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March 30, 2010

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

James J. McNulty, Secretary
Pennsylvania Public Utilities Commission
P.O. Box 3265
Harrisburg, PA. 17105-3265

A-110078

Re: Additional Requirements Regarding Registration as a PJM Load Serving Entity (Docket No. M-2010-2157431)

Dear Mr. McNulty:

Per the Commission requirement, enclosed are:

1) Operating Agreement of PJM Interconnection (OA) and
2) Reliability Assurance Agreement among Load Servicing entities in the PJM region.

If the Commission has any questions regarding this submission, please feel free to contact me at (330) 436-1427 or via email at nbaharuddin@fes.com.

Sincerely,

Norkhairani Baharuddin

Norkhairani Baharuddin
FirstEnergy Solutions

Enclosures

RELIABILITY ASSURANCE AGREEMENT

Among

LOAD SERVING ENTITIES

in the

PJM REGION

RELIABILITY ASSURANCE AGREEMENT

RELIABILITY ASSURANCE AGREEMENT, dated as of this 1st day of June, 2007 by and among the entities set forth in Schedule 17 hereto, hereinafter referred to collectively as the "Parties" and individually as a "Party."

WITNESSETH:

WHEREAS, each Party to this Agreement is a Load Serving Entity within the PJM Region;

WHEREAS, each Party is committing to share its Capacity Resources with the other Parties to reduce the overall reserve requirements for the Parties while maintaining reliable service; and

WHEREAS, each Party is committing to provide mutual assistance to the other Parties during Emergencies;

WHEREAS, each Party is committing to coordinate its planning of Capacity Resources to satisfy the Reliability Principles and Standards;

WHEREAS, the Parties previously have entered into similar commitments related to sub-regions of the PJM Region through the East RAA, the West RAA, or the South RAA;

WHEREAS, the Parties desire, on a phased basis, to replace the East RAA, West RAA, and South RAA with a single reliability assurance agreement among all Load-Serving Entities in the PJM Region; and

NOW THEREFORE, for and in consideration of the covenants and mutual agreements set forth herein and intending to be legally bound hereby, the Parties agree as follows:

ARTICLE 1 -- DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used herein shall have the respective meanings assigned herein or in the Schedules hereto for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Articles, Sections or Schedules, are to Articles, Sections or Schedules of this Agreement. As used in this Agreement:

1.1 **Agreement** shall mean this Reliability Assurance Agreement, together with all Schedules hereto, as amended from time to time.

1.2 **Applicable Regional Reliability Council** shall have the same meaning as in the PJM Tariff.

1.3 **Base Residual Auction** shall have the same meaning as in Attachment DD to the PJM Tariff.

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

1.5 **Black Start Capability** shall mean the ability of a generating unit or station to go from a shutdown condition to an operating condition and start delivering power without assistance from the power system.

1.6 **Capacity Emergency Transfer Objective ("CETO")** shall mean the amount of electric energy that a given area must be able to import in order to remain within a loss of load expectation of one event in 25 years when the area is experiencing a localized capacity emergency, as determined in accordance with the PJM Manuals. Without limiting the foregoing, CETO shall be calculated based in part on $EFOR_D$ determined in accordance with Paragraph C of Schedule 5.

1.7 **Capacity Emergency Transmission Limit ("CETL")** shall mean the capability of the transmission system to support deliveries of electric energy to a given area experiencing a localized capacity emergency as determined in accordance with the PJM Manuals.

1.8 Capacity Resources shall mean megawatts of (i) net capacity from existing or Planned Generation Capacity Resources meeting the requirements of Schedules 9 and 10 that are or will be owned by or contracted to a Party and that are or will be committed to satisfy that Party's obligations under this Agreement, or to satisfy the reliability requirements of the PJM Region, for a Delivery Year; (ii) net capacity from existing or Planned Generation Capacity Resources within the PJM Region not owned or contracted for by a Party which are accredited to the PJM Region pursuant to the procedures set forth in Schedules 9 and 10; and (iii) load reduction capability provided by Demand Resources, Energy Efficiency Resources, or ILR that are accredited to the PJM Region pursuant to the procedures set forth in Schedule 6.

1.9 Capacity Transfer Right shall have the meaning specified in Attachment DD to the PJM Tariff.

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

(a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

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

(c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and Applicable Regional Reliability Councils;

(d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and

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

1.11 Daily Unforced Capacity Obligation shall have the meaning set forth in Schedule 8 or, as to an FRR Entity, in Schedule 8.1.

1.12 Delivery Year shall mean a Planning Period for which a Capacity Resource is committed pursuant to the auction procedures specified in Attachment DD to the Tariff or pursuant to an FRR Capacity Plan.

1.13 Demand Resource shall mean a resource with a demonstrated capability to provide a reduction in demand or otherwise control load in accordance with the requirements of Schedule 6 that offers and that clears load reduction capability in a Base Residual Auction or Incremental Auction or that is committed through an FRR Capacity Plan. As set forth in Schedule 6, a Demand Resource may be an existing demand response resource or a Planned Demand Resource.

1.14 Demand Resource Provider shall have the meaning specified in Attachment DD to the PJM Tariff.

1.15 DR Factor shall mean that factor approved from time to time by the PJM Board used to determine the unforced capacity value of a Demand Resource or ILR in accordance with Schedule 6.

1.16 East RAA shall mean that certain Reliability Assurance Agreement among Load-Serving Entities in the PJM Region, PJM Rate Schedule FERC No. 27.

1.17 Electric Cooperative shall mean an entity owned in cooperative form by its customers that is engaged in the generation, transmission, and/or distribution of electric energy.

1.18 Electric Distributor shall mean an entity that owns or leases with rights equivalent to ownership electric distribution facilities that are providing electric distribution service to electric load within the PJM Region.

1.19 Emergency shall mean (i) an abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or (ii) a fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel; or (iii) a condition that requires implementation of emergency procedures as defined in the PJM Manuals.

1.20 End-Use Customer shall mean a Member that is a retail end-user of electricity within the PJM Region.

1.20A Energy Efficiency Resource shall mean a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, meeting the requirements of Schedule 6 of this Agreement and exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during peak periods as described in Schedule 6 and the PJM Manuals) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

1.21 Facilities Study Agreement shall have the same meaning as in the PJM Tariff

1.22 FERC shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department.

1.23 Firm Point-To-Point Transmission Service shall mean Firm Transmission Service provided pursuant to the rates, terms and conditions set forth in Part II of the PJM Tariff.

1.24 Firm Transmission Service shall mean transmission service that is intended to be available at all times to the maximum extent practicable, subject to an Emergency, an unanticipated failure of a facility, or other event beyond the control of the owner or operator of the facility or the Office of the Interconnection.

1.25 Fixed Resource Requirement Alternative or FRR Alternative shall mean an alternative method for a Party to satisfy its obligation to provide Unforced Capacity hereunder, as set forth in Schedule 8.1 to this Agreement.

1.26 Forecast Pool Requirement shall mean the amount equal to one plus the unforced reserve margin (stated as a decimal number) for the PJM Region required pursuant to this Agreement, as approved by the PJM Board pursuant to Schedule 4.1.

1.27 Forecast RTO ILR Obligation shall have the same meaning as in the PJM Tariff.

1.28 Forecast Zonal ILR Obligation shall have the same meaning as in the PJM Tariff.

1.29 FRR Capacity Plan shall mean a long-term plan for the commitment of Capacity Resources to satisfy the capacity obligations of a Party that has elected the FRR Alternative, as more fully set forth in Schedule 8.1 to this Agreement.

1.30 FRR Entity shall mean, for the duration of such election, a Party that has elected the FRR Alternative hereunder.

1.31 FRR Service Area shall mean (a) the service territory of an IOU as recognized by state law, rule or order; (b) the service area of a Public Power Entity or Electric Cooperative as recognized by franchise or other state law, rule, or order; or (c) a separately identifiable geographic area that is: (i) bounded by wholesale metering, or similar appropriate multi-site aggregate metering, that is visible to, and regularly reported to, the Office of the Interconnection, or that is visible to, and regularly reported to an Electric Distributor and such Electric Distributor agrees to aggregate the load data from such meters for such FRR Service Area and regularly report such aggregated information, by FRR Service Area, to the Office of the Interconnection; and (ii) for which the FRR Entity has or assumes the obligation to provide capacity for all load (including load growth) within such area excluding the load of Single-Customer LSEs that are FRR Entities. In the event that the service obligations of an Electric Cooperative or Public Power Entity are not defined by geographic boundaries but by physical connections to a defined set of customers, the FRR Service Area in such circumstances shall be defined as all customers physically connected to transmission or distribution facilities of such Electric Cooperative or Public Power Entity within an area bounded by appropriate wholesale aggregate metering as described above.

1.32 Full Requirements Service shall mean wholesale service to supply all of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

1.33 Generation Capacity Resource shall mean a generation unit, or the right to capacity from a specified generation unit, that meets the requirements of Schedules 9 and 10 of this Agreement. A Generation Capacity Resource may be an existing Generation Capacity Resource or a Planned Generation Capacity Resource.

1.34 Generation Owner shall mean a Member that owns or leases with rights equivalent to ownership facilities for the generation of electric energy that are located within the

PJM Region. Purchasing all or a portion of the output of a generation facility shall not be sufficient to qualify a Member as a Generation Owner.

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

1.36 Generator Maintenance Outage shall mean the scheduled removal from service, in whole or in part, of a generating unit in order to perform repairs on specific components of the facility, if removal of the facility qualifies as a maintenance outage pursuant to the PJM Manuals.

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

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

1.39 ILR Provider shall have the meaning specified in Attachment DD to the PJM Tariff.

1.40 Incremental Auction shall mean the First Incremental Auction, the Second Incremental Auction, the Third Incremental Auction, or the Conditional Incremental Auction, each as defined in Attachment DD to the PJM Tariff.

1.41 Interconnection Agreement shall have the same meaning as in the PJM Tariff.

1.42 Interruptible Load for Reliability, or ILR, shall mean a resource with a demonstrated capability to provide a reduction in demand or otherwise control load in accordance with the requirements of Schedule 6 that is certified by PJM no later than three months prior to a Delivery Year.

1.43 IOU shall mean an investor-owned utility with substantial business interest in owning and/or operating electric facilities in any two or more of the following three asset categories: generation, transmission, distribution.

1.44 Load Serving Entity or **LSE** shall mean any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer, (i) serving end-users within the PJM Region, and (ii) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region. Load Serving Entity shall include any end-use customer that qualifies under state rules or a utility retail tariff to manage directly its own supply of electric power and energy and use of transmission and ancillary services.

1.45 Locational Reliability Charge shall mean the charge determined pursuant to Schedule 8.

1.46 Markets and Reliability Committee shall mean the committee established pursuant to the Operating Agreement as a Standing Committee of the Members Committee.

1.47 Member shall mean an entity that satisfies the requirements of Sections 1.24 and 11.6 of the PJM Operating Agreement. In accordance with Article 4 of this Agreement, each Party to this Agreement also is a Member.

1.48 Members Committee shall mean the committee specified in Section 8 of the PJM Operating Agreement composed of the representatives of all the Members.

1.49 NERC shall mean the North American Electric Reliability Council or any successor thereto.

1.50 Network Resources shall have the meaning set forth in the PJM Tariff.

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

1.52 Nominated Demand Resource Value shall have the meaning specified in Attachment DD to the PJM Tariff.

1.53 Nominated ILR Value shall have the meaning specified in Attachment DD to the PJM Tariff.

1.54 Non-Retail Behind the Meter Generation shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, and electric distribution companies to serve load.

1.55 Obligation Peak Load shall have the meaning specified in Schedule 8 of this Agreement.

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

1.57 Operating Agreement of PJM Interconnection, L.L.C. or **Operating Agreement** shall mean that certain agreement, dated April 1, 1997 and as amended and restated June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

1.58 Operating Reserve shall mean the amount of generating capacity scheduled to be available for a specified period of an operating day to ensure the reliable operation of the PJM Region, as specified in the PJM Manuals.

1.59 Other Supplier shall mean a Member that is (i) a seller, buyer or transmitter of electric capacity or energy in, from or through the PJM Region, and (ii) is not a Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer.

1.60 Partial Requirements Service shall mean wholesale service to supply a specified portion, but not all, of the power needs of a Load Serving Entity to serve end-users within the PJM Region that are not satisfied by its own generating facilities.

1.61 Percentage Internal Resources Required shall mean, for purposes of an FRR Capacity Plan, the percentage of the LDA Reliability Requirement for an LDA that must be satisfied with Capacity Resources located in such LDA.

1.62 Party shall mean an entity bound by the terms of this Agreement.

1.63 PJM shall mean the PJM Board and the Office of the Interconnection.

1.64 PJM Board shall mean the Board of Managers of the PJM Interconnection, L.L.C., acting pursuant to the Operating Agreement.

1.65 PJM Manuals shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning and accounting requirements of the PJM Region.

1.66 PJM Open Access Transmission Tariff or **PJM Tariff** shall mean the tariff for transmission service within the PJM Region, as in effect from time to time, including any schedules, appendices, or exhibits attached thereto.

1.67 PJM Region shall have the same meaning as provided in the Operating Agreement.

1.68 PJM Region Installed Reserve Margin shall mean the percent installed reserve margin for the PJM Region required pursuant to this Agreement, as approved by the PJM Board pursuant to Schedule 4.1.

1.69 Planned Demand Resource shall mean a Demand Resource that does not currently have the capability to provide a reduction in demand or to otherwise control load, but that is scheduled to be capable of providing such reduction or control on or before the start of the Delivery Year for which such resource is to be committed, as determined in accordance with the requirements of Schedule 6.

1.69A Planned External Generation Capacity Resource shall mean a proposed Generation Capacity Resource, or a proposed increase in the capability of a Generation Capacity Resource, that (a) is to be located outside the PJM Region, (b) participates in the generation interconnection process of a Control Area external to PJM, (c) is scheduled to be physically and electrically interconnected to the transmission facilities of such Control Area on or before the first day of the Delivery Year for which such resource is to be committed to satisfy the reliability requirements of the PJM Region, and (d) is in full commercial operation prior to the first day of such Delivery Year, such that it is sufficient to provide the Installed Capacity set forth in the Sell Offer forming the basis of such resource's commitment to the PJM Region. Prior to participation in any Reliability Pricing Model Auction for such Delivery Year, the Capacity Market Seller must demonstrate that it has executed an interconnection agreement (functionally equivalent to a System Impact Study Agreement under the PJM Tariff for Base Residual Auction and an Interconnection Service Agreement under the PJM Tariff for Incremental Auction) with the transmission owner to whose transmission facilities or distribution facilities the resource is being directly connected, and if applicable the transmission provider. A Planned External Generation Capacity Resource must provide evidence to PJM that it has been studied as a Network Resource, or such other similar interconnection product in such external Control Area, must provide contractual evidence that it has applied for or purchased transmission service to be deliverable to the PJM border, and must provide contractual evidence that it has applied for transmission service to be deliverable to the bus at which energy is to delivered, the agreements for which must have been executed prior to participation in any Reliability Pricing Model Auction for such Delivery Year, An External Generation Capacity Resource shall cease to be considered a Planned External Generation Capacity Resource as of the date that interconnection service commences, in accordance with the terms and conditions of the referenced interconnection agreement.

1.70 Planned Generation Capacity Resource shall mean a Generation Capacity Resource participating in the generation interconnection process under part IV, subpart A of the PJM Tariff, for which Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed, for which a System Impact Study Agreement has been executed prior to the Base Residual Auction for such Delivery Year, and for which an Interconnection Service Agreement has been executed prior to any Incremental Auction for such Delivery Year. A Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the date that Interconnection Service commences, in accordance with Part IV of the PJM Tariff, as to such resource.

1.71 Planning Period shall mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period approved by the Members Committee.

1.72 Public Power Entity shall mean any agency, authority, or instrumentality of a state or of a political subdivision of a state, or any corporation wholly owned by any one or more of the foregoing, that is engaged in the generation, transmission, and/or distribution of electric energy.

1.73 Qualifying Transmission Upgrades shall have the meaning specified in Attachment DD to the PJM Tariff.

1.74 Markets and Reliability Committee shall mean the committee established pursuant to the Operating Agreement as a Standing Committee of the Members Committee.

1.75 Reliability Principles and Standards shall mean the principles and standards established by NERC or an Applicable Regional Reliability Council to define, among other things, an acceptable probability of loss of load due to inadequate generation or transmission capability, as amended from time to time.

1.76 Required Approvals shall mean all of the approvals required for this Agreement to be modified or to be terminated, in whole or in part, including the acceptance for filing by FERC and every other regulatory authority with jurisdiction over all or any part of this Agreement.

1.77 Self-Supply shall have the meaning provided in Attachment DD to the PJM Tariff.

1.78 Single-Customer LSE shall mean a Party that (a) serves only retail customers that are Affiliates of such Party; (b) owns or controls generation facilities located at one or more of the retail customer location(s) that in the aggregate satisfy at least 50% of such Party's Unforced Capacity obligations; and (c) serves retail customers having (i) an Obligation Peak Load at all locations of no less than 100 MW, where such peak load of each such location is no less than 10 MW; or (ii) an Obligation Peak Load at each location served of no less than 25 MW.

1.79 South RAA shall mean that certain Reliability Assurance Agreement among Load-Serving Entities in the PJM South Region, on file with FERC as PJM Rate Schedule FERC No. 40.

1.80 State Consumer Advocate shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, inter alia, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

1.81 State Regulatory Structural Change shall mean as to any Party, a state law, rule, or order that, after September 30, 2006, initiates a program that allows retail electric consumers served by such Party to choose from among alternative suppliers on a competitive basis, terminates such a program, expands such a program to include classes of customers or localities served by such Party that were not previously permitted to participate in such a program, or that modifies retail electric market structure or market design rules in a manner that materially increases the likelihood that a substantial proportion of the customers of such Party that are eligible for retail choice under such a program (a) that have not exercised such choice will exercise such choice; or (b) that have exercised such choice will no longer exercise such choice, including for example, without limitation, mandating divestiture of utility-owned generation or structural changes to such Party's default service rules that materially affect whether retail choice is economically viable.

1.82 Threshold Quantity shall mean, as to any FRR Entity for any Delivery Year, the sum of (a) the Unforced Capacity equivalent (determined using the Pool-Wide Average $EFOR_D$) of the Installed Reserve Margin for such Delivery Year multiplied by the Preliminary Forecast Peak Load for which such FRR Entity is responsible under its FRR Capacity Plan for such Delivery Year, plus (b) the lesser of (i) 3% of the Unforced Capacity amount determined in (a) above or (ii) 450 MW. If the FRR Entity is not responsible for all load within a Zone, the Preliminary Forecast Peak Load for such entity shall be the FRR Entity's Obligation Peak Load last determined prior to the Base Residual Auction for such Delivery Year, times the Base FRR Scaling Factor (as determined in accordance with Schedule 8.1).

1.83 Transmission Facilities shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC's Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the PJM Region transmission system and integrated into the planning and operation of the PJM Region to serve all of the power and transmission customers within the PJM Region.

1.84 *Transmission Owner* *shall mean* a Member that owns or leases with rights equivalent to ownership Transmission Facilities. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

1.85 Transmission Owners Agreement shall mean that certain Consolidated Transmission Owners Agreement, dated as of December 15, 2005 and as amended from time to time, among transmission owners within the PJM Region.

1.86 Unforced Capacity shall mean installed capacity rated at summer conditions that is not on average experiencing a forced outage or forced derating, calculated for each Capacity Resource on the 12-month period from October to September without regard to the ownership of or the contractual rights to the capacity of the unit.

1.87 West RAA shall mean the "PJM West Reliability Assurance Agreement among the Load Serving Entities in the PJM West Region," on file with FERC as PJM Rate Schedule FERC No. 32.

1.88 Zonal Capacity Price shall mean the price of Unforced Capacity in a Zone that an LSE that has not elected the FRR Alternative is obligated to pay for a Delivery Year as determined pursuant to Attachment DD to the PJM Tariff.

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

ARTICLE 2 -- PURPOSE

This Agreement is intended to ensure that adequate Capacity Resources, including planned and existing Generation Capacity Resources, planned and existing Demand Resources, Energy Efficiency Resources, and ILR will be planned and made available to provide reliable service to loads within the PJM Region, to assist other Parties during Emergencies and to coordinate planning of such resources consistent with the Reliability Principles and Standards. Further, it is the intention and objective of the Parties to implement this Agreement in a manner consistent with the development of a robust competitive marketplace. To accomplish these objectives, this Agreement is among all of the Load Serving Entities within the PJM Region. Unless this Agreement is terminated as provided in Section 3.3, every entity which is or will become a Load Serving Entity within the PJM Region is to become and remain a Party to this Agreement or to an agreement (such as a requirements supply agreement) with a Party pursuant to which that Party has agreed to act as the agent for the Load Serving Entity for purposes of satisfying the obligations under this Agreement related to the load within the PJM Region of that Load Serving Entity. Nothing herein is intended to abridge, alter or otherwise affect the emergency powers the Office of the Interconnection may exercise under the Operating Agreement and PJM Tariff.

ARTICLE 3 -- TERM AND TERMINATION OF THE AGREEMENT

3.1 Term. This Agreement shall become effective as of June 1, 2007 and shall govern Unforced Capacity Obligations for the Planning Period beginning as of that date ("Initial Delivery Year"), and for each Planning Period thereafter, unless and until terminated in accordance with the terms hereof.

3.2 Transition Provisions. The East RAA, West RAA, and South RAA shall govern, in accordance with their terms now in effect or as hereafter validly amended, capacity requirements for each Planning Period through the end of the Planning Period ending May 31, 2007. Subject to the termination provisions in each such agreement, the East RAA, West RAA, and South RAA shall terminate effective 11:59:59 p.m. on May 31, 2007.

3.3 Termination.

3.3.1 Rights to Terminate. This Agreement may be terminated by a vote in the Members Committee to terminate the Agreement by an affirmative Sector Vote as specified in the Operating Agreement and upon the receipt of all Required Approvals related to the termination of this Agreement. Any such termination must be approved by the PJM Board and filed with the FERC and shall become effective only upon the FERC's approval.

3.3.2 Obligations upon Termination. Any provision of this Agreement that expressly or by implication comes into or remains in force following the termination of this Agreement shall survive such termination. The surviving provisions shall include, but shall not be limited to: (a) final settlement of the obligations of each Party under Articles 8 and 12 of this Agreement, including the accounting for the period ending with the last day of the month for which the Agreement is effective, (b) the provisions of this Agreement necessary to conduct final billings, collections and accounting with respect to all matters arising hereunder and (c) the indemnification provisions as applicable to periods prior to such termination.

ARTICLE 4 -- ADDITION OF NEW PARTIES

Each Party agrees that any entity that (i) is or will become a Load Serving Entity, (ii) complies with the process and data requirements set forth in Schedule 1, and (iii) meets the standards for interconnection set forth in Schedule 2 shall become a Party to this Agreement and shall be listed on Schedule 16 of this Agreement upon becoming a party to the Operating Agreement, and execution of a counterpart of this Agreement.

ARTICLE 5 -- WITHDRAWAL OR REMOVAL OF A PARTY

5.1 Withdrawal of a Party.

5.1.1 Notice. Upon written notice to the Office of the Interconnection, any Party may withdraw from this Agreement, effective upon the completion of its obligations hereunder and the documentation by such Party, to the satisfaction of the Office of the Interconnection, that such Party is no longer a Load Serving Entity.

5.1.2 Determination of Obligations. A Party's obligations hereunder shall be completed as of the end of the last month for which such Party's obligations have been set at the time said notice is received, except as provided in Article 13, or unless the Members Committee determines that the remaining Parties will be able to adjust their obligations and commitments related to the performance of this Agreement consistent with such earlier withdrawal date as may be requested by the withdrawing Party, without undue hardship or cost, while maintaining the reliability of the PJM Region.

5.1.3 Survival of Obligations upon Withdrawal. (a) The obligations of a Party upon its withdrawal from this Agreement and any obligations of that Party under this Agreement at the time of its withdrawal shall survive the withdrawal of the Party from this Agreement. Upon the withdrawal of a Party from this Agreement, final settlement of the obligations of such Party under Articles 7 and 11 of this Agreement shall include the accounting through the date established pursuant to Sections 5.1.1 and 5.1.2.

(b) Any Party that withdraws from this Agreement shall pay all costs and expenses associated with additions, deletions and modifications to communication, computer, and other affected facilities and procedures, including any filing fees, to effect the withdrawal of the Party from the Agreement.

(c) Prior to withdrawal, a withdrawing Party desiring to remain interconnected with the PJM Region shall enter into a control area to control area interconnection agreement with the Office of the Interconnection and the transmission owner or Electric Distributor within the PJM Region with which its facilities are interconnected.

5.1.4 Regulatory Review. Any withdrawal from this Agreement shall be filed with FERC and shall become effective only upon FERC's approval.

