OATT OPEN ACCESS TRANSMISSION TARIFF - OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE R - OATT ATTACHMENT K – APPENDIX - OATT PJM EMERGENCY LOAD RESPONSE PROGRAM

PJM EMERGENCY LOAD RESPONSE PROGRAM

Emergency Load Response Program

The Emergency Load Response Program is designed to provide a method by which end-use customers may be compensated by PJM for reducing load during an emergency event. As used in the Emergency Load Response Program, the term "end-use customer" refers to an individual location or aggregation of locations that consume electricity as identified by a unique electric distribution company account number. There are two options for participation in the Emergency Load Response Program:

♦ Full Program Option

Participants in the Full Program Option receive an energy payment for load reductions during an emergency event, and a capacity payment pursuant to Attachment DD of the tariff, as applicable.

♦ Energy Only Option

Participants in the Energy Only Option receive only an energy payment for load reductions during an emergency event.

Participant Qualifications

Two primary types of distributed resources are candidates to participate in either of the two options provided by the Emergency Load Response Program:

On-Site Generators

These generators (including Behind The Meter Generation) can be either synchronized or non-synchronized to the grid. Capacity Resources are not eligible for compensation under this program. Injections into the grid by local generators also will not be eligible for compensation under this program.

Load Reductions

A participant that has the ability to reduce a measurable and verifiable portion of its load, as metered on an EDC account basis.

PJM membership is required to participate in either of the two options provided by the Emergency Load Response Program. Members or Special Members may participate in the Emergency Load Response Program by complying with all of the requirements of the applicable

Relevant Electric Retail Regulatory Authority and all other applicable federal, state and local regulatory entities together with the Emergency Load Response provisions herein, including, but not limited to, the Registration section. Special membership provisions have been established for program participants in the Energy Only Option, as described below. The special membership provisions shall not apply to program participants in the Full Program Option. Any existing PJM Member may act as a third party for non-members, in which case the third party will be referred to as the Curtailment Service Provider (CSP). All payments are made to the PJM Member. Participants must become signatories to the PJM Operating Agreement, as described in the *PJM Manual for Administrative Services for the Operating Agreement of the PJM Interconnection, L.L.C.* However, for special members the \$5,000 annual membership fee, the \$1,500 application fee, and liability for Member defaults are waived, along with the following other modifications:

Special Members are limited to be PJM market sellers; Voting privileges and sector designation are waived; Thirty day notice for waiting period is waived; Requirement for 24/7 control center coverage is waived; No PJM-supported user group capability is permitted.

To participate in either of the two options provided by the Emergency Load Response Program, the distributed resource must:

Be capable of reducing at least 100 kW of load Be capable of receiving PJM notification to participate during emergency conditions.

Metering Requirements

The Curtailment Service Provider is responsible to ensure that the Emergency Load Response Program Participants have metering equipment that provides integrated hourly kWh values on an electric distribution company account basis. The metering equipment shall either meet the electric distribution company requirements for accuracy or have a maximum error of two percent over the full range of the metering equipment (including Potential Transformers and Current Transformers) and the metering equipment and associated data shall meet the requirements set forth herein and in the PJM Manuals. The Emergency Load Response Participant must meter reductions in demand by using either of the following two methods:

- a) Using metering equipment that is capable of recording integrated hourly values for generation running to serve local load (net of that used by the generator); or
- b) Using metering equipment that provides actual load change by measuring actual load before and after the reduction request, such that there is a valid integrated hourly value for the hour prior to the event and each hour during the event. This value cannot be estimated nor can it be averaged over some historical period. This load will be metered on an electric distribution company account basis.

Metered load reductions will be adjusted up to consider transmission and distribution losses as submitted by the Curtailment Service Provider and verified by PJM with the electric distribution company.

The installed metering equipment must be one of the following:

- a) Metering equipment used for retail electric service;
- b) Customer-owned metering equipment or metering equipment acquired by the Curtailment Service Provider, approved by PJM, that is read electronically by PJM, in accordance with the requirements herein and in the PJM Manuals; or
- c) Customer-owned metering equipment or metering equipment acquired by the Curtailment Service Provider, approved by PJM, that is read by the customer (or the Curtailment Service Provider), and such readings are then forwarded to PJM, in accordance with the requirements set forth herein and in the PJM Manuals.

Nothing herein changes the existence of one recognized meter by the state commissions as the official billing meter for recording consumption.

Registration

1. Participants must complete the PJM Emergency Load Response Program Registration Form ("Emergency Registration Form") that is posted on the PJM website (www.pjm.com)for each end-use customer, or aggregation of end-use customers, pursuant to the requirements set forth in the PJM Manuals. Because of the required electric distribution company and Load Serving Entity ten business day review period, as described herein, Participants should submit completed PJM Emergency Load Response Program Registration Forms to the Office of the Interconnection no later than one day before the tenth business day preceding the relevant Delivery Year. All registrations that have not been approved on or before May 31st preceding the relevant Delivery Year shall be rejected by the Office of the Interconnection. To the extent that a completed PJM Emergency Load Response Program Registration Form is submitted to the Office of the Interconnection prior to one day before the tenth business day preceding the relevant Delivery Year and such registration is rejected by the electric distribution company or Load Serving Entity or the Office of the Interconnection because of incorrect data on the PJM Emergency Load Response Program Registration Form, such registration may be resubmitted by the participant before May 31st preceding the relevant Delivery Year, but such registration will be rejected by the Office of the Interconnection unless the electric distribution company or Load Serving Entity has verified the registration on or before May 31st preceding the relevant Delivery Year. Incomplete PJM Emergency Load Response Program Registration Forms will be rejected by the Office of the Interconnection; participants may not resubmit registrations that were rejected for being incomplete unless participants are able to do so no later than one day before the tenth business day preceding the relevant Delivery Year. The following general steps will be followed:

