning or controlling the output of such resources. The Office of the Interconnection shall approve requests for Generator Maintenance Outages for such a Generation Capacity Resource unless the outage would threaten the adequacy of reserves in, or the reliability of, the PJM Region. A Market Participant shall not be expected to submit offers for the sale of energy or other services, or to satisfy delivery obligations, from a

generation resource undergoing an approved full or partial Generator Maintenance Outage. If the Office of the Interconnection determines that approval of a Generator Maintenance Outage would significantly affect the reliable operation of the PJM Region, the Office of the Interconnection may withhold approval, withdraw a prior approval, or rescind a prior approval of a Generator Maintenance Outage that is already underway. Approval of a Generator Maintenance Outage of a Generation Capacity Resource shall be withheld or withdrawn only as necessary to ensure the adequacy of reserves or the reliability of the PJM Region in connection with anticipated implementation or avoidance of Emergency procedures. In addition, if the Office of the Interconnection determines that it must rescind its approval of a Generator Maintenance Outage that is already underway in order to preserve the reliable operation of the PJM Region, the Office of the Interconnection will provide the Market Seller of the Generation Capacity Resource at least 72 hours' notice thereof. The Market Seller shall be required to make the Generation Capacity Resource available for normal operation within 72 hours of such notice. If the generator is not made available for normal operation by 72 hours after the notice of the rescission of the approval of the Generator Maintenance Outage, for the remaining time the resource continues on the outage it shall be deemed to have experienced a Generator Forced Outage. If the Office of the Interconnection withholds, withdraws or rescinds approval of a Generator Maintenance Outage, it shall coordinate with the Market Seller owning or controlling the resource to reschedule the Generator Maintenance Outage at the earliest practical time. The Office of the Interconnection shall, if possible, propose alternative schedules with the intent of minimizing the economic impact on the Market Seller of a Generator Maintenance Outage.

#### **1.9.4 Forced Outages.**

(a) Each Market Seller that owns or controls a pool-scheduled resource, or Generation Capacity Resource whether or not pool-scheduled, shall: (i) advise the Office of the Interconnection of a Generator Forced Outage suffered or anticipated to be suffered by any such resource as promptly as possible; (ii) provide the Office of the Interconnection with the expected date and time that the resource will be made available; and (iii) make a record of the events and circumstances giving rise to the Generator Forced Outage. A Market Seller shall not be expected to submit offers for the sale of energy or other services, or satisfy delivery obligations, from a generation resource undergoing a Generator Forced Outage. A Generation Capacity Resource committed to PJM loads through an RPM Auction, FRR Capacity Plan, or by designation as a replacement resource under Attachment DD of the PJM Tariff, that does not deliver all or part of its scheduled energy shall be deemed to have experienced a Generator Forced Outage with respect to such undelivered energy, in accordance with standards and procedures for full and partial Generator Forced Outages specified in the Reliability Assurance Agreement, and the PJM Manuals.

(b) The Office of the Interconnection shall receive notification of Forced Transmission Outages, and information on the return to service, of Transmission Facilities in the PJM Region in accordance with standards and procedures specified in, as applicable, the Consolidated Transmission Owners Agreement and the PJM Manuals.

#### **1.9.4A Transmission Outage Acceleration.**

(a) Planned Transmission Outages and Forced Transmission Outages otherwise scheduled pursuant to sections 1.9.2 and 1.9.4 respectively of this Schedule may be accelerated or rescheduled at the request of a Generation Owner or other Market Participant in accordance with the terms and conditions of this section 1.9.4A and the PJM Manuals.

(b) Transmission Outages Requiring Coordination With A Specific Generation Owner.

(i) Receipt of Acceleration Request. Prior to a scheduled Planned Transmission Outage associated with the interconnection of a generating unit to the Transmission System, the affected Generation Owner may request that the outage be accelerated or rescheduled.

Such Acceleration Request shall be submitted to the Office of the Interconnection in accordance with the procedures set forth in the PJM Manuals.

(ii) Determination to Accommodate Acceleration Request. Upon receipt of an Acceleration Request, the Office of the Interconnection shall notify the affected Transmission Owner of such Acceleration Request. The affected Transmission Owner shall determine, in its sole discretion, whether to accelerate or reschedule a transmission outage. In making this determination, the affected Transmission Owner shall follow Good Utility Practice, applicable Occupational Safety and Health Administration standards, and applicable company safety standards, and shall consider any requirements contained in pertinent collective bargaining agreements. In the event that the affected Transmission Owner determines to accelerate or reschedule a transmission outage, it shall provide the Office of the Interconnection, within the time set forth in the PJM Manuals, an estimate of the cost to accelerate or reschedule the transmission outage and the revised schedule for the transmission outage (“Acceleration Estimate”).

(iii) Provision of Acceleration Estimate. Upon receipt of the Acceleration Estimate and verification that the Generation Owner has met reasonable creditworthiness standards established by the Office of the Interconnection, the Office of the Interconnection shall provide the Generation Owner with the Acceleration Estimate. In the event that the Generation Owner does not meet the creditworthiness standard, the Office of the Interconnection shall not provide the Acceleration Estimate and the transmission outage shall not be accelerated or rescheduled. Upon receipt of the Acceleration Estimate, the Generation Owner, within the time period specified in the PJM Manuals, shall notify the Office of the Interconnection as to whether it desires to accelerate or reschedule the transmission outage pursuant to the terms of the Acceleration Estimate.

(iv) Cost Responsibility. In the event the Generation Owner notifies the Office of the Interconnection that it desires to proceed with the acceleration or rescheduling of the transmission outage pursuant to section 1.9.4A(a)(iii), the Generation Owner shall be solely responsible for actual costs incurred by the affected Transmission Owner for the acceleration or rescheduling of the transmission outage. The Generation Owner’s cost

responsibility is not relieved, if, despite the good faith efforts of the Transmission Owner, the amount of costs set forth in the Acceleration Estimate is exceeded by less than 20 percent, or the Transmission Owner is unable successfully to complete the outage pursuant to the revised schedule set forth in the Acceleration Estimate. Prior to incurring costs exceeding 120 percent of the cost estimate set forth in the Acceleration Estimate, the affected Transmission Owner shall advise the Office of the Interconnection of such increase, and the Office of the Interconnection then shall notify the Generation Owner. After receipt of such notification, within the time period set forth in the PJM Manuals, the Generation Owner shall inform the Office of the Interconnection whether it desires to continue with the revised transmission outage schedule and pay the additional costs. The Office of the Interconnection shall notify the affected Transmission Owner of the Generation Owner's decision. In the event the Generation Owner desires not to proceed, the transmission outage shall occur according to normal work practices and the Generation Owner shall be responsible for all incurred costs and committed costs and obligations of the affected Transmission Owner for the acceleration or rescheduling of the transmission outage as of the date that the affected Transmission Owner notified the Office of the Interconnection of the increase in costs.

(c) Transmission Outages That Could Cause Congestion Revenue Inadequacy.

(i) Posting of Transmission Outage. In the event that the Office of the Interconnection determines that a Planned Transmission Outage or Forced Transmission Outage could exceed five days and could cause congestion revenue inadequacy in excess of \$500,000, the Office of the Interconnection shall post a notice of such transmission outage on its internet site. Within the time period and pursuant to the procedures set forth in the PJM Manuals, any Market Participant may request that such transmission outage be accelerated or rescheduled.

(ii) Determination to Accelerate or Reschedule Transmission Outage. Upon receipt of the Acceleration Request(s) pursuant to section 1.9.4A(b)(i), the Office of the Interconnection shall notify the affected Transmission Owner of such request(s). The affected Transmission Owner shall determine in its sole discretion whether to accelerate or reschedule the transmission outage. In making this determination, the affected Transmission Owner shall follow Good Utility Practice, applicable Occupational Safety and Health Administration standards, and applicable company safety standards and shall consider any requirements contained in pertinent collective bargaining agreements. If the affected Transmission Owner determines to accelerate or reschedule the transmission outage, it shall provide the Office of the Interconnection, within the time set forth in the PJM Manuals, an Acceleration Estimate. In the event that Market Participants submit requests which would require different schedules for a transmission outage, the Office of the Interconnection, in consultation with the affected Transmission Owner, shall determine the most effective option, which will be included in the Acceleration Estimate.

(iii) Notification of Acceleration Estimate. Upon receipt of the Acceleration Estimate and verification that Market Participants requesting acceleration or rescheduling of transmission outages have met reasonable creditworthiness standards established by

the Office of the Interconnection, the Office of the Interconnection shall provide the Market Participants with the Acceleration Estimate and the number of Market Participants requesting acceleration or rescheduling of the transmission outage that meet the creditworthiness standards. After receipt of the Acceleration Request, within the time period set forth in the PJM Manuals, each requesting Market Participant meeting the creditworthiness standards shall notify the Office of the Interconnection whether it desires to accelerate or reschedule the transmission outage as set forth in the Acceleration Estimate, and if it desires to accelerate or reschedule the transmission outage, the amount it is willing to pay for such acceleration or rescheduling.

(iv) Evaluation of Acceleration Requests. Upon receipt of Market Participant(s) notifications pursuant to subsection 1.9.4A(b)(iii), the Office of the Interconnection shall determine, based on the amount Market Participants collectively are willing to pay for accelerating or rescheduling of the transmission outage, whether the transmission outage should be accelerated or rescheduled. The transmission outage shall be accelerated or rescheduled if the amount that the Market Participants collectively are willing to pay for accelerating or rescheduling a transmission outage exceeds the Acceleration Estimate by the following margins: (a) for outages to equipment outside a substation, two times the Acceleration Estimate; and (b) for outages to equipment inside a substation, five times the Acceleration Estimate. These margins are designed to provide a reasonable degree of certainty that the actual costs of accelerating or rescheduling the transmission outage will not exceed the amount the Market Participants are willing to pay. In all events, transmission outages will be accelerated or rescheduled pursuant to requests made under section 1.9.4A(c) only when the requested acceleration or rescheduling would reduce the amount of congestion revenue inadequacy resulting from the outage as determined by the Office of the Interconnection.

(v) Cost Responsibility. Each Market Participant which notifies the Office of the Interconnection pursuant to section 1.9.4A(b)(iii) that it is willing to pay for the acceleration or rescheduling of a transmission outage shall be responsible for the actual costs of such acceleration or rescheduling on a pro-rata basis based on the amount it specified it was willing to pay for the acceleration or rescheduling. Market Participants' cost responsibility is not relieved, if, despite the good faith efforts of the Transmission Owner, the amount of costs set forth in the Acceleration Estimate is exceeded by less than 20 percent, or the Transmission Owner is unable successfully to complete a transmission outage pursuant to the revised schedule set forth in the Acceleration Estimate. Prior to incurring costs exceeding 120 percent of the cost estimate set forth in the Acceleration Estimate, the affected Transmission Owner shall advise the Office of the Interconnection of such increase, and the Office of the Interconnection then shall notify the affected Market Participants of such increase. Within the time period set forth in the PJM Manuals, each affected Market Participant shall inform the Office of the Interconnection whether it desires to continue with the revised transmission outage schedule and pay the additional costs. The Office of the Interconnection then shall notify the affected Transmission Owner of each affected Market Participant's decision. In the event that, because one or more Market Participants determine not to proceed, there would be insufficient funds to pay for the full cost of accelerating or rescheduling a

transmission outage, the transmission outage shall not continue to be accelerated or rescheduled and shall occur according to normal work practices. In such instance, the Market Participants shall be responsible on a pro-rata basis for all incurred costs and committed costs and obligations of the affected Transmission Owner as of the date the affected Transmission Owner notified the Office of the Interconnection of the increase in costs.