5.2 Breach by a Party. If a Party (a) fails to pay any amount due under this Agreement within 30 days after the due date or (b) is in breach of any material obligation under this Agreement, the Office of the Interconnection shall cause a notice of such non-payment or breach to be sent to that Party. If the Party fails, within 3 days of the receipt of such notice (except as otherwise described below), to cure such non-payment or breach, or if the breach cannot be cured within such time and if the Party does not diligently commence to cure the breach within such time and to diligently pursue such cure to completion, the Office of the Interconnection and the remaining Parties may, without an election of remedies, exercise all remedies available at law or in equity or other appropriate proceedings. Such proceedings may include (c) the commencement of a proceeding before the appropriate state regulatory commission(s) to request suspension or revocation of the breaching Party's license or authorization to serve retail load within the state(s) and/or (d) bringing any civil action or actions or recovery of damages that may include, but not be limited to, all amounts due and unpaid by the breaching Party, and all costs and expenses reasonably incurred in the exercise of its remedies hereunder (including, but not limited to, reasonable attorneys' fees).

ARTICLE 6 -- MANAGEMENT ADMINISTRATION

Except as otherwise provided herein, this Agreement shall be managed and administered by the Parties, Members, and State Consumer Advocates through the Members Committee and the Markets and Reliability Committee as a Standing Committee thereof, except as delegated to the Office of the Interconnection and except that only the PJM Board shall have the authority to approve and authorize the filing of amendments to this Agreement with the FERC.

ARTICLE 7 -- RESERVE REQUIREMENTS AND OBLIGATIONS

7.1 Forecast Pool Requirement and Unforced Capacity Obligations. (a) The Forecast Pool Requirement shall be established to ensure a sufficient amount of capacity to meet the forecast load plus reserves adequate to provide for the unavailability of Generation Capacity Resources, load forecasting uncertainty, and planned and maintenance outages. Schedule 4 sets forth guidelines with respect to the Forecast Pool Requirement.

(b) Unless the Party and its customer that is also a Load Serving Entity agree that such customer is to bear direct responsibility for the obligations set forth in this Agreement, (i) any Party that supplies Full Requirements Service to a Load Serving Entity within the PJM Region shall be responsible for all of that Load Serving Entity's capacity obligations under this Agreement for the period of such Full Requirements Service and (ii) any Party that supplies Partial Requirements Service to a Load Serving Entity within the PJM Region shall be responsible for such portion of the capacity obligations of that Load Serving Entity as agreed by the Party and the Load Serving Entity so long as the Load Serving Entity's full capacity obligation under this Agreement is allocated between or among Parties to this Agreement.

7.2 Responsibility to Pay Locational Reliability Charge. Except to the extent its capacity obligations are satisfied through the FRR Alternative, each Party shall pay, as to the loads it serves in each Zone during a Delivery Year, a Locational Reliability Charge for each such Zone during such Delivery Year. The Locational Reliability Charge shall equal such Party's Daily Unforced Capacity Obligation in a Zone, as determined pursuant to Schedule 8 of this Agreement, times the Final Zonal Capacity Price for such Zone, as determined pursuant to Attachment DD of the PJM Tariff.

7.3 LSE Option to Provide Capacity Resources. A Party obligated to pay a Locational Reliability Charge for a Delivery Year may partially or wholly offset amounts it must pay for such charge by offering Capacity Resources for sale in the Base Residual Auction or an Incremental Auction applicable to such Delivery Year; provided such resources clear such auctions. Resources offered for sale in any such auction must satisfy the requirements specified in this Agreement and the PJM Manuals. Such a Party may choose to nominate a resource in the Base Residual Auction as Self-Supply, may choose to designate a price offer for such resource into any such auction, or may indicate in its offer that it wishes to commit such resource regardless of the clearing price, in which case the Party shall receive the marginal value of system capacity and the price adders for any applicable binding locational constraint in accordance with Attachment DD of the PJM Tariff. Each such Party acknowledges that the clearing price it receives for a resource offered for sale and cleared, or Self-Supplied, in an auction may differ from the Final Zonal Capacity Price determined for the applicable Zone for the applicable Delivery Year, and that the Party shall remain responsible for the Locational Reliability Charge notwithstanding any such difference between the Capacity Resource Clearing Price and the Final Zonal Capacity Price. In addition, such Parties recognize that they may receive an allocation of Capacity Transfer Rights which may offset a portion of the Locational Reliability Charge, and that they may offset a portion of the Locational Reliability Charge by nominating ILR, or by offering and clearing Qualifying Transmission Upgrades in the Base Residual Auction.

7.4 Fixed Resource Requirement Alternative. A Party that is eligible for the Fixed Resource Requirement Alternative may satisfy its obligations hereunder to provide Unforced Capacity by submitting and adhering to an FRR Capacity Plan and meeting all other terms and conditions of such alternative, as set forth in this Agreement.

7.5 Capacity Plans and Deliverability. Each Party electing to provide Capacity Resources to meet its obligations hereunder shall submit to the Office of the Interconnection its plans (or revisions to previously submitted plans), as prescribed by Schedule 7, or, in the case of a Party electing the FRR Alternative, as prescribed by Schedule 8.1, to install or contract for Capacity Resources. As set forth in Schedule 10, each Party must designate its Capacity Resources as Network Resources or Points of Receipt under the PJM Tariff to allow firm delivery of the output of its Capacity Resources to the Party's load within the PJM Region and each Party must obtain any necessary Firm Transmission Service in an amount sufficient to deliver Capacity Resources from outside the PJM Region to the border of the PJM Region to reliably serve the Party's load within the PJM Region.

7.6 Nature of Resources. Each Party electing to Self-Supply resources, or electing the FRR Alternative, shall provide or arrange for specific, firm Capacity Resources that are capable of supplying the energy requirements of its own load on a firm basis without interruption for economic conditions and with such other characteristics that are necessary to support the reliable operation of the PJM Region, as set forth in more detail in Schedules 6, 9 and 10.

7.7 Compliance Audit of Parties. (a) For the 36 months following the end of each Planning Period, each Party shall make available the records and supporting information related to the performance of this Agreement from such Planning Period for audit.

(b) The Office of the Interconnection shall evaluate and determine the need for an audit of a Party and shall, upon a decision of the Members Committee to require such an audit, provide the Party or Parties to be audited with notice at least 90 days in advance of the audit.

(c) Any audit of a Party conducted pursuant to this Agreement shall be performed by an independent consultant to be selected by the Office of the Interconnection. Such audit shall include a review of the Party's compliance with the procedures and standards adopted pursuant to this Agreement.

(d) Prior to the completion of its audit, the independent consultant shall review its preliminary findings with the Party being audited and, upon the completion of its audit, the independent consultant shall issue a final audit report detailing the results of the audit, which final report shall be issued to the Party being audited, the Office of the Interconnection and the Markets and Reliability Committee; provided, however, no confidential data of any Party shall be disclosed through such audit reports.

(e) If, based on a final audit report, an adjustment is required to any amounts due to or from the Parties pursuant to Schedules 8, 12, or 13, such adjustment shall be accounted for in determining the amounts due to or from the Parties pursuant to Schedules 8, 12, or 13 for the month in which the adjustment is identified.

ARTICLE 8 -- DEFICIENCY, DATA SUBMISSION, AND EMERGENCY CHARGES

8.1 Nature of Charges. Upon the advice and recommendations of the Members Committee, the PJM Board shall, subject to any Required Approvals, approve certain charges to be imposed on a Party for its failure to satisfy its obligations under this Agreement, as set forth in Schedule 12.

8.2 Determination of Charge Amounts. No later than April 1 of each year, the Members Committee shall recommend to the PJM Board such charges to be applicable under this Agreement during the following Planning Period and Schedule 12, which, upon approval by the PJM Board, shall be modified accordingly, subject to the receipt of all Required Approvals. The Markets and Reliability Committee may establish projected charges for estimating purposes only.

8.3 Distribution of Charge Receipts. All of the monies received as a result of any charges imposed pursuant to this Agreement shall be disbursed as provided in this Agreement.

ARTICLE 9 -- COORDINATED PLANNING AND OPERATION

9.1 Overall Coordination. Each Party shall cooperate with the other Parties in the coordinated planning and operation of their owned or contracted for Capacity Resources to obtain a degree of reliability consistent with the Reliability Principles and Standards. In furtherance of such cooperation each Party shall:

(a) coordinate its Capacity Resource plans with the other Parties to maintain reliable service to its own electric customers and those of the other Parties;

(b) cooperate with the members and associate members of such Party's Applicable Regional Reliability Council to ensure the reliability of the region;

(c) make available its Capacity Resources to the other Parties through the Office of the Interconnection for coordinated operation and to supply the needs of the PJM Region for Operating Reserves;

(d) provide or arrange for Network Transmission Service or Firm Point-to-Point Transmission Service for service to the projected load of the Party and include all Capacity Resources as Network Resources designated pursuant to the PJM Tariff or Points of Receipt for Firm Point-to-Point Transmission Service;

(e) provide or arrange for sufficient reactive capability and voltage control facilities to meet Good Utility Practice and to be consistent with the Reliability Principles and Standards;

(f) implement emergency procedures and take such other coordination actions as may be necessary in accordance with the directions of the Office of the Interconnection in times of Emergencies; and

(g) maintain or arrange for Black Start Capability for a portion of its Capacity Resources at least equal to that established from time-to-time by the Office of the Interconnection.

9.2 Generator Planned Outage Scheduling. Each Party shall develop, or cause to be developed, its schedules of planned outages of its Capacity Resources. Such schedules of planned outages shall be submitted to the Office of the Interconnection for coordination with the schedules of planned outages of other Parties and anticipated transmission planned outages.

9.3 Data Submissions. Each Party shall submit to the Office of the Interconnection the data and other information necessary for the performance of this Agreement, including its plans for the addition, modification and removal of Capacity Resources, its load forecasts, and such other data set forth in Schedule 11.

9.4 Charges for Failures to Comply. (a) An emergency procedure charge, as set forth in Attachment DD to the PJM Tariff, shall be imposed on any Party that fails to comply with the directions of the Office of the Interconnection pursuant to Section 9.1(f)

(b) A data submission charge, as set forth in Schedule 12, shall be imposed on any Party that fails to submit the data, plans or other information required by this Agreement in a timely or accurate manner as provided in Schedule 11.

9.5 Metering. Each Party shall comply with the metering standards for the PJM Region, as set forth in the PJM Manuals.

ARTICLE 10 -- SHARED COSTS

10.1 Recording and Audit of Costs. (a) Any costs related to the performance of this Agreement, including the costs of the Office of the Interconnection and such other costs that the Members Committee determines are to be shared by the Parties, shall be documented and recorded in a manner acceptable to the Parties.

(b) The Members Committee may require an audit of such costs; provided, however, the cost records shall be available for audit by any Member or State Consumer Advocate, at the sole expense of such Member or State Consumer Advocate, for 36 months following the end of the Planning Period in which the costs were incurred.

10.2 Cost Responsibility. The costs determined under Section 10.1(a) shall be allocated to and recovered from the Parties to this Agreement and other entities pursuant to Schedule 9-5 of the PJM Tariff.

ARTICLE 11 -- BILLING AND PAYMENT

11.1 Periodic Billing. Each Party shall receive a statement periodically setting forth (i) any amounts due from or to that Party as a result of any charges imposed pursuant to this Agreement and (ii) that Party's share of any costs allocated to that Party pursuant to Article 10.

To the extent practical, such statements are to be coordinated with any billings or statements required pursuant to the Operating Agreement or PJM Tariff.

11.2 Payment. The payment terms and conditions shall be as set forth in the billing statement and shall, to the extent practicable, be the same as those then in effect under the PJM Tariff.

11.3 Failure to Pay. If any Party fails to pay its share of the costs allocated pursuant to Article 10, those unpaid costs shall be allocated to and paid by the other Parties hereto in proportion to the sum of the Daily Unforced Capacity Obligations of each such Party for the billing month. The Office of the Interconnection shall enforce collection of a Party's share of the costs.

ARTICLE 12 -- INDEMNIFICATION AND LIMITATION OF LIABILITIES

12.1 Indemnification. (a) Each Party agrees to indemnify and hold harmless each of the other Parties, its officers, directors, employees or agents (other than PJM Interconnection, L.L.C., its board or the Office of the Interconnection) for all actions, claims, demands, costs, damages and liabilities asserted by third parties against the Party seeking indemnification and arising out of or relating to acts or omissions in connection with this Agreement of the Party from which indemnification is sought, except (i) to the extent that such liabilities result from the willful misconduct of the Party seeking indemnification and (ii) that each Party shall be responsible for all claims of its own employees, agents and servants growing out of any workmen's compensation law. Nothing herein shall limit a Party's indemnity obligations under Article 16 of the Operating Agreement.

(b) The amount of any indemnity payment under this Section 12.1 shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the Party seeking indemnification in respect of the indemnified actions, claims, demands, costs, damages or liabilities. If any Party shall have received an indemnity payment in respect of an indemnified action, claim, demand, cost, damage, or liability and shall subsequently actually receive insurance proceeds or other amounts in respect of such action, claim, demand, cost, damage, or liability, then such Party shall pay to the Party that made such indemnity payment the lesser of the amount of such insurance proceeds or other amounts actually received and retained or the net amount of the indemnity payments actually received previously.

12.2 Limitations on Liability. No Party will be liable to another Party for any claim for indirect, incidental, special or consequential damage or loss of the other Party including, but not limited to, loss of profits or revenues, cost of capital or financing, loss of goodwill and cost of replacement power arising from such Party's carrying out, or failure to carry out, any obligations contemplated by this Agreement; provided, however, nothing herein shall be deemed to reduce or limit the obligation of any Party with respect to the claims of persons or entities not a party to this Agreement.

12.3 Insurance. Each Party shall obtain and maintain in force such insurance as is required of Load Serving Entities by the states in which it is doing business within the PJM Region.

ARTICLE 13 -- SUCCESSORS AND ASSIGNS

13.1 Binding Rights and Obligations. The rights and obligations created by this Agreement and all Schedules and supplements thereto shall inure to and bind the successors and assigns of the Parties; provided, however, no Party may assign its rights or obligations under this Agreement without the written consent of the Members Committee unless the assignee concurrently becomes the Load Serving Entity with regard to the end-users previously served by the assignor.

13.2 Consequences of Assignment. Upon the assignment of all of its rights and obligations hereunder to a successor consistent with the provisions of Section 13.1, the assignor shall be deemed to have withdrawn from this Agreement.

ARTICLE 14 -- NOTICE

Except as otherwise expressly provided herein, any notice required hereunder shall be in writing and shall be sent: overnight courier, hand delivery, telecopy or other reliable electronic means to the representative on the Members Committee of such Party at the address for such Party previously provided by such Party to the other Parties. Any notice shall be deemed to have been given (i) upon delivery if given by overnight courier, hand delivery or certified mail or (ii) upon confirmation if given by facsimile or other reliable electronic means.

ARTICLE 15 -- REPRESENTATIONS AND WARRANTIES

15.1 Initial Representations and Warranties. Each Party represents and warrants to the other Parties that, as of the date it becomes a Party:

(a) the Party is duly organized, validly existing and in good standing under the laws of the jurisdiction where organized;

(b) the execution and delivery by the Party of this Agreement and the performance of its obligations hereunder have been duly and validly authorized by all requisite action on the part of the Party and do not conflict with any applicable law or with any other agreement binding upon the Party. The Agreement has been duly executed and delivered by the Party, and this Agreement constitutes the legal, valid and binding obligation of the Party enforceable against it in accordance with its terms except insofar as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws affecting the enforcement of creditor's rights generally and by general principles of equity regardless of whether such principles are considered in a proceeding at law or in equity; and

(c) there are no actions at law, suits in equity, proceedings or claims pending or, to the knowledge of the Party, threatened against the Party before or by any federal, state, foreign or local court, tribunal or governmental agency or authority that might materially delay, prevent or hinder the performance by the Party of its obligations hereunder.

15.2 Continuing Representations and Warranties. Each Party represents and warrants to the other Parties that throughout the term of this Agreement:

(a) the Party is a Load Serving Entity;

(b) the Party satisfies the requirements of Schedule 2;

(c) the Party is in compliance with the Reliability Principles and Standards;

(d) the Party is a signatory, or its principals are signatories, to the agreements set forth in Schedule 3;

(e) the Party is in good standing in the jurisdiction where incorporated; and

(f) the Party will endeavor in good faith to obtain any corporate or regulatory authority necessary to allow the Party to fulfill its obligations hereunder.

ARTICLE 16 -- OTHER MATTERS

16.1 Relationship of the Parties. This Agreement shall not be interpreted or construed to create any association, joint venture, or partnership between or among the Parties or to impose any partnership obligation or partnership liability upon any Party.

16.2 Governing Law. This Agreement shall be interpreted, construed and governed by the laws of the State of Delaware.

16.3 Severability. Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

16.4 Amendment. This Agreement may be amended only by action of the PJM Board. Notwithstanding the foregoing, an Applicant eligible to become a Party in accordance with the procedures set forth in Article 4 shall become a Party by executing a counterpart of this Agreement without the need for execution of such counterpart by any other Party. The PJM Office of the Interconnection shall file with FERC any amendment to this Agreement approved by the PJM Board.

16.5 Headings. The article and section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

16.6 Confidentiality. (a) No Party shall have a right hereunder to receive or review any documents, data or other information of another Party, including documents, data or other information provided to the Office of the Interconnection, to the extent such documents, data or information have been designated as confidential pursuant to the procedures adopted by the Office of the Interconnection or to the extent that they have been designated as confidential by another Party; provided, however, a Party may receive and review any composite documents, data and other information that may be developed based on such confidential documents, data or information if the composite document does not disclose any individual Party's confidential data or information.

(b) Notwithstanding anything in this Section to the contrary, if a Party is required by applicable laws, or in the course of administrative or judicial proceedings, to disclose information that is otherwise required to be maintained in confidence pursuant to this Section, that Party may make disclosure of such information; provided, however, that as soon as the Party learns of the disclosure requirement and prior to making disclosure, that Party shall notify the affected Party or Parties of the requirement and the terms thereof and the affected Party or Parties may direct, at their sole discretion and cost, any challenge to or defense against the disclosure requirement and the Party shall cooperate with such affected Parties to the maximum extent practicable to minimize the disclosure of the information consistent with applicable law. Each Party shall cooperate with the affected Parties to obtain proprietary or confidential treatment of such information by the person to whom such information is disclosed prior to any such disclosure.

(c) Any contract with a contractor retained to provide technical support or to otherwise assist with the administration of this Agreement shall impose on that contractor a contractual duty of confidentiality that is consistent with this Section.

16.7 Counterparts. *This Agreement may be executed in any number of counterparts,* each of which shall be an original but all of which together will constitute one instrument, binding upon all parties hereto, notwithstanding that all of such parties may not have executed the same counterpart.

16.8 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to assert or rely upon any such provisions, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.

16.9 No Third Party Beneficiaries. This Agreement is intended to be solely for the benefit of the Parties and their respective successors and permitted assigns and is not intended to and shall not confer any rights or benefits on any third party not a signatory hereto.

16.10 Dispute Resolution. Except as otherwise specifically provided in the Operating Agreement, disputes arising under this Agreement shall be subject to the dispute resolution provisions of the Operating Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

[Signatures]

SCHEDULE 1

PROCEDURES TO BECOME A PARTY

A. Notice

Any entity that is or will become a Load Serving Entity within the PJM Region and thus a Party to the Reliability Assurance Agreement shall submit a notice to the Office of the Interconnection together with (i) its representation that it has satisfied or will (prior to the date the Reliability Assurance Agreement is to become effective as to that entity) satisfy the requirements to become a Party, (ii) all data required to coordinate planning and operations within the PJM Region as applicable, in a format defined in the PJM Manuals, and (iii) a deposit in an amount to be specified that will be applied toward the costs of the required analysis.

The required notice, representations, data and deposit must be submitted in sufficient time to conduct an analysis of the data submitted and to adjust the obligations of the Parties for the month in which the entity desires to become a Party:

- If the then existing boundaries of the PJM Region would be expanded by an entity becoming a Party, that entity shall submit the required notice, representation, data and deposit no later than when the entity applies for transmission service under the PJM Tariff.

- If an entity will serve load within the then existing boundaries of the PJM Region, that entity shall submit the required notice, representations, data and deposit as soon as possible prior to the month (i) in which it is to begin serving loads within the PJM Region or (ii) in which any agency relationship through which the entity's obligations under this Agreement had been satisfied is terminated; provided, however, that such submission shall not be required sooner than any request for transmission service or any change in the designation of Network Resources or points of receipt and loads under the PJM Tariff associated with providing service to those loads.

B. Analysis of Data

The notice, representations and data submitted to the Office of the Interconnection are to be analyzed in accordance with procedures consistent with this Agreement and the encouragement of reliable operation of the PJM Region.

C. Response

Upon completion of the analysis, the Office of the Interconnection will inform the entity of (a) the estimated costs and expenses associated with modifications to communication, computer and other facilities and procedures, including any filing fees, needed to include the entity as a Party, (b) the entity's share of any costs pursuant to Article 10, and (c) the earliest date upon which the entity could become a Party. In addition, a counterpart of the Agreement shall be forwarded for execution.

D. Agreement by New Party

After receipt of the response from the Office of the Interconnection, the entity shall identify its representative to the Members Committee and Markets and Reliability Committee and execute the counterpart of the Agreement, indicating the desired effective date; provided, however, such effective date shall be the first day of a month, may be no earlier than the date indicated in the response from the Office of the Interconnection and shall be no later than (i) the date on which the entity begins serving loads within the PJM Region or (ii) the termination date of any agency relationship through which its obligations under this Agreement had been satisfied. The executed counterpart of the Agreement, together with payment of its share of any costs then due, shall be returned as directed by the Office of the Interconnection.

SCHEDULE 2

STANDARDS FOR INTEGRATING AN ENTITY INTO THE PJM REGION

A. The following standards will be applied by the Office of the Interconnection to determine the eligibility of an entity to become a part of the PJM Region. For an entity to be integrated into the PJM Region it must possess generation and transmission attributes that would enable the entity to share its reserves with other entities in the PJM Region. Appropriate transmission and reliability studies are to be performed to determine the adequate transmission capability necessary to integrate the entity into the PJM Region consistent with Good Utility Practice.

B. In addition, the entity shall meet the following requirements to be included in the PJM Region:

1. All load, generation and transmission operating as part of the PJM Region's interconnected system must be included within the metered boundaries of the PJM Region.

2. The entity will accept and comply with the PJM Region's standards with respect to system design, equipment ratings, operating practices and maintenance practices as set forth in the PJM Manuals so that sufficient electrical equipment, control capability, information and communication are available to the Office of the Interconnection for planning and operation of the PJM Region.

3. The load, generation and transmission facilities of each entity shall be included in the telemetry to the Office of the Interconnection from a 24-hour control center. Each system operator in these control centers must be trained and delegated sufficient authority to take any action necessary to assure that the system for which the operator is responsible is operated in a stable and reliable manner.

4. Each entity must have compatible operational communication mechanisms, maintained at its expense, to interact with the Office of the Interconnection and for internal requirements.

5. Each entity must assure the continued compatibility of its local system energy management system monitoring and telecommunications systems to satisfy the technical requirements of interacting with the Office of the Interconnection as it directs the operation of the PJM Region.

SCHEDULE 3

OTHER AGREEMENTS TO BE EXECUTED BY THE PARTIES

- Any agreement for Network Transmission Service or Firm Point-To-Point Service that is required under the PJM Tariff for service consistent with the requirements of Section 9.1(d); and

- The Operating Agreement.

SCHEDULE 4

GUIDELINES FOR DETERMINING THE FORECAST POOL REQUIREMENT

A. Objective Of The Forecast Pool Requirement

The Forecast Pool Requirement shall be determined for the specified Planning Periods to establish the level of Capacity Resources that will provide an acceptable level of reliability consistent with the Reliability Principles and Standards.

B. Forecast Pool Requirement and PJM Region Installed Reserve Margin To Be Determined Annually

No later than three months in advance of each Base Residual Auction for a Delivery Year, based on the projections described in section C of this Schedule, and after consideration of the recommendation of the Members Committee, the PJM Board shall establish the Forecast Pool Requirement, including the PJM Region Installed Reserve Margin for all Parties, including FRR Entities, for such Delivery Year. Unless otherwise agreed by the PJM Board, the Forecast Pool Requirement and PJM Region Installed Reserve Margin for such Planning Period shall be considered firm and not subject to re-determination thereafter.