- 2. For end-use customers of an electric distribution company that distributed more than 4 million MWh in the previous fiscal year:
- The participant completes the Emergency Registration Form located on the PJM website. PJM reviews the application and ensures that the qualifications are met, including verifying that the appropriate metering exists. After confirming that an entity has met all of the qualifications to be an Emergency Load Response Participant, PJM shall notify the appropriate Load Serving Entity and electric distribution company of an Emergency Load Response Participant's registration and request verification as to whether the load that may be reduced is under other contractual obligations or subject to laws or regulations of the Relevant Electric Retail Regulatory Authority that prohibit or condition the end-use customer's participation in PJM's Emergency Load Response Program pursuant to the process described below. The electric distribution company and Load Serving Entity have ten business days to respond. Other such contractual obligations may not preclude participation in the program, but may require special consideration by PJM such that appropriate settlements are made within the confines of such existing contracts. An electric distribution company or Load Serving Entity which seeks to assert that the laws or regulations of the Relevant Electric Retail Regulatory Authority prohibit or condition (which condition the electric distribution company or Load Serving Entity asserts has not been satisfied) an end-use customer's participation in PJM's Emergency Load Response Program shall provide to PJM, within the referenced ten business day review period, either: (a) an order, resolution or ordinance of the Relevant Electric Retail Regulatory Authority prohibiting or conditioning the end-use customer's participation, (b) an opinion of the Relevant Electric Retail Regulatory Authority's legal counsel attesting to the existence of a regulation or law prohibiting or conditioning the end-use customer's participation, or (c) an opinion of the state Attorney General, on behalf of the Relevant Electric Retail Regulatory Authority, attesting to the existence of a regulation or law prohibiting or conditioning the end-use customer's participation.
 - i. If evidence provided by an electric distribution company or Load Serving Entity to the Office of the Interconnection indicates that a Relevant Electric Retail Regulatory Authority law or regulation prohibits or conditions (which condition the electric distribution company or Load Serving Entity asserts has not been satisfied) the end-use customer's participation and is received by the Office of the Interconnection on or after the Interruptible Load for Reliability registration deadline established by the Office of the Interconnection for the next applicable Delivery Year, then the existing Emergency Load Response Participant's registration for Interruptible Load for Reliability (as defined in the Reliability Assurance Agreement) will remain in effect for the applicable Delivery Year. If evidence provided by an electric distribution company or Load Serving Entity to the Office of the Interconnection indicates that a Relevant Electric Retail Regulatory Authority law or regulation prohibits or conditions (which condition the electric distribution company or Load Serving Entity asserts has not been satisfied) the end-use customer's participation and is received by the Office of the Interconnection before the Interruptible Load for Reliability registration deadline established by the Office of the Interconnection for the applicable Delivery Year, then the

- existing Emergency Load Response participant's registration for Interruptible Load for Reliability (as defined in the Reliability Assurance Agreement) participation shall be deemed to be terminated for the applicable Delivery Year.
- ii. If evidence provided by an electric distribution company or Load Serving Entity to the Office of the Interconnection indicates that a Relevant Electric Retail Regulatory Authority law or regulation prohibits or conditions (which condition the electric distribution company or Load Serving Entity asserts has not been satisfied) the end-use customer's participation and is received by the Office of the Interconnection on or after May 31st preceding the applicable Delivery Year, then the existing end-use customer's registration for Demand Resource (as defined in the Reliability Assurance Agreement) will remain in effect for the applicable Delivery Year. If evidence provided by an electric distribution company or Load Serving Entity to the Office of the Interconnection indicates that a Relevant Electric Retail Regulatory Authority law or regulation prohibits or conditions (which condition the electric distribution company or Load Serving Entity asserts has not been satisfied) the end-use customer's participation and is received by the Office of the Interconnection before May 31st preceding the applicable Delivery Year and the Curtailment Service Provider does not provide supporting documentation to the Office of the Interconnection on or before May 31st preceding the applicable Delivery Year demonstrating that the Curtailment Service Provider had an executed contract with the end-use customer for Demand Resource participation before the date the Demand Resource cleared the applicable Reliability Pricing Model Auction, and that the date that the Demand Resource cleared the applicable Reliability Pricing Model Auction was prior to the effective date of the Relevant Electric Retail Regulatory Authority law or regulation prohibiting or conditioning the end-use customer's participation, then, unless the below exception applies, the existing end-use customer's registration for Demand Resource participation shall be deemed to be terminated for the applicable Delivery Year, and the Curtailment Service Provider will be subject to the Reliability Pricing Model provisions, as specified in Attachment DD of the PJM Tariff.
 - (1) Except that, pursuant to all other PJM Tariff and PJM Manual provisions, PJM will allow participation of all end-use customers registered by Curtailment Service Providers to fulfill Curtailment Service Providers' Demand Resource obligations that were cleared in the Reliability Pricing Model Auctions prior to August 28, 2009.
- b. In the absence of a response from the electric distribution company or Load Serving Entity within the referenced ten business day review period, the Office of the Interconnection shall assume that the load to be reduced is not subject to other contractual