(d) Posting Revised Transmission Outages. The Office of the Interconnection shall post on its internet site all revised transmission outage schedules resulting from implementation of this section 1.9.4A, pursuant to the procedures in the PJM Manuals, and simultaneously shall notify affected Market Participants or Generation Owners that submitted Acceleration Requests of the Transmission Owner's agreement to accelerate or reschedule the outage.

### **1.9.5 Market Participant Responsibilities.**

Each Market Participant making a bilateral sale covering a period greater than the following Operating Day from a generating resource located within the PJM Region for delivery outside the PJM Region shall furnish to the Office of the Interconnection, in the form and manner specified in the PJM Manuals, information regarding the source of the energy, the load sink, the energy schedule, and the amount of energy being delivered.

### **1.9.6 Internal Market Buyer Responsibilities.**

Each Internal Market Buyer making a bilateral purchase covering a period greater than the following Operating Day shall furnish to the Office of the Interconnection, in the form and manner specified in the PJM Manuals, information regarding the source of the energy, the load sink, the energy schedule, and the amount of energy being delivered. Each Internal Market Buyer shall provide the Office of the Interconnection with details of any load management agreements with customers that allow the Office of the Interconnection to reduce load under specified circumstances.

### **1.9.7 Market Seller Responsibilities.**

(a) Not less than 30 days before a Market Seller's initial offer to sell energy from a given generation resource on the PJM Interchange Energy Market, the Market Seller shall furnish to the Office of the Interconnection the information specified in the Offer Data for new generation resources.

(b) Market Sellers authorized to request market-based Start-up Costs and No-load Costs may choose to submit such fees on either a market or a cost basis. Market Sellers must elect to submit both Start-up Costs and No-load Costs on either a market basis or a cost basis and any such election shall be submitted on or before March 31 for the period of April 1 through September 30, and on or before September 30 for the period October 1 through March 31. The election of market-based or cost-based Start-up Costs and No-load Costs shall remain in effect without change throughout the applicable periods.

(i) If a Market Seller chooses to submit market-based Start-up Costs and No-load Costs, such Market Seller, in its Offer Data, shall submit the level of such fees to the Office of the Interconnection for each generating unit as to which the Market Seller intends to request such fees. The Office of the Interconnection shall reject any request for Start-up Costs and No-load Costs in a Market Seller's Offer Data that does not conform to the Market Seller's specification on file with the Office of the Interconnection.

(ii) If a Market Seller chooses to submit cost-based Start-up Costs and No-load Costs, such fees must be calculated as specified in the PJM Manuals and the Market Seller may change both cost-based fees hourly and must change both fees as the associated costs change, but no more frequently than daily.

### **1.9.8 Transmission Owner Responsibilities.**

All Transmission Owners shall regularly update and verify facility ratings, subject to review and approval by PJM, in accordance with the following procedures and the procedures in the PJM Manuals:

(a) Each Transmission Owner shall verify to the Operations Planning Department (or successor Department) of the Office of the Interconnection all of its transmission facility ratings two months prior to the beginning of the summer season (i.e., on April 1) and two months prior to the beginning of the winter season (i.e., on October 1) each calendar year, and shall provide detailed data justifying such transmission facility ratings when directed by the Office of the Interconnection.

(b) In addition to the seasonal verification of all ratings, each Transmission Owner shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection updates to its transmission facility ratings as soon as such Transmission Owner is aware of any changes. Such Transmission Owner shall provide the Office of the Interconnection with detailed data justifying all such transmission facility ratings changes.

(c) All Transmission Owners shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection formal documentation of any procedure for changing facility ratings under specific conditions, including: the detailed conditions under which such procedures will apply, detailed explanations of such procedures, and detailed calculations justifying such pre-established changes to facility ratings. Such procedures must be updated twice each year consistent with the provisions of this Section.

### **1.9.9 Office of the Interconnection Responsibilities.**

(a) The Office of the Interconnection shall perform seasonal operating studies to assess the forecasted adequacy of generating reserves and of the transmission system, in accordance with the procedures specified in the PJM Manuals.



(b) The Office of the Interconnection shall maintain and update tables setting forth Operating Reserve and other reserve objectives as specified in the PJM Manuals and as consistent with the Reliability Assurance Agreement.

(c) The Office of the Interconnection shall receive and process requests for firm and non-firm transmission service in accordance with procedures specified in the PJM Tariff.

(d) The Office of the Interconnection shall maintain such data and information relating to generation and transmission facilities in the PJM Region as may be necessary or appropriate to conduct the scheduling and dispatch of the PJM Interchange Energy Market and PJM Region.

(e) The Office of the Interconnection shall maintain an historical database of all transmission facility ratings, and shall review, and may modify or reject, any submitted change or any submitted procedure for pre-established transmission facility rating changes. Any dispute between a Transmission Owner and the Office of the Interconnection concerning transmission facility ratings shall be resolved in accordance with the dispute resolution procedures in the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~schedule 5 to the Operating Agreement~~; provided, however, that the rating level determined by the Office of the Interconnection shall govern and be effective during the pendency of any such dispute.

(f) The Office of the Interconnection shall coordinate with other interconnected Control Area as necessary to manage, alleviate or end an Emergency.

**Tariff, Attachment P-Appendix 2, Section 21.1**

## 21.1 Regulatory Filing:

In the event that this Interconnection Construction Service Agreement contains any terms that deviate materially from the form included in Attachment P or from the standard terms and conditions in this Appendix 2, the Transmission Provider shall file the executed Interconnection Construction Service Agreement on behalf of itself and the Interconnected Transmission Owner with FERC as a service schedule under the Tariff. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Section 17 of this Appendix 2. An Interconnection Customer shall have the right, with respect to any Interconnection Construction Service Agreement tendered to it, to request (a) dispute resolution under Section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable~~Schedule 5 of the Operating Agreement~~, or (b) that Transmission Provider file the agreement unexecuted with the Commission. With the filing of any unexecuted Interconnection Construction Service Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between any Construction Parties.

## **Tariff, Attachment U**

**ATTACHMENT U**

**INDEPENDENT TRANSMISSION COMPANIES**

References to section numbers in this Attachment U refer to sections of this Attachment U, unless otherwise specified.

This Attachment U sets forth a general framework for the development and operation of independent transmission companies (“ITCs”) as to certain of the transmission facilities for which the Transmission Provider, PJM Interconnection, L.L.C. (“PJM”), is otherwise responsible. The provisions of this Attachment U shall govern in the event of any conflict between this Attachment and the other provisions of the Tariff, except as to Tariff, Attachment M. If there is a conflict between the provisions of this Attachment U and Tariff, Attachment M, the provisions of Tariff, Attachment M shall govern. Under this Attachment U, certain responsibilities may be assigned to an ITC, if the ITC enters into an ITC Agreement in the form set forth in this Tariff and if FERC acceptance of the independence of the ITC and FERC approval or acceptance of the assignment is obtained as provided herein.

This Attachment U sets forth the standard terms and conditions, and the standard division of rights, responsibilities, and functions, in conformance with FERC policy and precedent, for any ITC that operates under PJM. Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall enter into an ITC Agreement in the form set forth in Tariff, Attachment V, which is subject to and incorporates the standard terms and conditions of this Attachment U and identifies the ITC Transmission Facilities (as defined herein).

It is recognized that PJM shall be responsible for administering any wholesale energy market (and providing all functions integral to such market administration) within the PJM region.

**1. FERC APPROVAL**

1.1 FERC Acceptance As A Prerequisite. Before receiving the rights and responsibilities provided for under this Attachment U, the ITC Sponsor shall apply for and receive a FERC order accepting the ITC proposal to be implemented and finding that the proposed ITC satisfies FERC’s independence criteria and that such entity may be treated as an ITC under this Attachment U.

1.2 Effect of FERC Acceptance. Once FERC issues an order accepting the filing and providing the finding required under section 1.1 above, then the ITC, subject to satisfaction of the other requirements of this section 1, may operate under PJM consistent with the rights, responsibilities, and functions that have been accepted or approved by FERC.

1.3 Any entity or entities submitting a proposal to become an ITC (“ITC Sponsor”) shall submit a filing with FERC detailing each of the rights, responsibilities, and functions the ITC proposes to assume, which may consist of some or all of the rights, responsibilities, and functions set forth in this Attachment U, together with specifics on implementing any of these assigned rights, responsibilities, and functions. An ITC Sponsor must have, or demonstrate to

FERC that it shall have prior to implementation, ownership of, or the authority to direct the operation of, transmission facilities that are within the PJM region, or that are to be added to the PJM region as a result of the establishment of the ITC (such facilities referred to herein as the “ITC Transmission Facilities”).

1.4 Following the FERC approvals specified in section 1.1 above, the ITC shall assume the rights and responsibilities described herein on the first day of the calendar month (“ITC Commencement Date”) following the date on which the ITC provides written notice to Transmission Provider that the ITC is prepared to assume its responsibilities hereunder in accordance with section 15 below. PJM shall coordinate with the ITC prior to the ITC Commencement Date to ensure that PJM is capable as of the ITC Commencement Date of providing the responsibilities reserved to PJM hereunder as to the ITC Transmission Facilities and related bulk power facilities.

1.5 Prior to the ITC Commencement Date, the ITC and each owner of transmission facilities participating in such ITC shall execute, with respect to the transmission facilities over which it has the authority to direct the operation: (a) the Consolidated Transmission Owners Agreement; and (b) the Operating Agreement. In the event of any conflict between the ITC Agreement and the Operating Agreement that affects the PJM Region other than the ITC Transmission Facilities, the provisions of the Operating Agreement shall control pending dispute resolution, with final approval of the dispute’s resolution by FERC. In the event of any other express conflict between the ITC Agreement and the Operating Agreement or the transmission owners agreement executed by ITC, neither the transmission owners agreement nor the Operating Agreement shall be interpreted to limit the rights and responsibilities assigned to ITC in its role as an ITC pursuant to the ITC Agreement.

## **2. SECURITY COORDINATION**

2.1 Regional Reliability Authority. PJM shall be the regional Reliability Authority under NERC standards for all PJM transmission facilities, including any ITC Transmission Facilities. As the Reliability Authority, PJM is responsible for monitoring and directing corrective action for reliability for all areas in the PJM region.

2.2 ITC Actions to Preserve System Security. An ITC may monitor and analyze the security of the ITC Transmission Facilities and may take actions to protect the ITC Transmission Facilities from physical damage or prevent injury or damage to persons or property in accordance with good utility practice and the PJM Operating Manuals, as they may be modified pursuant to section 16 of this Attachment U, before requesting assistance from PJM. At the earliest possible time, the ITC shall inform PJM of any such actions taken and coordinate further actions with PJM.

2.3 Ultimate Authority. Notwithstanding any other provision in this Attachment U, PJM may intercede and direct appropriate actions in its role as the regional Reliability Authority. The ITC shall be responsible for implementing such corrective actions directed by PJM. If such PJM action or direction is disputed, PJM’s position shall control pending resolution of the dispute.