C. Methodology

Each year, the Forecast Pool Requirement for at least each of the next five Planning Periods shall be projected by applying suitable probability methods to the data and forecasts provided by the Parties and obtained from Electric Distributors, as described in Schedule 11, the Operating Agreement and in the PJM Manuals. The projection of the Forecast Pool Requirement shall consider the following data and forecasts as necessary:

1. Seasonal peak load forecasts for each Planning Period as calculated by PJM in accordance with the PJM Manuals reflecting (a) load forecasts with a 50 percent probability of being too high or too low and (b) summer peak diversities determined by the Office of the Interconnection from recent experience.

2. Forecasts of aggregate seasonal load shape of the Parties which are consistent with forecast averages of 52 weekly peak loads prepared by the Parties and obtained from Electric Distributors for their respective systems.

3. Variability of loads within each week, due to weather and other recurring and random factors, as determined by the Office of the Interconnection.

4. Generating unit capability and types for every existing and proposed unit.

5. Generator Forced Outage rates for existing mature generating units, as determined by the Office of the Interconnection, based on data submitted by the Parties for their respective systems, from recent experience, and for immature and proposed

units based upon forecast rates related to unit types, capabilities and other pertinent characteristics.

6. Generator Maintenance Outage factors and planned outage schedules as determined by the Office of the Interconnection based on forecasts and historical data submitted by the Parties for their respective systems.

7. Miscellaneous adjustments to capacity due to all causes, as determined by the Office of the Interconnection, based on forecasts submitted by the Parties for their respective systems.

8. The emergency capacity assistance available as a function of interconnections of the PJM Region with other Control Areas, as limited by the capacity benefit margin considered in the determination of available transfer capability and the probable availability of generation in excess of load requirements in such areas.

D. Capacity Benefit Margin

The capacity benefit margin initially shall be 3,500 megawatts. Periodically, in consultation with the Members Committee, the Office of the Interconnection shall review and modify, if necessary, the capacity benefit margin to balance external emergency capacity assistance and internal installed capacity reserves so as to minimize the total cost of the capacity reserves of the Parties, consistent with the Reliability Principles and Standards. The Office of the Interconnection will reflect such modification prospectively in its development of the Forecast Pool Requirement for future Planning Periods.

SCHEDULE 4.1

DETERMINATION OF THE FORECAST POOL REQUIREMENT

A. Based on the guidelines set forth in Schedule 4, the Forecast Pool Requirement shall be determined as set forth in this Schedule 4.1 on an unforced capacity basis.

$$FPR = (1 + IRM/100) * (1 - \text{Pool-wide average } EFOR_D/100)$$

where

average $EFOR_D$ = the average equivalent demand forced outage rate for the PJM Region, stated in percent and determined in accordance with Section B hereof

IRM = the PJM Region Installed Reserve Margin approved by the PJM Board for that Planning Period, stated in percent. Studies by the Office of the Interconnection to determine IRM shall not exclude outages that are deemed to be outside plant management control under NERC guidelines.

B. The PJM Region equivalent demand forced outage rate ("average $EFOR_D$") shall be determined as the capacity weighted $EFOR_D$ for all units expected to serve loads within the PJM Region during the Delivery Year, as determined pursuant to Schedule 5.

SCHEDULE 5
FORCED OUTAGE RATE CALCULATION

A. The equivalent demand forced outage rate ("$EFOR_D$") shall be calculated as follows:

$$EFOR_D\ (\%) = \{(f_f * FOH + f_p * EFPOH) / (SH + f_f * FOH)\} * 100$$

where

f_f = full outage factor
f_p = partial outage factor
FOH = full forced outage hours
EFPOH = equivalent forced partial outage hours
SH = service hours

B. Calculation of $EFOR_D$ for individual Generation Capacity Resources.

For each Delivery Year, $EFOR_D$ shall be calculated at least one month prior to the start of the Third Incremental Auction for: (i) each Generation Capacity Resource for which a sell offer will be submitted in such Third Incremental Auction; and (ii) each Generation Capacity Resource previously committed to serve load in such Delivery Year pursuant to an FRR Capacity Plan or prior auctions for such Delivery Year. Such calculation shall be based upon such resource's service history in the twelve (12) consecutive months ending September 30 last preceding such auction. Historical data shall be based on official reports of the Parties under rules and practices set forth in the PJM Manuals. Such rate shall also include (i) an adjustment, if any, for capacity unavailable due to energy limitations determined in accordance with definitions and criteria set forth in the PJM Manuals and (ii) any other adjustments approved by the Members Committee to adjust the parameters of a designated unit. For purposes of the calculations under this Paragraph B, outages deemed to be outside plant management control in accordance with NERC guidelines shall not be considered.

1. The $EFOR_D$ of a unit in service twelve or more full calendar months prior to the calculation month shall be the average rate experienced by such unit during the twelve-month period specified above. Historical data shall be based on official reports of the Parties under rules and practices set forth in the PJM Manuals.

2. The $EFOR_D$ of a unit in service at least one full calendar month but less than the twelve-month period specified above shall be the average of the $EFOR_D$ experienced by the unit weighted by full months of service, and the class average rate for units with that capability and of that type weighted by a factor of [(twelve) minus (the number of months the unit was in service)]. Historical data shall be based on official reports of the Parties under rules and practices set forth in the PJM Manuals.

C. Calculation of average $EFOR_D$ for the PJM Region

The forecast average $EFOR_D$ for the PJM Region in a Delivery Year shall be the average of the forced outage rates, weighted for unit capability and expected time in service, attributable to all of the Generation Capacity Resources within the PJM Region, that are planned to be in service during the Delivery Year, including Generation Capacity Resources purchased from specified units and excluding Generation Capacity Resources sold outside the PJM Region from specified units. Such rate shall also include (i) an adjustment, if any, for capacity unavailable due to energy limitations determined in accordance with definitions and criteria set forth in the PJM Manuals and (ii) any other adjustments developed by the Office of Interconnection and maintained in the PJM Manuals to adjust the parameters of a designated unit when such parameters are or will be used to determine a future PJM Region reserve requirement and such adjustment is required to more accurately predict the future performance of such unit in light of extraordinary circumstances. For the purposes of this Schedule, the average $EFOR_D$ shall be the average of the capacity-weighted $EFOR_D$s of all units committed to serve load in the PJM Region; and for purposes of the $EFOR_D$ calculations under this Paragraph C for any Delivery Year beginning after May 31, 2010, outages deemed to be outside plant management control in accordance with NERC guidelines shall not be considered. All rates shall be in percent.

1. The $EFOR_D$ of a unit not yet in service or which has been in service less than one full calendar year at the time of forecast shall be the class average rate for units with that capability and of that type, as estimated and used in the calculation of the Forecast Pool Requirement.

2. The $EFOR_D$ of a unit in service five or more full calendar years at the time of forecast shall be the average rate experienced by such unit during the five most recent calendar years. Historical data shall be based on official reports of the Parties under rules and practices developed by the Office of Interconnection and maintained in the PJM Manuals.

3. The $EFOR_D$ of a unit in service at least one full calendar year but less than five full calendar years at the time of the forecast shall be determined as follows:

Full Calendar Years of Service	
1	One-fifth the rate experienced during the calendar year, plus four-fifths the class average rate.
2	Two-fifths the average rate experienced during the two calendar years, plus three-fifths the class average rate.
3	Three-fifths the average rate experienced during the three calendar years, plus two-fifths the class average rate.
4	Four-fifths the average rate experienced during the four calendar years, plus one-fifth the class average rate.

SCHEDULE 6

PROCEDURES FOR DEMAND RESOURCES, ILR, AND ENERGY EFFICIENCY

A. Parties can partially or wholly offset the amounts payable for the Locational Reliability Charge with Demand Resources or ILR that are operated under the direction of the Office of the Interconnection. FRR Entities may reduce their capacity obligations with Demand Resources that are operated under the direction of the Office of the Interconnection and detailed in such entity's FRR Capacity Plan. Demand Resources qualifying under the criteria set forth below may be offered for sale or designated as Self-Supply in the Base Residual Auction, included in an FRR Capacity Plan, or offered for sale in any Incremental Auction, for any Delivery Year for which such resource qualifies. In addition, for Delivery Years through May 31, 2012, resources qualifying under the criteria set forth below may be certified as ILR on behalf of a Party that has not elected the FRR Alternative for a Delivery Year no later than three months prior to the first day of such Delivery Year. Qualified Demand Resources and ILR generally fall in one of three categories, i.e., Guaranteed Load Drop, Firm Service Level, or Direct Load Control, as further specified in section H and the PJM Manuals. Qualified Demand Resources and ILR may be provided by a Demand Resource Provider or ILR Provider (hereinafter, "Provider"), notwithstanding that such Provider is not a Party to this Agreement. Such Providers must satisfy the requirements in section I and the PJM Manuals.

1. A Party must formally notify, in accordance with the requirements of the PJM Manuals and paragraph G of this schedule as applicable, the Office of the Interconnection of the Demand Resource or ILR that it is placing under the direction of the Office of the Interconnection.

2. A Party must agree to reserve, for interruption at the direction of the Office of the Interconnection, at least 10 interruptions per Planning Period.

3. The Demand Resource or ILR must be available during the summer period of June through September in the corresponding Delivery Year to be certified, offered for sale or Self-Supplied in an auction, or included as a Demand Resource in an FRR Capacity Plan for the corresponding Delivery Year.

4. A period of no more than 2 hours prior notification must apply to interruptible customers.

5. The initiation of load interruption, upon the request of the Office of the Interconnection, must be within the authority of the dispatchers of the Party. No additional approvals should be required.

6. The initiation of load reduction upon the request of the Office of the Interconnection is considered an emergency action and must be implementable prior to a voltage reduction.

7. A Party must agree to reserve interruptions of at least 6-hour duration. As a minimum, such 6-hour duration for interruptions should be available on weekdays during the 8-hour daily peak window for the appropriate season. There will be no credit given to Parties who choose to provide interruption less than 6 hours and/or exclusive of the above time period.

8. An entity offering for sale, designating for self-supply, or including in any FRR Capacity Plan any Planned Demand Resource must demonstrate, in accordance with standards and procedures set forth in the PJM Manuals, that such resource shall have the capability to provide a reduction in demand, or otherwise control load, on or before the start of the Delivery Year for which such resource is committed. Providers of Planned Demand Resources must provide a timeline including the milestones, which demonstrates to PJM's satisfaction that the Planned Demand Resources will be available for the start of the Delivery Year, 45 days prior to a Base Residual Auction or Incremental Auction. PJM may verify the Provider's adherence to the timetable at any time.

9. Selection of a Demand Resource in an RPM Auction results in commitment of capacity to the PJM Region. Demand Resources that are so committed must be registered to participate in the Full Program Option of the Emergency Load Response program and thus available for dispatch during PJM-declared emergency events.

B. The Unforced Capacity value of a Demand Resource and ILR will be determined as:

the product of the Nominated Value of the Demand Resource, or the Nominated Value of the ILR, times the DR Factor, times the Forecast Pool Requirement. Nominated Values shall be determined and reviewed in accordance with sections J and K, respectively, and the PJM Manuals. The DR Factor is a factor established by the PJM Board with the advice of the Members Committee to reflect the increase in the peak load carrying capability in the PJM Region due to Demand Resources and ILR. Peak load carrying capability is defined to be the peak load that the PJM Region is able to serve at the loss of load expectation defined in the Reliability Principles and Standards. The DR Factor is the increase in the peak load carrying capability in the PJM Region due to Demand Resources and ILR, divided by the total Nominated Value of Demand Resources and ILR in the PJM Region. The DR Factor will be determined using an analytical program that uses a probabilistic approach to determine reliability. The determination of the DR Factor will consider the reliability of Demand Resources and ILR, the number of interruptions, and the total amount of load reduction.

C. Demand Resources offered and cleared in a Base Residual or Incremental Auction shall receive the corresponding Capacity Resource Clearing Price as determined in such auction, in accordance with Attachment DD of the PJM Tariff. If Demand Resource data is not available on an individual LDA basis in a Zone with multiple LDAs, then Demand Resources will be paid a Weighted Zonal Resource Clearing Price, determined as follows: (i) for a Zone that includes non-overlapping LDAs, calculated as the weighted average of the Resource Clearing Prices for such LDAs, weighted by the Unforced Capacity of Resources Cleared (including capacity receiving Resource Make Whole Payments) in each such LDA; or (ii) for a Zone that contains a smaller LDA within a larger LDA, calculated treating the smaller LDA and the remaining portion of the larger LDA as if they were separate LDAs, and weight-averaging in the same manner as (i) above.

D. Certified ILR resources shall receive the Final Zonal ILR Price.

E. The Party, Electric Distributor, Demand Resource Provider, or ILR Provider that establishes a contractual relationship (by contract or tariff rate) with a customer for load reductions is entitled to receive the compensation specified in sections C and D for a committed Demand Resource or certified ILR, notwithstanding that such provider is not the customer's energy supplier.

F. Any Party hereto shall demonstrate that its Demand Resources or ILR performed during periods when load management procedures were invoked by the Office of the Interconnection. The Office of the Interconnection shall adopt and maintain rules and procedures for verifying the performance of such resources, as set forth in section L and the PJM Manuals. In addition, committed Demand Resources and certified ILR that do not comply with the directions of the Office of the Interconnection to reduce load during an emergency shall be subject to the penalty charge set forth in Attachment DD to the PJM Tariff.

G. Parties may elect to place Demand Resources associated with Behind The Meter Generation under the direction of the Office of the Interconnection for a Delivery Year by submitting a Sell Offer for such resource (as Self Supply, or with an offer price) in the Base Residual Auction for such Delivery Year. This election shall remain in effect for the entirety of such Delivery Year. In the event such an election is made, such Behind The Meter Generation will not be netted from load for the purposes of calculating the Daily Unforced Capacity Obligations under this Agreement.

H. PJM recognizes three types of Demand Resource and ILR:

Direct Load Control (DLC) – Load management that is initiated directly by the Provider's market operations center or its agent, employing a communication signal to cycle equipment (typically water heaters or central air conditioners). DLC programs are qualified based on load research and customer subscription data. Providers may rely on the results of load research studies identified in the PJM Manuals to set the per-participant load reduction for DLC programs. Each Provider relying on DLC load management must periodically update its DLC switch operability rates, in accordance with the PJM Manuals.

Firm Service Level (FSL) – Load management achieved by a customer reducing its load to a pre-determined level (the Firm Service Level), upon notification from the Provider's market operations center or its agent.

Guaranteed Load Drop (GLD) – Load management achieved by a customer reducing its load by a pre-determined amount (the Guaranteed Load Drop), upon notification from the Provider's market operations center or its agent. Typically, the load reduction is achieved through running customer-owned backup generators, or by shutting down process equipment.

For each type of Demand Resource and ILR above, there can be two notification periods:

Step 1 (Short Lead Time) – Demand Resource or ILR which must be fully implemented in one hour or less from the time the PJM dispatcher notifies the market operations center of a curtailment event.

Step 2 (Long Lead Time) – Demand Resource or ILR which requires more than one hour but no more than two hours, from the time the PJM dispatcher notifies the market operations center of a curtailment event, to be fully implemented.

I. Each Provider must satisfy (or contract with another LSE, Provider, or EDC to provide) the following requirements:

- A point of contact with appropriate backup to ensure single call notification from PJM and timely execution of the notification process;
- supplemental status reports, detailing Demand Resources and ILR available, as requested by PJM;
- Entry of customer-specific Demand Resource and ILR credit information, for planning and verification purposes, into the designated PJM electronic system.
- Customer-specific compliance and verification information for each PJM-initiated Demand Resource or ILR event, as well as aggregated Provider load drop data for Provider-initiated events, in accordance with established reporting guidelines.
- Load drop estimates for all Demand Resource or ILR events, prepared in accordance with the PJM Manuals.

J. The Nominated Value of each Demand Resource or ILR shall be determined consistent with the process for determination of the capacity obligation for the customer.

The Nominated Value for a Firm Service Level customer will be based on the peak load contribution for the customer, as determined by the 5CP methodology utilized to determine other ICAP obligation values. The maximum Demand Resource or ILR load reduction value for a Firm Service Level customer will be equal to Peak Load Contribution – Firm Contract Level adjusted for system losses.

The Nominated Value for a Guaranteed Load Drop customer will be the guaranteed load drop amount, adjusted for system losses, as established by the customer's contract with the Provider. The maximum credit nominated shall not exceed the customer's Peak Load Contribution.

The Nominated Value for a Direct Load Control program will be based on load research and customer subscription. The maximum value of the program is equal to the approved per-participant load reduction multiplied by the number of active participants, adjusted for system losses. The per-participant impact is to be estimated at long-term average local weather conditions at the time of the summer peak.

Customer-specific Demand Resource or ILR information (EDC account number, peak load, notification period, etc.) will be entered into the designated PJM electronic system to establish credit values. Additional data may be required, as defined in sections K and L.

K. Nominated Values shall be reviewed based on documentation of customer-specific data and Demand Resource or ILR information, to verify the amount of load management available, and to set a maximum allowable Nominated Value. Data is provided by both the zone EDC and the Provider on templates supplied by PJM, and must include the EDC meter number or other unique customer identifier, Peak Load Contribution (5CP), contract firm service level or guaranteed load drop values, applicable loss factor, zone/area location of the load drop, LSE contact information, number of active participants, etc. Such data must be uploaded and approved prior to the first day of the Delivery Year for such resource as a Demand Resource, or certification of such resource as ILR. Providers must provide this information concurrently to host EDCs.

For Firm Service Level and Guaranteed Load Drop customers, the 5CP values, for the zone and affected customers, will be adjusted to reflect an "unrestricted" peak for a zone, based on information provided by the Provider. Load drop levels shall be estimated in accordance with guidelines in the PJM Manuals.

For Direct Load Control programs, the Provider must provide information detailing the number of active participants in each program. Other information on approved DLC programs will be provided by PJM.

L. Compliance is the process utilized to review Provider performance during PJM-initiated Demand Resource and ILR events. The process establishes potential under/over compliance values for the Provider. Compliance is event based, i.e., compliance is verified only if an event occurs between June and September.

PJM will establish and communicate reasonable deadlines for the timely submittal of event data to expedite compliance reviews. Compliance reviews will be completed as soon after the event as possible, with the expectation that reviews of a single event will be completed within two months of the end of the month in which the event took place. Providers are responsible for the submittal of compliance information to PJM for each PJM-initiated event during the compliance period. Compliance for Direct Load Control programs will consider only the transmission of the control signal. Providers are required to report the time period (during the Demand Resource and ILR event) that the control signal was actually sent. Compliance is checked on an individual customer basis for FSL, by comparing actual load during the event to the firm service level. Providers must submit actual customer load levels (for the event period) for the compliance report. Compliance is checked on an individual customer basis for GLD, by comparing actual load dropped during the event to the nominated amount of load drop. Providers must submit actual loads and comparison loads for the compliance hours. Comparison loads must be developed from the guidelines in the PJM Manuals, and note which method was employed.

Compliance is averaged over the full hours of a Demand Resource and ILR event, for each customer or DLC program. Demand Resource or ILR customers may not reduce their load below zero (i.e., export energy into the system). No compliance credit will be given for an incremental load drop below zero. Compliance will be totaled over all FSL and GLD customers and DLC programs to determine a net compliance position for the event for each Provider by Zone, for all Demand Resources committed and ILR Certified by such Provider in the zone. Deficiencies shall be as further determined in accordance with section 11 of Schedule DD to the PJM Tariff.

M. Energy Efficiency Resources

1. An Energy Efficiency Resource is a project, including installation of more efficient devices or equipment or implementation of more efficient processes or systems, exceeding then-current building codes, appliance standards, or other relevant standards, designed to achieve a continuous (during peak periods as described herein) reduction in electric energy consumption that is not reflected in the peak load forecast prepared for the Delivery Year for which the Energy Efficiency Resource is proposed, and that is fully implemented at all times during such Delivery Year, without any requirement of notice, dispatch, or operator intervention.

2. An Energy Efficiency Resource may be offered as a Capacity Resource in the Base Residual or Incremental Auctions for any Delivery Year beginning on or after June 1, 2012. No later than 30 days prior to the auction in which the resource is to be offered, the Capacity Market Seller shall submit to the Office of the Interconnection a notice of intent to offer the resource into such auction and a measurement and verification plan. The notice of intent shall include all pertinent project design data, including but not limited to the peak-load contribution of affected customers, a full description of the equipment, device, system or process intended to achieve the load reduction, the load reduction pattern, the project location, the project development timeline, and any other relevant data. Such notice also shall state the seller's proposed Nominated Energy Efficiency Value, which shall be the expected average load reduction between the hour ending 15:00 EPT and the hour ending 18:00 EPT during all days from June 1 through August 31, inclusive, of such Delivery Year that is not a weekend or federal holiday. The measurement and verification plan shall describe the methods and procedures, consistent with the PJM Manuals, for determining the amount of the load reduction and confirming that such reduction is achieved. The Office of the Interconnection shall determine, upon review of such notice, the Nominated Energy Efficiency Value that may be offered in the Reliability Pricing Model Auction.

3. An Energy Efficiency Resource may be offered with a price offer or as Self-Supply. If an Energy Efficiency Resource clears the auction, it shall receive the applicable Capacity Resource Clearing Price, subject to section 5 below. A Capacity Market Seller offering an Energy Efficiency Resource must comply with all applicable credit requirements as set forth in Attachment Q to the PJM Tariff. The Unforced Capacity value of an Energy Efficiency Resource offered into an RPM Auction shall be the Nominated Energy Efficiency value times the DR Factor and the Forecast Pool Requirement.

4. An Energy Efficiency Resource that clears an auction for a Delivery Year may be offered in auctions for up to three additional consecutive Delivery Years, but shall not be assured of clearing in any such auction; provided, however, an Energy Efficiency Resource may not be offered for any Delivery Year in which any part of the peak season is beyond the expected life of the equipment, device, system, or process providing the expected load reduction; and provided further that a Capacity Market Seller that offers and clears an Energy Efficiency Resource in a BRA may elect a New Entry Price Adjustment on the same terms as set forth in section 5.14(c) of this Attachment DD, except that the Commitment Period may not exceed three consecutive Delivery Years following the Delivery Year associated with the first BRA in which such resource was offered and cleared.

5. For every Energy Efficiency Resource clearing an RPM Auction for a Delivery Year, the Capacity Market Seller shall submit to the Office of the Interconnection, by no later than 30 days prior to each Auction an updated project status and measurement and verification plan subject to the criteria set forth in the PJM Manuals.

6. For every Energy Efficiency Resource clearing an RPM Auction for a Delivery Year, the Capacity Market Seller shall submit to the Office of the Interconnection, by no later than the start of such Delivery Year, an updated project status and detailed measurement and verification data meeting the standards for precision and accuracy set forth in the PJM Manuals. The final value of the Energy Efficiency Resource during such Delivery Year shall be as determined by the Office of the Interconnection based on the submitted data.

7. The Office of the Interconnection may audit, at the Capacity Market Seller's expense, any Energy Efficiency Resource committed to the PJM Region. The audit may be conducted any time including the Performance Hours of the Delivery Year.

SCHEDULE 7

PLANS TO MEET OBLIGATIONS

A. Each Party that elects to meet its estimated obligations for a Delivery Year by Self-Supply of Capacity Resources shall submit to the Office of the Interconnection, no later than one month prior to the start of the Base Residual Auction for such Delivery Year, its plans for such Capacity Resources, including (1) installation of Generation Capacity Resources (2) purchases, and (3) installation of Demand Resources, Energy Efficiency measures, or ILR.

B. The Capacity Resource plans of each Party shall indicate the nature and current status of each resource, including the status of a Planned Generation Capacity Resource or Planned Demand Resource, the potential for deactivation or retirement of a Generation Capacity Resource or Demand Resource, and the status of commitments for each sale or purchase of capacity included in its plans. The Office of the Interconnection will review the adequacy of the submittals hereunder both as to timing and content.

C. A Party that Self-Supplies Capacity Resources to satisfy its obligations for a Delivery Year must submit a Sell Offer as to such resource in the Base Residual Auction for such Delivery Year, in accordance with Attachment DD to the PJM Tariff.

D. If, at any time after the close of the Third Incremental Auction for a Delivery Year, including at any time during such Delivery Year, a Capacity Resource that a Party has committed as a Self-Supplied Capacity Resource becomes physically incapable of delivering capacity or reducing load, the Party may submit a replacement Capacity Resource to the Office of the Interconnection. Such replacement Capacity Resource (1) may not be previously committed for such Delivery Year, (2) shall be capable of providing the same quantity of megawatts of capacity or load reduction as the originally committed Capacity Resource, and (3) shall meet the same locational requirements, if applicable, as the originally committed resource. In accordance with Attachment DD to the PJM Tariff, the Office of the Interconnection shall determine the acceptability of the replacement Capacity Resource.