obligations or to laws or regulations of the Relevant Electric Retail Regulatory Authority that prohibit or condition the end-use customer's participation in PJM's Emergency Load Response Program, and the Office of the Interconnection shall accept the registration, provided it meets all other Emergency Load Response Program requirements.

- c. For those registrations terminated pursuant to this section, all Emergency Load Response Participant activity incurred prior to the termination date of the registration shall be settled by PJM in accordance with the terms and conditions contained in the PJM Tariff, PJM Operating Agreement and PJM Manuals.
- 3. For end-use customers of an electric distribution company that distributed 4 million MWh or less in the previous fiscal year:
- The Participant completes the Emergency Registration Form located on the PJM website. PJM reviews the application and ensures that the qualifications are met, including verifying that the appropriate metering exists. After confirming that an entity has met all of the qualifications to be an Emergency Load Response Participant, PJM shall notify the appropriate Load Serving Entity and electric distribution company of an Emergency Load Response Participant's registration and request verification as to whether the load that may be reduced is under other contractual obligations and is permitted to participate by the Relevant Electric Retail Regulatory Authority pursuant to the process described below. The electric distribution company and Load Serving Entity have ten business days to respond. Other such contractual obligations may not preclude participation in the program, but may require special consideration by PJM such that appropriate settlements are made within the confines of such existing contracts. If the electric distribution company or Load Serving Entity verifies that the load that may be reduced is permitted or conditionally permitted (which condition the electric distribution company or Load Serving Entity asserts has been satisfied) to participate in the Emergency Load Response Program, then the electric distribution company or Load Serving Entity must provide to the Office of the Interconnection within the referenced ten business day review period either: (a) an order, resolution or ordinance of the Relevant Electric Retail Regulatory Authority permitting or conditionally permitting the end-use customer's participation, (b) an opinion of the Relevant Electric Retail Regulatory Authority's legal counsel attesting to the existence of a regulation or law permitting or conditionally permitting the end-use customer's participation, or (c) an opinion of the state Attorney General, on behalf of the Relevant Electric Retail Regulatory Authority, attesting to the existence of a regulation or law permitting or conditionally permitting the end-use customer's participation.
 - i. If the electric distribution company or Load Serving Entity denies the Interruptible Load for Reliability (as defined in the Reliability Assurance Agreement) registration before the Interruptible Load for Reliability registration deadline as established by the Office of the Interconnection for the applicable Delivery Year because the electric distribution company or Load Serving Entity asserts that the Relevant Electric Retail Regulatory Authority has not granted permission or conditional permission for the end-use customer's participation or the electric distribution company or Load Serving Entity asserts that the end-use customer has not satisfied

conditional permission requirements, then the existing Emergency Load Response Participant's registration for Interruptible Load for Reliability participation shall be deemed to be terminated for the applicable Delivery Year. If it is able to do so in compliance with all Emergency Load Response Program requirements, including the registration requirements, the participant may submit a new registration to the Office of the Interconnection for consideration if a prior registration has been rejected pursuant to the terms of the Emergency Load Response Program provisions.

- ii. If the electric distribution company or Load Serving Entity denies the enduse customer's Demand Resource (as defined in the Reliability Assurance Agreement) registration on or before May 31st preceding the applicable Delivery Year and the Curtailment Service Provider does not provide the above referenced Relevant Electric Retail Regulatory Authority evidence to the Office of the Interconnection on or before May 31st preceding the applicable Delivery Year demonstrating that the Curtailment Service Provider had Relevant Electric Retail Regulatory Authority permission or conditional permission (which condition the electric distribution company or Load Serving Entity asserts has been satisfied) for the end-use customer's participation and an executed contract with the end-use customer Demand Resource before the date the Demand Resource cleared the applicable Reliability Pricing Model Auction then, unless the below exception applies, the existing end-use customer's registration for Demand Resource registration for Demand Resource participation shall be deemed to be terminated for the applicable Delivery Year and the Curtailment Service Provider will be subject to the Reliability Pricing Model provisions, as specified in Attachment DD of the PJM Tariff.
 - (1) Except that, pursuant to all other PJM Tariff and PJM Manual provisions, PJM will allow participation of all end-use customers registered by Curtailment Service Providers to fulfill Curtailment Service Providers' Demand Resource obligations that were cleared in the Reliability Pricing Model Auctions prior to August 28, 2009.
- b. In the absence of a response from the electric distribution company or Load Serving Entity within the referenced ten business day review period, the Office of the Interconnection shall reject the registration. If it is able to do so in compliance with all of the Emergency Load Response Program requirements, including the registration section, the Emergency Load Response Participant may submit a new registration to the Office of the Interconnection for consideration if a prior registration has been rejected pursuant to the terms of the Emergency Load Response Program provisions.
- c. For those registrations terminated pursuant to this section, all Emergency Load Response participant activity incurred prior to the termination date of the registration shall be

settled by PJMSettlement in accordance with the terms and conditions contained in the PJM Tariff, PJM Operating Agreement and PJM Manuals.

