#### III. NETWORK INTEGRATION TRANSMISSION SERVICE

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

#### **Preamble**

The Transmission Provider will provide Network Integration Transmission Service pursuant to the applicable terms and conditions contained in the Tariff and Service Agreement. Network Integration Transmission Service allows the Network Customer to integrate, economically dispatch and regulate its current and planned Network Resources to serve its Network Load in a manner comparable to that in which each Transmission Owner utilizes the Transmission System to serve its Native Load Customers. Network Integration Transmission Service also may be used by the Network Customer to deliver economy energy purchases to its Network Load from non-designated resources on an as-available basis without additional charge. Transmission service for sales to non-designated loads will be provided pursuant to the applicable terms and conditions of Tariff, Part II. PJMSettlement shall be the Counterparty to the Network Integration Transmission Service transactions under this Tariff. As set forth in Tariff, Attachment K, section D, Network Integration Transmission Service transactions may give rise to several component charges and credits, which may offset one another, and such component charges and credits are not separate transactions from Network Integration Transmission Service transactions.



## 28.1 Scope of Service:

Network Integration Transmission Service is a transmission service that allows Network Customers to efficiently and economically utilize their Network Resources (as well as other non-designated generation resources) to serve their Network Load located in the PJM Region and any additional load that may be designated pursuant to Tariff, Part III, section 31.3. The Network Customer taking Network Integration Transmission Service must obtain or provide Ancillary Services pursuant to Tariff, Part I, section 3.



## **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; 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.



# **28.3** Network Integration Transmission Service:

The Transmission Provider will provide firm transmission service over the Transmission System to the Network Customer for the delivery of capacity and energy from its designated Network Resources to service its Network Loads on a basis that is comparable to each Transmission Owner's use of the Transmission System to reliably serve its Native Load Customers.



## 28.4 Secondary Service:

The Network Customer may use the Transmission Provider's Transmission System to deliver energy to its Network Loads from resources that have not been designated as Network Resources. Such energy shall be transmitted, on an as-available basis, at no additional charge. Secondary service shall not require the filing of an Application for Network Integrated Transmission Service under the Tariff. However, all other requirements of Tariff, Part III (except for transmission rates) shall apply to secondary service. Deliveries from resources other than Network Resources will have a higher priority than any Non-Firm Point-To-Point Transmission Service under Tariff, Part II.





#### **28.6** Restrictions on Use of Service:

The Network Customer shall not use Network Integration Transmission Service for (i) sales of capacity and energy to non-designated loads, or (ii) direct or indirect provision of transmission service by the Network Customer to third parties. All Network Customers taking Network Integration Transmission Service shall use Point-To-Point Transmission Service under Tariff, Part II for any Third-Party Sale which requires use of the Transmission Provider's Transmission System. The Transmission Provider shall specify any appropriate charges and penalties and all related terms and conditions applicable in the event that a Network Customer uses Network Integration Transmission Service or secondary service pursuant to Tariff, Part III, section 28.4 to facilitate a wholesale sale that does not serve a Network Load.





## **29.1** Condition Precedent for Receiving Service:

Subject to the terms and conditions of Tariff, Part III, the Transmission Provider will provide Network Integration Transmission Service to any Eligible Customer, provided that (i) the Eligible Customer completes an Application for service as provided under Tariff, Part III or, with respect to a state required retail access program, provides the information required under the Service Agreement, (ii) the Eligible Customer and the Transmission Provider in coordination with the affected Transmission Owners complete the technical arrangements set forth in Tariff, Part III, section 29.3 and Tariff, Part III, section 29.4, (iii) the Eligible Customer executes a Service Agreement pursuant to Tariff, Attachment F or Tariff, Attachment F-1 for service under Tariff, Part III or requests in writing that the Transmission Provider file a proposed unexecuted Service Agreement with the Commission, and (iv) the Eligible Customer executes a Network Operating Agreement with the Transmission Provider pursuant to Tariff, Attachment G, or requests in writing that the Transmission Provider file a proposed unexecuted Network Operating Agreement.



## **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. 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. Prior to implementation of the Transmission Provider's OASIS, a Completed Application may be submitted by (i) transmitting the required information to the Transmission Provider by telefax, or (ii) providing the information by telephone over the Transmission Provider's time recorded telephone line. 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. 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 onsystem 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.

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.