SCHEDULE 8

DETERMINATION OF UNFORCED CAPACITY OBLIGATIONS

A. For each billing month during a Delivery Year, the Daily Unforced Capacity Obligation of a Party that has not elected the FRR Alternative for such Delivery Year shall be determined on a daily basis for each Zone as follows:

Daily Unforced Capacity Obligation = OPL x Final Zonal RPM Scaling Factor x FPR

Where:

OPL = Obligation Peak Load, defined as the daily summation of the weather-adjusted coincident summer peak, last preceding the Delivery Year, of the end-users in such Zone (net of operating Behind The Meter Generation, but not to be less than zero) for which such Party was responsible on that billing day, as determined in accordance with the procedures set forth in the PJM Manuals

Final Zonal RPM Scaling Factor = the factor determined as set forth in sections B and C of this Schedule

FPR = the Forecast Pool Requirement

Netting of Behind the Meter Generation for a Party with regard to Non-Retail Behind the Meter Generation shall be subject to the following limitation:

For the 2006/2007 Planning Period, 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 Planning Period/Delivery 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 the Office of the Interconnection based on the most recent forecasted weather-adjusted coincident summer peak for 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 Planning Period and the base amount for calculating the Non-Retail Threshold for the succeeding planning period. If the Non-Retail Threshold is exceeded, the amount of operating Non-Retail Behind the Meter Generation that a Party may net shall be adjusted according to the following formula:

Party Netting Credit = (NRT/ PJM NRBTMG) * Party 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 Party NRBTMG Netting Credit shall be adjusted pursuant to Schedule 16 of this Agreement, if applicable.

A Party shall be required to report to PJM 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.

B. Following the Base Residual Auction for a Delivery Year, the Office of the Interconnection shall determine the Base Zonal RPM Scaling Factor and the Base Zonal Unforced Capacity Obligation for each Zone for such Delivery Year as follows:

Base Zonal Unforced Capacity Obligation = (ZWNSP * Base Zonal RPM Scaling Factor * FPR) + Forecast Zonal ILR Obligation (for Delivery Years through May 31, 2012) or Zonal Short-Term Resource Procurement Target (for Delivery Years thereafter)

and

Base Zonal RPM Scaling Factor = ZPLDY/ZWNSP x [RUCO / (RPLDY x FPR)]

Where:

ZPLDY =	Preliminary Zonal Peak Load Forecast for such Delivery Year
ZWNSP =	Zonal Weather-Normalized Summer Peak for the summer season concluding four years prior to the commencement of such Delivery Year
RUCO =	the RTO Unforced Capacity Obligation satisfied in the Base Residual Auction for such Delivery Year.
RPLDY =	RTO Preliminary Peak Load Forecast for such Delivery Year.

For purposes of such determination, PJM shall determine the Preliminary RTO Peak Load Forecast, and the Preliminary Zonal Peak Load Forecasts for each Zone, in accordance with the PJM Manuals for each Delivery Year no later than one month prior to the Base Residual Auction for such Delivery Year. PJM shall determine the Updated RTO and Zonal Peak Load Forecasts in accordance with the PJM Manuals for each Delivery Year no later than one month prior to each of the First, Second, and Third Incremental Auctions for such Delivery Year. PJM shall determine the most recent Weather Normalized Summer Peak for each Zone no later than seven months prior to the start of the Delivery Year, and shall calculate the RTO Weather Normalized Summer Peak as the sum of the Weather Normalized Summer Peaks for all Zones.

C. The Final RTO Unforced Capacity Obligation for a Delivery Year shall be equal to the sum of the unforced capacity obligations satisfied through the Base Residual Auction and the First, Second, Third, and any Conditional Incremental Auctions for such Delivery Year. The unforced capacity obligation satisfied in an Incremental Auction may be negative if capacity is decommitted in such auction. The Final Zonal Unforced Capacity Obligation for a Zone shall be equal to such Zone's pro rata share of the Final RTO Unforced Capacity Obligation for the Delivery Year based on the Final Zonal Peak Load Forecast made one month prior to the Third Incremental Auction The Final Zonal RPM Scaling Factor shall be equal to the Final Zonal Unforced Capacity Obligation divided by (FPR times the Zonal Weather Normalized Summer Peak for the summer concluding prior to the commencement of such Delivery Year).

D. 1. No later than five months prior to the start of each Delivery Year, the Electric Distributor for a Zone shall allocate the most recent Weather Normalized Summer Peak for such Zone to determine the Obligation Peak Load for each end-use customer within such Zone.

2. During the Delivery Year, no later than 36 hours prior to the start of each operating day, the Electric Distributor shall provide to PJM for each Party to this Agreement serving load in such Electric Distributor's Zone the Obligation Peak Load for all end-use customers served by such Party in such Zone. The daily Unforced Capacity Obligation of a Party for such Operating Day shall not be subject to change thereafter.

3. For purposes of such allocations, the daily sum of the Obligation Peak Loads of all Parties serving load in a Zone must equal the Zonal Obligation Peak Load for such Zone.

SCHEDULE 8.1

FIXED RESOURCE REQUIREMENT ALTERNATIVE

A. The Fixed Resource Requirement ("FRR") Alternative provides an alternative means, under the terms and conditions of this Schedule, for an eligible Load-Serving Entity to satisfy its obligation hereunder to commit Unforced Capacity to ensure reliable service to loads in the PJM Region.

B. Eligibility

1. Except as provided in subsection B.3 below, a Party is eligible to select the FRR Alternative if it (a) is an IOU, Electric Cooperative, or Public Power Entity; and (b) demonstrates the capability to satisfy the Unforced Capacity obligation for all load in an FRR Service Area, including all expected load growth in such area, for the term of such Party's participation in the FRR Alternative.

2. A Party eligible under B.1 above may select the FRR Alternative only as to all of its load in the PJM Region; provided however, that a Party may select the FRR Alternative for only part of its load in the PJM Region if (a) the Party elects the FRR Alternative for all load (including all expected load growth) in one or more FRR Service Areas; (b) the Party complies with the rules and procedures of the Office of the Interconnection and all relevant Electric Distributors related to the metering and reporting of load data and settlement of accounts for separate FRR Service Areas; and (c) the Party separately allocates its Capacity Resources to and among FRR Service Areas in accordance with rules specified in the PJM Manuals.

3. Single Customer LSEs as identified in accordance with subsection B.3.a below shall be eligible to elect the FRR Alternative upon the terms and conditions of this Schedule and the following additional terms and conditions. The aggregate Obligation Peak Load of all Single Customer LSEs electing the FRR Alternative in the PJM Region shall not exceed 1000 MW.

a) Single-Customer LSEs eligible for the FRR Alternative shall be limited to those that elected the FRR Alternative on or before April 1, 2008. The Office of the Interconnection, as necessary, shall establish and post in the PJM Manuals open-season procedures to apportion the maximum allowed service under the FRR Alternative among interested Single-Customer LSEs.

b) The Single-Customer LSE must install and maintain wholesale metering at each location that is monitored by, and regularly reported to, the Office of the Interconnection.

c) Each Single-Customer LSE warrants that (i) it has and shall maintain and enforce the contract right during the term of its election of the FRR Alternative to prohibit its retail customer(s) from terminating service from the Single-Customer LSE and obtaining such service from a different LSE; and (ii) it has and shall maintain for such term Financial Security or a Corporate Guaranty, both as defined in Attachment Q to the PJM Tariff, in an amount sufficient to cover any charge assessed under subsection B.3.e. A Single-Customer LSE will not violate its requirement under this subsection in the event that the retail customer terminates its service from the Single-Customer LSE and obtains service from an LSE that is an FRR Entity, provided that the Single-Customer LSE assigns Capacity Resources to the LSE providing such service in an amount equal to the Daily Unforced Capacity Obligation related to such retail customer.

d) Each Single-Customer LSE shall obtain from its retail customer(s) and provide to the Office of the Interconnection and the entity designated under state law, order, or rule as such customer's default service provider or provider of last resort and the Electric Distributor a written statement agreeing that in the event such customer terminates its service from the Single-Customer LSE and obtains such service from a Party that is not an FRR Entity, then such customer's load shall be treated as ILR for the remaining duration of the period for which such Single-Customer LSE had elected the FRR Alternative, that for such purpose the Electric Distributor is authorized to obtain certification of such load as ILR, and that the customer agrees to provide the Electric Distributor with all information required for such certification. Nothing in this provision shall preclude such customer from using its owned or controlled generation to facilitate the interruption of its load as ILR.

e) A Single-Customer LSE shall be assessed an Unauthorized Load Transfer Charge in the event such LSEs retail customer terminates its service from such LSE and obtains service from a Party that has not elected the FRR Alternative, or in the event such load transfer occurs to a Party that has elected the FRR Alternative, but the Single-Customer LSE does not transfer sufficient Capacity Resources as required by subsection B.3.c. Such charge shall equal two times the Cost of New Entry times the Daily Unforced Capacity Obligation related to such customer for the remaining duration of the period for which such Single-Customer LSE elected the FRR Alternative.

f) Each Single Customer LSE shall provide to the Office of the Interconnection an FRR Capacity Plan in accordance with this schedule. Such FRR Capacity Plan, in addition to complying with all other applicable requirements of this Schedule, shall identify and commit for at least five delivery years Capacity Resources sufficient to satisfy such LSEs Daily Unforced Capacity Obligations hereunder consisting of generation assets or physical supply contracts that qualify as a 'forward contract' or a 'commodity contract' under the U.S. Bankruptcy Code. Each Single-Customer LSE warrants that all generation assets and forward supply contracts included in its FRR Capacity Plan shall be assigned to any successor-in-interest of its retail customer(s)'s assets and operations.

C. Election, and Termination of Election, of FRR Alternative

1. No less than two months before the conduct of the Base Residual Auction for the first Delivery Year for which such election is to be effective, any Party seeking to elect the FRR Alternative shall notify the Office of the Interconnection in writing of such election. Such election shall be for a minimum term of five consecutive Delivery Years. No later than one month before such Base Residual Auction, such Party shall submit its FRR Capacity Plan demonstrating its commitment of Capacity Resources for the term of such election sufficient to meet such Party's Daily Unforced Capacity Obligation (and all other applicable obligations under this Schedule) for the load identified in such plan.

2. An FRR Entity may terminate its election of the FRR Alternative effective with the commencement of any Delivery Year following the minimum five Delivery Year commitment by providing written notice of such termination to the Office of the Interconnection no later than two months prior to the Base Residual Auction for such Delivery Year. An FRR Entity that has terminated its election of the FRR Alternative shall not be eligible to re-elect the FRR Alternative for a period of five consecutive Delivery Years following the effective date of such termination.

3. Notwithstanding subsections C.1 and C.2 of this Schedule, in the event of a State Regulatory Structural Change, a Party may elect, or terminate its election of, the FRR Alternative effective as to any Delivery Year by providing written notice of such election or termination to the Office of the Interconnection in good faith as soon as the Party becomes aware of such State Regulatory Structural Change but in any event no later than two months prior to the Base Residual Auction for such Delivery Year.

4. To facilitate the elections and notices required by this Schedule, the Office of the Interconnection shall post, in addition to the information required by Section 5.11(a) of Attachment DD to the PJM Tariff, the percentage of Capacity Resources required to be located in each Locational Deliverability Area by no later than one month prior to the deadline for a Party to provide such elections and notices.

D. FRR Capacity Plans

1. Each FRR Entity shall submit its initial FRR Capacity Plan as required by subsection C.1 of this Schedule, and shall annually extend and update such plan by no later than one month prior to the Base Residual Auction for each succeeding Delivery Year in such plan. Each FRR Capacity Plan shall indicate the nature and current status of each resource, including the status of each Planned Generation Capacity Resource or Planned Demand Resource, the planned deactivation or retirement of any Generation Capacity Resource or Demand Resource, and the status of commitments for each sale or purchase of capacity included in such plan.

2. The FRR Capacity Plan of each FRR Entity that commits that it will not sell surplus Capacity Resources as a Capacity Market Seller in any auction conducted under Attachment DD of the PJM Tariff, or to any direct or indirect purchaser that uses such resource as the basis of any Sell Offer in such auction, shall designate Capacity Resources in a megawatt quantity no less than the Forecast Pool Requirement for each applicable Delivery Year times the FRR Entity's allocated share of the Preliminary Zonal Peak Load Forecast for such Delivery

Year, as determined in accordance with procedures set forth in the PJM Manuals. If the FRR Entity is not responsible for all load within a Zone, the Preliminary Forecast Peak Load for such entity shall be the FRR Entity's Obligation Peak Load last determined prior to the Base Residual Auction for such Delivery Year, times the Base Zonal FRR Scaling Factor. The FRR Capacity Plan of each FRR Entity that does not commit that it will not sell surplus Capacity Resources as set forth above shall designate Capacity Resources at least equal to the Threshold Quantity. To the extent the FRR Entity's allocated share of the Final Zonal Peak Load Forecast exceeds the FRR Entity's allocated share of the Preliminary Zonal Peak Load Forecast, such FRR Entity's FRR Capacity Plan shall be updated to designate additional Capacity Resources in an amount no less than the Forecast Pool Requirement times such increase; provided, however, any excess megawatts of Capacity Resources included in such FRR Entity's previously designated Threshold Quantity, if any, may be used to satisfy the capacity obligation for such increased load.

3. As to any FRR Entity, the Base Zonal FRR Scaling Factor for each Zone in which it serves load for a Delivery Year shall equal ZPLDY/ZWNSP, where:

ZPLDY = Preliminary Zonal Peak Load Forecast for such Zone for such Delivery Year; and

ZWNSP = Zonal Weather-Normalized Summer Peak Load for such Zone for the summer concluding four years prior to the commencement of such Delivery Year.

4. Capacity Resources identified and committed in an FRR Capacity Plan shall meet all requirements under this Agreement and the PJM Operating Agreement applicable to Capacity Resources, including, as applicable, requirements and milestones for Planned Generation Capacity Resources and Planned Demand Resources. A Capacity Resource submitted in an FRR Capacity Plan must be on a unit-specific basis, and may not include "slice of system" or similar agreements that are not unit specific. An FRR Capacity Plan may include bilateral transactions that commit capacity for less than a full Delivery Year only if the resources included in such plan in the aggregate satisfy all obligations for all Delivery Years. All demand response, load management, energy efficiency, or similar programs on which such FRR Entity intends to rely for a Delivery Year must be included in the FRR Capacity Plan submitted three years in advance of such Delivery Year and must satisfy all requirements applicable to Demand Resources or Energy Efficiency Resources, as applicable, including, without limitation, those set forth in Schedule 6 to this Agreement and the PJM Manuals; provided, however, that previously uncommitted Unforced Capacity from such programs may be used to satisfy any increased capacity obligation for such FRR Entity resulting from a Final Zonal Peak Load Forecast applicable to such FRR Entity.

5. For each LDA for which the Office of the Interconnection has established a separate Variable Resource Requirement Curve for any Delivery Year addressed by such FRR Capacity Plan, the plan must include a minimum percentage of Capacity Resources for such Delivery Year located within such LDA. Such minimum percentage ("Percentage Internal Resources Required") will be calculated as the LDA Reliability Requirement less the CETL for the Delivery Year, as determined by the RTEP process as set forth in the PJM Manuals. Such requirement shall be expressed as a percentage of the Unforced Capacity Obligation based on the Preliminary Zonal Peak Load Forecast multiplied by the Forecast Pool Requirement.

6. An FRR Entity may reduce such minimum percentage as to any LDA to the extent the FRR Entity commits to a transmission upgrade that increases the capacity emergency transfer limit for such LDA. Any such transmission upgrade shall adhere to all requirements for a Qualified Transmission Upgrade as set forth in Attachment DD to the PJM Tariff. The increase in CETL used in the FRR Capacity Plan shall be that approved by PJM prior to inclusion of any such upgrade in an FRR Capacity Plan. The FRR Entity shall designate specific additional Capacity Resources located in the LDA from which the CETL was increased, to the extent of such increase.

7. The Office of the Interconnection will review the adequacy of all submittals hereunder both as to timing and content. A Party that seeks to elect the FRR Alternative that submits an FRR Capacity Plan which, upon review by the Office of the Interconnection, is determined not to satisfy such Party's capacity obligations hereunder, shall not be permitted to elect the FRR Alternative. If a previously approved FRR Entity submits an FRR Capacity Plan that, upon review by the Office of the Interconnection, is determined not to satisfy such Party's capacity obligations hereunder, the Office of the Interconnection shall notify the FRR Entity, in writing, of the insufficiency within five (5) business days of the submittal of the FRR Capacity Plan. If the FRR Entity does not cure such insufficiency within five (5) business days after receiving such notice of insufficiency, then such FRR Entity shall be assessed an FRR Commitment Insufficiency Charge, in an amount equal to two times the Cost of New Entry for the relevant location, in $/MW-day, times the shortfall of Capacity Resources below the FRR Entity's capacity obligation (including any Threshold Quantity requirement) in such FRR Capacity Plan, for the remaining term of such plan.

8. In a state regulatory jurisdiction that has implemented retail choice, the FRR Entity must include in its FRR Capacity Plan all load, including expected load growth, in the FRR Service Area, notwithstanding the loss of any such load to or among alternative retail LSEs. In the case of load reflected in the FRR Capacity Plan that switches to an alternative retail LSE, where the state regulatory jurisdiction requires switching customers or the LSE to compensate the FRR Entity for its FRR capacity obligations, such state compensation mechanism will prevail. In the absence of a state compensation mechanism, the applicable alternative retail LSE shall compensate the FRR Entity at the capacity price in the unconstrained portions of the PJM Region, as determined in accordance with Attachment DD to the PJM Tariff, provided that the FRR Entity may, at any time, make a filing with FERC under Sections 205 of the Federal Power Act proposing to change the basis for compensation to a method based on the FRR Entity's cost or such other basis shown to be just and reasonable, and a retail LSE may at any time exercise its rights under Section 206 of the FPA.

9. Notwithstanding the foregoing, in lieu of providing the compensation described above, such alternative retail LSE may, for any Delivery Year subsequent to those addressed in the FRR Entity's then-current FRR Capacity Plan, provide to the FRR Entity Capacity Resources sufficient to meet the capacity obligation described in paragraph D.2 for the switched load. Such Capacity Resources shall meet all requirements applicable to Capacity Resources pursuant to this Agreement and the PJM Operating Agreement, all requirements applicable to resources committed to an FRR Capacity Plan under this Agreement, and shall be committed to service to the switched load under the FRR Capacity Plan of such FRR Entity. The alternative retail LSE shall provide the FRR Entity all information needed to fulfill these requirements and permit the

resource to be included in the FRR Capacity Plan.' The alternative retail LSE, rather than the FRR Entity, shall be responsible for any performance charges or compliance penalties related to the performance of the resources committed by such LSE to the switched load. For any Delivery Year, or portion thereof, the foregoing obligations apply to the alternative retail LSE serving the load during such time period. PJM shall manage the transfer accounting associated with such compensation and shall administer the collection and payment of amounts pursuant to the compensation mechanism.

Such load shall remain under the FRR Capacity Plan until the effective date of any termination of the FRR Alternative and, for such period, shall not be subject to Locational Reliability Charges under Section 7.2 of this Agreement.

E. Conditions on Purchases and Sales of Capacity Resources by FRR Entities

1. An FRR Entity may not include in its FRR Capacity Plan for any Delivery Year any Capacity Resource that has cleared in any auction under Attachment DD of the PJM Tariff for such Delivery Year. Nothing herein shall preclude an FRR Entity from including in its FRR Capacity Plan any Capacity Resource that has not cleared such an auction for such Delivery Year. Furthermore, nothing herein shall preclude an FRR Entity from including in its FRR Capacity Plan a Capacity Resource obtained from a different FRR Entity, provided, however, that each FRR Entity shall be individually responsible for meeting its capacity obligations hereunder, and provided further that the same megawatts of Unforced Capacity shall not be committed to more than one FRR Capacity Plan for any given Delivery Year.

2. An FRR Entity that designates Capacity Resources in its FRR Capacity Plan(s) for a Delivery Year based on the Threshold Quantity may offer to sell Capacity Resources in excess of that needed for the Threshold Quantity in any auction conducted under Attachment DD of the PJM Tariff for such Delivery Year, but may not offer to sell Capacity Resources in the auctions for any such Delivery Year in excess of an amount equal to the lesser of (a) 25% times the Unforced Capacity equivalent of the Installed Reserve Margin for such Delivery Year multiplied by the Preliminary Forecast Peak Load for which such FRR Entity is responsible under its FRR Capacity Plan(s) for such Delivery Year, or (b) 1300 MW.

3. An FRR Entity that designates Capacity Resources in its FRR Capacity Plan(s) for a Delivery Year based on the Threshold Quantity may not offer to sell such resources in any Reliability Pricing Model auction, but, but may use such resources to meet any increased capacity obligation resulting from unanticipated growth of the loads in its FRR Capacity Plan(s), or may sell such resources to serve loads located outside the PJM Region, or to another FRR Entity, subject to subsection E.1 above.

4. A Party that has selected the FRR Alternative for only part of its load in the PJM Region pursuant to Section B.2 of this Schedule that designates Capacity Resources as Self-Supply in a Reliability Pricing Model Auction to meet such Party's expected Daily Unforced Capacity Obligation under Schedule 8 shall not be required, solely as a result of such designation, to identify Capacity Resources in its FRR Capacity Plan(s) based on the Threshold Quantity; provided, however, that such Party may not so designate Capacity Resources in an amount in excess of the lesser of (a) 25% times such Party's total expected Unforced Capacity obligation (under both Schedule 8 and Schedule 8.1), or (b) 200 MW. A Party that wishes to

avoid the foregoing limitation must identify Capacity Resources in its FRR Capacity Plan(s) based on the Threshold Quantity.

F. FRR Daily Unforced Capacity Obligations and Deficiency Charges

1. For each billing month during a Delivery Year, the Daily Unforced Capacity Obligation of an FRR Entity shall be determined on a daily basis for each Zone as follows:

Daily Unforced Capacity Obligation = OPL * Final Zonal FRR Scaling Factor * FPR

where:

OPL =Obligation Peak Load, defined as the daily summation of the weather-adjusted coincident summer peak, last preceding the Delivery Year, of the end-users in such Zone (net of operating Behind The Meter Generation, but not to be less than zero) for which such Party was responsible on that billing day, as determined in accordance with the procedures set forth in the PJM Manuals

Final Zonal FRR Scaling Factor = FZPLDY/FZWNSP;

FZPLDY = Final Zonal Peak Load Forecast for such Delivery Year; and

FZWNSP = Zonal Weather-Normalized Peak Load for the summer concluding prior to the commencement of such Delivery Year.

2. An FRR Entity shall be assessed an FRR Capacity Deficiency Charge in each Zone addressed in such entity's FRR Capacity Plan for each day during a Delivery Year that it fails to satisfy its Daily Unforced Capacity Obligation in each Zone. Such FRR Capacity Deficiency Charge shall be in an amount equal to the deficiency below such FRR Entity's Daily Unforced Capacity Obligation for such Zone times (1.20 times the Capacity Resource Clearing Price resulting from all RPM Auctions for such Delivery Year for the LDA encompassing such Zone, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions).

3. If an FRR Entity acquires load that is not included in the Preliminary Zonal Peak Load Forecast such acquired load shall be treated in the same manner as provided in Sections H.1 and H.2 of this Schedule.

4. The shortages in meeting the minimum requirement within the constrained zones and the shortage in meeting the total obligation are first calculated. The shortage in the unconstrained area is calculated as the total shortage less shortages in constrained zones and excesses in constrained zones (the shortage is zero if this is a negative number). The Capacity Deficiency Charge is charged to the shortage in each zone and in the unconstrained area separately. This procedure is used to allow the use of capacity excesses from constrained zones to reduce shortage in the unconstrained area and to disallow the use of capacity excess from unconstrained area to reduce shortage in constrained zones.

G. Capacity Resource Performance

Any Capacity Resource committed by an FRR Entity in an FRR Capacity Plan for a Delivery Year shall be subject during such Delivery Year to the charges set forth in sections 7, 9, 10, 11, and 13 of Attachment DD to the PJM Tariff; provided, however, the Daily Deficiency Rate under sections 7, 9, and 13 thereof shall be 1.20 times the Capacity Resource Clearing Price resulting from all RPM Auctions for such Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions), and the charge rates under section 10 thereof, shall be the Capacity Resource Clearing Price resulting from the RPM Auctions for the Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged as described above. An FRR Entity shall have the same opportunities to cure deficiencies and avoid or reduce associated charges during the Delivery Year that a Market Seller has under Sections 7, 9, and 10 of Attachment DD to the PJM Tariff. An FRR Entity may cure deficiencies and avoid or reduce associated charges prior to the Delivery Year by procuring replacement Unforced Capacity outside of any RPM auction and committing such capacity in its FRR Capacity Plan.

H. Annexation of service territory by Public Power Entity

1. In the event a Public Power Entity that is an FRR Entity annexes service territory to include new customers on sites where no load had previously existed, then the incremental load on such a site shall be treated as unanticipated load growth, and such FRR Entity shall be required to commit sufficient resources to cover such obligation in the relevant Delivery Year.