- 4. PJM informs the requesting participant of acceptance into the program and notifies the appropriate Load Serving Entity and electric distribution company of the requesting participant's acceptance into the program, or notifies the requesting participant and appropriate Load Serving Entity and electric distribution company of PJM's rejection of the requesting participant's registration.
- 5. Any end-use customer intending to run distributed generating units in support of local load for the purpose of participating in this program must represent in writing to PJM that it holds all applicable environmental and use permits for running those generators. Continuing participation in this program will be deemed as a continuing representation by the owner that each time its distributed generating unit is run in accordance with this program, it is being run in compliance with all applicable permits, including any emissions, run-time limit or other constraint on plant operations that may be imposed by such permits.

Emergency Load Response Registrations in Effect as of August 28, 2009

All existing Emergency Load Response Participants' registrations submitted to PJM prior to August 28, 2009 (the effective date of *Wholesale Competition in Regions with Organized Electric Markets*, Order 719-A, 128 FERC ¶ 61,059 (2009) ("Order 719-A")) for Load Management participation in the 2009/2010 Delivery Year will remain effective for that Delivery Year.

Emergency Operations

PJM will initiate the request for a Lłoad Management reduction event coincident with following the declaration of Maximum Emergency Generation and prior to the implementation of Load Management Steps 1 and 2. (Implementation of the Emergency Load Response Program can be used for regional emergencies.) It is implemented whenever economic generatingon capacity is not adequate to serve load and maintain reserves or maintain system reliability needed that is greater than the highest economic incremental cost. PJM will send an electronic message to Curtailment Service Providers notifying them of the Load Management event; Curtailment Service Providers are required to have the capability to receive this electronic message as described in the PJM Manuals. Additionally, PJM will posts the Load Management event information request for load reduction on the PJM website, on the Emergency Conditions page, and on eData, and issues a burst email to the Emergency Load Response majordomo and issue a. A_separate All-Call message_is also issued.

Following PJM's request to reduce load, (i) participants in the Energy Only Option voluntarily may reduce load; and (ii) participants in the Full Program Option are required to reduce load unless they already have reduced load pursuant to the Economic Load Response Program. PJM will dispatch the resources of all Emergency Load Response Program participants (not already dispatched under the Economic Load Response Program) based on the <u>availability</u>, <u>location</u>

and/or quantity of load reduction needed Minimum Dispatch Prices specified in the participants' Emergency Registration Forms.

The Minimum Dispatch Price of a Full Program Option participant that reduces load may set the real time Locational Marginal Price ("LMP") provided that the participant's load reductions are needed to meet demand in the PJM Region. The Minimum Dispatch Price of an Energy Only Option participant that reduces load may set the real time LMP provided that such participant's load reductions are needed to meet demand in the PJM Regions and the Energy Only Option participant's resource satisfies PJM's telemetry requirements.

Operational procedures are described in detail in the *PJM Manual for Emergency Operations*.

Verification

PJM requires that the load reduction meter data be submitted to PJM within 60 days of the event. If the data are not received within 60 days, no payment for participation is provided. Meter data must be provided for all hours during the day of the Load Management event or the Load Management performance test, and for all hours during any other days as required by the Office of the Interconnection to calculate the load reduction. These data files are to be communicated to PJM either via the Load Response Program web site or email. Files that are emailed must be in the PJM-approved file format. Meter data will be forwarded to the EDC and LSE upon receipt, and these parties will then have ten (10) business days to provide feedback to PJM.

Market Settlements

Payment for reducing load is based on the actual kWh relief provided plus the adjustment for losses, subject to the Reporting and Compliance provisions below. The minimum duration of a load reduction request is two hours. The magnitude of relief provided by Full Program Option participants shall be the amount PJM dispatches up to the kW amount declared on the Emergency Registration Form. The magnitude of relief provided by Energy Only Option participants could be less than, equal to, or greater than the kW amount declared on the Emergency Registration Form.

PJMSettlement pays the applicable LMP to the PJM Member that nominates the load. Payment will be equal to the measured reduction (either measured output of backup generation or the difference between the measured load the hour before the reduction and each hour during the reduction) adjusted for losses times the applicable LMP. If, however, the sum of the hourly energy payments to a participant dispatched by PJM for actual, achieved reductions is not greater than or equal to the offer value (i.e. Minimum Dispatch Price, minimum down time and shut down costs) then the participant will be made whole up to the offer value for its actual, achieved reductions.

Full Program Option participants that fail to provide a load reduction (as measured as set forth in the Reporting and Compliance provisions below) when dispatched by PJM shall be assessed penalties and/or charges as specified in Attachment DD of the PJM Tariff and the Reliability Assurance Agreement, as applicable.