#### 29.2A Determination of Available Transfer Capability:

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



## 29.3 Technical Arrangements to be Completed Prior to Commencement of Service:

Network Integration Transmission Service shall not commence until the Transmission Provider, the affected Transmission Owners, and the Network Customer, or a third party, have completed installation of all equipment specified under the Network Operating Agreement and, if applicable, the Construction Service Agreement, consistent with Good Utility Practice and any additional requirements reasonably and consistently imposed to ensure the reliable operation of the Transmission System. The Transmission Provider and the affected Transmission Owners shall exercise reasonable efforts, in coordination with the Network Customer, to complete such arrangements as soon as practicable taking into consideration the Service Commencement Date.



#### 29.4 Network Customer Facilities:

The provision of Network Integration Transmission Service shall be conditioned upon the Network Customer's constructing, maintaining and operating the facilities on its side of each delivery point or interconnection necessary to reliably deliver capacity and energy from the Transmission Provider's Transmission System to the Network Customer or, with respect to service provided pursuant to a state required retail access program, for otherwise arranging for the delivery of its energy from the delivery point or interconnection. The Network Customer's side of each such delivery point or interconnection or, with respect to service provided pursuant to a state required retail access program, for otherwise arranging for the delivery of its energy from the delivery point or interconnection.



# 29.5 Filing of Service Agreement:

The Transmission Provider will file Service Agreements with the Commission in compliance with applicable Commission regulations.





## **30.1** Designation of Network Resources:

Network Resources shall include all generation owned, purchased or leased by the Network Customer designated to serve Network Load under the Tariff. Network Resources may not include 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. Any owned or purchased resources that were serving the Network Customer's loads under firm agreements entered into on or before the Service Commencement Date shall initially be designated as Network Resources until the Network Customer terminates the designation of such resources.



## **30.2** Designation of New Network Resources:

The Network Customer may designate a new Network Resource by providing the Transmission Provider with as much advance notice as practicable (notwithstanding the requirements in this Tariff, Part III, section 30.2, the applicable requirements of Tariff, Attachment DD, the Reliability Assurance Agreement, and the PJM Manuals regarding the designation of Network Resources shall apply). A request for Transmission Service associated with designation of a new Network Resource must be made through the Transmission Provider's OASIS by a request for modification of service pursuant to an Application under Tariff, Part III, section 29. This request must include a statement that the new network resource satisfies 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. The Network Customer's request will be deemed deficient if it does not include this statement and the Transmission Provider will follow the procedures for a deficient application as described in Tariff, Part III, section 29.2. In the event the Network Resource to be designated consists of new generation facilities in the PJM Region, the Network Customer or the owner of the generating facilities also must submit an Interconnection Request pursuant to Tariff, Part VII or Tariff, Part VIII, as applicable. In the event the Network Resource to be designated is Behind The Meter Generation, the designation must be made before the commencement of a Planning Period as that term is defined in the Operating Agreement and will remain in effect for the entire Planning Period. In the event the Network Resource to be designated will use interface capacity and is for a period of less than one year, the designation request must be submitted in accordance with the time requirements set forth in Tariff, Part II, section 17.8 and Tariff, Part II, section 17.9 and will be processed together with, and in the same manner as, requests for Short-Term Firm Point-To-Point Transmission Service.

#### **30.3** Termination of Network Resources:

The Network Customer may terminate the designation of all or part of a generating resource as a Network Resource at any time by providing notification to the Transmission Provider through eRPM as soon as reasonably practicable, but not later than the firm scheduling deadline for the period of termination.\* Any request for termination of Network Resource status must be submitted on eRPM, and should indicate whether the request is for indefinite or temporary termination. A request for indefinite termination of Network Resource status must indicate the date and time that the termination is to be effective, and the identification and capacity of the resource(s) or portions thereof to be indefinitely terminated. A request for temporary termination of Network Resource status must include the following:

- (i) Effective date and time of temporary termination;
- (ii) Effective date and time of redesignation, following period of temporary termination;
- (iii) Identification and capacity of resource(s) or portions thereof to be temporarily terminated;
- (iv) Resource description and attestation for redesignating the network resource following the temporary termination, in accordance with Tariff, Part III, section 30.2; and
- (v) Identification of any related transmission service requests to be evaluated concomitantly with the request for temporary termination, such that the requests for undesignation and the request for these related transmission service requests must be approved or denied as a single request. The evaluation of these related transmission service requests must take into account the termination of the network resources identified in (iii) above, as well as all competing transmission service requests of higher priority.

As part of a temporary termination, a Network Customer may only redesignate the same resource that was originally designated, or a portion thereof. Requests to redesignate a different resource and/or a resource with increased capacity will be deemed deficient and the Transmission Provider will follow the procedures for a deficient application as described in Tariff, Part III, section 29.2.