### **3. BASE TRANSMISSION RATES**

3.1 Right to File Rate Changes. The ITC shall possess the unilateral right, subject to consultation with PJM, to file at FERC and to place into effect pursuant to FPA section 205 the rates for transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities (including incentive rate structures, but excluding ancillary services, except as permitted by section 17 below, and excluding the congestion pricing methodology for the PJM region), and for additional services, if any, solely involving the ITC Transmission Facilities, and the revenue requirement for such zones for use in developing rates for other transmission services provided by PJM. Such rate or rate structure changes shall be included in discrete schedules or portions of the Tariff (hereafter, such the “ITC Rate Schedule”). The ITC shall consult with PJM prior to making a section 205 rate filing to ensure that PJM has adequate opportunity to determine whether the proposal results in adverse impacts outside the zone or zones comprising the ITC Transmission Facilities.

3.2 Limitations. The ITC may not implement transmission rates in accordance with section 3.1 above that violate the terms of the Consolidated Transmission Owners Agreement.

3.3 No Rate Pancaking. Notwithstanding its rights under section 3.1 above, the ITC shall not implement rates or a rate structure that results in a Transmission Customer paying more than one base transmission charge for use of the Transmission System for any one transaction.

### **4. REVENUE DISTRIBUTION**

4.1 ITC Receipt of Transmission Revenues. The ITC shall receive and/or retain revenues resulting from the provision of transmission service under the Tariff in accordance with the applicable revenue distribution procedures of the Consolidated Transmission Owners Agreement. The ITC may take no unilateral action that interferes with or affects the revenue distribution provided for in such agreements or that interferes with the collection by PJM of the revenues due it for services it provides or arranges.

4.2 Redistribution of Revenues. The ITC may distribute the revenues due it in accordance with section 4.1 above in any manner it wishes subject to receiving any necessary regulatory approvals, without involvement of PJM.

### **5. MANAGEMENT OF CONGESTION PRICING METHODOLOGY**

5.1 Subject to FERC approval, PJM shall determine the congestion pricing methodology for the PJM region, administer the dispatch of the generation and transmission facilities in the PJM region in accordance with the approved methodology, calculate the resulting congestion prices, and conduct all related billing and settlement.

### **6. ACTIONS TO ENHANCE TRANSMISSION PERFORMANCE**

6.1 The ITC may take actions with respect to the system comprised of the ITC Transmission Facilities that can be accommodated within the framework of the approved congestion pricing

methodology referenced in section 5.1 above. It may do this through targeted transmission system investment, outage management, the determination of transmission device settings, establishing contractual arrangements (e.g., with generators and LSE's), changes in technology, and other operating actions affecting the ITC Transmission Facilities. Before it first implements such actions, the ITC shall consult with PJM to develop procedures for inclusion in the PJM Operating Manuals for each class of such action that the ITC may thereafter implement. In such consultation, PJM shall consider whether the type of action can be accommodated within the framework of the approved congestion pricing methodology and whether the type of action would result in violations of regional reliability criteria applied in the PJM region. Following inclusion of procedures for each such type of action in the Manuals, the ITC may implement such actions in coordination with PJM in the manner set forth in the manuals. In addition, the ITC and PJM shall cooperate with one another in solving operational issues outside the ITC region that affect the ITC Transmission Facilities, or inside the ITC region that affect facilities outside such region.

6.2 Incentive Mechanisms. The ITC shall possess the unilateral right to file with FERC incentive mechanisms relating to the system comprised of the ITC Transmission Facilities in a manner that can be accommodated within the framework of the approved methodology referenced in section 5.1 above. The ITC shall consult with PJM prior to filing any such mechanism to allow PJM to consider whether any such proposed mechanism can be so accommodated and whether it would result in violations of regional reliability criteria applied in the PJM region. In addition, prior to the implementation of any such incentive mechanism, the ITC and PJM shall coordinate the operation of any such mechanism. PJM shall modify the PJM Operating Manuals as necessary to allow for the implementation of any FERC-approved incentive mechanism.

## **7. TARIFF ADMINISTRATION**

7.1 Service under the Tariff. PJM is the Transmission Provider and remains responsible for administering the Tariff, which shall be amended to include the ITC Transmission Facilities and any provisions specific to the ITC Transmission Facilities that the ITC may propose pursuant to this Attachment U. Transmission Customers on the ITC Transmission Facilities will receive transmission service under the Tariff. PJM shall execute the agreements with customers for service under the Tariff, except that the ITC and PJM shall both execute agreements with customers for interconnection services. For transmission services for delivery to the zone or zones comprising the ITC Transmission Facilities, to the extent rate discounting is authorized as to such transmission services, the ITC shall make all decisions on rate discounts.

7.2 OASIS. PJM shall maintain the OASIS specified in Tariff, section 4. Customers shall apply for service on the PJM OASIS. PJM shall have responsibility for granting or denying all transmission service requests, but shall coordinate as necessary with ITC in developing its response to transmission service requests, including any necessary studies. The ITC shall be entitled to have and maintain a site page within the PJM OASIS for any additional services provided by such ITC.



7.3 Studies. PJM shall administer the contracts with the customers and shall provide the notices and make filings under this Tariff. If a system impact, facilities, or other study is required to address a connection to, or a constraint or other impact on, the ITC Transmission Facilities, then the ITC shall assume responsibility for the study subject to oversight by, and coordination with, PJM, and satisfaction of PJM criteria for such studies as set forth in the joint planning protocol developed pursuant to section 10.3 below. The study agreement shall be executed by PJM; provided however, that nothing herein shall preclude the ITC from entering into additional agreements with customers regarding studies.

7.4 ATC. PJM shall calculate Available Transfer Capability (“ATC”), in accordance with Tariff, Attachment C, for all facilities, including the ITC Transmission Facilities, provided that the ITC shall possess the unilateral right to provide, pursuant to section 9.1 of this Attachment U, the ratings, transfer limits, inputs, assumptions, and corresponding operating guides with respect to the ITC Transmission Facilities to be used in calculating ATC. If PJM disagrees with these ratings, transfer limits, calculations, inputs, assumptions, or corresponding operating guides, the ITC’s position shall prevail pending dispute resolution, unless PJM determines that ITC’s position would violate system reliability criteria, in which case PJM’s position shall prevail pending dispute resolution.

7.5 Scheduling. Customers will schedule through the processes established by PJM.

## **8. CURTAILMENTS**

8.1 PJM shall be responsible for directing all curtailments consistent with the Tariff and the Operating Agreement. The ITC and PJM shall develop protocols to implement any curtailments ordered by PJM with respect to the ITC Transmission Facilities.

8.2 The ITC may propose to PJM operating methods to avoid and/or limit the need for curtailments, and may implement such measures involving operation of the ITC Transmission Facilities, in coordination with PJM; provided, however, that if PJM determines that a measure proposed by the ITC would exacerbate an existing violation of a system reliability criterion, or cause a violation of such criterion elsewhere on the system, or of another system reliability criterion, then that measure shall not be implemented, pending dispute resolution.

## **9. OPERATIONS**

9.1 Ratings and Rating Procedures. The ITC is responsible for the establishment of ratings, transfer limits, and rating procedures for the ITC Transmission Facilities. The ITC shall provide notice to PJM of all changes in ratings, transfer limits, and rating procedures, along with the related information called for by Operating Agreement, Schedule 1, section 1.9.8, in accordance with the deadlines set forth in such section 1.9.8 and in accordance with the PJM Manuals, as they may be modified pursuant to section 16 below; provided that nothing in section 1.9.8 shall preclude the ITC from instituting ratings changes (including, but not limited to, dynamic ratings changes) in accordance with applicable PJM Operating Manuals, as they may be revised pursuant to section 16 of this Attachment U. Notwithstanding Operating Agreement, Schedule 1,

section 1.9.8 or Operating Agreement, Schedule 1, section 1.9.9(e), should PJM dispute the application of a rating, then the ITC's position shall prevail pending dispute resolution.

9.2 Transmission Maintenance. The ITC shall be responsible for developing its own coordinated transmission maintenance and outage schedules for the ITC Transmission Facilities and shall advise PJM of all such maintenance and outage schedules, for all ITC Transmission Facilities, in accordance with Operating Agreement, Schedule 1, section 1.9.2. PJM shall have the authority to disapprove transmission maintenance outages on the ITC Transmission Facilities if ITC fails to comply with the notice requirements of Operating Agreement, Schedule 1, section 1.9.2 to the Operating Agreement, or if PJM determines that such outages would create a violation of system reliability criteria. PJM shall have the authority to revoke its previously granted approval of transmission maintenance outages on the ITC Transmission System if forced transmission outages or emergency circumstances occur such that proceeding with the approved outage would create a violation of system reliability criteria; provided that, where time permits, PJM will consult with the ITC to determine whether steps can be taken that would enable the maintenance outage to go forward as scheduled. PJM shall notify the ITC of the decision to reschedule or revoke approval of the transmission maintenance outage as soon as possible after the circumstances arise that create the need for the rescheduling or revocation. Within a reasonable time after it requires a transmission maintenance outage to be rescheduled or revokes its approval of such an outage, PJM shall consult with the ITC to explain the reasons for its decisions and to consider measures that the parties may adopt to avoid the need for further rescheduling or revocation of outages.

9.3 Generation Maintenance. In accordance with the Operating Agreement and with procedures in the PJM Manuals, as they may be modified pursuant to section 16 below, the ITC shall promptly provide PJM with any advance notice of scheduled outages it receives from generators, and PJM shall promptly provide the ITC with any advance notice it receives of scheduled generator outages that affect the ITC Transmission Facilities, to permit the ITC to schedule transmission outages on the ITC Transmission Facilities and perform its other functions hereunder, and to permit PJM to exercise its responsibilities under the PJM Operating Agreement with respect to generator outages. The ITC may agree to coordinate with generators to modify its planned transmission outage schedules in coordination with generator outage schedules.

9.4 Scheduling and Dispatch. PJM shall be responsible for administering day-ahead and real-time wholesale energy markets, including transmission security monitoring and constrained economic dispatch, for all facilities, including the ITC Transmission Facilities. The ITC shall manage the configuration and topology of the ITC Transmission Facilities, including acting as the primary interface for all switching, maintenance, ratings, transfer limits, and monitoring, subject to the direction of PJM as the regional Reliability Authority, and in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U.

9.5 Operations. The ITC shall have the authority and responsibility, in accordance with its agreements with the owners of the ITC Transmission Facilities, the terms of the Consolidated Transmission Owners Agreement, NERC and Applicable Regional Entity standards and guidelines, and the PJM Operating Manuals, as such manuals may be revised pursuant to section 16 of this Attachment U, to operate those facilities in a safe, economical, and reliable manner.

PJM shall have the authority and responsibility to issue operating instructions to the ITC as they relate to the ITC Transmission Facilities in accordance with the PJM Manuals, as they may be revised pursuant to section 16 of this Attachment U, provided that nothing herein shall be construed to require a change in the physical control of the ITC Transmission Facilities using the ITC's control center facilities and equipment. The ITC and PJM shall seek agreement (where time limitations allow) on real-time operational decisions affecting the ITC Transmission Facilities not otherwise specified in the PJM Manuals. In the absence of such agreement, or if time limitations do not permit reaching agreement, PJM shall exercise its authority to direct operations, subject to any actions the ITC may take in accordance with section 2.2 of this Attachment U.