2. In the event a Public Power Entity that is an FRR Entity annexes service territory to include load from a Party that has not elected the FRR Alternative, then:

a. For any Delivery Year for which a Base Residual Auction already has been conducted, such acquiring FRR Entity shall meet its obligations for the incremental load by paying PJM for incremental obligations (including any additional demand curve obligation) at the Capacity Resource Clearing Price for the relevant location. Any such revenues shall be used to pay Capacity Resources that cleared in the BRA for that LDA.

b. For any Delivery Year for which a Base Residual Auction has not been conducted, such acquiring FRR Entity shall include such incremental load in its FRR Capacity Plan.

3. Annexation whereby a Party that has not elected the FRR Alternative acquires load from an FRR entity:

a. For any Delivery Year for which a Base Residual Auction already has been conducted, PJM would consider shifted load as unanticipated load growth for purposes of determining whether to hold a Second Incremental Auction. If a Second Incremental Auction is held, FRR entity would have a must offer requirement for sufficient capacity to meet the load obligation of such shifted load. If no Second Incremental Auction is conducted, the FRR Entity may sell the associated quantity of capacity into an RPM Auction or bilaterally.

b. For any Delivery Year for which a Base Residual Auction has not been conducted, the FRR Entity that lost such load would no longer include such load in its FRR Capacity Plan, and PJM would include such shifted load in future BRAs.

I. Savings Clause for State-Wide FRR Program

Nothing herein shall obligate or preclude a state, acting either by law or through a regulatory body acting within its authority, from designating the Load Serving Entity or Load Serving Entities that shall be responsible for the capacity obligation for all load in one or more FRR Service Areas within such state according to the terms and conditions of that certain Settlement Agreement dated September 29, 2006 in FERC Docket Nos. ER05-1410 and EI05-148, the PJM Tariff and this Agreement. Each LSE subject to such state action shall become a Party to this Agreement and shall be deemed to have elected the FRR Alternative.

SCHEDULE 9

PROCEDURES FOR
ESTABLISHING THE CAPABILITY OF GENERATION CAPACITY RESOURCES

A. Such rules and procedures as may be required to determine and demonstrate the capability of Generation Capacity Resources for the purposes of meeting a Load Serving Entity's obligations under the Agreement shall be developed by the Office of Interconnection and maintained in the PJM Manuals.

B. The rules and procedures for determining and demonstrating the capability of generating units to serve load in the PJM Region shall be consistent with achieving uniformity for planning, operating, accounting and reporting purposes.

C. The rules and procedures shall recognize the difference in types of generating units and the relative ability of units to maintain output at stated capability over a specified period of time. Factors affecting such ability include, but are not limited to, fuel availability, stream flow for hydro units, reservoir storage for hydro and pumped storage units, mechanical limitations, and system operating policies.

SCHEDULE 10

PROCEDURES FOR ESTABLISHING DELIVERABILITY OF GENERATION CAPACITY RESOURCES

Generation Capacity Resources must be deliverable, consistent with a loss of load expectation as specified by the Reliability Principles and Standards, to the total system load, including portion(s) of the system in the PJM Region that may have a capacity deficiency at any time. Deliverability shall be demonstrated by either obtaining or providing for Network Transmission Service or Firm Point-To-Point Transmission Service within the PJM Region such that each Generation Capacity Resource is either a Network Resource or a Point of Receipt, respectively. In addition, for Generation Capacity Resources located outside the metered boundaries of the PJM Region that are used to meet an Unforced Capacity Obligation, the capacity and energy of such Generation Capacity Resources must be delivered to the metered boundaries of the PJM Region through firm transmission service.

Certification of deliverability means that the physical capability of the transmission network has been tested by the Office of the Interconnection and found to provide that service consistent with the assessment of available transfer capability as set forth in the PJM Tariff and, for Generation Resources owned or contracted for by a Load Serving Entity, that the Load Serving Entity has obtained or provided for Network Transmission Service or Firm Point-to-Point Transmission Service to have capacity delivered on a firm basis under specified terms and conditions.

SCHEDULE 10.1

LOCATIONAL DELIVERABILITY AREAS AND REQUIREMENTS

The capacity obligations imposed under this Agreement recognize the locational value of Capacity Resources. To ensure that such locational value is properly recognized and quantified, the Office of the Interconnection shall follow the procedures in this Schedule.

A. Following the Transition Period, as such term is defined in Attachment DD to the Tariff, the Locational Deliverability Areas for the purposes of determining locational capacity obligations hereunder, but not necessarily for the purposes of the Regional Transmission Expansion Planning Protocol, shall consist of the following Zones (as defined in Schedule 15), combinations of such Zones, and portions of such Zones:

- Dominion
- Penelec
- ComEd
- AEP
- Dayton
- Duquesne
- APS
- AE
- BGE
- DPL
- PECO
- PEPCO
- PSEG
- JCPL
- MetEd
- PPL
- Mid-Atlantic Area Council (MAAC) Region (consisting of all the zones listed below for Eastern MAAC, Western MAAC, and Southwestern MAAC)
- ComEd, AEP, Dayton, APS, and Duquesne
- Eastern MAAC (PSE&G, JCP&L, PECO, AE, DPL & RE)
- Southwestern MAAC (PEPCO & BG&E)
- Western MAAC (Penelec, MetEd, PPL)
- PSEG northern region (north of Linden substation); and
- DPL southern region (south of Chesapeake and Delaware Canal

B. For purposes of evaluating the need for any changes to the foregoing list, Locational Deliverability Areas shall be those areas, identified by the load deliverability analyses conducted pursuant to the Regional Transmission Expansion Planning Protocol and the PJM Manuals that have a limited ability to import capacity due to physical limitations of the transmission system, voltage limitations or stability limitations. Such limits on import capability shall not reflect the effect of Qualifying Transmission Upgrades offered in the Base Residual Auction. The Locational Deliverability Areas identified in Paragraph A above (as it may be amended from time to time) for a Delivery Year shall be modeled in the Base Residual Auction and any Incremental Auction conducted for such Delivery Year. If the Office of the Interconnection includes a new Locational Deliverability Area in the Regional Transmission Expansion Planning Protocol, it shall make a filing with FERC to amend this Schedule to add a new Locational Deliverability Area (including a new aggregate LDA), if such new Locational Deliverability Area is projected to have a capacity emergency transfer limit less than 1.05 times the capacity emergency transfer objective of such area, or if warranted by other reliability concerns consistent with the Reliability Principles and Standards. In addition, any Party may propose, and the Office of the Interconnection shall evaluate, consistent with the same CETO/CETO comparison or other reliability concerns, possible new Locational Deliverability Areas (including aggregate LDAs) for inclusion under the Regional Transmission Expansion Planning Protocol and for purposes of determining locational capacity obligations hereunder.

C. For each Locational Deliverability Area for which a separate VRR Curve was established for a Delivery Year, the Office of the Interconnection shall determine, pursuant to procedures set forth in the PJM Manuals, the Percentage of Internal Resources Required, that must be committed during such Delivery Year from Capacity Resources physically located in such Locational Deliverability Area.

SCHEDULE 11

DATA SUBMITTALS

To perform the studies required to determine the Forecast Pool Requirement and Daily Unforced Capacity Obligations under this Agreement and to determine compliance with the obligations imposed by this Agreement, each Party and other owner of a Capacity Resource shall submit data to the Office of the Interconnection in conformance with the following minimum requirements:

1. All data submitted shall satisfy the requirements, as they may change from time to time, of any procedures adopted by the Members Committee.

2. Data shall be submitted in an electronic format, or as otherwise specified by the Markets and Reliability Committee and approved by the PJM Board.

3. Actual outage data for each month for Generator Forced Outages, Generator Maintenance Outages and Generator Planned Outages shall be submitted so that it is received by such date specified in the PJM Manuals.

4. On or before the date specified in the PJM Manuals, planned and maintenance outage data for all Generation Resources and load forecasts (including seasonal and average weekly peaks) shall be submitted.

5. On or before the date specified in the PJM Manuals, adjustments to forecasts shall be submitted.

6. On or before the date or schedule for updates specified in the PJM Manuals, revisions to capacity and load forecasts (including the plans for satisfying the Daily Unforced Capacity Obligation of the Party) shall be submitted.

7. Capacity plans or revisions to previously submitted capacity plans, required under Schedule 6.

8. As desired by a Party, revisions to monthly peak load forecasts may be submitted.

The Parties acknowledge that additional information required to determine the Forecast Pool Requirement is to be obtained by the Office of the Interconnection from Electric Distributors in accordance with the provisions of the Operating Agreement.

SCHEDULE 12

DATA SUBMISSION CHARGES

A. Data Submission Charge

For each working day of delay in the submittal of information required to be submitted under this Agreement, a data submission charge of $500 shall be imposed.

B. Distribution Of Data Submission Charge Receipts

1. Each Party that has satisfied its obligations for data submittals pursuant to Schedule 11 during a Delivery Year, without incurring a data submission charge related to that obligation, shall share in any data submission charges paid by any other Party that has failed to satisfy said obligation during such Planning Period. Such shares shall be in proportion to the sum of the Unforced Capacity Obligations of each such Party entitled to share in the data submission charges for the most recent month.

2. In the event all of the Parties have incurred a data submission charge during a Delivery Year, those data submission charges shall be distributed as approved by the PJM Board.

SCHEDULE 13

EMERGENCY PROCEDURE CHARGES

Following an Emergency, the compliance of each Party with the instructions of the Office of the Interconnection shall be evaluated as directed by the Markets and Reliability Committee. If, based on such evaluation, it is determined that a Party refused to comply with, or otherwise failed to employ its best efforts to comply with, the instructions of the Office of the Interconnection to implement PJM emergency procedures, that Party shall pay an emergency procedure charge, as set forth in Attachment DD to the PJM Tariff. The revenue associated with Emergency Procedure Charges shall be allocated in accordance with Attachment DD to the PJM Tariff.

SCHEDULE 14

DELEGATION TO THE OFFICE OF THE INTERCONNECTION

The following responsibilities shall be delegated by the Parties to the Office of the Interconnection:

1. New Parties. With regard to the addition, withdrawal or removal of a Party:

   (a) Receive and evaluate the information submitted by entities that plan to serve loads within the PJM Region, including entities whose participation in the Agreement will expand the boundaries of the PJM Region. Such evaluation shall be conducted in accordance with the requirements of the Agreement.

   (b) Evaluate the effects of the withdrawal or removal of a Party from this Agreement.

2. Implementation of Reliability Assurance Agreement. With regard to the implementation of the provisions of this Agreement:

   (a) Receive all required data and forecasts from the Parties and other owners of Capacity Resources;

   (b) Perform all calculations and analyses necessary to determine the Forecast Pool Requirement and the obligations imposed under the Reliability Assurance Agreement, including periodic reviews of the capacity benefit margin for consistency with the Reliability Principles and Standards;

   (c) Monitor the compliance of each Party with its obligations under the Agreement;

   (d) Keep cost records, and bill and collect any costs or charges due from the Parties and distribute those charges in accordance with the terms of the Agreement;

   (e) Assist with the development of rules and procedures for determining and demonstrating the capability of Capacity Resources;

   (f) Establish the capability and deliverability of Generation Capacity Resources consistent with the requirements of the Reliability Assurance Agreement;

   (g) Establish standards and procedures for Planned Demand Resources;

   (h) Collect and maintain generator availability data;

(i) Perform any other forecasts, studies or analyses required to administer the Agreement;

(j) Coordinate maintenance schedules for generation resources operated as part of the PJM Region;

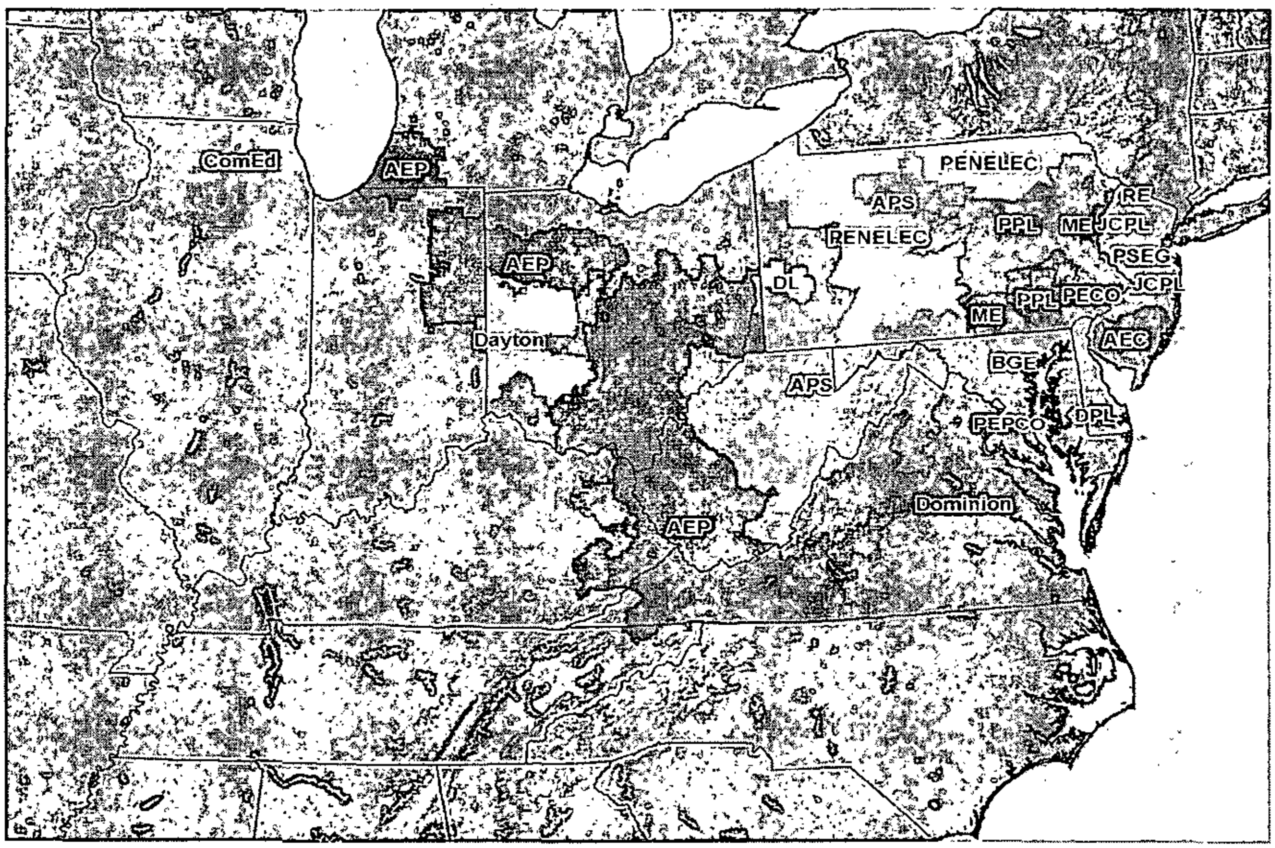
(k) Determine and declare that an Emergency exists or ceases to exist in all or any part of the PJM Region or announce that an Emergency exists or ceases to exist in a Control Area interconnected with the PJM Region;

(l) Enter into agreements for (i) the transfer of energy in Emergencies in the PJM Region or in a Control Area interconnected with the PJM Region and (ii) mutual support in such Emergencies with other Control Areas interconnected with the PJM Region; and

(m) Coordinate the curtailment or shedding of load, or other measures appropriate to alleviate an Emergency, to preserve reliability in accordance with FERC, NERC or Applicable Regional Reliability Council principles, guidelines, standards and requirements, and to ensure the operation of the PJM Region in accordance with Good Utility Practice.

SCHEDULE 15

ZONES WITHIN THE PJM REGION



FULL NAME	SHORT NAME
Pennsylvania Electric Company	Penelec
Allegheny Power	APS
PPL Group	PPL
Metropolitan Edison Company	MetEd
Jersey Central Power and Light Company	JCPL
Public Service Electric and Gas Company	PSEG
Atlantic City Electric Company	AEC
PECO Energy Company	PECO
Baltimore Gas and Electric Company	BGE
Delmarva Power and Light Company	DPL
Potomac Electric Power Company	PEPCO
Rockland Electric Company	RE
Commonwealth Edison Company	ComEd
AEP East Zone	AEP
The Dayton Power and Light Company	Dayton
Virginia Electric and Power Company	Dominion
Duquesne Light Company	*DL*

Issued By: Craig Glazer
Vice President, Federal Government Policy
Effective: June 1, 2007
Issued On: September 29, 2006

SCHEDULE 16

Non-Retail Behind the Meter Generation Maximum Generation Emergency Obligations

1. A Non-Retail Behind The Meter Generation resource that has output that is netted from the Daily Unforced Capacity Obligation of a Party pursuant to Schedule 7 of this Agreement shall be required to operate at its full output during the first ten times between November 1 and October 31 that Maximum Generation Emergency (as defined in section 1.3.13 of Schedule 1 of the Operating Agreement) conditions occur in the zone in which the Non-Retail Behind The Meter Generation resource is located.

2. The Party for which Non-Retail Behind The Meter Generation output is netted from its Daily Unforced Capacity Obligation shall be required to report to PJM scheduled outages of the resource prior to the occurrence of such outage in accordance with the time requirements and procedures set forth in the PJM Manuals. Such Party also shall report to PJM the output of the Non-Retail Behind The Meter Generation resource during each Maximum Generation Emergency condition in which the resource is required to operate in accordance with the procedures set forth in PJM Manuals.

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

Adjusted ENRBTMG = ENRBTMG – Σ(10% of the Not Run NRBTMG)

Where:

ENRBTMG equals the operating Non-Retail Behind The Meter Generation eligible for netting as determined pursuant to Schedule 7 of this Agreement.

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

Σ(10% of the Not Run NRBTMG) is the summation of 10% megawatt reductions associated with the events of non-performance.

The Adjusted ENRBTMG shall not be less than zero and shall be applicable for the succeeding Planning Period.

4. If a Non-Retail Behind The Meter Generation resource that is required to operate during a Maximum Generation Emergency condition is an Energy Resource and injects energy into the Transmission System during the Maximum Generation Emergency condition, the Network Customer that owns the resource shall be compensated for such injected energy in accordance with the PJM market rules.

SCHEDULE 17

PARTIES TO THE RELIABILITY ASSURANCE AGREEMENT

This Schedule sets forth the Parties to the Agreement:

Harrison REA Inc.
City of New Martinsville
City of Philippi
Letterkenny Industrial Development Authority-PA
Old Dominion Electric Cooperative
Town of Front Royal
Hagerstown
Borough of Chambersburg
Town of Williamsport
Thurmont
Allegheny Electric Coopertive, Inc.
Allegheny Power
AES New Energy, Inc.
BP Energy Co.
Commonwealth Edison Company
Commonwealth Edison Company of Indiana
Dayton Power & Light Company (The)
American Municipal Power-Ohio, Inc.
American Electric Power Service Corporation on behalf of its affiliates:
- Appalachian Power Company
- Columbus Southern Power Company
- Indiana Michigan Power Company
- Kentucky Power Company
- Kingsport Power Company
- Ohio Power Company
- Wheeling Power Company

Allegheny Energy Supply Company, L.L.C.
Blue Ridge Power Agency, Inc.
Central Virginia Electric Cooperative
City of Dowogiac
Hoosier Energy REC, Inc.
Indiana Municipal Power Agency
Ormet Primary Aluminum Corporation
City of Sturgis
Wabash Valley Power Association, Inc.
Duquesne Light Company
Virginia Electric and Power Company

ACN Energy, Inc.
AES Power Direct, L.L.C.
Agway Energy Services-PA Inc.
Allegheny Energy Supply Company, L.L.C.
AllEnergy Marketing Company, L.L.C.
Amerada Hess Corporation
American Cooperative Services, Inc.
American Energy Solutions, Inc.
Atlantic City Electric Company
Baltimore Gas and Electric Company
BGE Home Products & Services, Inc.
BP Energy Company
Central Hudson Enterprise Corporation
CMS Marketing Services and Trading Company
Columbia Energy Power Marketing Corporation
Commodore Gas and Electric, Inc.
Commonwealth Energy Corporation dba electricAMERICA
Con Edison Energy, Inc.
Conectiv Energy Supply, Inc.
Constellation Energy Source, Inc.
Consolidated Edison Solutions, Inc.
Delmarva Power & Light Company
Dominion Retail, Inc.
DTE Edison America, Inc.
DTE Energy Market, Inc.
DTE Energy Trading, Inc.
Duke Energy Trading and Marketing, L.L.C.
DukeSolutions, Inc.
Easten Power Distribution Company
ECONnergy Energy Company, Inc.
ECONnergy PA, Inc.
Edison Mission Marketing & Trading, Inc.
Energy America, L.L.C.
Energy East Solutions, Inc.
Enron Energy Services, Inc.
Enron Power Marketing, Inc.
Exelon Energy Company
FirstEnergy Corporation
FirstEnergy Trading and Power Marketing Incorporated
FirstEnergy Services Corp.
GPU Advanced Resources
GreenMountain.com Company
HIS Power & Water, L.L.C.
It's Electric & Gas, L.L.C.
Jersey Central Power & Light Company

Keyspan Energy Services, Inc.
Metropolitan Edison Company
MIECO, Inc.
NewEnergy, Inc.
Niagara Mohawk Energy Marketing, Inc.
NJR Natural Energy Company
NRG New Jersey Energy Sales, L.L.C.
NYSEG Solutions, Inc.
Old Dominion Electric Cooperative
PECO Energy Company
Penn Power Energy, Inc.
Pennsylvania Electric Company
Pepco Energy Services, Inc.
Potomac Electric Power Company
PPL Electric Utilities Corporation
PPL EnergyPlus, L.L.C.
PSEG Energy Resources & Trade, L.L.C
PSEG Energy Technologies, Inc.
Public Service Electric and Gas Company
Reliant Energy Retail, Inc.
Rhoads Energy Corporation
Select Energy, Inc.
Sempra Energy Solutions
Sempra Energy Trading Corp.
Shell Energy Services Company, L.L.C.
Southern Company Retail Energy Marketing L.P.
South Jersey Energy Company
South Jersey Energy Solutions, L.L.C.
Smart Energy.com, Inc.
Statoil Energy Services, Inc.
Strategic Energy Ltd.
The Mack Services Group
The New Power Company
Total Gas & Electric, Inc.
Total Gas & Electricity (PA), Inc.
TXU Energy Trading Company d/b/a TXU Energy Services
UGI Energy Services, Inc.
UGI Utilities, Inc. - Electric Division
Utilimax.com, Inc.
Utility.com
Washington Gas Energy Services, Inc.
Williams Energy Market & Trading Company
Woodruff Energy
Worley & Obetz, Inc. d/b/a Advanced Energy

AMENDED AND RESTATED

OPERATING AGREEMENT

OF

PJM INTERCONNECTION, L.L.C.

The following sheets reflect all revisions approved by FERC in orders issued through November 2, 2009 and all revisions from compliance filings submitted through November 2, 2009, as well as clean up revisions to: (1) incorporate language accepted by FERC in prior versions of the Operating Agreement, but not previously integrated into the current effective pages; and (2) correct minor typographical and formatting errors.

The language reflected in *italics* is accepted by the Commission, however, because of when it was filed, accepted by the Commission, and/or effective it is subject to a clean-up filing in accordance with Order No. 614.

OPERATING AGREEMENT

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Issued By: Craig Glazer Effective: December 7, 2007
Vice President, Federal Government Policy
Issued On: December 7, 2007
Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. RM05-17-000, RM05-25-000, issued February 16, 2007, Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, III FERC Stats. & Regs., Regs. Preambles ¶ 31,241 (2007).

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[Reserved for future use]

[Reserved for future use]

AMENDED AND RESTATED OPERATING AGREEMENT of PJM INTERCONNECTION, L.L.C.

This Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., dated as of this 2nd day of June, 1997, amends and restates as of the Effective Date the Operating Agreement of PJM Interconnection, L.L.C. filed with the FERC on April 2, 1997, as amended.