<sup>\*</sup> Pursuant to the notice granting extension of effective date, 120 FERC ¶ 61,222 (2007), the effective date for the language "but not later than the firm scheduling deadline for the period of termination" was extended pending further order by the Commission.

### **30.4** Operation of Network Resources:

The Network Customer shall not operate its designated Network Resources located in the Network Customer's or Transmission Provider's Control Area(s) such that the output of those facilities exceeds its designated Network Load plus Non-Firm Sales delivered pursuant to Tariff, Part II, plus net sales of energy through the interchange energy market established under the Operating Agreement, plus losses plus power sales under a reserve sharing program, plus sales that permit curtailment without penalty to serve its designated Network Load. This limitation shall not apply to changes in the operation of a Transmission Provider in response to an emergency or other unforeseen condition which may impair or degrade the reliability of the Transmission System. For all Network Resources not physically connected with the Transmission Provider's Transmission System, the Network Customer may not schedule delivery of energy in excess of the Network Resource's capacity, as specified in the Network Customer's Application pursuant to Tariff, Part III, section 29, unless the Network Customer supports such delivery within the Transmission Provider's Transmission System by either obtaining Point-to-Point Transmission Service or utilizing secondary service pursuant to Tariff, Part III, section 28.4. The Transmission Provider shall specify the rate treatment and all related terms and conditions applicable in the event that a Network Customer's schedule at the delivery point for a Network Resource not physically interconnected with the Transmission Provider's Transmission System exceeds the Network Resource's designated capacity, excluding energy delivered using secondary service or Point-to-Point Transmission Service.

# 30.5 Network Customer Redispatch Obligation:

As a condition to receiving Network Integration Transmission Service, the Network Customer agrees to redispatch its Network Resources as requested by the Transmission Provider pursuant to Tariff, Part III, section 33.2. To the extent practical, the redispatch of resources pursuant to this section shall be on a least cost, non-discriminatory basis among all Network Customers and the Transmission Owners.



# 30.6 Transmission Arrangements for Network Resources Not Physically Interconnected With The Transmission Provider:

The Network Customer shall be responsible for any arrangements necessary to deliver capacity and energy from a Network Resource not physically interconnected with the Transmission Provider's Transmission System. The Transmission Provider will undertake reasonable efforts to assist the Network Customer in obtaining such arrangements, including without limitation, providing any information or data required by such other entity pursuant to Good Utility Practice.



# 30.7 Limitation on Designation of Network Resources:

The Network Customer must demonstrate that it owns or has committed to purchase generation pursuant to an executed contract in order to designate a generating resource as a Network Resource. Alternatively, the Network Customer may establish that execution of a contract is contingent upon the availability of transmission service under Tariff, Part III.



# **30.8** Use of Interface Capacity by the Network Customer:

There is no limitation upon a Network Customer's use of the Transmission Provider's Transmission System at any particular interface to integrate the Network Customer's Network Resources (or substitute economy purchases) with its Network Loads. However, a Network Customer's use of the Transmission Provider's total interface capacity with other transmission systems may not exceed the Network Customer's Load.



#### **30.9** Network Customer Owned Transmission Facilities:

The Network Customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. In order to receive such consideration the Network Customer must demonstrate that its transmission facilities are integrated into the plans or operations of the Transmission Provider to serve its power and transmission customers. For facilities added by the Network Customer subsequent to the [effective date of a Final Rule in RM05-25-000], the Network Customer shall receive credit for such transmission facilities added if such facilities are integrated into the operations of the Transmission Provider's facilities. Calculation of any credit under this subsection shall be addressed in either the Network Customer's Service Agreement or any other agreement between the Parties.





#### 31.1 Network Load:

The Network Customer must designate the individual Network Loads on whose behalf the Transmission Provider will provide Network Integration Transmission Service. The Network Loads shall be specified in the Service Agreement, except with respect to loads served pursuant to state required retail access programs for which the Transmission Customer shall provide information regarding Network Loads using the Transmission Provider's specified electronic information system for such programs in accordance with the Service Agreement.



#### 31.2 New Network Loads Connected With the Transmission Provider:

The Network Customer shall provide the Transmission Provider with as much advance notice as reasonably practicable of the designation of new Network Load that will be added to the Transmission System. A designation of new Network Load must be made through a modification of service pursuant to a new Application. The affected Transmission Owners, in accordance with the terms and conditions of the Tariff and the Operating Agreement, will use due diligence to install any transmission facilities required to interconnect a new Network Load designated by the Network Customer. The costs of new facilities required to interconnect a new Network Load shall be determined in accordance with the procedures provided in Tariff, Part III, section 32.4 and shall be charged to the Network Customer in accordance with Commission policies.