## 10. PLANNING

10.1 PJM has the ultimate authority for developing a Regional Transmission Expansion Plan for its entire region, including the ITC Transmission Facilities, and may direct expansions as required in accordance with ~~Operating Agreement, Schedule 6~~ Tariff, Schedule 19, or successor provisions, as they may be amended. In the event of disputes between PJM and ITC concerning the contents of such Regional Transmission Expansion Plan, the position of PJM, as the ultimate authority for planning in the region, shall prevail. Pursuant to the joint planning protocol developed under section 10.3 below, PJM shall be responsible for setting appropriate planning criteria and the ITC shall be responsible for studying the need for modifications, enhancements, or additions to the ITC Transmission Facilities and for proposing a plan of modifications, enhancements, or additions to the ITC Transmission Facilities. Each component of a timely plan proposed by the ITC shall be incorporated without PJM approval in the Regional Transmission Expansion Plan if PJM determines that such component does not materially adversely affect the Transmission System other than the ITC Transmission Facilities. The ITC also may suggest, in accordance with any established stakeholder procedures under ~~Schedule 6 of the PJM Operating Agreement~~ Tariff, Schedule 19, potential modifications, enhancements, or additions to transmission facilities in the PJM region other than the ITC Transmission Facilities. Subject to any necessary FERC approval, the ITC may adopt any procedures it deems necessary with respect to the ITC's development of a plan of enhancements or expansions, so long as such procedures do not adversely affect PJM's ability to prepare the Regional Transmission Expansion Plan in a timely and efficient manner. Nothing in this Attachment U impairs the rights of affected parties to participate in the PJM planning process in accordance with Commission-approved procedures. During the planning process the ITC shall adhere to all Applicable Regional Entity, NERC and PJM Planning criteria. The ITC shall participate with PJM in the development of the system needs analysis, any system impact studies and the transmission expansion plans as necessary to promote fully coordinated and efficient solutions.

10.2 Interconnection Requests. Customer requests for interconnection, including requests for interconnection with the ITC Transmission Facilities, will be coordinated by PJM in accordance with the Tariff and the PJM Manuals, as they may be modified pursuant to section 16 of this Attachment U. The ITC shall assume primary responsibility for interconnection projects on the ITC Transmission Facilities. PJM shall be responsible for setting interconnection standards, receiving interconnection requests, administering the queue, coordinating the analysis of requests for interconnection with ITC Transmission Facilities with requests for interconnection with non-

ITC Transmission Facilities, and ensuring that proposed interconnections to the ITC Transmission Facilities will not materially adversely affect the Transmission System other than the ITC Transmission Facilities. PJM as the Transmission Provider under this Tariff also shall retain primary responsibility for all service-related matters under the Tariff, including issuance and administration of interconnection rights. ITC shall regularly and frequently update PJM on the status and results of all interconnect studies performed by or for the ITC, in accordance with the joint planning protocol developed pursuant to section 10.3 below. The results of any ITC studies prepared in response to interconnection requests shall be reflected in the Regional Transmission Expansion Plan.

10.3 Joint Planning Protocol. PJM and ITC shall develop a joint planning protocol to facilitate the seamless and efficient integration of all ITC transmission planning, study and analysis efforts, and all ITC proposals for transmission enhancements, modifications, and additions into the Regional Transmission Expansion Plan under ~~Operating Agreement, Schedule 6-Tariff, Schedule 19~~ and the regional generation interconnection queuing, study, and cost allocation process under Tariff, Part IV. Such protocols shall be designed to facilitate the preparation of the Regional Transmission Expansion Plan, and shall reflect and accommodate the procedures, timelines, and study cycles employed for the regional transmission planning and generation interconnection process. PJM and ITC shall each implement the provisions of the joint planning protocol. PJM and ITC shall consult regularly concerning the extent to which changes to the joint planning protocol may be required to achieve the foregoing purposes in light of experience and, as applicable, the coordination of planning activities among PJM and all ITCs in the PJM region.

10.4 Material Adverse Effect. As used in this Attachment, a material adverse effect on the Transmission System other than the ITC Transmission Facilities shall not be present only if all of the following statements are true:

1. The proposed facility or requested service does not result in any non-ITC facilities in the PJM Region exceeding thermal, voltage, or stability limits, consistent with all applicable reliability criteria; and
2. The proposed facility or requested service does not result in any circuit breaker on non-ITC facilities in the PJM Region exceeding its interrupting capability.

## **11. BILLING AND REMITTANCE**

11.1 PJM Responsibilities. PJM shall be responsible for all billing, settlement, and revenue distribution, except as provided in section 11.2 below.

11.2 ITC Responsibilities. The ITC may elect to perform billing, settlement, and revenue distribution for the additional services, if any, provided by the ITC as referenced in section 3.1 of this Attachment U. The ITC may elect to contract for the provision of those functions by PJM or another third party.

## **12. MONITORING**

12.1 The Market Monitoring Unit established under Tariff, Attachment M shall monitor the services provided by the ITC, and the ITC-PJM relationship, to detect any problems that may inhibit a robust and competitive market. Transactions utilizing the ITC Transmission Facilities shall be subject to the authority of the Market Monitoring Unit on the same basis as transactions involving any other Market Participant using other portions of the Transmission System. This provision is also found in Tariff, Attachment M, Article IV, section C-1.

### **13. LIABILITY AND INDEMNITY**

13.1 The ITC shall execute the Operating Agreement as a Member of PJM and the liability and indemnity provisions as set forth in Operating Agreement, section 16 shall apply to acts or omissions resulting from, arising out of, or in any way connected with this Attachment or the ITC Agreement.

### **14. DISPUTE RESOLUTION**

14.1 Dispute resolution as used herein refers to the dispute resolution procedures in Tariff, section 12, as it may be amended.

### **15. NOTIFICATION OF ASSUMPTION OF RESPONSIBILITIES**

15.1 The ITC shall provide adequate notice to PJM of its intent to assume the responsibilities described in this Attachment U.

### **16. OPERATING PROCEDURES AND PROTOCOLS**

16.1 Operating Guides, Manuals and Procedures. As provided in section 9.5 of this Attachment U, the ITC shall operate the ITC Transmission Facilities in accordance with the PJM Operating Manuals. Prior to start-up, and from time to time after the ITC commences operations, the ITC shall review such manuals and shall timely notify PJM of any changes or additions desired by the ITC to address specific conditions or operating procedures on the ITC Transmission Facilities. Subject to PJM's agreement, the PJM Manuals shall be revised or supplemented accordingly. PJM shall apprise ITC of subsequent changes to the PJM manuals through its established procedures for stakeholder notification of such changes. Any dispute between the ITC and PJM concerning changes to the PJM Manuals shall be resolved in accordance with section 14.1 above. Nothing herein precludes the ITC from maintaining more detailed operating guides, manuals, and procedures specific to the ITC Transmission Facilities that are consistent with and subject to the operating guides and procedures in the PJM Manuals.

16.2 ITC Start-Up Procedures and Protocols. The ITC and PJM shall cooperate and use their best efforts to develop the necessary procedures and protocols to allow timely start-up of the ITC pursuant to this Attachment U.

### **17. ANCILLARY SERVICES**

17.1 ITC System Control and Administrative Services. ITC shall recover its costs of providing system control and other administrative services through an appropriate schedule to the Tariff, as filed and made effective by ITC, subject to FERC acceptance.

17.2 System Restoration and Black Start Generation. PJM and the ITC shall coordinate in the preparation of a workable system restoration plan for the ITC Transmission Facilities in accordance with approved PJM Tariff requirements. PJM and the ITC shall be responsible for implementing their respective assigned duties under such system restoration plan.

17.3 Reactive Support. PJM shall be responsible for purchases of reactive support from generators under the PJM Tariff. If desired by ITC and approved by FERC, PJM shall designate ITC as a supplier of reactive support in accordance with an ITC Rate Schedule to be included in the PJM Tariff.

## **18. INFORMATION SHARING**

18.1 Subject to FERC approval of any necessary changes to the PJM Operating Agreement, PJM shall share with the ITC information within the possession of PJM that is necessary for the ITC to perform those rights, responsibilities and functions that FERC authorizes the ITC to perform and the ITC shall share with PJM information within the possession of the ITC that is necessary for PJM to perform those rights, responsibilities and functions that FERC authorizes PJM to perform. If such data are immediately available, it is expected that the parties will establish communication links for data transfer as appropriate and necessary. Data requiring manipulation shall be made available within a reasonable time. In all cases, all data designated as confidential shall be handled as provided in section 18.2 of this Attachment U.

18.2 Confidentiality. To the extent ITC obtains from PJM or any Member of PJM any documents, data, or other information that has been designated by PJM or a Member as confidential, ITC shall treat such information in the same manner and subject to the same procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17. To the extent PJM obtains from ITC any documents, data, or other information that has been designated by ITC as confidential, PJM shall treat such information in accordance with the procedures, restrictions, and obligations as set forth in Operating Agreement, section 18.17.

## **19. INTERREGIONAL COORDINATION**

19.1 PJM is responsible for coordination with all neighboring regions, including those adjacent to the ITC (or operated by the ITC in adjacent regions).

19.2 To the extent that an ITC (or its affiliates) is operating in PJM and a neighboring region, the ITC may, in coordination with PJM, undertake efforts to facilitate interregional coordination between PJM and the neighboring region. The ITC shall consult with PJM prior to implementing any such efforts to allow PJM to consider whether the actions could be accommodated within the framework of PJM's approved congestion pricing methodology and other rules and whether the actions would result in violations of regional reliability criteria applied in the PJM region.

## **20. REVISION OF ITC FUNCTIONS**

20.1 The division of functions and responsibilities between PJM and ITC shall be as set forth in this Attachment U and the ITC Agreement and may be modified from time to time to reflect the functionality permitted for independent transmission companies in accordance with FERC policy as pronounced in proceedings concerning Standard Market Design or otherwise, and to reflect the experience of the parties in the actual performance of their functions hereunder. PJM and ITC from time to time will review the allocation of functions and responsibilities and address appropriate changes, if any, to the division of functions between ITC and PJM consistent with such FERC policy, and any such changes shall be subject to any required regulatory approvals.

## **Tariff, Attachment GG-Appendix II**



**APPENDIX II**  
**DEFINITIONS**

**1. Definitions.**

The following definitions shall apply to this Agreement.

**1.1 “Affiliate”**

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**1.2 “Applicable Laws and Regulations”**

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, 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.

**1.3 “Applicable Regional Entity”**

Applicable Regional Entity shall mean the Regional Entity for the region in which the Transmission Owner or New Service Customer operates.

**1.4 “Applicable Standards”**

Applicable Standards shall mean the requirements and guidelines of NERC, the Applicable Regional Entity and the Control Area in which the Direct Assignment Facilities or Customer-Funded Upgrades are electrically located, the PJM Manuals and applicable technical requirements and standards.

**1.5 “Breach”**

Breach shall mean the failure of a Party to perform or observe any material term or condition of the applicable Part of the PJM Tariff or this Upgrade CSA.

**1.6 “Breaching Party”**

Breaching Party shall mean a Party that is in Breach of the applicable Part of the PJM Tariff and/or this Upgrade CSA.

**1.7 “Cancellation Costs”**

Cancellation Costs shall mean the Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, engineer, construct and install the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA; and/or (b) completion of some or all of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, or specific unfinished portions and/or removal of any or all of such Direct Assignment Facilities or Customer-Funded Upgrades which have been installed, to the extent required for the Transmission Owner and Transmission Provider to perform their respective obligations under this Upgrade CSA.

### **1.8 “Commission”**

Commission shall mean the Federal Energy Regulatory Commission.