WHEREAS, certain of the Members have previously entered into an agreement, originally dated September 26, 1956, as amended and supplemented up to and including December 31, 1996, stating "their respective rights and obligations with respect to the coordinated operation of their electric supply systems and the interchange of electric capacity and energy among their systems" (such agreement as amended and supplemented being referred to as the "Original PJM Agreement"), and which coordinated operations and interchange came to be known as the PJM Interconnection; and

WHEREAS, pursuant to a resolution of June 16, 1993, an unincorporated association comprised of the parties to the Original PJM Agreement was formed for the purpose of implementation of the Original PJM Agreement as it then existed and as it subsequently has been amended and supplemented, such association being known as the "PJM Interconnection Association"; and

WHEREAS, because of changes in federal law and policy, the Original PJM Agreement, together with other documents and agreements, was amended, restated and submitted to FERC on December 31, 1996 to restructure fundamental aspects of the operation of the Interconnection; and

WHEREAS, so that the provisions of the Original PJM Agreement could be placed into effect consistent with a February 28, 1997 order of FERC, including those provisions related to the governance of the Interconnection, the parties to the Original PJM Agreement, along with the other interested parties, approved the conversion of the PJM Interconnection Association into the LLC pursuant to the provisions of the Delaware Limited Liability Company Act, as amended (the "Delaware LLC Act"), pursuant to a Certificate of Formation (the "Certificate of Formation") and a Certificate of Conversion (the "Certificate of Conversion"), each filed with the Delaware Secretary of State (the "Recording Office") on March 31, 1997; and

WHEREAS, the Members wish to amend and restate the Operating Agreement of PJM Interconnection, L.L.C. adopted in connection with the formation of the LLC and as in effect immediately prior to the Effective Date in the form set forth below; and

WHEREAS, the Members intend to form an Independent System Operator in accordance with the regulations of the Federal Energy Regulatory Commission; and

WHEREAS, the Members wish to amend and restate the Operating Agreement to provide for expansion of the operations of PJM Interconnection, L.L.C. into additional Control Areas.

Now, therefore, in consideration of the foregoing, and of the covenants and agreements hereinafter set forth, the Members hereby agree as follows:

1. DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used in this Agreement shall have the respective meanings assigned herein or in the Schedules hereto for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Sections, Schedules, Exhibits or Appendices are to Sections, Schedules, Exhibits or Appendices of this Agreement. As used in this Agreement:

1.1 Act.

"Act" shall mean the Delaware Limited Liability Company Act, Title 6, §§ 18-101 to 18-1109 of the Delaware Code.

1.1A Active and Significant Business Interest.

"Active and Significant Business Interest" is a term that shall be used to assess the scope of a Member's PJM membership and shall be based on a Member's activity in the PJM RTO and/or Interchange Energy Markets. A Member's Active and Significant Business Interest shall: 1) be determined relative to the scope of the Member's PJM membership and activity in the PJM RTO and/or Interchange Energy Markets considering, among other things, the Member's public statements and/or regulatory filings regarding its PJM activities; and 2) reflect a substantial contributor to the Member's recent market activity, revenues, costs, investment, and/or earnings when considering the Member and its corporate affiliates' interests within the PJM footprint.

1.2 Affiliate.

"Affiliate" shall mean any two or more entities, one of which controls the other or that are under common control. "Control" shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in control or affiliation for purposes of this Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent of the outstanding securities of the entity, the holder does not have representation on the entity's board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, ten percent or more of the voting securities of such entity.

1.2A Affected Member.

"Affected Member" shall mean a Member which as a result of its participation in PJM's markets or its membership in the LLC PJM provided confidential information to the Office of the Interconnection, which confidential information is requested by, or is disclosed to an Authorized Person under a Non-Disclosure Agreement.

1.3 Agreement or Operating Agreement.

"Agreement" or "Operating Agreement" shall mean this Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time.

1.4 Annual Meeting of the Members.

"Annual Meeting of the Members" shall mean the meeting specified in Section 8.3.1 of this Agreement.

1.4.01 Associate Member.

"Associate Member" shall mean an entity that satifies the requirements of Section 11.7 of this Agreement.

1.4A Authorized Commission.

"Authorized Commission" shall mean (i) a State public utility commission within the geographic limits of the PJM Region that regulates the distribution or supply of electricity to retail customers and is legally charged with monitoring the operation of wholesale or retail markets serving retail suppliers or customers within its State or (ii) an association or organization comprised exclusively of State public utility commissions described in the immediately preceding clause (i).

1.4B Authorized Person.

"Authorized Person" shall have the meaning set forth in Section 18.17.4.

1.5 Board Member.

"Board Member" shall mean a member of the PJM Board.

1.5A Applicable Regional Reliability Council.

"Applicable Regional Reliability Council" shall mean the reliability council for the region in which a Member operates.

1.5B Behind The Meter Generation.

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

1.6 Capacity Resource.

"Capacity Resource" have the meaning provided in the Reliability Assurance Agreement.

1.6A Consolidated Transmission Owners Agreement.

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

1.7 Control Area.

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

(a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

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

(c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and the applicable regional reliability council of NERC;

(d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and

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

1.7.01 Control Zone.

"Control Zone" shall mean any of the ECAR Control Zone(s), MAAC Control Zone, or MAIN Control Zone(s), or the VACAR Control Zone.

1.7.02 Default Allocation Assessment.

"Default Allocation Assessment" shall mean the assessment determined pursuant to section 15.2.2 of this Agreement.

1.7.03 Demand Resource.

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

1.7A [Reserved].

1.7B [Reserved].

1.7C ECAR.

"ECAR" shall mean the reliability council under section 202 of the Federal Power Act, established pursuant to the ECAR Coordination Agreement dated June 1, 1968, or any successor thereto

1.7D ECAR Control Zone.

"ECAR Control Zone" shall mean any one of the one or more Control Zones comprised of the Transmission Facilities of one or more of the Transmission Owners for which ECAR is the Applicable Regional Reliability Council, as designated in the PJM Manuals.

1.8 Electric Distributor.

"Electric Distributor" shall mean a Member that: 1) owns or leases with rights equivalent to ownership electric distribution facilities that are used to provide electric distribution service to electric load within the PJM Region; or 2) is a generation and transmission cooperative or a joint municipal agency that has a member that owns electric distribution facilities used to provide electric distribution service to electric load within the PJM Region.

1.9 Effective Date.

"Effective Date" shall mean August 1, 1997, or such later date that FERC permits this Agreement to go into effect.

1.10 Emergency.

"Emergency" shall mean: (i) an abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or (ii) a fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel; or (iii) a condition that requires implementation of emergency procedures as defined in the PJM Manuals.

1.11 End-Use Customer.

"End-Use Customer" shall mean a Member that is a retail end-user of electricity within the PJM Region. A Member that is a retail end-user that owns generation may qualify as an End-Use customer if: (1) the average physical unforced capacity owned by the Member and its affiliates in the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average PJM capacity obligation for the Member and its affiliates over the same time period; or (2) the average energy produced by the Member and its affiliates within the PJM region over the five Planning Periods immediately preceding the relevant Planning Period does not exceed the average energy consumed by that Member and its affiliates within the PJM region over the same time period. The foregoing notwithstanding, taking retail service may not be sufficient to qualify a Member as an End-Use Customer.

1.12 FERC.

"FERC" shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over this Agreement.

1.13 Finance Committee.

"Finance Committee" shall mean the body formed pursuant to Section 7.5.1 of this Agreement.

1.14 Generation Owner.

"Generation Owner" shall mean a Member that owns or leases, with right equivalent to ownership, a Capacity Resource or an Energy Resource within the PJM footprint. The foregoing notwithstanding, for a planned generation resource to qualify a Member as a Generation Owner, such resource shall have cleared an RPM auction, and for Energy Resources, the resource shall have a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM.

A Member that is primarily a retail end-user of electricity that owns generation may quailify as a Generation Owner if: (1) the generation resource is the subject of a FERC-jurisdictional interconnection agreement or wholesale market participation agreement within PJM; (2) the average physical unforced capacity owned by the Member and its affiliates over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average PJM capacity obligation of the Member and its affiliates over the same time period; and (3) the average energy produced by the Member and its affiliates within PJM over the five Planning Periods immediately preceding the relevant Planning Period exceeds the average energy consumed by the Member and its affiliates within PJM over the same time period.

1.14A Generation Capacity Resource.

"Generation Capacity Resource" shall have the meaning provided in the Reliability Assurance Agreement.

1.15 Good Utility Practice.

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

1.16 Information Request.

"Information Request" shall mean a written request, in accordance with the terms of this Agreement for disclosure of confidential information pursuant to Section 18.17.4 of this Agreement.

1.16A Interruptible Load for Reliability.

"Interruptible Load for Reliability" or "ILR" shall have the meaning specified in the Reliability Assurance Agreement.

1.17 LLC.

"LLC" shall mean PJM Interconnection, L.L.C., a Delaware limited liability company.

1.18 Load Serving Entity.

"Load Serving Entity" shall mean an entity, including a load aggregator or power marketer, (1) serving end-users within the PJM Region, and (2) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region, or the duly designated agent of such an entity.

1.18A Local Plan.

"Local Plan" shall mean the plan as developed by the Transmission Owners. The Local Plan shall include, at a minimum, the Subregional RTEP Projects and Supplemental Projects as identified by the Transmission Owners within their zone. The Local Plan will include those projects that are developed to comply with the Transmission Owner planning criteria.

1.19 Locational Marginal Price.

"Locational Marginal Price" shall mean the hourly integrated market clearing marginal price for energy at the location the energy is delivered or received, calculated as specified in Section 2 of Schedule 1 of this Agreement.

1.20 MAAC.

"MAAC" shall mean the Mid-Atlantic Area Council, a reliability council under § 202 of the Federal Power Act established pursuant to the MAAC Agreement dated August 1, 1994 or any successor thereto.

1.20A *MAAC Control Zone.*

"MAAC Control Zone" shall mean the aggregate of the Transmission Facilities of Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, PPL Electric Utilities Corporation, Potomac Electric Power Company, Public Service Electric and Gas Company, and Rockland Electric Company.

1.20B MAIN.

"MAIN" shall mean the Mid-America Interconnected Network, a reliability council under § 202 of the Federal Power Act established pursuant to the Amended and Restated Bylaws of MAIN, dated January 8, 1998, or any successor thereof.

1.20C MAIN Control Zone.

"MAIN Control Zone" shall mean any one of the one or more Control Zones comprised of the Transmission Facilities of one or more of the Transmission Owners for which MAIN is the Applicable Regional Reliability Council, as designated in the PJM Manuals.

1.21 Market Buyer.

"Market Buyer" shall mean a Member that has met reasonable creditworthiness standards established by the Office of the Interconnection and that is otherwise able to make purchases in the PJM Interchange Energy Market.

1.22 Market Participant.

"Market Participant" shall mean a Market Buyer, a Market Seller, an Economic Load Response Participant, or all three.

1.23 Market Seller.

"Market Seller" shall mean a Member that has met reasonable creditworthiness standards established by the Office of the Interconnection and that is otherwise able to make sales in the PJM Interchange Energy Market.

1.24 Member.

"Member" shall mean an entity that satisfies the requirements of Section 11.6 of this Agreement and that (i) is a member of the LLC immediately prior to the Effective Date, or (ii) has executed an Additional Member Agreement in the form set forth in Schedule 4 hereof.

1.25 Members Committee.

"Members Committee" shall mean the committee specified in Section 8 of this Agreement composed of representatives of all the Members.

1.26 NERC.

"NERC" shall mean the North American Electric Reliability Council, or any successor thereto.

1.26A Non-Disclosure Agreement.

"Non-Disclosure Agreement" shall mean an agreement between an Authorized Person and the Office of the Interconnection, pursuant to Section 18 of this Agreement, the form of which is appended to this Agreement as Schedule 10, wherein the Authorized Person is given access to otherwise restricted confidential information, for the benefit of their respective Authorized Commission.

1.26B Non-Retail Behind The Meter Generation.

"Non-Retail Behind The Meter Generation" shall mean Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, and electric distribution companies to serve load.

1.27 Office of the Interconnection.

"Office of the Interconnection" shall mean the employees and agents of the LLC engaged in implementation of this Agreement and administration of the PJM Tariff, subject to the supervision and oversight of the PJM Board acting pursuant to this Agreement.

1.28 Operating Reserve.

"Operating Reserve" shall mean the amount of generating capacity scheduled to be available for a specified period of an Operating Day to ensure the reliable operation of a Control Zone, as specified in the PJM Manuals.

1.29 Original PJM Agreement.

"Original PJM Agreement" shall mean that certain agreement between certain of the Members, originally dated September 26, 1956, and as amended and supplemented up to and including December 31, 1996, relating to the coordinated operation of their electric supply systems and the interchange of electric capacity and energy among their systems.

1.30 Other Supplier.

"Other Supplier" shall mean a Member that: (i) is engaged in buying, selling or transmitting electric energy, capacity, ancillatry services, financial transmission rights or other services available under PJM's governing documents in or through the Interconnection or has a good faith intent to do so, and; (ii) does not qualify for the Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer sectors.

1.31 PJM Board.

"PJM Board" shall mean the Board of Managers of the LLC, acting pursuant to this Agreement.

1.31A [Reserved].

1.32 PJM Control Area.

"PJM Control Area" shall mean the Control Area recognized by NERC as the PJM Control Area.

1.33 PJM Dispute Resolution Procedures.

"PJM Dispute Resolution Procedures" shall mean the procedures for the resolution of disputes set forth in Schedule 5 of this Agreement.

1.34 PJM Interchange Energy Market.

"PJM Interchange Energy Market" shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Schedule 1 to this Agreement.

1.35 PJM Manuals.

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

1.35.01 PJM Market Monitor.

"PJM Market Monitor" shall mean the Market Monitoring Unit established under Attachment M to the PJM Tariff.

1.35A PJM Region.

"PJM Region" shall mean the aggregate of the MAAC Control Zone, the PJM West Region, and VACAR Control Zone.

1.35B PJM South Region.

"PJM South Region" shall mean the VACAR Control Zone.

1.36 PJM Tariff.

"PJM Tariff" shall mean the PJM Open Access Transmission Tariff providing transmission service within the PJM Region, including any schedules, appendices, or exhibits attached thereto, as in effect from time to time.

1.36A [Reserved.]

1.36B PJM West Region.

"PJM West Region" shall mean the aggregate of the ECAR Control Zone(s) and MAIN Control Zone(s).

1.37 Planning Period.

"Planning Period" shall initially mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period established under the procedures of, as applicable, the Reliability Assurance Agreement.

1.38 President.

"President" shall have the meaning specified in Section 9.2.

1.38.01 Regional RTEP Project.

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

1.38.01A Relevant Electric Retail Regulatory Authority:

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

1.38A Regulation Zone.

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

1.39 Related Parties.

"Related Parties" shall mean, solely for purposes of the governance provisions of this Agreement: (i) any generation and transmission cooperative and one of its distribution cooperative members; and (ii) any joint municipal agency and one of its members. For purposes of this Agreement, representatives of state or federal government agencies shall not be deemed Related Parties with respect to each other, and a public body's regulatory authority, if any, over a Member shall not be deemed to make it a Related Party with respect to that Member.

1.40 Reliability Assurance Agreement.

"Reliability Assurance Agreement" shall mean that certain Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region, on file with FERC as PJM Interconnection, L.L.C. Rate Schedule FERC. No .42, establishing obligations, standards and procedures for maintaining the reliable operation of the PJM Region.

1.40A [Reserved].

1.40B [Reserved].

1.40C SERC.

"SERC" or "Southeastern Electric Reliability Council" shall mean the reliability council under section 202 of the Federal Power Act established pursuant to the SERC Agreement dated January 14, 1970, or any successor thereto.

1.41 Sector Votes.

"Sector Votes" shall mean the affirmative and negative votes of each sector of a Senior Standing Committee, as specified in Section 8.4.

1.41A Senior Standing Committees.

"Senior Standing Committees" shall mean the Members Committee, and the Markets, and Reliability Committee, as established in Sections 8.1 and 8.6.

1.41A.01 [Reserved].

1.41A.02 [Reserved].

1.41A.03 [Reserved].

1.41B Standing Committees.

"Standing Committees" shall mean the Members Committee, the committees established and maintained under Section 8.6, and such other committees as the Members Committee may establish and maintain from time to time.

1.42 State.

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

1.42.01 State Certification.

"State Certification" shall mean the Certification of an Authorized Commission, pursuant to Section 18 of this Agreement, the form of which is appended to this Agreement as Schedule 10A, wherein the Authorized Commission identifies all Authorized Persons employed or retained by such Authorized Commission, a copy of which shall be filed with FERC.

1.42A State Consumer Advocate.

"State Consumer Advocate" shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, *inter alia*, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

1.42A.01 Subregional RTEP Project.

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

1.42A.02 Supplemental Project.

"Supplemental Project" shall mean a Regional RTEP Project(s) or Subregional RTEP Project(s), which is not required for compliance with the following PJM criteria: System reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

1.42B Synchronized Reserve Zone.

"Synchronized Reserve Zone" shall mean any of those geographic areas consisting of a combination of one or more of the Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirement for, Synchronized Reserve service.

1.43 System.

"System" shall mean the interconnected electric supply system of a Member and its interconnected subsidiaries exclusive of facilities which it may own or control outside of the PJM Region. Each Member may include in its system the electric supply systems of any party or parties other than Members which are within the PJM Region, provided its interconnection agreements with such other party or parties do not conflict with such inclusion.

1.43A Third Party Request.

"Third Party Request" shall mean any request or demand by any entity upon an Authorized Person or an Authorized Commission for release or disclosure of confidential information provided to the Authorized Person or Authorized Commission by the Office of the Interconnection or PJM Market Monitor. A Third Party Request shall include, but shall not be limited to, any subpoena, discovery request, or other request for confidential information made by any: (i) federal, state, or local governmental subdivision, department, official, agency or court, or (ii) arbitration panel, business, company, entity or individual.

1.44 Transmission Facilities.

"Transmission Facilities" shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC's Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the transmission system of the PJM Region and integrated into the planning and operation of such to serve all of the power and transmission customers within such region.

1.45 Transmission Owner.

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

1.46 [Reserved.]

1.47 User Group.

"User Group" shall mean a group formed pursuant to Section 8.7 of this Agreement.

1.47A VACAR.

"VACAR" shall mean the group of five companies, consisting of Duke Energy, Carolina Power and Light, South Carolina Public Service Authority, South Carolina Electric and Gas, and Virginia Electric and Power Company.

1.47B VACAR Control Zone.

"VACAR Control Zone" shall mean the Transmission Facilities of Virginia Electric and Power Company.

1.48 Voting Member.

"Voting Member" shall mean (i) a Member as to which no other Member is an Affiliate or Related Party, or (ii) a Member together with any other Members as to which it is an Affiliate or Related Party.

1.49 Weighted Interest.

"Weighted Interest" shall be equal to (0.1(1/N) + 0.5(B/C) + 0.2(D/E) + 0.2(F/G)), where:

N = the total number of Members excluding *ex officio* Members and State Consumer Advocates (which, for purposes of Section 15.2 of this agreement, shall be calculated as of five o'clock p.m. Eastern Time on the date PJM declares a Member in default)

B = the Member's internal peak demand for the previous calendar year (which, for Load Serving Entities under the Reliability Assurance Agreement, shall be that used to calculate Accounted For Obligation as determined by the Office of the Interconnection pursuant to Schedule 7 of the Reliability Assurance Agreement averaged over the previous calendar year)

C = the sum of factor B for all Members

D = the Member's generating capability from Generation Capacity Resources located in the PJM Region as of January 1 of the current calendar year, determined by the Office of the Interconnection pursuant to Schedule 9 of the Reliability Assurance Agreement

E = the sum of factor D for all Members

F = the sum of the Member's circuit miles of transmission facilities multiplied by the respective operating voltage for facilities 100 kV and above as of January 1 of the current calendar year

G = the sum of factor F for all Members

1.50 [Reserved].

1.51 [Reserved].

1.52 Zone.

"Zone" shall mean an area within the PJM Region, as set forth in Attachment J to the PJM Tariff.

2. FORMATION, NAME; PLACE OF BUSINESS

2.1 Formation of LLC; Certificate of Formation.

The Members of the LLC hereby:

(a) acknowledge the conversion of the PJM Interconnection Association into the LLC, a limited liability company pursuant to the Act, by virtue of the filing of both the Certificate of Formation and the Certificate of Conversion with the Recording Office, effective as of March 31, 1997;

(b) confirm and agree to their status as Members of the LLC;

(c) enter into this Agreement for the purpose of amending and restating the rights, duties, and relationship of the Members; and

(d) agree that if the laws of any jurisdiction in which the LLC transacts business so require, the PJM Board also shall file, with the appropriate office in that jurisdiction, any documents necessary for the LLC to qualify to transact business under such laws; and (ii) agree and obligate themselves to execute, acknowledge, and cause to be filed for record, in the place or places and manner prescribed by law, any amendments to the Certificate of Formation as may be required, either by the Act, by the laws of any jurisdiction in which the LLC transacts business, or by this Agreement, to reflect changes in the information contained therein or otherwise to comply with the requirements of law for the continuation, preservation, and operation of the LLC as a limited liability company under the Act.

2.2 Name of LLC.

The name under which the LLC shall conduct its business is "PJM Interconnection, L.L.C."

2.3 Place of Business.

The location of the principal place of business of the LLC shall be 955 Jefferson Avenue, Valley Forge Corporate Center, Norristown, Pennsylvania 19403-2497. The LLC may also have offices at such other places both within and without the State of Delaware as the PJM Board may from time to time determine or the business of the LLC may require.

2.4 Registered Office and Registered Agent.

The street address of the initial registered office of the LLC shall be 1209 Orange Street, Wilmington, Delaware 19801, and the LLC's registered agent at such address shall be The Corporation Trust Company. The registered office and registered agent may be changed by resolution of the PJM Board.

3. PURPOSES AND POWERS OF LLC

3.1 Purposes.

The purposes of the LLC shall be:

(a) to operate in accordance with FERC requirements as an Independent System Operator, comprised of the PJM Board, the Office of the Interconnection, and the Members Committee, with the authorities and responsibilities set forth in this Agreement;

(b) as necessary for the operation of the PJM Region as specified above: (i) to acquire and obtain licenses, permits and approvals, (ii) to own or lease property, equipment and facilities, and (iii) to contract with third parties to obtain goods and services, provided that, the LLC may procure goods and services from a Member only after open and competitive bidding; and

(c) to engage in any lawful business permitted by the Act or the laws of any jurisdiction in which the LLC may do business and to enter into any lawful transaction and engage in any lawful activities in furtherance of the foregoing purposes and as may be necessary, incidental or convenient to carry out the business of the LLC as contemplated by this Agreement.

3.2 Powers.

The LLC shall have the power to do any and all acts and things necessary, appropriate, advisable, or convenient for the furtherance and accomplishment of the purposes of the LLC, including, without limitation, to engage in any kind of activity and to enter into and perform obligations of any kind necessary to or in connection with, or incidental to, the accomplishment of the purposes of the LLC, so long as said activities and obligations may be lawfully engaged in or performed by a limited liability company under the Act.

4. EFFECTIVE DATE AND TERMINATION

4.1 Effective Date and Termination.

(a) The existence of the LLC commenced on March 31, 1997, as provided in the Certificate of Formation and Certificate of Conversion which were filed with the Recording Office on March 31, 1997. This Agreement shall amend and restate the Operating Agreement of PJM Interconnection, LLC as of the Effective Date.

(b) The LLC shall continue in existence until terminated in accordance with the terms of this Agreement. The withdrawal or termination of any Member is subject to the provisions of Section 18.18 of this Agreement.

(c) Any termination of this Agreement or withdrawal of any Member from the Agreement shall be filed with the FERC pursuant to Section 205 of the Federal Power Act and shall become effective only upon the FERC's approval, acceptance without suspension, or, if suspended, the expiration of the suspension period before the FERC has issued an order on the merits of the filing.

4.2 Governing Law.

This Agreement and all questions with respect to the rights and obligations of the Members, the construction, enforcement and interpretation hereof, and the formation, administration and termination of the LLC shall be governed by the provisions of the Act and other applicable laws of the State of Delaware, and the Federal Power Act.

5. WORKING CAPITAL AND CAPITAL CONTRIBUTIONS

5.1 Funding of Working Capital and Capital Contributions.

(a) The Office of the Interconnection shall attempt to obtain financing of up to twenty-five percent (25%) of the approved annual operating budget of the LLC adopted by the PJM Board pursuant to Section 7.5.2 of this Agreement to meet the working capital needs of the LLC, which shall be limited to such working capital needs that arise from timing in cash flows from interchange accounting, tariff administration and payment of the operating costs of the Office of the Interconnection. Such financing, which shall be non-recourse to the Members of the LLC and which shall be for a stated term without penalty for prepayment, may be obtained by borrowing the amount required at market-based interest rates, negotiated on an arm's length basis, (i) from a Member or Members or (ii) from a commercial lender, supported, if necessary, by credit enhancements provided by a Member or Members; *provided, however*, no Member shall be obligated to provide such financing or credit enhancements. The LLC shall make such filings and seek such approvals as necessary in order for the principal, interest and fees related to any such borrowing to be repaid through charges under the PJM Tariff as appropriate under Schedule 3 of this Agreement.