During emergency conditions, costs for emergency purchases in excess of LMP are allocated among PJM Market Buyers in proportion to their increase in net purchases *minus real-time dispatch reduction megawatts* from the PJM energy market during the hour in the real time market compared to the day-ahead market. Consistent with this pricing methodology, all charges under this program are allocated to purchasers of energy, in proportion to their increase in net purchases *minus real-time dispatch reduction megawatts* from the PJM energy market during the hour from day-ahead to real time.

Program charges and credits will appear on the PJM Members monthly bill, as described in the *PJM Manual for Operating Agreement Accounting and the PJM Manual for Billing*.

Reporting and Compliance

Actual load reductions of Energy Only Option emergency resources will be added back for the purpose of peak load calculations for capacity for the following Delivery Year.

Actual Emergency Load Response and Economic Load Response load reductions for Load Management resources registered as Emergency Load Response Full Program Option or Capacity Only resources which occur from June 1 through September 30, will be added back for the purpose of calculating peak load for capacity for the following Delivery Year, as set forth in the PJM Manuals and consistent with the load response recognized for compliance as set forth below. Capacity Only resources are Full Program Option resources that do not receive an energy payment for load reductions during an emergency event.

Actual load reductions of Load Management resources registered as Emergency Load Response Full Program Option or Capacity Only resources used to determine Load Management event and test capacity compliance for Firm Service Level and Guaranteed Load Drop end-use customers shall be equal to the load reduction provided to the electric distribution company as follows and in accordance with the PJM Manuals:

i) For Guaranteed Load Drop end-use customers, the lesser of (a) comparison load used to best represent what the load would have been if PJM did not declare a Load Management event or the CSP did not initiate a test as outlined in the PJM Manuals, minus the metered load ("Load") and then multiplied by the loss factor ("LF") or (b) the current Delivery Year peak load contribution ("PLC") minus the metered load multiplied by the loss factor ("LF"). A load reduction will only be recognized if the metered load multiplied by the loss factor is less than the current Delivery Year peak load contribution. The calculation is represented by:

Minimum of {(comparison load – Load) * LF, PLC – (Load * LF)}

ii) For Firm Service Level end-use customers the current Delivery Year peak load contribution ("PLC") minus the metered load ("Load") multiplied by the loss factor ("LF"). The calculation is represented by:

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PLC - (Load * LF)
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iii) For 2011/2012 Delivery Year only, for Guaranteed Load Drop end-use customers, the lesser of (a) comparison load used to best represent what the load would have been if PJM did not declare a Load Management event or the CSP did not initiate a test as outlined in the Manuals, minus the metered load ("Load") and then multiplied by the loss factor ("LF") or (b) the current Delivery Year peak load contribution ("PLC") multiplied by 1.25 minus the metered load ("Load") multiplied by the loss factor ("LF"). A load reduction will only be recognized if the metered load multiplied by the loss factor is less than the current Delivery Year peak load contribution multiplied by 1.25. The calculation is represented by:

Minimum of {(comparison load – Load) * LF, PLC * 1.25 – (Load * LF)}

PJM will submit any required reports to FERC on behalf of the Load Response Program participants. PJM will also post this document, as well as any other program-related documentation on the PJM website.

PJM will post on its website a report of demand response activity, and will provide a summary thereof to the PJM Markets and Reliability Committee on an annual basis.

As PJM receives evidence from the electric distribution companies or Load Serving Entities pursuant to section 1.3 of PJM Emergency Load Response Program, PJM will post on its website a list of those Relevant Electric Retail Regulatory Authorities that the electric distribution companies or Load Serving Entities assert prohibit or condition retail participation in PJM's Emergency Load Response Program together with a corresponding reference to the Relevant Electric Retail Regulatory Authority evidence that is provided to PJM by the electric distribution companies or Load Serving Entities.

Non-hourly metered Customer Pilot

Non-hourly metered customers may participate in the Emergency Load Response Program on a pilot basis under the following circumstances. The customer or its Curtailment Service Provider or Load Serving Entity must propose an alternate method for measuring hourly demand reductions. The Office of the Interconnection shall approve alternate measurement mechanisms on a case-by-case basis for a time period specified by the Office of the Interconnection ("Pilot Period"). In the event an alternative measurement mechanism is approved, the Office of the Interconnection shall notify the affected Load Serving Entity(ies) that a proposed alternate measurement mechanism has been approved for a Pilot Period.

Demand reductions by non-hourly metered customers using alternate measurement mechanisms on a pilot basis shall be limited to a combined total of 500 MW of reductions in both the Emergency Load Response Program and the PJM Interchange Energy Market. With the sole exception of the requirement for hourly metering, non-hourly metered customers shall be subject to the rules and procedures for participation in the Emergency Load Response Program. Following completion of a Pilot Period, the alternate method shall be evaluated by the Office of

the Interconnection to determine whether such alternate method should be included in the PJM Manuals as an accepted measurement mechanism for demand reductions in the Emergency Load Response Program.

Emergency Load Response Participant Aggregation.