### **1.9 “Confidential Information”**

Confidential Information shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, engineering, device, list, concept, policy, or compilation relating to the present or planned business of a 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 Party to another such Party prior to the execution of a Transmission Service Agreement or this Upgrade CSA.

### **1.10 “Constructing Entity”**

Constructing Entity shall mean either the Transmission Owner or the New Service Customer, depending on which entity has the construction responsibility pursuant to Part VI and this Upgrade CSA.

### **1.11 “Control Area”**

Control Area shall mean 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.

### **1.12 “Costs”**

Costs shall mean all of the actual costs and expenses incurred by the Transmission Owner to complete its obligations under Section 2.5 of this Upgrade CSA, including, but not limited to, capital expenditures, overhead, return, and the costs of financing, equipment, labor, services, taxes, income tax gross-ups and any Incidental Expenses.

### **1.13 “Default”**

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of this Upgrade CSA and the PJM Tariff.

### **1.14 “Delivering Party”**

Delivering Party shall mean the entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

### **1.15 “Emergency Condition”**

Emergency Condition shall mean a condition or situation: (i) that in the judgment of any Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner or the 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, a Transmission Owner’s transmission system or distribution system to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of the New Service Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the facility.

### **1.16 “Environmental Laws”**

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

### **1.17 “Facilities Study”**

Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Direct Assignment Facilities or Customer-Funded Upgrades necessary to accommodate the New Service Request, as applicable.

### **1.18 “Federal Power Act”**

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

### **1.19 “FERC”**

FERC shall mean the Federal Energy Regulatory Commission or its successor.

## **1.20 “Firm Point-To-Point Transmission Service”**

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

## **1.21 “Force Majeure”**

Force Majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of due diligence such Party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force Majeure does not include: (i) a failure of performance that is due to an affected Party’s own negligence or intentional wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

## **1.22 “Good Utility Practice”**

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

## **1.23 “Governmental Authority”**

Governmental Authority means 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 Party regarding any matter relating to this Upgrade CSA, as applicable.

## **1.24 “Hazardous Substances”**

Hazardous Substances shall mean 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.

### **1.25 “Incidental Expenses”**

Incidental Expenses shall mean those expenses incidental to the performance of design, engineering, procurement and construction of the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, including, but not limited to, the expense of temporary construction power, telecommunications charges, Transmission Owner expenses associated with, but not limited to, document preparation, design review, engineering, installation, monitoring, and construction-related operations and maintenance for the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

### **1.26 “Local Upgrades”**

Local Upgrades shall mean 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.

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

### **1.27 “Long-Term Firm Point-To-Point Transmission Service”**

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

### **1.28 “NERC”**

NERC shall mean the North American Electric Reliability Council or any successor thereto.

### **1.29 “Network Upgrades”**

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

(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.

### **1.30 “Office of the Interconnection”**

Office of the Interconnection shall mean the Office of the Interconnection, as supervised by the Board of Managers of the PJM Interconnection, L.L.C., acting pursuant to the Operating Agreement.

### **1.31 “Operating Agreement of the PJM Interconnection, L.L.C.” or “Operating Agreement”**

Operating Agreement of the PJM Interconnection, L.L.C.” or “Operating Agreement shall mean that agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

### **1.32 “Part I”**

Part I shall mean the PJM Tariff Definitions and Common Service Provisions contained in Sections 2 through 12 of the PJM Tariff.

### **1.33 “Part II”**

Part II shall mean PJM 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 of the PJM Tariff.

### **1.34 “Part III”**

Part III shall mean PJM 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 of the PJM Tariff.

### **1.35 “Part IV”**

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

### **1.36 “Part VI”**

Part VI shall mean PJM 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 Provision of Part I and appropriate Schedules and Attachments.

### **1.37 “PJM Interchange Energy Market”**

PJM Interchange Energy Market shall mean 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 PJM Tariff and Schedule 1 to the Operating Agreement.

### **1.38 “PJM Manuals”**

PJM Manuals shall mean the instructions, rules, procedures and guidelines established by the Transmission Provider for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

### **1.39 “PJM Region”**

PJM Region shall have the meaning specified in the Operating Agreement.

### **1.40 “Point(s) of Delivery”**

Point(s) of Delivery shall mean the 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 PJM Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.41 “Point(s) of Receipt”**

Point(s) of Receipt shall mean the 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 PJM Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

### **1.42 “Project Financing” means:**

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 Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA, any alteration, expansion or improvement to such Direct Assignment Facilities or Customer-Funded Upgrades, the purchase

and sale of such Direct Assignment Facilities or Customer-Funded Upgrades or the operation of such Direct Assignment Facilities or Customer-Funded Upgrades;

(b) Loans and/or debt issues secured by the Direct Assignment Facilities or Customer-Funded Upgrades identified in Appendix I to this Upgrade CSA.

#### **1.43 “Project Finance Entity”**

Project Finance Entity means: (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 facility to which New Service Customer has granted a mortgage or other lien as security for some or all of New Service Customer’s obligations under the corresponding power purchase agreement.

#### **1.44 “Reasonable Efforts”**

Reasonable Efforts shall mean, with respect to any action required to be made, attempted, or taken by Transmission Provider or Transmission Owner, 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.

#### **1.45 “Receiving Party”**

Receiving Party shall mean the entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

#### **1.46 “Regional Transmission Expansion Plan” or “RTEP”**

Regional Transmission Expansion Plan or “RTEP” shall mean the plan prepared by the Office of the Interconnection pursuant to [Schedule 6 of the Operating Agreement Tariff, Schedule 19](#) for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

#### **1.47 “Schedule and Scope of Work”**

Schedule and Scope of Work shall mean that schedule and scope of work attached to the Upgrade CSA setting forth the scope and timing of work to be performed by the Transmission Owner, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for projects set forth in the PJM Manuals.

#### **1.48 “Security”**

Security shall mean the letter of credit or other reasonable form of security provided by the New Service Customer to the Transmission Provider pursuant to Section 213.4 of the PJM Tariff to secure the New Service Customer’s responsibility for Costs incurred pursuant to this Upgrade CSA.



**1.49 “Service Agreement”**

Service Agreement shall mean the initial agreement and any amendments or supplements thereto entered into by the New Service Customer and the Transmission Provider for service under the PJM Tariff.

**1.50 “State”**

State shall mean a state of the United States or the District of Columbia.

**1.51 “Transmission System”**

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

## **Tariff, Attachment KK**

**DESIGNATED ENTITY AGREEMENT**

**Between**

**PJM Interconnection, L.L.C.**

**And**

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# DESIGNATED ENTITY AGREEMENT

Between

**PJM Interconnection, L.L.C.**

And

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This Designated Entity Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date between PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), and \_\_\_\_\_ (“Designated Entity” [OPTIONAL: or “[short name]”), referred to herein individually as “Party” and collectively as “the Parties.”

## WITNESSETH

WHEREAS, in accordance with FERC Order No. 1000 and Schedule ~~6-19~~ of the ~~Amended and Restated Operating Agreement~~ Open Access Transmission Tariff of PJM Interconnection, L.L.C. (“~~Operating Agreement~~ Tariff”), Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to construct the Project; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## Article 1 – Definitions

### 1.0 Defined Terms.

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this

Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement.

### **1.1 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 Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to, information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Designated Entity Letter of Credit.**

Designated Entity Letter of Credit shall mean the letter of credit provided by the Designated Entity pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19 and Section 3.0 of this Agreement as security associated with the Project.

### **1.3 Development Schedule.**

Development Schedule shall mean the schedule of milestones set forth in Schedule C of this Agreement.

### **1.4 Effective Date.**

Effective Date shall mean the date this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.5 Initial Operation.**

Initial Operation shall mean the date the Project is (i) energized and (ii) under Transmission Provider operational dispatch.

### **1.6 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan described in Schedule A of this Agreement.

### **1.7 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.8 Project Financing.**

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 Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

### **1.9 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with ensuring the timely and effective design and construction of the Project in a manner, which ensures that the Project, once placed in service, meets the requirements of the Project as described in Schedule B and are consistent with Good Utility Practice.

### **1.10 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B this Agreement, (ii) meet the criteria outlined in Schedule D of this Agreement and (iii) be under Transmission Provider operational dispatch.

## **Article 2 – Effective Date and Term**

### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is filed with FERC for acceptance, rather than reported only in PJM’s Electric Quarterly Report, upon the date specified by FERC.

### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity executes the Consolidated Transmission Owners Agreement; and (ii) the Project (a) has been completed in accordance with the terms and conditions of this Agreement, (b) meets all relevant required planning criteria, and (c) is under Transmission Provider’s operational dispatch; or (iii) the Agreement is terminated pursuant to Article 8 of this Agreement.

## **Article 3 – Security**

### **3.0 Obligation to Provide Security.**

In accordance with Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Designated Entity shall provide Transmission Provider a letter of credit as acceptable to Transmission Provider (Designated Entity Letter of Credit) or cash security in the amount of \$\_\_\_\_, which is three percent of the estimated cost of the Project. Designated Entity is required provide and maintain the Designated Entity Letter of Credit, as required by Section 1.5.8(j) of

~~Schedule 6 of the Operating Agreement~~Tariff, ~~Schedule 19~~ and Section 3.0 of this Agreement. The Designated Entity Letter of Credit shall remain in full force and effect for the term of this Agreement and for the duration of the obligations arising therefrom in accordance with Article 17.0.

### **3.1 Distribution of Designated Entity Letter of Credit or Cash Security.**

In the event that Transmission Provider draws upon the Designated Entity Letter of Credit or retains the cash security in accordance with Sections 7.5, 8.0, or 8.1, Transmission Provider shall distribute such funds as determined by FERC.

## **Article 4 – Project Construction**

### **4.0 Construction of Project by Designated Entity.**

Designated Entity shall design, engineer, procure, install and construct the Project, including any modifications thereto, in accordance with: (i) the terms of this Agreement, including but not limited to the Scope of Work in Schedule B and the Development Schedule in Schedule C; (ii) applicable reliability principles, guidelines, and standards of the Applicable Regional Reliability Council and NERC; (iii) the ~~Operating Agreement~~Tariff; (iv) the PJM Manuals; and (v) Good Utility Practice.

#### **4.1 Milestones.**

##### **4.1.0 Milestone Dates.**

Designated Entity shall meet the milestone dates set forth in the Development Schedule in Schedule C of this Agreement. Milestone dates set forth in Schedule C only may be extended by Transmission Provider in writing. Failure to meet any of the milestone dates specified in Schedule C, or as extended as described in this Section 4.1.0 or Section 4.3.0 of this Agreement, shall constitute a Breach of this Agreement. Transmission Provider reasonably may extend any such milestone date, in the event of delays not caused by the Designated Entity that could not be remedied by the Designated Entity through the exercise of due diligence, or if an extension will not delay the Required Project In-Service Date specified in Schedule C of this Agreement; provided that a corporate officer of the Designated Entity submits a revised Development Schedule containing revised milestones and showing the Project in full operation no later than the Required Project In-Service Date specified in Schedule C of this Agreement.

##### **4.1.1 Right to Inspect.**

Upon reasonable notice, Transmission Provider shall have the right to inspect the Project for the purposes of assessing the progress of the Project and satisfaction of milestones. Such inspection shall not be deemed as review or approval by Transmission Provider of any design or construction practices or standards used by the Designated Entity.