(b) In the event financing of the working capital needs of the Office of the Interconnection is unavailable on commercially reasonable terms, the PJM Board may require the Members to contribute capital in the aggregate up to five million two hundred thousand dollars ($5,200,000) for the working capital needs that could not be financed; provided that in such event each Member's obligation to contribute additional capital shall be in proportion to its Weighted Interest, multiplied by the amount so requested by the PJM Board. Each Member that contributes such capital shall be entitled to earn a return on the contribution to the extent such contribution has not been repaid, which return shall be at a fair market rate as determined by the PJM Board but in no event less than the current interest rate established pursuant to 18 C.F.R. § 35.19a(a)(2)(iii); *provided further*, that any Member not wanting to contribute the requested capital contribution may withdraw from the LLC upon 90 days written notice as provided in Section 18.18.2 of this Agreement.

(c) Authority to borrow capital for LLC Operations. Nothing in Section 5.1(a) and (b) shall be construed to restrict the authority of the PJM Board to authorize the LLC to borrow or raise capital in excess of twenty-five percent of the approved annual operating budget of the LLC, for working capital or otherwise, as the PJM Board deems appropriate to fund the operations of the LLC, in accordance with the general powers of the LLC under Section 3.2 to enter into obligations of any kind to accomplish the purposes of the LLC. Nor shall anything in Section 5.1(a) and (b) in any way restrict the authority of the PJM Board to authorize the LLC to grant to lenders such security interests or other rights in assets or revenues received under the PJM Tariff with respect to the costs of operating the LLC and the Office of the Interconnection and to take such other actions as it deems necessary and appropriate to obtain such financing in accordance with such general powers of the LLC under Section 3.2.

5.2 Contributions to Association.

All contributions prior to the Effective Date of the original Operating Agreement of PJM Interconnection, L.L.C. of cash or other assets to the PJM Interconnection Association by persons who are now or in the future may become Members of the LLC shall be deemed contributions by such Members to the LLC.

6. TAX STATUS AND DISTRIBUTIONS

6.1 Tax Status.

The LLC shall make all necessary filings under the applicable Treasury Regulations to have the LLC taxed as a corporation.

6.2 Return of Capital Contributions.

(a) In the event Members are required to contribute capital to the LLC in accordance with Section 5.1 herein, the LLC shall request the Transmission Owners to recover such working capital through charges under the PJM Tariff as provided in Schedule 3 of this Agreement. In the event all or a portion of the working capital is recovered pursuant to the PJM Tariff, such amount(s) shall be returned to the Members in accordance with their actual contributions.

(b) Except for return of capital contributions and liquidating distributions as provided in the foregoing section and Section 6.3 herein, respectively, the LLC does not intend to make any distributions of cash or other assets to its Members.

6.3 Liquidating Distribution.

Upon termination or liquidation of the LLC, the cash or other assets of the LLC shall be distributed as follows:

(a) first, in the event the LLC has any liabilities at the time of its termination or dissolution, the LLC shall liquidate such of its assets as is necessary to satisfy such liabilities;

(b) second, any capital contribution in cash or in kind by any Member of the PJM Interconnection Association prior to the Effective Date shall be distributed by the LLC back to such Member in the form received by the PJM Interconnection Association; and

(c) third, any remaining assets of the LLC shall be distributed to the Members in proportion to their Weighted Interests.

7. PJM BOARD

7.1 Composition.

There shall be an LLC Board of Managers, referred to herein as the "PJM Board," composed of nine voting members, with the President as a non-voting member. The nine voting Board Members shall be elected by the Members Committee. A Nominating Committee, consisting of one representative elected annually from each sector of the Members Committee established under Section 8.1 and three voting Board Members (provided that one such Board Member shall serve only as a non-voting member of the Nominating Committee), shall retain an independent consultant, which shall be directed to prepare a list of persons qualified and willing to serve on the PJM Board. Not later than 30 days prior to each Annual Meeting of the Members, the Nominating Committee shall distribute to the representatives on the Members Committee one nominee from among the list proposed by the independent consultant for each vacancy or expiring term on the PJM Board, along with information on the background and experience of the nominees appropriate to evaluating their fitness for service on the PJM Board; provided, however, that the Nominating Committee in its discretion may nominate, without retaining an independent consultant, a Board member whose term is expiring and who desires to serve an additional term. Elections for the PJM Board shall be held at each Annual Meeting of the Members, for the purpose of selecting the initial PJM Board in accordance with the provisions of Section 7.3(a), or selecting a person to fill the seat of a Board Member whose term is expiring. Should the Members Committee fail to elect a full PJM Board from the nominees proposed by the Nominating Committee, then the Nominating Committee shall propose a further nominee from the list prepared by the independent consultant (or a replacement consultant) for each remaining vacancy on the PJM Board for consideration by the Members at the next regular meeting of the Members Committee.

7.2 Qualifications.

A Board Member shall not be, and shall not have been at any time within five years of election to the PJM Board, a director, officer or employee of a Member or of an Affiliate or Related Party of a Member. Except as provided in the LLC's Standards of Conduct filed with the FERC, at any time while serving on the PJM Board, a Board Member shall have no direct business relationship or other affiliation with any Member or its Affiliates or Related Parties. Of the nine Board Members, four shall have expertise and experience in the areas of corporate leadership at the senior management or board of directors level, or in the professional disciplines of finance or accounting, engineering, or utility laws and regulation, one shall have expertise and experience in the operation or concerns of transmission dependent utilities, one shall have expertise and experience in the operation or planning of transmission systems, and one shall have expertise and experience in the area of commercial markets and trading and associated risk management.

7.3 Term of Office.

(a) The persons serving as the Board of Managers of the LLC immediately prior to the Effective Date shall continue in office until the first Annual Meeting of the Members. At the first Annual Meeting of the Members, the then current members of the PJM Board who desire to continue in office shall be elected by the Members to serve until the second Annual Meeting of the Members or until their successors are elected, along with such additional persons as necessary to meet the composition requirements of Section 7.1 and the qualification requirements of Section 7.2.

(b) A Board Member shall serve for a term of three years commencing with the Annual Meeting of the Members at which the Board Member was elected; provided, however, that two of the Board Members elected at the first Annual Meeting of the Members following the Effective Date shall be chosen by lot to serve a term of one year, three of such Board Members shall be chosen by lot to serve a term of two years and the final two such Board Members shall serve a term of three years; provided further, however, that the initial term of one of the two Board Members elected to fill one of the two new Board seats added in 2003 shall be chosen by lot to serve a term of four years and the initial term of the other Board Member elected to fill the other new Board seat added in 2003 shall serve a term of five years.

(c) Vacancies on the PJM Board occurring between Annual Meetings of the Members shall be filled by vote of the then remaining Board Members; a Board Member so selected shall serve until the next Annual Meeting at which time a person shall be elected to serve the balance of the term of the vacant Board Seat. Removal of a Board Member shall require the approval of the Members Committee.

7.4 Quorum.

The presence in person or by telephone or other authorized electronic means of a majority of the voting Board Members shall constitute a quorum at all meetings of the PJM Board for the transaction of business except as otherwise provided by statute. If a quorum shall not be present, the Board Members then present shall have the power to adjourn the meeting from time to time, until a quorum shall be present. Provided a quorum is present at a meeting, the PJM Board shall act by majority vote of the Board Members present.

7.5 Operating and Capital Budgets; Sources and Uses of Funds.

7.5.1 Finance Committee.

(a) Not later than December 1 of each year, the entities specified below shall select the members of a Finance Committee. The Finance Committee shall be composed of two representatives elected annually from each sector of the Members Committee as defined in section 8.1, one representative of the Office of the Interconnection selected by the President, and two Board Members selected by the PJM Board. The Office of the Interconnection representative shall be the Chair of the Finance Committee and shall not vote on the recommendations of the Finance Committee to the PJM Board and Members Committee. Each Board and Member Representative of the PJM Finance Committee shall be entitled to vote on final recommendations to the PJM Board and the PJM Members Committee. The Member Representatives shall represent the interests of their respective sectors. In accordance with sections 7.7 and 11.1 of the Operating Agreement, the Members Representatives shall avoid undue influence by any Member or group of Members on the operations of PJM and Member management of the business of PJM.

(b) The purpose of the PJM Finance Committee is to review PJM's consolidated financial statements, budgeted and actual capital costs, operating budgets and expenses, and cost management initiatives and in an advisory capacity to submit to the PJM Board its analysis of and recommendations on PJM's annual budgets and on other matters pertaining to the appropriate level of PJM's rates, proposed major new investments and allocation and disposition of funds consistent with PJM's duties and responsibilities as specified in Section 7.7 of this Agreement. The Finance Committee shall also review and comment upon any additional or amended budgets prepared by the Office of the Interconnection at the request of the PJM Board or the Members Committee. Copies of the Finance Committee's submissions to the PJM Board shall be provided to the Members Committee.

(c) The Office of the Interconnection shall prepare annual operating and capital budgets and multi-year projections of expenses and capital in accordance with processes and procedures established by the PJM Board, and shall timely submit its budgets to the Finance Committee for review. The Office of the Interconnection shall also provide the Finance Committee with such additional financial information regarding other matters pertaining to the appropriate level of PJM's rates, proposed major new investments and allocation and disposition of funds as may be reasonably requested by the Finance Committee to assist it with its review. PJM shall provide complete and transparent financial data and reporting to all Members through the PJM Finance Committee, such data and reporting to include but not necessarily be limited to: unaudited quarterly PJM financial statements; audited annual PJM financial statements; quarterly PJM FERC Form 3-Q; annual PJM FERC Form 1; and PJM budget and forecast data and Results.

7.5.2 Adoption of Budgets.

The PJM Board shall adopt, upon consideration of the advice and recommendations of the Finance Committee, operating and capital budgets for the LLC, and shall distribute to the Members for their information final annual budgets for the following fiscal year not later than 60 days prior to the beginning of each fiscal year of the LLC.

7.6 By-laws.

To the extent not inconsistent with any provision of this Agreement, the PJM Board shall adopt such by-laws establishing procedures for the implementation of this Agreement as it may deem appropriate, including but not limited to by-laws governing the scheduling, noticing and conduct of meetings of the PJM Board, selection of a Chair and Vice Chair of the PJM Board, action by the PJM Board without a meeting, and the organization and responsibilities of standing and special committees of the PJM Board. Such by-laws shall not modify or be inconsistent with any of the rights or obligations established by this Agreement.

7.7 Duties and Responsibilities of the PJM Board.

In accordance with this Agreement, the PJM Board shall supervise and oversee all matters pertaining to the PJM Region and the LLC, and carry out such other duties as are herein specified, including but not limited to the following duties and responsibilities:

i) As its primary responsibility, ensure that the President, the other officers of the LLC, and Office of the Interconnection perform the duties and responsibilities set forth in this Agreement, including but not limited to those set forth in Sections 9.2 through 9.4 and Section 10.4 in a manner consistent with (A) the safe and reliable operation of the PJM Region, (B) the creation and operation of a robust, competitive, and non-discriminatory electric power market in the PJM Region, and (C) the principle that a Member or group of Members shall not have undue influence over the operation of the PJM Region;

ii) Select the Officers of the LLC;

iii) Adopt budgets for the LLC;

iv) Approve the Regional Transmission Expansion Plan in accordance with the provisions of the Regional Transmission Expansion Planning Protocol set forth in Schedule 6 of this Agreement;

v) On its own initiative or at the request of a User Group as specified herein, submit to the Members Committee such proposed amendments to this Agreement or any Schedule hereto, or a proposed new Schedule, as it may deem appropriate;

vi) Petition FERC to modify any provision of this Agreement or any Schedule or practice hereunder that the PJM Board believes to be unjust, unreasonable, or unduly discriminatory under section 206 of the Federal

Power Act, subject to the right of any Member or the Members to intervene in any resulting proceedings;

vii) Review for consistency with the creation and operation of a robust, competitive and non-discriminatory electric power market in the PJM Region any change to rate design or to non-rate terms and conditions proposed by Transmission Owners for filing under section 205 of the Federal Power Act;

viii) If and to the extent it shall deem appropriate, intervene in any proceeding at FERC initiated by the Members in accordance with Section 11.5(b), and participate in other state and federal regulatory proceedings relating to the interests of the LLC;

ix) Review, in accordance with Section 15.1.3, determinations of the Office of the Interconnection with respect to events of default;

x) Assess against the other Members in proportion to their Default Allocation Assessment an amount equal to any payment to the Office of the Interconnection, including interest thereon, as to which a Member is in default;

xi) Establish reasonable sanctions for failure of a Member to comply with its obligations under this Agreement;

xii) Direct the Office of the Interconnection on behalf of the LLC to take appropriate legal or regulatory action against a Member (A) to recover any unpaid amounts due from the Member to the Office of the Interconnection under this Agreement and to make whole any Members subject to an assessment as a result of such unpaid amount, or (B) as may otherwise be necessary to enforce the obligations of this Agreement;

xiii) [Reserved.]

xiv) [Reserved.]

xv) Solicit the views of Members on, and commission from time to time as it shall deem appropriate independent reviews of, (a) the performance of the PJM Interchange Energy Market, (b) compliance by Market Participants with the rules and requirements of the PJM Interchange Energy Market, and

(c) the performance of the Office of the Interconnection under performance criteria proposed by the Members Committee and approved by the PJM Board; and

xvi) Terminate a Member as may be appropriate under the terms of this Agreement.

8. MEMBERS COMMITTEE

8.1 Sectors.

8.1.1 Designation.

Voting on the Senior Standing Committees shall be by sectors. The Senior Standing Committee shall be composed of five sectors, one for Generation Owners, one for Other Suppliers, one for Transmission Owners, one for Electric Distributors, and one for End-Use Customers, provided that there are at least five Members in each Sector. Except as specified in Section 8.1.2, each Voting Member shall have one vote. Each Voting Member shall, within thirty (30) days after the Effective Date or, if later, thirty (30) days after becoming a Member, and thereafter not later than 10 days prior to the Annual Meeting of the Members for each annual period beginning with the Annual Meeting of the Members, submit to the President a sealed notice of the sector in which it is qualified to vote or, if qualified to participate in more than one sector, its rank order preference of the sectors in which it wishes to vote, and shall be assigned to its highest-ranked sector that has the minimum number of Members specified above. If a Member is assigned to a sector other than its highest-ranked sector in accordance with the preceding sentence, its higher sector preference or preferences shall be honored as soon as a higher-ranked sector has five or more Members. A Voting Member may designate as its voting sector any sector for which it or its Affiliate or Related Party Members is qualified. The sector designations of the Voting Members shall be announced by the Office of the Interconnection at the Annual Meeting and shall apply to all Senior Standing Committees.

8.1.2 Related Parties.

The Members in a group of Related Parties shall each be entitled to a vote, provided that all the Members in a group of Related Parties that chooses to exercise such rights shall be assigned to the Electric Distributor sector.

8.1.3 Sector Challenge.

(a) Any Member ("Challenging Member') may request that PJM review the qualification of another Member ("Challenged Member") in the Challenging Member's sector to participate in that sector. Any five Members may request that PJM review the qualification of another Member to participate in the sector in which that Member is presently assigned.

(b) A request pursuant to section 8.1.3(a) of this Agreement ("Challenge") shall be submitted in writing and shall describe the basis for the Challenge, which shall include, but not limited to, the reasons why the Challenged Member may not have any Active and Significant Business Interests in its present sector. Except for new Members, a Challenge must be submitted within 30 days after the Annual Meeting of the Members. For new Members, a Challenge must be submitted within 30 days after the meeting in which they are introduced.

(c) PJM shall review the Challenge and inform the Challenged Member of the Challenge by providing a copy of the Challenge to the Challenged Member as soon as practicable, and in no case later than 10 working days after PJM receives the Challenge.

(d) The Challenged Member shall submit to PJM a list of the sectors in which it is qualified to vote and its rank order preference of those sectors. PJM may also request information from the Challenged Member to assist in determining the Active and Significant Business Interests of Challenged Member. The Challenged Member shall respond to any such request within 60 days from the date of the request, which shall be the date the request was issued by PJM.

(e) Considering the sector definitions and Active and Significant Business Interests, PJM, in its sole discretion, shall determine if the Challenged Member meets the requirements to participate in its present sector. PJM shall make this determination within the later of 30 days after receiving the information provided pursuant to section 8.1.3(d) of this Agreement, or 10 days after the next scheduled meeting of the Members Committee.

(f) If the Challenged Member does not meet the requirements for its present sector, PJM shall assign the Challenged Member to the next highest preferred sector for which it is qualified in accordance with the rank order preference established by the Challenged Member pursuant to section 8.1.3(d) of this Agreement.

(g) PJM shall notify the Challenged Member and Challenging Member as soon as practicable after making a determination pursuant to section 8.1.3(e) of this Agreement, and shall announce the outcome of any such determination at the Members Committee meeting following PJM's decision. PJM shall disclose the identity of the Challenging Party and the Challenged Party when making the announcement.

(h) If a sector is required pursuant to Section 8.1.3(e) it shall become effective on the date of the Members Committee meeting following PJM's decision.

(i) Until PJM rules on a Challenge, the Challenged Member shall remain in its present sector and shall be permitted to vote in that sector.

8.2 Representatives.

8.2.1 Appointment.

Each Member may appoint one representative to serve on each of the Standing Committees, potentially a different person for each committee, with authority to act for that Member with respect to actions or decisions thereof. Each Member may appoint up to three alternate representatives to each such committee to act for that Member at meetings thereof in the absence of the representative. A Member participating in the PJM Interchange Energy Market through an agent may be represented on the Standing Committee by that agent. A Member shall appoint its representatives and alternates by giving written notice thereof to the Office of the Interconnection. Members that are Affiliates or Related Parties may each appoint a representative and alternate representatives to each of the Standing Committees, but shall vote on Senior Standing Committees as specified in Section 8.1.

8.2.2 Regulatory Authorities.

FERC and any other federal agency with regulatory authority over a Member and each State electric utility regulatory commission with regulatory jurisdiction within the PJM Region, may nominate one representative to serve as an *ex officio* non-voting member on each of the Standing Committees.

8.2.3 State Offices of Consumer Advocate.

(a) Each State Consumer Advocate may nominate one representative to serve as an *ex officio* member on each of the Standing Committees. Upon a written request by a State Consumer Advocate to the Office of the Interconnection, and upon the payment of the fee prescribed by section (b) of Schedule 3 to this Agreement, a State Consumer Advocate may designate a representative to each of the Standing Committees who, subject to subparagraph b, shall be entitled to cast one (1) non-divisible vote in the End-Use Customer Sector in Senior Standing Committees. As an *ex officio* member, a State Consumer Advocate shall have no liability under this Agreement, other than the annual fee required by Schedule 3. The State Consumer Advocates shall not be entitled to indemnification by the other Members under any provisions of this Agreement. Additionally, the State Consumer Advocates shall not be eligible to participate in any markets managed by PJM under the terms contained in this Agreement.

(b) Each State Consumer Advocate shall be entitled to cast only one (1) vote in the Senior Standing Committees per State or the District of Columbia. If more than one representative from a given state has been nominated to be a voting member of the Senior Standing Committees, all State Offices of Consumer Advocate from such state that have nominated representatives to vote at the Senior Standing Committees shall designate to the Office of the Interconnection one (1) representative who shall be entitled to vote on all of their behalf's, prior to being permitted to vote at any meetings of the Senior Standing Committees.

8.2.4 Initial Representatives.

Initial representatives to the Members Committee shall be appointed no later than 30 days after the Effective Date; provided, however, that each representative to the Management Committee under the Operating Agreement of PJM Interconnection, L.L.C. as in effect immediately prior to the Effective Date shall automatically become a representative to the Members Committee on the Effective Date unless replaced as specified in Section 8.2.5. An entity becoming a Member shall appoint a representative to each Standing Committee no later than 30 days after becoming a Member.

8.2.5 Change of or Substitution for a Representative.

Any Member may change its representative or alternate on the Standing Committees at any time by providing written notice to the Office of the Interconnection identifying its replacement representative or alternate. Any representative to the Standing Committees may, by written notice to the applicable Chair, designate a substitute representative from that Member to act for him or her with respect to any matter specified in such notice.

8.3 Meetings.

8.3.1 Regular and Special Meetings.

The Standing Committees shall hold regular meetings, no less frequently than once each calendar quarter at such time and at such place as shall be fixed by the Chair thereof. The Members Committee may adopt bylaws, including rules of procedure, governing its meetings and activities and the meetings and activities of the other Standing Committees, and other committees, subcommittees, task forces, working groups and other bodies under its auspices. The Members Committee shall hold an Annual Meeting of the Members each calendar year at such time and place as shall be specified by the Chair. At the Annual Meeting of the Members, Board Members as necessary shall be elected. The Standing Committees may hold special meetings for one or more designated purposes within the scope of the authority of the applicable committee when called by the Chair on the Chair's own initiative, or at the request of five or more representatives on the applicable committee. The notice of a regular or special meeting shall be distributed to the representatives as specified in Section 18.14 of this Agreement not later than seven days prior to the meeting, shall state the time and place of the meeting, and shall include an agenda sufficient to notify the representatives of the substance of matters to be considered at the meeting; provided, however, that meetings may be called on shorter notice at the discretion of the Chair as the Chair shall deem necessary to deal with an emergency or to meet a deadline for action.

8.3.2 Attendance.

Regular and special meetings may be conducted in person or by telephone, or other electronic means as authorized by the Members Committee. The attendance in person or by telephone or other electronic means of a representative or a duly designated substitute shall be required in order to vote.

8.3.3 Quorum.

The attendance as specified in Section 8.3.2 of a majority of the Voting Members from each of at least three sectors that each have at least five Members shall constitute a quorum at any meeting of the Members Committee; however, a quorum shall only require one-third of the Voting Members, but not less than ten, from any sector that has more than 20 Voting Members. No action may be taken by the Members Committee at a meeting unless a quorum is present; provided, however, that if a quorum is not present, the Voting Members then present shall have the power to adjourn the meeting from time to time until a quorum shall be present. A quorum shall not be required to conduct a meeting of any Committee other than the Members Committee; however, the Chair of any committee other than the Members Committee, in his discretion, may declare adjourned any meeting which fewer than ten Members attend.

8.4 Manner of Acting.

(a) The procedures for the conduct of meetings of the Standing Committees may be stated in bylaws adopted by the Members Committee.

(b) In a Senior Standing Committee, each Sector shall be entitled to cast one and zero one-hundredths (1.00) Sector Votes. Each Voting Member shall be entitled to cast one (1) non-divisible vote in its sector. In the case of a Voting Member comprised of Affiliates or Related Parties, any representative, alternate or substitute of any of the Affiliated or Related Parties may cast the vote of the Voting Member. The Sector Vote of each sector shall be split into an affirmative component based on votes for the pending motion, and a negative component based on votes against the pending motion, in direct proportion to the votes cast within the sector for and against the pending motion, rounded to two decimal places.

(c) The sum of affirmative Sector Votes necessary to pass a pending motion in a Senior Standing Committee shall be greater than (but not merely equal to) the product of .667 multiplied by the number of sectors that have at least five Members and that participated in the vote; provided, however, that the sum of the affirmative Sector Votes necessary to pass a motion to elect a Board Member or to elect the Chair or Vice Chair of the Members Committee shall be greater than (but not merely equal to) the product of .5 multiplied by the number of sectors that have at least five Members and that participated in the vote.

(d) Voting Members not in attendance at the meeting as specified in Section 8.3.2 of this Agreement or abstaining shall not be counted as affirmative or negative votes.

8.5 Chair and Vice Chair of the Members Committee.

8.5.1 Selection and Term.

The representatives or their alternates or substitutes on the Members Committee shall elect from among the representatives a Chair and a Vice Chair. The offices of Chair and Vice Chair shall be held for a term of one year. The terms shall commence at the last regular meeting of the Members Committee each calendar year and end at the last regular meeting of the Members Committee of the following calendar year or until succession to the office occurs as specified herein. Except as specified below, at the last regular meeting of the Members Committee each calendar year, the Vice Chair shall succeed to the office of Chair, and a new Vice Chair shall be elected. If the office of Chair becomes vacant, or the Chair leaves the employment of the Member for whom the Chair is the representative, or the Chair is no longer the representative of such Member, the Vice Chair shall succeed to the office of Chair, and a new Vice Chair shall be elected at the next regular or special meeting of the Members Committee, both such officers to serve until the last regular meeting of the Members Committee of the calendar year following such succession or election to a vacant office. If the office of Vice Chair becomes vacant, or the Vice Chair leaves the employment of the Member for whom the Vice Chair is the representative, or the Vice Chair is no longer the representative of such Member, a new Vice Chair shall be elected at the next regular or special meeting of the Members Committee.

Notwithstanding the foregoing, the Chair and Vice Chair whose terms commenced on May 1, 2003, shall hold their offices until the last regular meeting of the Members Committee in 2004, and there shall not be an election of a new Vice Chair at the last regular meeting of the Members Committee in 2003.

8.5.2 Duties.

The Chair shall call and preside at meetings of the Members Committee, and shall carry out such other responsibilities as the Members Committee shall assign. The Chair shall cause minutes of each meeting of the Members Committee to be taken and maintained, and shall cause notices of meetings of the Members Committee to be distributed. The Vice Chair shall preside at meetings of the Members Committee in the absence of the Chair, and shall otherwise act for the Chair at the Chair's request.