## 31.3 Network Load Not Physically Interconnected with the Transmission Provider:

This section applies to both initial designation pursuant to Tariff, Part III, section 31.1 and the subsequent addition of new Network Load not physically interconnected with the Transmission Provider. To the extent that the Network Customer desires to obtain transmission service for a load outside the Transmission Provider's Transmission System, the Network Customer shall have the option of (1) electing to include the entire load as Network Load for all purposes under Tariff, Part III and designating Network Resources in connection with such additional Network Load, or (2) excluding that entire load from its Network Load and purchasing Point-To-Point Transmission Service under Tariff, Part II. To the extent that the Network Customer gives notice of its intent to add a new Network Load as part of its Network Load pursuant to this section the request must be made through a modification of service pursuant to a new Application.



# 31.4 New Interconnection Points:

To the extent the Network Customer desires to add a new Delivery Point or interconnection point between the Transmission Provider's Transmission System and a Network Load, the Network Customer shall provide the Transmission Provider with as much advance notice as reasonably practicable.



## 31.5 Changes in Service Requests:

Under no circumstances shall the Network Customer's decision to cancel or delay a requested change in Network Integration Transmission Service (e.g. the addition of a new Network Resource or designation of a new Network Load) in any way relieve the Network Customer of its obligation to pay the costs of transmission facilities constructed by a Transmission Owner and charged to the Network Customer as reflected in the Service Agreement. However, the Transmission Provider must treat any requested change in Network Integration Transmission Service in a non-discriminatory manner.



## 31.6 Annual Load and Resource Information Updates:

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. The Network Customer also shall provide the Transmission Provider with timely written or electronic notice of material changes in any other information 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.



#### 31.7 Establishing and Changing Network Load Energy Settlement Area Definitions:

- (a) Prior to the 2015/2016 Planning Period, the Energy Settlement Area for a Network Customer's Network Load in a given electric distribution company's fully metered franchise area(s) or service territory(ies) shall be the aggregate load buses in a Zone, as defined in subsection (c) below, or, with respect to Non-Zone Network Load, to the border of the PJM Region, unless the Network Customer defines a more specific Energy Settlement Area in accordance with the procedures set forth in the PJM Manuals. Commencing with the 2015/2016 Planning Period, the Energy Settlement Area for a Network Customer's Network Load in a given electric distribution company's fully metered franchise area(s) or service territory(ies) shall be the aggregate load buses specifying the Residual Metered Load distribution for that franchise area(s) or service territory(ies), as defined in subsection (c) below, or with respect to Non-Zone Network Load to the border of the PJM Region, unless the Network Customer defines a more specific nodal Energy Settlement Area in accordance with the procedures set forth in the PJM Manuals.
- A Network Customer may change the definition of its existing Network Load Energy (b) Settlement Area in accordance with the procedures set forth in the PJM Manuals and the Network Customer's existing rights under the Tariff. Notwithstanding any other relevant provision(s) of this Tariff, advance notice of any such change described in the PJM Manuals must be provided to the Transmission Provider and the effective date of such change shall coincide with the first day of a Planning Period, as defined in the Operating Agreement. If system upgrades are required to effect a Network Load Energy Settlement Area change, all required upgrades shall be completed prior to the requested effective date of the change; if all required system upgrades are not completed prior to the requested effective date, the effective date shall be the first day of the Planning Period that immediately follows completion of all system upgrades. A Network Customer may not change the definition of its existing Network Load Energy Settlement Area to a less specific Energy Settlement Area, except in circumstances where there has been a physical change to the relevant transmission system infrastructure, as set forth in the PJM Manuals, such that settlement according to the previously defined Energy Settlement Area is no longer possible.
- (c) The distribution of load buses in an Energy Settlement Area for the determination of a Transmission Loss Charge and Transmission Congestion Charge per Tariff, Part I, section 5.1 and Tariff, Part I, section 5.4 are determined as follows.
  - (i) Zonal aggregate determination. The default distribution of load buses for a Zone for the Day-ahead Energy Market is the State Estimator distribution of load for that Zone at 8:00 a.m. one week prior to the Operating Day (i.e. if the Operating Day is Monday, the default distribution is from 8:00 a.m. on Monday of the previous week). Should the Office of the Interconnection experience technical limitations that would restrict the ability to obtain the State Estimator distribution of load for a Zone at 8:00 a.m. one week prior to the Operating Day or if the required data is not available, a State Estimator distribution of load from the most recently available day of the week that the Operating Day falls on will be used (i.e., if the Operating Day is Monday, the Office of the Interconnection will utilize