## **4.2 Applicable Technical Requirements and Standards.**

For the purposes of this Agreement, applicable technical requirements and standards of the Transmission Owner(s) to whose facilities the Project will interconnect shall apply to the design, engineering, procurement, construction and installation of the Project to the extent that the provisions thereof relate to the interconnection of the Project to the Transmission Owner(s) facilities.

## **4.3 Project Modification.**

### **4.3.0 Project Modification Process.**

The Scope of Work and Development Schedule, including the milestones therein, may be revised, as required, in accordance with Transmission Provider's project modification process set forth in the PJM Manuals, or otherwise by Transmission Provider in writing. Such modifications may include alterations as necessary and directed by Transmission Provider to meet the system condition for which the Project was included in the Regional Transmission Expansion Plan.

#### **4.3.1 Consent of Transmission Provider to Project Modifications.**

Designated Entity may not modify the Project without prior written consent of Transmission Provider, including but not limited to, modifications necessary to obtain siting approval or necessary permits, which consent shall not be unreasonably withheld, conditioned, or delayed.

#### **4.3.2 Customer Facility Interconnections And Transmission Service Requests.**

Designated Entity shall perform or permit the engineering and construction necessary to accommodate the interconnection of Customer Facilities to the Project and transmission service requests that are determined necessary for such interconnections and transmission service requests in accordance with Parts IV and VI, and Parts II and III, respectively, of the Tariff.

## **4.4 Project Tracking.**

The Designated Entity shall provide regular, quarterly construction status reports in writing to Transmission Provider. The reports shall contain, but not be limited to, updates and information specified in the PJM Manuals regarding: (i) current engineering and construction status of the Project; (ii) Project completion percentage, including milestone completion; (iii) current target Project or phase completion date(s); (iv) applicable outage information; and (v) cost expenditures to date and revised projected cost estimates for completion of the Project. Transmission Provider shall use such status reports to post updates regarding the progress of the Project.

## **4.5 Exclusive Responsibility of Designated Entity.**

Designated Entity shall be solely responsible for all planning, design, engineering, procurement, construction, installation, management, operations, safety, and compliance with applicable laws and regulations associated with the Project, including but not limited to obtaining all necessary



permits, siting, and other regulatory approvals. Transmission Provider shall have no responsibility to manage, supervise, or ensure compliance or adequacy of same.

## **Article 5 – Coordination with Third-Parties**

### **5.0 Interconnection Coordination Agreement with Transmission Owner(s).**

By the dates specified in the Development Schedule in Schedule C of this Agreement, Designated Entity shall execute or request to file unexecuted with the Commission: (a) an Interconnection Coordination Agreement; and (b) an interconnection agreement among and between Designated Entity, Transmission Provider, and the Transmission Owner(s) to whose facilities the Project will interconnect.

### **5.1 Connection with Entities Not a Party to the Consolidated Transmission Owners Agreement.**

Designated Entity shall not permit any part of the Project facilities to be connected with the facilities of any entity which is not: (i) a party to Consolidated Transmission Owners Agreement without an interconnection agreement that contains provisions for the safe and reliable interconnection and operation of such interconnection in accordance with Good Utility Practice, and principles, guidelines and standards of the Applicable Regional Reliability Council and NERC or comparable requirements of an applicable retail tariff or agreement approved by appropriate regulatory authority; or (ii) a party to a separate Designated Entity Agreement.

## **Article 6 – Insurance**

### **6.0 Designated Entity Insurance Requirements.**

Designated Entity shall obtain and maintain in full force and effect such insurance as is consistent with Good Utility Practice. The Transmission Provider shall be included as an Additional Insured in the Designated Entity's applicable liability insurance policies. The Designated Entity shall provide evidence of compliance with this requirement upon request by the Transmission Provider.

### **6.1 Subcontractor Insurance.**

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

## **Article 7 – Breach and Default**

### **7.0 Breach.**

Except as otherwise provided in Article 10, a Breach of this Agreement shall include:

(a) The failure to comply with any term or condition of this Agreement, including but not limited to, any Breach of a representation, warranty, or covenant made in this Agreement, and failure to provide and maintain security in accordance with Section 3.0 of this Agreement;

(b) The failure to meet a milestone or milestone date set forth in the Development Schedule in Schedule C of this Agreement, or as extended in writing as described in Sections 4.1.0 and 4.3.0 of this Agreement;

(c) Assignment of this Agreement in a manner inconsistent with the terms of this Agreement; or

(d) Failure of any Party to provide information or data required to be provided to another Party under this Agreement for such other Party to satisfy its obligations under this Agreement.

### **7.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, and to any other persons, including a Project Finance Entity, if applicable, that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **7.2 Cure and Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 7.3 shall be in Default of this Agreement.

### **7.3 Cure of Breach.**

The breaching Party may: (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to ensure that the Project meets its Required Project In-Service Date set forth in Schedule C; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that ensures that the Project meets the Required Project In-Service Date for the Project, within such thirty day time period, commences in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

### **7.4 Re-evaluation if Breach Not Cured.**

In the event that a breaching Party does not cure a Breach in accordance with Section 7.3 of this Agreement, Transmission Provider shall conduct a re-evaluation pursuant to Section 1.5.8(k) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19. If based on such re-evaluation, the Project is retained in the Regional Transmission Expansion Plan and the Designated Entity's designation for the Project also is retained, the Parties shall modify this Agreement, including Schedules, as necessary. In all other events, Designated Entity shall be considered in Default of this Agreement, and this Agreement shall terminate in accordance with Section 8.1 of this Agreement.

#### **7.5 Remedies.**

Upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit. Nothing in this Section 7.5 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity resulting from Designated Entity's Default of this Agreement.

#### **7.6 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

#### **7.7 Waiver.**

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

### **Article 8 – Early Termination**

#### **8.0 Termination by Transmission Provider.**

In the event that: (i) pursuant to Section 1.5.8(k) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Transmission Provider determines to remove the Project from the Regional Transmission Expansion Plan and/or not to retain Designated Entity's status for the Project; (ii) Transmission Provider otherwise determines pursuant to Regional Transmission Expansion Planning Protocol in ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19 that the Project is no longer required to address the specific need for which the Project was included in the

Regional Transmission Expansion Plan; or (iii) an event of force majeure, as defined in section 10.0 of this Attachment KK, or other event outside of the Designated Entity's control that, with the exercise of Reasonable Efforts, Designated Entity cannot alleviate and which prevents the Designated Entity from satisfying its obligations under this Agreement, Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity, which shall become effective the later of sixty calendar days after the Designated Entity receives such notice or other such date the FERC establishes for the termination. In the event termination pursuant to this Section 8.0 is based on (ii) or (iii) above, Transmission Provider shall not have the right to draw upon the Designated Entity Letter of Credit or retain the cash security and shall cancel the Designated Entity Letter of Credit or return the cash security within thirty days of the termination of this Agreement.

### **8.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in Default of this Agreement in accordance with Sections 7.2 or 7.4 of this Agreement. Upon Default by Designated Entity, Transmission Provider may draw upon the Designated Entity Letter of Credit or retain the cash security.

### **8.2 Filing at FERC.**

Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 8.

## **Article 9 – Liability and Indemnity**

### **9.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

### **9.1 Indemnity.**

For the purposes of this Agreement, Designated Entity shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its

directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

## **Article 10 – Force Majeure**

### **10.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which in any foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

### **10.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

### **10.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party. In the event that Designated Entity is unable to perform any of its obligations under this Agreement because of an occurrence of Force Majeure, Transmission Provider may terminate this Agreement in accordance with Section 8.0 of this Agreement.

### **10.3 Breach or Default of or Force Majeure under Interconnection Coordination Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 10 shall apply: (i) a breach or default of the Interconnection Coordination Agreement associated with the Project by a party to the Interconnection Coordination

Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Interconnection Coordination Agreement associated with the Project.

## **Article 11 – Assignment**

### **11.0 Assignment.**

A Party may assign all of its rights, duties, and obligations under this Agreement in accordance with this Section 11.0. Except for assignments described in Section 11.1 of this Agreement that may not result in the assignment of all rights, duties, and obligations under this Agreement to a Project Finance Entity, no partial assignments will be permitted. No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. Assignment by the Designated Entity shall be contingent upon, prior to the effective date of the assignment: (i) the Designated Entity or assignee demonstrating to the satisfaction of Transmission Provider that the assignee has the technical competence and financial ability to comply with the requirements of this Agreement and to construct the Project consistent with the assignor's cost estimates for the Project; and (ii) the assignee is eligible to be a Designated Entity for the Project pursuant to Sections 1.5.8(a) and (f) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19. Except as provided in an assignment to a Finance Project Entity to the contrary, for all assignments by any Party, the assignee must assume in a writing, to be provided to the other Party, all rights, duties, and obligations of the assignor arising under this Agreement. Any assignment described herein shall not relieve or discharge the assignor from any of its obligations hereunder absent the written consent of the other Party. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the terms of this Agreement, the Tariff and the Operating Agreement.

### **11.1 Project Finance Entity Assignments**

#### **11.1.1 Assignment to Project Finance Entity**

If an arrangement between the Designated Entity and a Project Finance Entity provides that the Project Finance Entity may assume any of the rights, duties and obligations of the Designated Entity under this Agreement or otherwise provides that the Project Finance Entity may cure a Breach of this Agreement by the Designated Entity, the Project Finance Entity may be assigned this Agreement or any of the rights, duties, or obligations hereunder only upon written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement.

### **11.1.2 Assignment By Project Finance Entity**

A Project Finance Entity that has been assigned this Agreement or any of the rights, duties or obligations under this Agreement or otherwise is permitted to cure a Breach of this Agreement, as described pursuant to Section 11.1.1 above, may assign this Agreement or any of the rights, duties or obligations under this Agreement to another entity not a Party to this Agreement only: (i) upon the Breach of this Agreement by the Designated Entity; and (ii) with the written consent of the Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed. In no circumstance, shall an assignment of this Agreement or any of the rights, duties, and obligations under this Agreement alter or diminish the rights of the Transmission Provider under this Agreement, the Tariff, or the Operating Agreement. Any assignees that will construct, maintain, or operate the Project shall be subject to, and comply with the Tariff and Operating Agreement.

## **Article 12 – Information Exchange**

### **12.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Party information necessary to carry out each Party's obligations and responsibilities under this Agreement, the Operating Agreement, and the Tariff. Such information shall include but not be limited to, information reasonably requested by Transmission Provider to prepare the Regional Transmission Expansion Plan. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement, the Operating Agreement, and the Tariff.

### **12.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Party when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 12.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

## **Article 13 – Confidentiality**

### **13.0 Confidentiality.**

For the purposes of this Agreement, information will be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as "confidential" on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the

information orally informs the Party receiving the information that the information is “confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 14 – Regulatory Requirements**

### **14.0 Regulatory Approvals.**

Designated Entity shall seek and obtain all required government authority authorizations or approvals as soon as reasonably practicable, and by the milestone dates set forth in the Development Schedule of Schedule C of this Agreement, as applicable.

## **Article 15 – Representations and Warranties**

### **15.0 General.**

Designated Entity hereby represents, warrants and covenants as follows, with these representations, warranties, and covenants effective as to the Designated Entity during the full time this Agreement is effective:

#### **15.0.1 Good Standing**

Designated Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated.

#### **15.0.2 Authority**

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

#### **15.0.3 No Conflict.**

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

## **Article 16 – Operation of Project**



## **16.0 Initial Operation.**

The following requirements shall be satisfied prior to Initial Operation of the Project:

### **16.0.1 Execution of the Consolidated Transmission Owners Agreement**

Designated Entity has executed the Consolidated Transmission Owners Agreement and is able to meet all requirements therein.