The purpose for aggregation is to allow the participation of End-Use Customers in the Emergency Load Response Program that can provide less than 100 kW of demand response on an individual basis. Emergency Load Response Participant aggregations shall be subject to the following requirements:

- i. All End-Use Customers in an aggregation shall be specifically identified;
- ii. All End-Use Customers in an aggregation shall be served by the same electric distribution company or Load Serving Entity where the electric distribution company is the Load Serving Entity for all End-Use Customers in the aggregation;
- iii. All End-Use Customers in an aggregation that settle at Transmission Zone, existing load aggregate, or node prices shall be located in the same Transmission Zone, existing load aggregate or at the same node, respectively;
- iv. Energy settlement will be based on each individual customer's load reductions pursuant to section 3.3A of Schedule 1 of this Agreement, the PJM Reliability Assurance Agreement Among Load Serving Entities in the PJM Region and the PJM Manuals. Capacity compliance will be based on each individual customers' load reductions and then aggregated pursuant to section 3.3A of Schedule 1 of this Agreement, the PJM Reliability Assurance Agreement Among Load Serving Entities in the PJM Region and the PJM Manuals; and
- v. Each End-Use Customer site must meet the requirements for market participation by a Demand Resource.

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11. DEMAND RESOURCE AND ILR COMPLIANCE PENALTY CHARGE

- (a) The Office of the Interconnection shall separately evaluate compliance of each Demand Resource committed and each nominated ILR resource certified for a Delivery Year, in accordance with procedures set forth in the PJM Manuals. The compliance is evaluated separately by event in each Zone for Demand Resources and ILR resources dispatched by the Office of Interconnection. Demand Resource and ILR Compliance Penalty Charges will not be assessed to resources that are dispatched on a subzonal basis unless such subzone is defined and publically posted the day before the Load Management event as defined in the PJM Manuals. To the extent an ILR resource or Demand Resource cannot respond, another ILR resource or Demand Resource in the same geographic location defined by the PJM dispatch instruction with the same designated lead time and comparable capacity commitment may be substituted. Any Demand Resource or ILR resource used as a substitute during an event will have the same obligation to respond to future event(s) as if it did not respond to such event. Capacity Market Sellers that committed Demand Resources, Locational UCAP Sellers that sold Demand Resources, and ILR Providers that nominated ILR for a Delivery Year that cannot demonstrate the hourly performance of such resource in real-time based on the capacity commitment or ILR certification shall be assessed a Demand Resource and ILR Compliance Penalty Charge; provided, however, that such under compliance shall be determined on an aggregate basis for all dispatched Demand Resources and ILR committed by the same Capacity Market Seller, same Locational UCAP Seller, or same ILR Provider in a single Zone. To the extent a Capacity Market Seller is also an ILR Provider, compliance of all Demand Resources committed and ILR resources certified in the same Zone will be evaluated in aggregate.
- The Demand Resource and ILR Compliance Penalty Charge for a Capacity Market Seller/ILR Provider in a Zone for the on-peak period, which includes all hours specified in the Reliability Assurance Agreement definition of the Limited Demand Resource, shall equal the lesser of (1/the number of Load mManagement events during the year for which such ILR resources or Demand Resources were dispatched, or 0.50) times the weighted daily revenue rate for such seller/provider resources dispatched, multiplied by the net under-compliance in such on-peak period, if any, for such seller/provider resulting from all dispatched resources it has committed and ILR it has certified for such Delivery Year for such Zone for each Lload Managementreduction event called by the Office of the Interconnection. Net zonal under compliance for the event will be prorated to individual under compliant registrations based on performance of each registration in order to determine net under compliance(s). The Demand Resource and ILR Compliance Penalty Charge for a Capacity Market Seller/ILR Provider in a Zone for the off-peak period, which includes all hours specified in the Reliability Assurance Agreement definitions of Extended Summer Demand Resource or Annual Demand Resource, but does not included in the on-peak period, shall equal 1/52 times the weighted daily revenue rate for resources dispatched for such seller/provider, multiplied

by the net undercompliance in such off-peak period, if any, for such seller/provider resulting from all resources it has committed and ILR it has certified for such Delivery Year for such Zone for each Lload Managementreduction event called by the Office of the Interconnection. If a Load mManagement event is comprised of both an on-peak period and an off-peak period then such Demand Resource and ILR Compliance Penalty Charge will be the higher of the charges calculated under the prior two sentences. The total Compliance Penalty Charge for the Delivery Year is not to exceed the annual revenue received for such resources. The net zonal undercompliance for each such Lload Managementreduction event shall be the following megawatt quantity, converted to an Unforced Capacity basis using the applicable DR Factor and Forecast Pool Requirement: (i) the megawatts of load reduction capability committed and/or ILR certified by such seller/provider on the day of the Load Management event for all dispatched resources minus (ii) the megawatts of load reduction actually provided by all such dispatched Demand Resources and ILR during such reduction event. A provider's net undercompliance in a Zone shall be reduced by the provider's total amount of Capacity Resource deficiency shortfalls on the day of the Load Management event, determined pursuant to section 8 of Attachment DD of this Tariff, in a Zone for the provider's committed Demand Resources that are the same product(s) dispatched. The daily revenue rate for a Demand Resource shall be the Resource Clearing Price that the resource received in the auction in which it cleared, including any adjustment pursuant to Attachment DD-1, section C of this Tariff. The *daily revenue rate* for an ILR resource shall be the Final Zonal ILR Price. The weighted daily revenue rate for a Capacity Market Seller/ILR Provider shall be the average rate for all cleared Demand Resources and certified ILR, weighted by the megawatts cleared or certified at each price. The total charge per megawatt that may be assessed on a Capacity Market Seller/ILR Provider in a Delivery Year shall be capped at the weighted daily revenue rate the Capacity Market Seller/ILR Provider would receive in the Delivery Year. The Demand Resource and ILR Compliance Penalty Charges for a Load Management event are assessed daily and initially billed by the later of the month of October during such Delivery Year or the third billing month following the Load Management event that gave rise to such charge. The initial billing for a Load Management event will reflect the amounts due from the start of the Delivery Year to the last day that is reflected in the initial billing. The remaining charges for such Load Management event will be assessed daily and billed monthly through the remainder of the Delivery Year.