the State Estimator distribution of load from the most recent Monday for which data is available). If the default distribution does not accurately reflect the distribution of load for the Zone for the relevant electric distribution company for the Day-ahead Energy Market, it may specify another more accurate distribution of load buses for the Zone in the Office of the Interconnection's internet-based software application. The distribution of load buses for a Zone for the Real-time Energy Market is the State Estimator distribution of load for that Zone for each hour during the Operating Day.

- (ii) Residual Metered Load aggregate determination. The default distribution of load buses for a Residual Metered Load aggregate for the Day-ahead Energy Market is the distribution of the real-time Residual Metered Load at each bus within the Residual Metered Load aggregate at 8:00 a.m. one week prior to the Operating Day. Should the Office of the Interconnection experience technical limitations that would restrict the ability to obtain the bus distribution of the real-time Residual Metered Load aggregate at 8:00 a.m. one week prior to the Operating Day or if the required data is not available, a distribution of the real-time Residual Metered Load aggregate from the most recently available day of the week that the Operating Day falls on will be used (i.e., if the Operating Day is Monday, the Office of the Interconnection will utilize the bus distribution of the real-time Residual Metered Load aggregate from the most recent Monday for which data is available). The distribution of load buses for a Residual Metered Load aggregate for the Real-time Energy Market is the Residual Metered Load at each bus in the Residual Metered Load aggregate for each hour during the Operating Day. Residual Metered Load is determined by reducing the electric distribution company's revenue meter calculated load at each bus in its fully metered franchise area(s) or service territory(ies) as determined in Tariff, Part I, section 5.1.3(e)(i) and Tariff, Part I, section 5.4.3(e)(i) by the nodally priced load of other entities assigned to each load bus in the electric distribution company's fully metered franchise area(s) or service territory(ies) via hourly load contracts as specified in Tariff, Part I, section 5.1.3(e)(ii) and Tariff, Part I, section 5.4.3(e)(ii).
- (iii) Nodal aggregate determination. The distribution of load buses for nodal load in the Day-ahead Energy Market and Real-time Energy Market is determined by a fixed aggregate definition that represents the composition of the nodal load at a single identifiable bus or set of identifiable buses, as agreed upon by the Load Serving Entity responsible for the load and the electric distribution company in whose fully metered franchise area(s) or service territory(ies) the load is located, per the nodal pricing settlement rules defined in the PJM Manuals.

# 32 System Impact Study Procedures For Network Integration Transmission Service Requests



## 32.1 Notice of Need for Phase I System Impact Study:

After receiving a request for service, the Transmission Provider shall determine on a nondiscriminatory basis whether a Phase I System Impact Study is needed. The purpose of the Phase I System Impact Study shall be to assess whether the Transmission System has sufficient available capability to provide the requested service. If the Transmission Provider determines that a Phase I System Impact Study is necessary to evaluate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, the Transmission Provider shall within thirty (30) days of receipt of a Completed Application, tender an Application and Studies Agreement pursuant to which the Eligible Customer shall agree to reimburse the Transmission Provider for the required Phase I System Impact Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the Application and Studies Agreement and return it to the Transmission Provider within fifteen (15) days and provide the Study Deposit and Readiness Deposit required pursuant to Tariff, Part VII, Subpart or Tariff, Part VIII, Subpart B, section A, , as applicable. If the Eligible Customer elects not to execute the Application and Studies Agreement, its Application shall be deemed withdrawn and its deposit shall be returned with interest.



# 32.2 Application and Studies Agreement and Study Deposit and Readiness Deposit:

- (i) In addition to the Application and Studies Agreement, a Study Deposit and Readiness Deposit is required pursuant to Tariff, Part VII, Subpart \_\_\_\_, or Tariff, Part VIII, Subpart B,\_\_section A, as applicable.\_\_\_In performing the System Impact Studies, the Transmission Provider shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.
- (ii) If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single System Impact Study is sufficient for the Transmission Provider to accommodate the service requests, the costs of that study shall be pro-rated among the Eligible Customers.
- (iii) The Transmission Provider shall reimburse the affected Transmission Owner(s) for their study costs, if any, in connection with a System Impact Stud(ies).
- (iv) For System Impact Studies that the Transmission Provider conducts on behalf of a Transmission Owner, the Transmission Owner shall record the cost of the System Impact Studies pursuant to Tariff, Part I, section 8.