### **16.0.2 Execution of an Interconnection Agreement**

Designated Entity has executed an Interconnection Agreement with the Transmission Owner(s) to whose facilities the Project will interconnect, or such agreement has been filed unexecuted with the Commission.

### **16.0.3 Operational Requirements**

The Project must meet all applicable operational requirements described in the PJM Manuals.

### **16.0.4 Parallel Operation**

Designated Entity shall have all necessary systems and personnel in place to allow for parallel operation of its facilities with the facilities of the Transmission Owner(s) to which the Project is interconnected consistent with the Interconnection Coordination Agreement associated with the Project.

### **16.0.5 Synchronization**

Designated Entity shall have received any necessary authorization from Transmission Provider and the Transmission Owner(s) to whose facilities the Project will interconnect to synchronize with the Transmission System or to energize, as applicable, per the determination of Transmission Provider, the Project.

## **16.1 Partial Operation.**

If the Project is to be completed in phases, the completed part of the Project may operate prior to completion and Required Project In-Service Date set forth in Schedule C of this Agreement, provided that: (i) Designated Entity has notified Transmission Provider of the successful completion of the Project phase; (ii) Transmission Provider has determined that partial operation of the Project will not negatively impact the reliability of the Transmission System; (iii) Designated Entity has demonstrated that the requirements for Initial Operation set forth in Section 16.0 of this Agreement have been met for the Project phase; and (iv) partial operation of the Project is consistent with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.

**Article 17 – Survival**

**17.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The Liability and Indemnity provisions in Article 9 also shall survive termination, expiration, or cancellation of this Agreement.

**Article 18 – Non-Standard Terms and Conditions**

**18.0 Schedule E – Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule E are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule E that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule E shall control.

**Article 19 – Miscellaneous**

**19.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

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

Designated Entity:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attention:

**19.1 No Transmission Service.**

This Agreement does not entitle the Designated Entity to take Transmission Service under the Tariff.

### **19.2 No Rights.**

Neither this Agreement nor the construction or the financing of the Project entitles Designated Entity to any rights related to Customer-Funded Upgrades set forth in Subpart C of Part VI of the Tariff.

### **19.3 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

### **19.4 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association taxable as a corporation, or other entity for the conduct of any business for profit.

### **19.5 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

### **19.6 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

### **19.7 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

### **19.8 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

**19.9 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

**19.10 Governing Law**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

**19.11 Incorporation of Other Documents.**

The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

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

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Designated Entity: [Name of Designated Entity]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**Description of Project**

**SCHEDULE B**

**Scope of Work**

## SCHEDULE C

### Development Schedule

Designated Entity shall ensure and demonstrate to the Transmission Provider that it timely has met the following milestones and milestone dates and that the milestones remain in good standing:

[As appropriate include the following standard Milestones, with any revisions, and additional milestones necessary for the Project]:

<b>Milestones and Milestone Dates</b>
<b>Execute Interconnection Coordination Agreement.</b> On or before _____, Designated Entity must execute the Interconnection Coordination Agreement or request the agreement be filed unexecuted.
<b>Demonstrate adequate Project financing.</b> On or before _____, Designated Entity must demonstrate that adequate project financing has been secured. Project financing must be maintained for the term of this Agreement [add detail if necessary].
<b>Acquisition of all necessary federal, state, county, and local site permits.</b> On or before _____, Designated Entity must demonstrate that all required federal, state, county and local site permits have been acquired. [add detail if necessary. May provide separate dates for each permit]
<b>Substantial Site Work Completed:</b> On or before _____, Designated Entity must demonstrate that at least 20% of Project site construction is completed. Additionally the Designated Entity must submit updated ratings and the final project drawings to the Transmission Provider.
<b>Delivery of major electrical equipment.</b> On or before _____, Designated Entity must demonstrate that all major electrical equipment has been delivered to the project site. [add detail if necessary].
<b>Demonstrate required ratings.</b> On or before _____, Designated Entity must demonstrate that the project meets all required electrical ratings. [add detail if necessary].
<b>Required Project In-Service Date.</b> On or before _____, Designated Entity must: (i) demonstrate that the Project is completed in accordance with the Scope of Work in Schedules B of this Agreement; (ii) meets the criteria outlined in Schedule D of this Agreement; and (iii) is under Transmission Provider operational dispatch.
<b>[Add additional Milestones]</b>



**SCHEDULE D**

**PJM Planning Requirements and Criteria and Required Ratings**

**SCHEDULE E**

**Non-Standard Terms and Conditions**

## **Tariff, Attachment LL**

| **f**INTERCONNECTION COORDINATION AGREEMENT

**Between**

**PJM Interconnection, L.L.C.**

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**And**

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# INTERCONNECTION COORDINATION AGREEMENT

Between

**PJM Interconnection, L.L.C.**

**[Name of Designated Entity]**

And

**[Name of Transmission Owners]**

This Interconnection Coordination Agreement, including the Schedules attached hereto and incorporated herein (collectively, “Agreement”) is made and entered into as of the Effective Date (as specified in Section 2.0) by and among PJM Interconnection, L.L.C. (“Transmission Provider” or “PJM”), \_\_\_\_\_ (“Designated Entity”) [OPTIONAL: or “[short name]”), and \_\_\_\_\_ (“Transmission Owner” [OPTIONAL [“short name”]]) Transmission Provider, Designated Entity and Transmission Owner may be referred to herein individually as “Party” and collectively as “the Parties.”

## WITNESSETH

WHEREAS, in accordance with FERC Order No. 1000 and ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Transmission Provider is required to designate among candidates, pursuant to a FERC-approved process, an entity to develop and construct a specified project to expand, replace and/or reinforce the Transmission System operated by Transmission Provider;

WHEREAS, pursuant to Section 1.5.8(i) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, the Transmission Provider notified Designated Entity that it was designated as the Designated Entity for the Project (described in Schedule A to this Agreement) to be included in the Regional Transmission Expansion Plan;

WHEREAS, pursuant to Section 1.5.8(j) of ~~Schedule 6 of the Operating Agreement~~ Tariff, Schedule 19, Designated Entity accepted the designation as the Designated Entity for the Project and therefore has the obligation to build the Project;

WHEREAS, pursuant to ~~Section Schedule 196~~ of the ~~Operating Agreement~~ Tariff, Transmission Owner has received and accepted the designation from Transmission Provider to construct enhancements or expansions to its transmission facilities in order to effectuate interconnection with the Project, to which Transmission Provider has assigned a PJM upgrade ID identifier, which is unique to such construction modifications;

WHEREAS, the Project will interconnect to the Transmission Owner’s transmission facilities, and therefore Designated Entity and Transmission Owner shall coordinate with each other to facilitate the interconnection of the Project to the Transmission Owner’s transmission facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project

In-Service Date; and

NOW, THEREFORE, in consideration of the mutual covenants herein contained, together with other good and valuable consideration, the receipt and sufficiency is hereby mutually acknowledged by each Party, the Parties mutually covenant and agree as follows:

## **Article 1 – Definitions**

### **1.0 Defined Terms.**

All capitalized terms used in this Agreement shall have the meanings ascribed to them in Part I of the Tariff or in definitions either in the body of this Agreement or its attached Schedules. In the event of any conflict between defined terms set forth in the Tariff or defined terms in this Agreement, including the Schedules, such conflict will be resolved in favor of the terms as defined in this Agreement and attached Schedules.

### **1.1 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 Project or Transmission Owner facilities to which the Project will interconnect, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, but may not be limited to information relating to the producing party's technology, research and development, business affairs and pricing, land acquisition and vendor contracts relating to the Project.

### **1.2 Effective Date.**

Effective Date shall mean the date that this Agreement becomes effective pursuant to Section 2.0 of this Agreement.

### **1.3 Project.**

Project shall mean the enhancement or expansion included in the PJM Regional Transmission Expansion Plan to be constructed by the Designated Entity described in Schedule A of this Agreement.

### **1.4 Project Finance Entity.**

Project Finance Entity shall mean holder, trustee or agent for holders, of any component of Project Financing.

### **1.5 Project Financing.**

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 Project, any alteration, expansion or improvement to the Project, or the operation of the Project; or (b) loans and/or debt issues secured by the Project.

### **1.6 Reasonable Efforts.**

Reasonable Efforts shall mean such efforts as are consistent with enabling the timely and effective design, construction, and interconnection to the Transmission System of the Project in a manner, which enables the Project to achieve its Required In-Service Date consistent with Good Utility Practice.

### **1.7 Required Project In-Service Date.**

Required Project In-Service Date shall mean the date that the Project is required to: (i) be completed in accordance with the Scope of Work in Schedules B of the Designated Entity Agreement associated with the Project; (ii) meet the criteria outlined in Schedule D of the Designated Entity Agreement associated with the Project; and (iii) be under Transmission Provider operational dispatch.

## **Article 2 – Effective Date and Term**

### **2.0 Effective Date.**

Subject to regulatory acceptance, this Agreement shall become effective on the date the Agreement has been executed by all Parties, or if this Agreement is individually filed with FERC for acceptance, upon the date specified by FERC.

### **2.1 Term.**

This Agreement shall continue in full force and effect from the Effective Date until: (i) the Designated Entity Agreement associated with the Project expires or terminates; or (ii) the Agreement is terminated pursuant to Article 3 of this Agreement.

## **Article 3 – Early Termination**

### **3.0 Termination by Transmission Provider.**

In the event that: (i) the Designated Entity Agreement associated with the Project is terminated pursuant to Article 8.0 of that agreement; or (ii) the Project is modified such that it will not interconnect to Transmission Owner's transmission facilities; Transmission Provider may terminate this Agreement by providing written notice of termination to Designated Entity and Transmission Owner, which shall become effective the later of sixty calendar days after the Designated Entity receives such notice or other such date the FERC establishes for the termination.

### **3.1 Termination by Default.**

This Agreement shall terminate in the event a Party is in default of this Agreement in accordance with Section 5.2 of this Agreement and such termination is approved by Transmission Provider in writing.

### **3.2 Filing at FERC.**

To the extent required by law or regulation, Transmission Provider shall make the appropriate filing with FERC as required to effectuate the termination of this Agreement pursuant to this Article 3.

## **Article 4 – Coordination**

### **4.0 Designated Entity and Transmission Owner Responsibilities.**

The Designated Entity and Transmission Owner shall coordinate with each other as set forth in this Article 4 to facilitate the interconnection of the Project to the Transmission Owner's transmission facilities in a reliable, safe, and timely manner to enable the Project to meet its Required Project In-Service Date.

#### **4.0.1 Scope of Transmission Owner Responsibilities.**

Transmission Owner shall coordinate with Designated Entity the interconnection of the Project to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_\_ and designated by PJM to the Transmission Owner to make Transmission Owner's transmission facilities ready to receive the interconnection of the Project. Nothing in this Agreement shall be construed as obligating Transmission Owner to assure that Designated Entity satisfies Designated Entity's obligations under this Agreement, under the Designated Entity Agreement described in Schedule A of this Agreement, nor under any other agreement.