c) Daily revenues from assessment of a Demand Resource and ILR Compliance Penalty Charge shall be distributed on a pro-rata basis to Demand Resource Providers, Locational UCAP Sellers, and ILR Providers that provided load reductions in excess of the amount such resources were committed or certified to provide. Such revenue distribution, however, shall not exceed for any Capacity Market Seller/ILR Provider the quantity of excess megawatts provided by such Capacity Market Seller/ILR Provider during a single event times 0.20 times the weighted daily revenue rate for such Capacity Market Seller/ILR Provider for resources dispatched. To the extent any such revenues remain after such distribution, the remaining revenues shall be distributed to LSEs based on each LSE's Daily Unforced Capacity Obligation.

OATT OPEN ACCESS TRANSMISSION TARIFF - OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE R - OATT ATTACHMENT DD - OATT ATTACHMENT DD.11A LOAD MANAGEMENT TEST FAILUR

11A LOAD MANAGEMENT AND DEMAND RESOURCES TEST FAILURE CHARGE

a) Beginning with the Delivery Year that commences on June 1, 2009, Capacity Market Sellers that commit Demand Resources and ILR Providers may be charged to the extent their committed resources or certified ILR fail performance tests, as set forth herein.

b)

(i) For ILR or for Limited Demand Resources: If a registration for a Limited Demand Resource committed or an ILR certified by a Capacity Market Seller/ILR Provider is not dispatched by the Office of the Interconnection for a Load mManagement event prior to August 15 of the relevant Delivery Year, then such registrationresource must demonstrate that it was tested as described below in (ii), in a zone for a one-hour period during any hour when a PJM Load mManagement event may be called between June 1 and September 30, inclusive. If a registration for a Limited Demand Resource committed or an ILR certified by a Capacity Market Seller/ILR Provider is dispatched by the Office of the Interconnection for a PJM <u>L</u>oad <u>mM</u>anagement event in a zone between August 16 and September 30, no test will be required. If a registration for a Limited Demand Resource committed or an ILR certified by a Capacity Market Seller/ILR Provider is dispatched by the Office of the Interconnection for a PJM Load mManagement event in a zone between June 1 and September 30, inclusive, then Load Management and Demand Resources Test Failure Charges will not be assessed.

For Annual Demand Resources: if an Annual Demand Resource registration is not dispatched by the Office of the Interconnection for a <code>H_oad mM</code> anagement event in a Delivery Year, then the Annual Demand Resource registration committed by a Capacity Market Seller must demonstrate that the Annual Demand Resource registration committed in a zone was tested as described below in (iii), for a one-hour period during any hour when a PJM <code>H_oad mM</code> anagement event may be called during June through October or the following May of the relevant Delivery Year. If an Annual Demand Resource registration is dispatched by the Office of the Interconnection for a <code>H_oad mM</code> anagement event during the Delivery Year, then no test will be required.

For Extended Summer Demand Resources: if an Extended Summer Demand Resource registration is not dispatched by the Office of the Interconnection for a Load mManagement event during June through October or the following May, then the Extended Summer Demand Resource registration committed by a Capacity Market Seller must demonstrate that the Extended Summer Demand Resource registration was tested as described below in (iii), for a one-hour period during any hour when a PJM Load mManagement event may be called during June through October or the following May of the relevant Delivery Year.