#### 32.3 Phase I System Impact Study Procedures:

After receiving a signed Application and Studies Agreement and the applicable deposits outlined in Tariff Part VII Subpart or Tariff Part VIII Subpart as applicable the Transmission Provider shall conduct a Phase I System Impact Study to make a preliminary determination of the type and scope of and Network Upgrades that will be necessary to accommodate the Completed Application and provide the Eligible Customer a preliminary estimate of the time that will be required to construct any necessary facilities and upgrades and the Eligible Customer's cost responsibility, estimated consistent with Tariff, Part VII, section or Tariff, Part VIII, section as applicable. The Phase I System Impact Study assesses the practicality and cost of accommodating the requested service. The analysis is limited to load-flow analysis of probable contingencies. The Transmission Provider shall make the completed Phase I System Impact Study available pursuant to Tariff, Part VII, Subpart , or Tariff, Part VIII, Subpart , if applicable, and, to the extent consistent with the Office of the Interconnection's confidentiality obligations in Operating Agreement, section 18.17, related work papers to the Eligible Customer and the affected Transmission Owner(s). The Transmission Provider shall conduct a Phase I System Impact Study in conjunction with and pursuant to the Cycle process conducted under Tariff, Part VII, section or Tariff, Part VIII, section as applicable.

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

# 32.3.1 Meeting with Transmission Provider:

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



# **32.4** Retaining Priority:

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







#### 33.1 Procedures:

Prior to the Service Commencement Date, the Transmission Provider and the Network Customer shall establish Load Shedding and Curtailment procedures pursuant to the Network Operating Agreement with the objective of responding to contingencies on the Transmission System and on systems directly and indirectly interconnected with Transmission Provider's Transmission System. The Parties will implement such programs during any period when the Transmission Provider determines that a system contingency exists and such procedures are necessary to alleviate such contingency. The Transmission Provider will notify all affected Network Customers in a timely manner of any scheduled Curtailment.



#### **33.2** Transmission Constraints:

During any period when the Transmission Provider determines that a transmission constraint exists on the Transmission System, and such constraint may impair the reliability of the Transmission Provider's system, the Transmission Provider will take whatever actions, consistent with Good Utility Practice, that are reasonably necessary to maintain the reliability of the Transmission Provider's system. To the extent the Transmission Provider determines that the reliability of the Transmission System can be maintained by redispatching resources, the Transmission Provider will initiate procedures pursuant to the Network Operating Agreement to redispatch all Network Resources and the Transmission Owners' own resources on a least-cost basis without regard to the ownership of such resources. Any redispatch under this section may not unduly discriminate between the Transmission Owners' use of the Transmission System on behalf of their Native Load Customers and any Network Customer's use of the Transmission System to serve its designated Network Load.



# 33.3 Cost Responsibility for Relieving Transmission Constraints:

Whenever the Transmission Provider implements least-cost redispatch procedures in response to a transmission constraint, the Transmission Owners and the Network Customers will bear the costs of such redispatch in accordance with Tariff, Attachment K.



# 33.4 Curtailments of Scheduled Deliveries:

If a transmission constraint on the Transmission Provider's Transmission System cannot be relieved through the implementation of least-cost redispatch procedures and the Transmission Provider determines that it is necessary to Curtail scheduled deliveries, the Parties shall Curtail such schedules in accordance with the Network Operating Agreement or pursuant to the Transmission Loading Relief procedures.



#### 33.5 Allocation of Curtailments:

The Transmission Provider shall, on a non-discriminatory basis, Curtail the transaction(s) that effectively relieve the constraint. However, to the extent practicable and consistent with Good Utility Practice, any Curtailment will be shared by each Transmission Owner and Network Customer in proportion to their respective Load Ratio Shares. The Transmission Provider shall not direct the Network Customer to Curtail schedules to an extent greater than the Transmission Provider would Curtail the schedules of a Transmission Owner under similar circumstances.



# 33.6 Load Shedding:

To the extent that a system contingency exists on the Transmission Provider's Transmission System and the Transmission Provider determines that it is necessary for the Transmission Owners and the Network Customer to shed load, the Network Customer and the Transmission Owners shall shed load in accordance with previously established procedures under the Network Operating Agreement.