#### **4.0.2 Scope of Designated Entity Responsibilities.**

Designated Entity shall coordinate with Transmission Owner, the interconnection of the Project, identified as PJM Upgrade ID \_\_\_\_ to the Transmission Owner's transmission facilities including enhancements or expansions specified in the Regional Transmission Expansion Plan, identified as PJM Upgrade ID \_\_\_\_ and described in Section 4.0.1 of this Agreement. Nothing in this Agreement shall be construed as obligating Designated Entity to assure that Transmission Owner satisfies Transmission Owner's obligations under this Agreement, under the Consolidated Transmission Owner's Agreement described in Schedule A of this Agreement, nor under any other agreement.

### **4.1 Transmission Provider Responsibilities.**



Transmission Provider may facilitate the coordination between Designated Entity and Transmission Owner required by this Agreement, including convening meetings with the Designated Entity and the Transmission Owner to further facilitate coordination among the Parties, and to evaluate available options or alternatives to avoid delays, and coordinating outages as described in Section 4.2 of this Agreement.

## **4.2 Outage Coordination.**

Designated Entity and Transmission Owner acknowledge and agree that certain outages of transmission facilities owned by the Transmission Owner may be necessary to complete the process of constructing and interconnecting the Project. Designated Entity and Transmission Owner further acknowledge and agree that any such outages shall be coordinated by and through Transmission Provider. Any delays due to emergency, load or maintenance which affect the timing of outages as required or approved by the Transmission Provider may not be considered a Breach under Article 5.

## **4.3 Construction and Interconnection.**

### **4.3.1 No Conferral of Rights.**

This Agreement shall confer no rights upon either the Designated Entity or the Transmission Owner to enter the right-of-way or property of the other Party, or interconnect its facilities, either physically or electrically, to the facilities of the other Party.

### **4.3.2 Interconnection Agreement.**

Prior to interconnection, the Parties shall enter into an interconnection agreement setting forth the terms and conditions for: (i) the interconnection of the Transmission Owner's and Designated Entity's facilities; and (ii) the ongoing relationship of the Transmission Owner and the Designated Entity with regard to the interconnection. In the event the Parties are unable to agree, a Party may request: (i) dispute resolution consistent with the dispute resolution procedures set forth in the Tariff or the Consolidated Transmission Owners Agreement, as applicable ~~Schedule 5 of the Operating Agreement~~; or, (ii) the interconnection agreement be filed unexecuted with the Commission.

### **4.3.3 Other Agreements.**

The Parties recognize that, where appropriate, the Parties may enter into other agreements (beyond the interconnection agreement referred to in Section 4.3.2 above) such as construction agreements. Such other agreements shall be filed with FERC, if required. The terms and conditions of such other agreements are not addressed in this Agreement.

## **Article 5 – Breach and Default**

### **5.0 Breach.**

Except as otherwise provided in Article 7 of this Agreement, a breach of this Agreement shall include the failure of any Party to comply with any term or condition of this Agreement, including the Schedules attached hereto.

### **5.1 Notice of Breach.**

In the event of a Breach, a Party not in Breach of this Agreement shall give written notice of such Breach to the breaching Party, the other non-breaching Party and to any other persons, including Project Finance Entities that the breaching Party identifies in writing prior to the Breach. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

### **5.2 Default.**

A Party that commits a Breach and does not take steps to cure the Breach pursuant to Section 5.3 shall be in default of this Agreement.

### **5.3 Cure of Breach.**

A breaching Party may (i) cure the Breach within thirty days from the receipt of the notice of Breach or other such date as determined by Transmission Provider to enable the Project meets its Required Project In-Service Date; or, (ii) if the Breach cannot be cured within thirty days but may be cured in a manner that enables the Project to meet its Required Project In- Service Date, the breaching Party, within such thirty day time period, commences in good faith steps that are reasonable and appropriate to cure the Breach and thereafter diligently pursue such action to completion.

### **5.4 Remedies.**

Upon the occurrence of an event of Default, the non-defaulting Party shall be entitled to: (i) commence an action to require the Defaulting Party to remedy such default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof; (ii) suspend performance hereunder; and (iii) exercise such other rights and remedies as it may have in equity or at law. Nothing in this Section 5.4 is intended in any way to affect the rights of a third-party to seek any remedy it may have in equity or at law from the Designated Entity or the Transmission Owner resulting from Designated Entity's default of this Agreement.

### **5.5 Remedies Cumulative.**

No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise.

The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **5.6 Waiver.**

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

## **Article 6 – Liability and Indemnity**

### **6.0 Liability.**

For the purposes of this Agreement, Transmission Provider's liability to the Designated Entity, Transmission Owner, any third-party, or any other person arising or resulting from any acts or omissions associated in any way with performance under this Agreement shall be limited in the same manner and to the same extent that Transmission Provider's liability is limited to any Transmission Customer, third-party or other person under Section 10.2 of the Tariff arising or resulting from any act or omission in any way associated with service provided under the Tariff or any Service Agreement thereunder.

### **6.1 Indemnity.**

For the purposes of this Agreement, Designated Entity and Transmission Owner shall at all times indemnify, defend, and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third-parties, arising out of or resulting from the Transmission Provider's acts or omissions associated with the performance of its obligations under this Agreement to the same extent and in the same manner that a Transmission Customer is required to indemnify, defend and save Transmission Provider and its directors, managers, members, shareholders, officers and employees harmless under Section 10.3 of the Tariff.

## **Article 7 – Force Majeure**

### **7.0 Force Majeure.**

For the purpose of this section, an event of force majeure shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which in any

foregoing cases, by exercise of due diligence, it has been unable to overcome. An event of force majeure does not include: (i) a failure of performance that is due to an affected Party's own negligence or intentional wrongdoing; (ii) any removable or remedial causes (other than settlement of a strike or labor dispute), which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

### **7.1 Notice.**

A Party that is unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing within a reasonable time after the occurrence of the cause relied on.

### **7.2 Duration of Force Majeure.**

A Party shall not be responsible for any non-performance or considered in Breach or Default under this Agreement, for any deficiency or failure to perform any obligation under this Agreement to the extent that such failure or deficiency is due to Force Majeure. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Party shall resume performance and give prompt notice thereof to the other Party.

### **7.3 Breach or Default of or Force Majeure under Designated Entity Agreement**

If either of the following events prevents Designated Entity from performing any of its obligations under this Agreement, such event shall be considered a Force Majeure event under this Agreement and the provisions of this Article 7 shall apply: (i) a breach or default of the Designated Entity Agreement associated with the Project by a party to the Designated Entity Agreement other than the Designated Entity; or (ii) an event of Force Majeure under the Designated Entity Agreement associated with the Project.

## **Article 8 – Assignment**

### **8.0 Assignment.**

No Party may assign any of its rights or delegate any of its duties or obligations under this Agreement without prior written consent of Transmission Provider, which consent shall not be unreasonably withheld, conditioned, or delayed.

### **8.1 Assignment of Designated Entity Agreement.**

In the event that the Designated Entity Agreement associated with the Project is assigned pursuant to Article 11 of the Designated Entity Agreement, this Agreement also shall be assigned contemporaneously with that assignment, without the need for any consent under Section 8.0 above.

## **Article 9 – Information Exchange**

### **9.0 Information Access.**

Subject to Applicable Laws and Regulations, each Party shall make available to the other Parties information necessary to carry out obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than to carry out their obligations or enforce their rights under this Agreement.

### **9.1 Reporting of Non-Force Majeure Events.**

Each Party shall notify the other Parties when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties shall cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section 9.1 shall not entitle the receiving Party to allege a cause of action for anticipatory Breach of this Agreement.

## **Article 10 – Confidentiality**

### **10.0 Confidentiality.**

For the purposes of this Agreement, information shall be considered and treated as Confidential Information only if it meets the definition of Confidential Information set forth in Section 1.1 of this Agreement and is clearly designated or marked in writing as “confidential” on the face of the document, or, in the case of information conveyed orally, by inspection or by electronic media incapable of being marked as “confidential”, if the Party providing the information orally informs the Party receiving the information that the information is “confidential.” Confidential Information shall be treated consistent with Section 18.17 of the Operating Agreement. A Party shall be responsible for the costs associated with affording confidential treatment to its information.

## **Article 11 – Representations and Warranties**

### **11.0 General.**

The Parties hereby represent, warrant and covenant as follows, with these representations, warranties, and covenants effective during the full time this Agreement is effective:

#### **11.0.1 Good Standing.**

The Party is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of incorporation, organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated, organized or formed.

### **11.0.2 Authority.**

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

### **11.0.3 No Conflict.**

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

## **Article 12 – Survival**

### **12.0 Survival of Rights.**

The rights and obligations of the Parties in this Agreement shall survive the termination, expiration, or cancellation of this Agreement to the extent necessary to provide for the determination and enforcement of said obligations arising from acts or events that occurred while this Agreement was in effect. The provisions of Article 6 also shall survive termination, expiration, or cancellation of this Agreement

## **Article 13 – Non-Standard Terms and Conditions**

### **13.0 Schedule C -- Addendum of Non-Standard Terms and Conditions.**

Subject to FERC acceptance or approval, the Parties agree that the terms and conditions set forth in the attached Schedule C are hereby incorporated by reference, and made a part of, this Agreement. In the event of any conflict between a provision of Schedule C that FERC has accepted and any provision of the standard terms and conditions set forth in this Agreement that relates to the same subject matter, the pertinent provision of Schedule C shall control.

## **Article 14 – Schedules**

### **14.0 Schedule A: Description of the Project.**

Schedule A provides a description of the Project to be constructed by the Designated Entity.

**14.1 Schedule B: Single Line Diagram.**

Schedule B contains a single line diagram that depicts the Project and the Transmission Owner transmission facilities to which the Project will interconnect.

**Article 15 – Miscellaneous**

**15.0 Notices.**

Any notice or request made to or by any Party regarding this Agreement shall be made by U.S. mail or reputable overnight courier to the addresses set forth below:

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

Attention:

Designated Entity:

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Transmission Owner:

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**15.1 Standard of Review.**

Future modifications to this Agreement by the Parties or the FERC shall be subject to the just and reasonable standard and the Parties shall not be required to demonstrate that such modifications are required to meet the “public interest” standard of review as described in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra*

*Pacific Power Co.*, 350 U.S. 348 (1956).

## **15.2 No Partnership.**

Notwithstanding any provision of this Agreement, the Parties do not intend to create hereby any joint venture, partnership, association, taxable as a corporation, or other entity for the conduct of any business for profit.

## **15.3 Headings.**

The Article and Section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

## **15.4 Interpretation.**

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

## **15.5 Severability.**

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

## **15.6 Further Assurances.**

Each Party hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

## **15.7 Counterparts.**

This Agreement may be executed in multiple counterparts to be construed as one effective as of the Effective Date.

## **15.8 Governing Law.**

This Agreement shall be governed under the Federal Power Act and Delaware law, as applicable.

## **15.9 Incorporation of Other Documents.**



The Tariff, the Operating Agreement, and the Reliability Assurance Agreement, as they may be amended from time to time, are hereby incorporated herein and made a part hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials.

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

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Designated Entity: [Name of Designated Entity]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**Transmission Owner: [Name of Transmission Owner]**

By: \_\_\_\_\_  
Name Title Date

Printed name of signer: \_\_\_\_\_

**SCHEDULE A**

**Description of Project**

## **SCHEDULE B**

### **Single-Line Diagram**

The single line diagram below provides a high level concept of the project. Details of the interconnection point will be fully set forth in an interconnection agreement.

**SCHEDULE C**

**Non-Standard Terms and Conditions**