- (ii) All <u>registrations</u>resources in a zone <u>required to test</u> must be tested simultaneously <u>for each product</u> except that, when less than 25 percent (by megawatts) of a provider's total resources in a zone fail a test, the provider may conduct a re-test limited to all <u>registrations</u>resources that failed the prior test, provided that such re-test must be at the same time of day and under approximately the same weather conditions as the prior test, and provided further that all affiliated <u>registrations</u>resources must test simultaneously, where affiliated means <u>registrations</u>resources that have any ability to shift load and are owned or controlled by the same entity. If less than 25 percent of resources fail the test and the provider chooses to conduct a retest, the provider may elect to maintain the performance compliance result for <u>registration(s)</u>resource(s) achieved during the test if provider: (1) notifies the Office of the Interconnection 48 hours prior to the retest under this election; and (2) the provider retests affiliated <u>registrations</u>resources under this election as set forth in the PJM Manual.
- c) a Capacity Market Seller/ILR Provider that committed Demand Resources and/or certified ILR shall be assessed a Load Management and Demand Resources Test Failure Charge equal to the net capability testing shortfall for such products tested in a Zone during such test in the aggregate of all of such Seller's/Provider's Demand Resources/ILR tested in such Zone times the Load Management and Demand Resources Test Failure Charge Rate. The net capability testing shortfall in such Zone shall be the following megawatt quantity, converted to an Unforced Capacity basis using the applicable DR Factor and Forecast Pool Requirement: (i) the summer daily average of the megawatts of load reduction capability committed and/or ILR certified by such seller/provider in such Zone for such product(s) tested minus (ii) the megawatts of load reduction actually provided by all such Demand Resources and ILR in such Zone during such test. The net capability testing shortfall in such Zone for such product(s) tested shall be reduced by the provider's summer daily average of the Capacity Resource deficiency shortfalls, determined pursuant to section 8 of Attachment DD of this Tariff, in such Zone for all of the provider's committed Demand Resources that are of the same product(s) tested.
- d) the Load Management and Demand Resources Test Failure Charge Rate shall equal such Seller/Provider's Weighted Annual Revenue Rate in such Zone for the product(s) tested plus the greater of (0.20 times the Weighted Annual Revenue Rate in such Zone for the product(s) tested or \$20/MW-day) times the number of days in the

Delivery Year. Such charge shall be assessed daily and charged monthly (or otherwise in accordance with customary PJM billing practices in effect at the time); provided, however, that a lump sum payment may be required to reflect amounts due, as a result of a test failure, from the start of the Delivery Year to the day that charges are reflected in regular billing.

e) revenues collected from assessment of Load Management and Demand Resources Test Failure Charges shall be distributed to Load Serving Entities that were charged a Locational Reliability Charge for the Delivery Year for which the Load Management and Demand Resources Test Failure Charge was assessed, pro-rata based on such Load Serving Entities' Daily Unforced Capacity Obligations.

OPERATING AGREEMENT - OA PJM EMERGENCY LOAD RESPONSE PROGRAM - OA Emergency Load Response Program

Emergency Load Response Program

The Emergency Load Response Program is designed to provide a method by which end-use customers may be compensated by PJM for reducing load during an emergency event. As used in the Emergency Load Response Program, the term "end-use customer" refers to an individual location or aggregation of locations that consume electricity as identified by a unique electric distribution company account number. There are two options for participation in the Emergency Load Response Program:

• Full Program Option

Participants in the Full Program Option receive an energy payment for load reductions during an emergency event, and a capacity payment pursuant to Attachment DD of the tariff, as applicable.

• Energy Only Option

Participants in the Energy Only Option receive only an energy payment for load reductions during an emergency event.

OPERATING AGREEMENT - OA PJM EMERGENCY LOAD RESPONSE PROGRAM - OA Emergency Operations

Emergency Operations

PJM will initiate the request for a Lłoad Managementreduction event coincident with following the declaration of Maximum Emergency Generation and prior to the implementation of Load Management Steps 1 and 2. (Implementation of the Emergency Load Response Program can be used for regional emergencies.) It is implemented whenever economic generatingon capacity is not adequate to serve load and maintain reserves or maintain system reliability is needed that is greater than the highest economic incremental cost. PJM will send an electronic message to Curtailment Service Providers notifying them of the Load Management event; Curtailment Service Providers are required to have the capability to receive this electronic message as described in the PJM Manuals. Additionally, PJM will posts the Load Management event information request for load reduction on the PJM website, on the Emergency Conditions page, and on eData, and issues a burst email to the Emergency Load Response majordomo and issue a. A separate All-Call message is also issued.

Following PJM's request to reduce load, (i) participants in the Energy Only Option voluntarily may reduce load; and (ii) participants in the Full Program Option are required to reduce load unless they already have reduced load pursuant to the Economic Load Response Program. PJM will dispatch the resources of all Emergency Load Response Program participants (not already dispatched under the Economic Load Response Program) based on the <u>availability, location and/or quantity of load reduction needed Minimum Dispatch Prices specified in the participants' Emergency Registration Forms.</u>

The Minimum Dispatch Price of a Full Program Option participant that reduces load may set the real time Locational marginal Price ("LMP") provided that the participant's load reductions are needed to meet demand in the PJM Region. The Minimum Dispatch Price of an Energy Only Option participant that reduces load may set the real time LMP provided that such participant's load reductions are needed to meet demand in the PJM Regions and the Energy Only Option participant's resource satisfies PJM's telemetry requirements.

Operational procedures are described in detail in the *PJM Manual for Emergency Operations*.

OPERATING AGREEMENT - OA PJM EMERGENCY LOAD RESPONSE PROGRAM - OA Verification

Verification

PJM requires that the load reduction meter data be submitted to PJM within 60 days of the event. If the data are not received within 60 days, no payment for participation is provided. Meter data must be provided for all hours during the day of the Load Management event or the Load Management performance test, and for all hours during any other days as required by the Office of the Interconnection to calculate the load reduction.

These data files are to be communicated to PJM either via the Load Response Program web site or email. Files that are emailed must be in the PJM-approved file format. Meter data will be forwarded to the EDC and LSE upon receipt, and these parties will then have ten (10) business days to provide feedback to PJM.