#### 33.7 System Reliability:

Notwithstanding any other provisions of this Tariff, the Transmission Provider reserves the right, consistent with Good Utility Practice and on a not unduly discriminatory basis, to Curtail Network Integration Transmission Service without liability on the Transmission Provider's part for the purpose of making necessary adjustments to, changes in, or repairs on its lines, substations and facilities, and in cases where the continuance of Network Integration Transmission Service would endanger persons or property. In the event of any adverse condition(s) or disturbance(s) on the Transmission Provider's Transmission System or on any other system(s) directly or indirectly interconnected with the Transmission Provider's Transmission System, the Transmission Provider, consistent with Good Utility Practice, also may Curtail Network Integration Transmission Service in order to (i) limit the extent or damage of the adverse condition(s) or disturbance(s), (ii) prevent damage to generating or transmission facilities, or (iii) expedite restoration of service. The Transmission Provider will give the Network Customer as much advance notice as is practicable in the event of such Curtailment. Any Curtailment of Network Integration Transmission Service will be not unduly discriminatory relative to a Transmission Owner's use of the Transmission System on behalf of its Native Load Customers. Transmission Provider shall specify the rate treatment and all related terms and conditions applicable in the event that the Network Customer fails to respond to established Load Shedding and Curtailment procedures.

# **34** Rates and Charges

The Network Customer shall pay PJMSettlement, in its own name, or as agent for the Transmission Provider for any Direct Assignment Facilities, Ancillary Services, PJM Administrative Service, any applicable Transmission Enhancement Charge(s) and applicable study costs, consistent with Commission policy, along with the following:



#### 34.1 Monthly Demand Charge:

(a) The Network Customer shall pay a monthly Demand Charge for Zone Network Load and Non-Zone Network Load, which shall be determined as follows:

MDC = Sum of MDCZ for all Zones plus the MDCNZ for Non-Zone Network Load

MDCZ = Sum of DDCZ for each day of the calendar month for the Zone

DDCZ = DCPZ X RTZ/365

MDCNZ = Sum of DDCNZ for each day of the calendar month for Non-Zone Network

Load

DDCNZ = DCPNZ X RTNZ/365

#### Where:

MDC is the monthly demand charge

MDCZ is the monthly demand charge for a Zone

DDCZ is the daily demand charge for a Zone

DCPZ is the daily load of the Network Customer located within a Zone coincident with the annual peak of the Zone (as adjusted pursuant to Tariff, Part III, section 34.2 and Tariff, Part III, section 34.3).

RTZ is the rate for Network Integration Transmission Service from Attachment H for the Zone in which the Zone Network Load is located, stated in dollars per megawatt per year

MDCNZ is the monthly demand charge for Non-Zone Network Load

DDCNZ is the daily demand charge for Non-Zone Network Load

DCPNZ is the daily transmission responsibility for Non-Zone Network Load

RTNZ is the rate for Network Integration Transmission Service for Non-Zone Network Load from Tariff, Attachment H-A, stated in dollars per megawatt per year

The zonal daily load (DCPZ) of the Network Customer shall be the sum of the Network Customer's individual wholesale and retail customer Zone Network Loads (including losses) at the time of the annual peak of the Zone in which the load is located. For Non-Zone Network Load, the daily transmission responsibility of the Network Customer shall be the sum of the Network Customer's Network Load at the border of the PJM Region at the time of the annual peak of such region;

provided that Non-Zone Network Load that is subject to charges for network integration transmission service under the open-access transmission tariff of the Midwest Independent Transmission System Operator, Inc. shall be excluded from this calculation if such load commenced being served on or after April 1, 2004 pursuant to an application for service submitted on or after November 17, 2003.



# 34.2 Netting of Behind the Meter Generation.

The daily load of a Network Customer does not include load served by operating Behind The Meter Generation. The daily load of a Network Customer shall not be reduced by energy injections into the transmission system by the Network Customer.



## 34.3 Netting of Non-Retail Behind The Meter Generation.

Netting of Behind The Meter Generation for Network Customers with regard to Non-Retail Behind The Meter Generation shall be subject to the following limitations:

For calendar year 2006, 100 percent of the operating Non-Retail Behind The Meter Generation shall be netted, provided that the total amount of Non-Retail Behind The Meter Generation in the PJM Region does not exceed 1500 megawatts ("Non-Retail Threshold"). For each calendar year thereafter, the Non-Retail Threshold shall be proportionately increased based on load growth in the PJM Region but shall not be greater than 3000 megawatts. Load growth shall be determined by Transmission Provider based on the most recent forecasted weather-adjusted coincident summer peak of the PJM Region divided by the weather-adjusted coincident peak for the previous summer for the same area. After the load growth factor is applied, the Non-Retail Threshold will be rounded up or down to the nearest whole megawatt and the rounded number shall be the Non-Retail Threshold for the current year and shall be the base amount for calculating the Non-Retail Threshold for the succeeding year. If the total amount of Non-Retail Behind The Meter Generation in the PJM Region exceeds the Non-Retail Threshold, the amount of operating Non-Retail Behind The Meter Generation that the Network Customer may net shall be adjusted according to the following formula:

Network CustomerNetting Credit = (NRT / PJM NRBTMG) \* Network Customer operating NRBTMG

Where: NRBTMG is Non-Retail Behind The Meter Generation

NRT is the Non-Retail Threshold

PJM NRBTMG is the total amount of Non-Retail Behind The Meter Generation in the PJM Region

The total amount of Non-Retail Behind The Meter Generation that is eligible for netting in the PJM Region is 3000 megawatts. Once this 3000 megawatt limit is reached, any additional Non-Retail Behind The Meter Generation which operates in the PJM Region will be ineligible for netting under this section.

In addition, the Network Customer NRBTMG Netting Credit shall be adjusted pursuant to Tariff, Schedule 15, if applicable.

A Network Customer shall be required to report to the Transmission Provider such information as is required to facilitate the determination of its NRBTMG Netting Credit in accordance with the procedures set forth in the PJM Manuals.

The annual peaks for purposes of the above calculation shall be determined from the twelve month period ending October 31 of the calendar year preceding the calendar year in which the billing month occurs. For new Network Load that was not connected to the Transmission System during such entire twelve month period, the Transmission Provider in coordination with the affected

Transmission Owners and electric distribution companies shall determine the appropriate peak load responsibility to be used until the annual peaks are determined for the next twelve month period ending October 31.

(b) Nothing herein shall entitle any Transmission Owner or Network Customer to establish a zone that is smaller than or a portion of a Zone set forth in Tariff, Attachment J.



# 34.4 Redispatch Charge:

The Network Customer and each Transmission Owner shall pay any redispatch costs as set forth in Tariff, Attachment K.



# 34.5 Stranded Cost Recovery:

Any Transmission Owner may seek to recover stranded costs from the Network Customer pursuant to this Tariff in accordance with the terms, conditions and procedures set forth in FERC Order No. 888. However, the Transmission Owner must separately file any proposal to recover stranded costs under Section 205 of the Federal Power Act.





# **35.1** Operation under The Network Operating Agreement:

The Network Customer shall plan, construct, operate and maintain its facilities in accordance with Good Utility Practice and in conformance with the Network Operating Agreement.



## **Network Operating Agreement:**

The terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Tariff, Part III shall be specified in the Network Operating Agreement. The Network Operating Agreement shall provide for the Parties and the Transmission Owners to (i) operate and maintain equipment necessary for integrating the Network Customer within the Transmission Provider's Transmission System (including, but not limited to, remote terminal units, metering, communications equipment and relaying equipment), (ii) transfer data between the Transmission Provider and the Network Customer (including, but not limited to, heat rates and operational characteristics of Network Resources, generation schedules for units outside the Transmission Provider's Transmission System, interchange schedules, unit outputs for redispatch required under Tariff, Part III, section 33, voltage schedules, loss factors and other real time data), (iii) use software programs required for data links and constraint dispatching, (iv) exchange data on forecasted loads and resources necessary for long-term planning, and (v) address any other technical and operational considerations required for implementation of Tariff, Part III, including scheduling protocols. The Network Operating Agreement will recognize that the Network Customer shall either (i) operate as a Control Area under applicable guidelines of the Electric Reliability Organization (ERO) as defined in 18 C.F.R. § 39.1, (ii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with the Transmission Provider, or (iii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with another entity, consistent with Good Utility Practice, which satisfies the applicable reliability guidelines of the ERO. The Transmission Provider shall not unreasonably refuse to accept contractual arrangements with another entity for Ancillary Services. The Network Operating Agreement is included in Tariff, Attachment G.

# 35.3 Network Operating Committee:

A Network Operating Committee (Committee) shall be established to coordinate operating criteria for the Parties' respective responsibilities under the Network Operating Agreement. Each Network Customer shall be entitled to have at least one representative on the Committee. The Committee shall meet from time to time as need requires, but no less than once each calendar year. For Network Customers serving load in the PJM Region, the Network Operating Committee shall be the Members Committee, or a sub-committee thereof, established under the PJM Operating Agreement.