8.6 Senior, Standing, and Other Committees.

The Members Committee shall establish and maintain the Markets and Reliability Committee as a Senior Standing Committee. The Members Committee also shall establish and maintain the Market Implementation Committee (under the Markets and Reliability Committee), and Planning Committee and Operating Committee (both under the Markets and Reliability Committee) as Standing Committees. The Members Committee may establish or dissolve other Standing Committees from time to time. The President shall appoint the Chair and Vice Chair of each Senior Standing Committee and Standing Committee and, after consultation with the Chair of a Standing Committee, the President shall appoint the Chair and Vice Chair of any other committees.

8.6.1 Markets and Reliability Committee.

The Markets and Reliability Committee shall be established by and report to the Members Committee.

The Markets and Reliability Committee shall provide advice and recommendations concerning the reliable and secure operation of the PJM Interchange Energy Market and Ancillary Services markets, mechanisms to provide an efficient marketplace for products needed for resource adequacy and operating security, and otherwise as directed by the Members Committee. The Markets and Reliability Committee also addresses matters related to the reliable and secure operation of the PJM system and planning strategies to assure the continued ability of the Members to operate reliably and economically, consistent with reliability principles and standards.

Voting on the Markets and Reliability Committee shall be by sectors in accordance with Sections 8.1 and 8.4 of this Agreement. Neither the Markets and Reliability Committee nor the Members Committee shall have authority to control or direct the actions of the PJM Board or the Office of the Interconnection with regard to the short-term reliability of grid operations within the PJM Region. The responsibilities of the Markets and Reliability Committee shall, more specifically, include, but not be limited to, the following:

(a) The Markets and Reliability Committee shall develop and approve a Markets and Reliability Committee Annual Plan including prioritization of planned activities and initiation of activities supporting the approved plan.

(b) The Markets and Reliability Committee shall provide advice and recommendations concerning issues pertaining to the operation and administration of the PJM markets, including but not limited to amendments to PJM's Operating Agreement, the PJM Tariff, or market rules and procedures as necessary or appropriate to foster competition and assure the fair, reliable and efficient operation and administration of the PJM markets, as well as the reliable operation of the grid.

(c) The Markets and Reliability Committee shall provide advice and recommendations as are necessary or appropriate to assure a high level of economy of service in the operation of the PJM Interchange Energy Market and other markets, in accordance with established market operation principles, practices and procedures, recognizing individual participant requirements for services, contractual obligations and other pertinent factors.

(d) The Markets and Reliability Committee shall provide advice and recommendations concerning studies and analyses relating to the overall efficacy of the PJM Interchange Energy Market and in carrying out actions as may be initiated as a result thereof.

(e) The Markets and Reliability Committee shall provide advice and recommendations concerning revisions to the Operating Agreement, the Reliability Assurance Agreement, and the PJM Tariff that pertain to its areas of responsibility.

(f) The Markets and Reliability Committee shall make annual and timely recommendations concerning the generating capacity reserve requirement and related demand-side valuation factors for consideration by the Members Committee, in order to assist the Members Committee in making recommendations to the PJM Board of Managers.

(g) The Markets and Reliability Committee shall provide direction to the Market Implementation Committee, which committee shall report to the Markets and Reliability Committee. The Market Implementation Committee shall provide advice and recommendations to the Markets and Reliability Committee directed to the advancement and promotion of competitive wholesale electricity markets in the PJM Region, and perform such other functions as the Markets and Reliability Committee may direct from time to time.

(h) The Markets and Reliability Committee shall provide direction to the Operating Committee and Planning Committee, which committees shall report to the Markets and Reliability Committee. The Operating Committee shall advise the Markets and Reliability Committee and PJM on matters pertaining to the reliable and secure operation of the PJM Region and the PJM Interchange Energy Market, as appropriate, and other matters as the Markets and Reliability Committee may request. The Planning Committee shall advise the Markets and Reliability Committee and PJM on matters pertaining to system reliability, security, economy of service, and planning strategies and policies and other matters as the Markets and Reliability Committee may request. The Markets and Reliability Committee shall review technical recommendations and changes initiated by the Operating Committee and Planning Committees and provide comments as needed.

(i) The Markets and Reliability Committee shall perform such other functions, directly or through delegation to a Standing Committee, subcommittee, working group or task force reporting to the Markets and Reliability Committee, as the Members Committee may direct.

(j) The Markets and Reliability Committee shall create subcommittees, working groups or task forces when needed to assist in carrying out the duties and responsibilities of the Markets and Reliability Committee.

8.6.2 [Reserved.]

8.6.3 Other Committees and Bodies.

The Standing Committees may form, select the membership, and oversee the activities, of such other committees, subcommittees, task forces, working groups or other bodies as it shall deem appropriate, to provide advice and recommendations to the Standing Committees or Office of the Interconnection. Each such group shall terminate automatically upon completion of its assigned tasks and, if not terminated, shall terminate two years after formation unless reauthorized by the Standing Committee that directed its formation.

8.7 User Groups.

(a) Any five or more Members sharing a common interest may form a User Group, and may invite such other Members to join the User Group as the User Group shall deem appropriate. Notification of the formation of a User Group shall be provided to all members of the Members Committee.

(b) The Members Committee shall create a User Group composed of representatives of *bona fide* public interest and environmental organizations that are interested in the activities of the LLC and are willing and able to participate in such a User Group.

(c) Meetings of User Groups shall be open to all Members and the Office of the Interconnection. Notices and agendas of meetings of a User Group shall be provided to all Members that ask to receive them.

(d) Any recommendation or proposal for action adopted by affirmative vote of three-fourths or more of the members of a User Group shall be submitted to the Chair of the Members Committee. The Chairman shall refer the matter for consideration by the applicable Standing Committee as appropriate for consideration at that Committee's next regular meeting, occurring not earlier than 30 days after the referral, for a recommendation to the Members Committee for consideration at its next regular meeting.

(e) If the Members Committee does not adopt a recommendation or proposal submitted by a User Group, upon vote of nine-tenths or more of the members of the User Group the recommendation or proposal may be submitted to the PJM Board for its consideration in accordance with Section 7.7(v).

8.8 Powers of the Members Committee.

The Members Committee, acting by adoption of a motion as specified in Section 8.4, shall have the power to take the actions specified in this Agreement, including:

i) Elect the members of the PJM Board;

ii) In accordance with the provisions of Section 18.6 of this Agreement, amend any portion of this Agreement, including the Schedules hereto, or create new Schedules, and file any such amendments or new Schedules with FERC or other regulatory body of competent jurisdiction;

iii) Adopt bylaws that are consistent with this Agreement, as amended or restated from time to time;

iv) Terminate this Agreement; and

v) Provide advice and recommendations to the PJM Board and the Office of the Interconnection.

9. OFFICERS

9.1 Election and Term.

The officers of the LLC shall consist of a President, a Secretary and a Treasurer. The PJM Board may elect such other officers as it deems necessary to carry out the business of the LLC. All officers shall be elected by the PJM Board and shall hold office until the next annual meeting of the

PJM Board and until their successors are elected. Any number of offices may be held by the same person, except that the offices of the President and Treasurer may not be held by the same person.

9.2 President.

The PJM Board shall appoint a President and Chief Executive Officer of the LLC (the "President"). The President shall direct and supervise the day-to-day operation of the LLC, and shall report to the PJM Board. The President shall be responsible for directing and supervising the Office of the Interconnection in the performance of the duties and responsibilities specified in Section 10.4. The President shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the LLC, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the board to some other officer or agent of the LLC. In the absence of the President or in the event of his or her inability or refusal to act, and if a vice president has been appointed by the PJM Board, the Vice President (or in the event there be more than one Vice President, the Vice Presidents in the order designated by the PJM Board in its Minutes) shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The Vice President shall perform such other duties and have such other powers as the PJM Board may from time to time prescribe.

9.3 Secretary.

The Secretary shall attend all meetings of the PJM Board and record all the proceedings of the meetings of the PJM Board in a minute book to be kept for that purpose and shall perform like duties for the standing committees or special committees when required. He or she shall give, or cause to be given, notice of all special meetings of the PJM Board, and shall perform such other duties as may be prescribed by the PJM Board or President, under whose supervision he or she shall be. He or she shall have custody of the corporate seal of the LLC, and he or she, or an assistant secretary, shall have authority to affix the same to any instrument requiring it and, when so affixed, it may be attested by his or her signature or by the signature of such assistant secretary. The PJM Board may give general authority to any other officer to affix the seal of the LLC and to attest the affixing by his or her signature.

9.4 Treasurer.

The Treasurer shall have or arrange for the custody of the LLC's funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belongings to the LLC and shall deposit all moneys and other valuable effects in the name and to the credit of the LLC in such depositories as may be designated by the PJM Board. The Treasurer shall disburse the funds of the LLC as may be ordered by the PJM Board, taking proper vouchers for such disbursements, and shall render to the President and PJM Board at its regular meetings, or when the PJM Board so requires, an account of his or her transactions as Treasurer and of the financial condition of the LLC. If required by the Board, the Treasurer shall give the LLC a bond (which shall be renewed periodically) in such sum and with such surety or sureties as shall be satisfactory to the PJM Board for the faithful performance of the duties of his office and of the restoration to the LLC, in case of his or her death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his or her control belonging to the LLC.

9.5 Renewal of Officers; Vacancies.

Any officer elected or appointed by the PJM Board may be removed at any time by the affirmative vote of a majority of the PJM Board eligible to vote. Any vacancy occurring in any office of the LLC shall be filled by the PJM Board.

9.6 Compensation.

The salaries of all officers and agents of the LLC, and the reasonable compensation of the PJM Board, shall be fixed by the PJM Board.

10. OFFICE OF THE INTERCONNECTION

10.1 Establishment.

The Office of the Interconnection shall implement this Agreement, administer the PJM Tariff, and undertake such other responsibilities as set forth herein. All personnel of the Office of the Interconnection shall be employees of the LLC or under contract thereto. The cost of the Office of the Interconnection and expenses associated therewith, including salaries and expenses of said personnel, space and any necessary facilities or other capital expenditures, shall be recovered in accordance with Schedule 3. The Office of the Interconnection shall adopt, publish and comply with standards of conduct that satisfy the regulations of FERC.

10.2 Processes and Organization.

In order to carry out the responsibilities of the Office of the Interconnection for the safe and reliable operation of the PJM Region, the President may establish processes and organization for operating personnel and facilities as the President shall deem appropriate, and shall request such Members as the President shall deem appropriate to participate in such processes and organization. All such processes and organization shall be carried out in accordance with all applicable code of conduct or other functional separation requirements of FERC.

10.3 Confidential Information.

The Office of the Interconnection shall comply with the requirements of Section 18.17 with respect to any proprietary or confidential information received from or about any Member.

10.4 Duties and Responsibilities.

The Office of the Interconnection, under the direction of the President as supervised and overseen by the PJM Board, shall carry out the following duties and responsibilities, in accordance with the provisions of this Agreement:

i) Administer and implement this Agreement;

ii) Perform such functions in furtherance of this Agreement as the PJM Board, acting within the scope of its duties and responsibilities under this Agreement, may direct;

iii) Prepare, maintain, update and disseminate the PJM Manuals;

iv) Comply with NERC, and Applicable Regional Reliability Council operation and planning standards, principles and guidelines;

v) Maintain an appropriately trained workforce, and such equipment and facilities, including computer hardware and software and backup power supplies, as necessary or appropriate to implement or administer this Agreement;

vi) Direct the operation and coordinate the maintenance of the facilities of the PJM Region used for both load and reactive supply, so as to maintain reliability of service and obtain the benefits of pooling and interchange consistent with this Agreement, and the Reliability Assurance Agreement;

vii) Direct the operation and coordinate the maintenance of the bulk power supply facilities of the PJM Region with such facilities and systems of others not party to this Agreement in accordance with agreements between the LLC and such other systems to secure reliability and continuity of service and other advantages of pooling on a regional basis;

viii) Perform interchange accounting and maintain records pertaining to the operation of the PJM Interchange Energy Market and the PJM Region;

ix) Notify the Members of the receipt of any application to become a Member, and of the action of the Office of the Interconnection on such application, including but not limited to the completion of integration of a new Member's system into the PJM Region, as specified in Section 11.6(f);

x) Calculate the Weighted Interest and Default Allocation Assessment of each Member;

xi) Maintain accurate records of the sectors in which each Voting Member is entitled to vote, and calculate the results of any vote taken in the Members Committee;

xii) Furnish appropriate information and reports as are required to keep the Members regularly informed of the outlook for, the functioning of, and results achieved by the PJM Region;

xiii) File with FERC on behalf of the Members any amendments to this Agreement or the Schedules hereto, any new Schedules hereto, and make any other regulatory filings on behalf of the Members or the LLC necessary to implement this Agreement;

xiv) At the direction of the PJM Board, submit comments to regulatory authorities on matters pertinent to the PJM Region;

xv) Consult with the standing or other committees established pursuant to Section 8.6(a) on matters within the responsibility of the committee;

xvi) Perform operating studies of the bulk power supply facilities of the PJM Region and make such recommendations and initiate such actions as may be necessary to maintain reliable operation of the PJM Region;

xvii) Accept, on behalf of the Members, notices served under this Agreement;

xviii) Perform those functions and undertake those responsibilities transferred to it under the Consolidated Transmission Owners Agreement including (A) direct the operation of the transmission facilities of the parties to the East Transmission Owners Agreement (B) direct the operation of the transmission facilities of the Parties to the West Transmission Owners Agreement, (C) direct the operation of the transmission facilities of the Parties to the South Transmission Owner Agreement, (D) administer the PJM Tariff, and (E) administer the Regional Transmission Expansion Planning Protocol set forth as Schedule 6 to this Agreement;

xix) Perform those functions and undertake those responsibilities transferred to it under the Reliability Assurance Agreement, as specified in Schedule 8 of this Agreement;

xx) Monitor the operation of the PJM Region, ensure that appropriate Emergency plans are in place and appropriate Emergency drills are conducted, declare the existence of an Emergency, and direct the operations of the Members as necessary to manage, alleviate or end an Emergency;

xxi) Incorporate the grid reliability requirements applicable to nuclear generating units in the PJM Region planning and operating principles and practices;

xxii) Initiate such legal or regulatory proceedings as directed by the PJM Board to enforce the obligations of this Agreement; and

xxiii) Select an individual to serve as the Alternate Dispute Resolution Coordinator as specified in the PJM Dispute Resolution Procedures.

11. MEMBERS

11.1 Management Rights.

The Members or any of them shall not take part in the management of the business of, and shall not transact any business for, the LLC in their capacity as Members, nor shall they have power to sign for or to bind the LLC.

11.2 Other Activities.

Except as otherwise expressly provided herein, any Member may engage in or possess any interest in another business or venture of any nature and description, independently or with others, even if such activities compete directly with the business of the LLC, and neither the LLC nor any Member hereof shall have any rights in or to any such independent ventures or the income or profits derived therefrom.

11.3 Member Responsibilities.

11.3.1 General.

To facilitate and provide for the work of the Office of the Interconnection and of the several committees appointed by the Members Committee, each Member shall, to the extent applicable;

(a) Maintain adequate records and, subject to the provisions of this Agreement for the protection of the confidentiality of proprietary or commercially sensitive information, provide data required for (i) coordination of operations, (ii) accounting for all interchange transactions, (iii) preparation of required reports, (iv) coordination of planning, including those data required for capacity accounting under the Reliability Assurance Agreement; (v) preparation of maintenance schedules, (vi) analysis of system disturbances, and (vii) such other purposes, including those set forth in Schedule 2, as will contribute to the reliable and economic operation of the PJM Region;

(b) Provide such recording, telemetering, revenue quality metering, communication and control facilities as are required for the coordination of its operations with the Office of the Interconnection and those of the other Members and to enable the Office of the Interconnection to operate the PJM Region and otherwise implement and administer this Agreement, including equipment required in normal and Emergency operations and for the recording and analysis of system disturbances;

(c) Provide adequate and properly trained personnel to (i) permit participation in the coordinated operation of the PJM Region (ii) meet its obligation on a timely basis for supply of records and data, (iii) serve on committees and participate in their investigations, and (iv) share in the representation of the Interconnection in inter-regional and national reliability activities. Minimum training for Members that operate Market Operations Centers and local control centers shall include compliance with the applicable training standards and requirements in PJM Manual 01, Control Center Requirements, including the PJM System Operator Training Requirements in Attachment C;

(d) Share in the costs of committee activities and investigations (including costs of consultants, computer time and other appropriate items), communication facilities used by all the Members (in addition to those provided in the Office of the Interconnection), and such other expenses as are approved for payment by the PJM Board, such costs to be recovered as provided in Schedule 3;

(e) Comply with the requirements of the PJM Manuals and all directives of the Office of the Interconnection to take any action for the purpose of managing, alleviating or ending an Emergency, and authorize the Office of the Interconnection to direct the transfer or interruption of the delivery of energy on their behalf to meet an Emergency and to implement agreements with other Control Areas interconnected with the PJM Region for the mutual provision of service to meet an Emergency, and be subject to the emergency procedure charges specified in Schedule 9 of this Agreement for any failure to follow the Emergency instructions of the Office of the Interconnection. In addressing any Emergency, the Office of the Interconnection shall comply with the terms of any reserve sharing agreements in effect for any part of the PJM Region.

11.3.2 Facilities Planning and Operation.

Consistent with and subject to the requirements of this Agreement, the PJM Tariff, the governing agreements of the Applicable Regional Reliability Councils, the Reliability Assurance Agreement, the Consolidated Transmission Owners Agreement, and the PJM Manuals, each Member shall cooperate with the other Members in the coordinated planning and operation of the facilities of its System within the PJM Region so as to obtain the greatest practicable degree of reliability, compatible economy and other advantages from such coordinated planning and operation. In furtherance of such cooperation each Member shall, as applicable:

(a) Consult with the other Members and the Office of the Interconnection, and coordinate the installation of its electric generation and Transmission Facilities with those of such other Members so as to maintain reliable service in the PJM Region;

(b) Coordinate with the other Members, the Office of the Interconnection and with others in the planning and operation of the regional facilities to secure a high level of reliability and continuity of service and other advantages;

(c) Cooperate with the other Members and the Office of the Interconnection in the implementation of all policies and procedures established pursuant to this Agreement for dealing with Emergencies, including but not limited to policies and procedures for maintaining or arranging for a portion of a Member's Generation Capacity Resources, at least equal to the applicable levels established from time to time by the Office of the Interconnection, to have the ability to go from a shutdown condition to an operating condition and start delivering power without assistance from the power system;

(d) Cooperate with the members of the Applicable Regional Reliability Councils to augment the reliability of the bulk power supply facilities of the region and comply with Applicable Regional Reliability Councils and NERC operating and planning standards, principles and guidelines and the PJM Manuals implementing such standards, principles and guidelines;

(e) Obtain or arrange for transmission service as appropriate to carry out this Agreement;

(f) Cooperate with the Office of the Interconnection's coordination of the operating and maintenance schedules of the Member's generating and Transmission Facilities with the facilities of other Members to maintain reliable service to its own customers and those of the other Members and to obtain economic efficiencies consistent therewith;

(g) Cooperate with the other Members and the Office of the Interconnection in the analysis, formulation and implementation of plans to prevent or eliminate conditions that impair the reliability of the PJM Region; and

(h) Adopt and apply standards adopted pursuant to this Agreement and conforming to NERC, and Applicable Regional Reliability Council standards, principles and guidelines and the PJM Manuals, for system design, equipment ratings, operating practices and maintenance practices.

11.3.3 Electric Distributors.

In addition to any of the foregoing responsibilities that may be applicable, each Member that is an Electric Distributor, whether or not that Member votes in the Members Committee in the Electric Distributor sector or meets the eligibility requirements for any other sector of the Members Committee, shall:

(a) Accept, comply with or be compatible with all standards applicable within the PJM Region with respect to system design, equipment ratings, operating practices and maintenance practices as set forth in the PJM Manuals, or be subject to an interconnected Member's requirements relating to the foregoing, so that sufficient electrical equipment, control capability, information and communication are available to the Office of the Interconnection for planning and operation of the PJM Region;

(b) Assure the continued compatibility of its local system energy management system monitoring and telecommunications systems to satisfy the technical requirements of interacting automatically or manually with the Office of the Interconnection as it directs the operation of the PJM Region;

(c) Maintain or arrange for a portion of its connected load to be subject to control by automatic underfrequency, under-voltage, or other load-shedding devices at least equal to the levels established pursuant to the Reliability Assurance Agreement, or be subject to another Member's control for these purposes;

(d) Provide or arrange for sufficient reactive capability and voltage control facilities to conform to Good Utility Practice and (i) to meet the reactive requirements of its system and customers and (ii) to maintain adequate voltage levels and the stability required by the bulk power supply facilities of the PJM Region;

(e) Shed connected load, share Generation Capacity Resources, initiate Interruptible Load for Reliability programs, and take such other coordination actions as may be necessary in accordance with the directions of the Office of the Interconnection in Emergencies;

(f) Maintain or arrange for a portion of its Generation Capacity Resources at least equal to the level established pursuant to the Reliability Assurance Agreement to have the ability to go from a shutdown condition to an operating condition and start delivering power without assistance from the power system;

(g) Provide or arrange through another Member for the services of a 24-hour local control center to coordinate with the Office of the Interconnection, each such control center to be furnished with appropriate telemetry equipment as specified in the PJM Manuals, and to be staffed by system operators trained and delegated sufficient authority to take any action necessary to assure that the system for which the operator is responsible is operated in a stable and reliable manner. In addition to meeting any training standards and requirements specified in this Agreement, local control center staff shall be required to meet applicable training standards and requirements in PJM Manual 01, Control Center Requirements, including the PJM System Operator Training Requirements in Attachment C;

(h) Provide to the Office of the Interconnection all System, accounting, customer tracking, load forecasting (including all load to be served from its System) and other data necessary or appropriate to implement or administer this Agreement, and the Reliability Assurance Agreement; and

(i) Comply with the underfrequency relay obligations and charges specified in Schedule 7 of this Agreement.

11.3.4 Reports to the Office of the Interconnection.

Each Member shall report as promptly as possible to the Office of the Interconnection any changes in its operating practices and procedures relating to the reliability of the bulk power supply facilities of the PJM Region. The Office of the Interconnection shall review such reports, and if any change in an operating practice or procedure of the Member is not in accord with the established operating principles, practices and procedures for the PJM Region and such change adversely affects such region and regional reliability, it shall so inform such Member, and the other Members through their representative on the Operating Committee, and shall direct that such change be modified to conform to the established operating principles, practices and procedures.

11.4 Regional Transmission Expansion Planning Protocol.

The Members shall participate in regional transmission expansion planning in accordance with the Regional Transmission Expansion Planning Protocol set forth in Schedule 6 to this Agreement.

11.5 Member Right to Petition.

(a) Nothing herein shall deprive any Member of the right to petition FERC to modify any provision of this Agreement or any Schedule or practice hereunder that the petitioning Member believes to be unjust, unreasonable, or unduly discriminatory under section 206 of the Federal Power Act, subject to the right of any other Member (a) to oppose said proposal, or (b) to withdraw from the LLC pursuant to Section 4.1.

(b) Nothing herein shall be construed as affecting in any way the right of the Members, acting pursuant to a vote of the Members Committee as specified in Section 8.4, unilaterally to make an application to FERC for a change in any rate, charge, classification, tariff or service, or any rule or regulation related thereto, under section 205 of the Federal Power Act and pursuant to the rules and regulations promulgated by FERC thereunder, subject to the right of any Member that voted against such change in any rate, charge, classification, tariff or service, or any rule or regulation related thereto, in intervene in opposition to any such application.

11.6 Membership Requirements.

(a) To qualify as a Member, an entity shall:

i) Be a Transmission Owner a Generation Owner, an Other Supplier, an Electric Distributor, or an End-Use Customer; and

ii) Accept the obligations set forth in this Agreement.

(b) Certain Members that are Load Serving Entities are parties to the Reliability Assurance Agreement. Upon becoming a Member, any entity that is a Load Serving Entity in the PJM Region and that wishes to become a Market Buyer shall also simultaneously execute the Reliability Assurance Agreement

(c) An entity that wishes to become a party to this Agreement shall apply, in writing, to the President setting forth its request, its qualifications for membership, its agreement to supply data as specified in this Agreement, its agreement to pay all costs and expenses in accordance with Schedule 3, and providing all information specified pursuant to the Schedules to this Agreement for entities that wish to become Market Participants. Any such application that meets all applicable requirements shall be approved by the President within sixty (60) days.

(d) . Nothing in this Section 11 is intended to remove, in any respect, the choice of participation by other utility companies or organizations in the operation of the PJM Region through inclusion in the System of a Member.

(e) An entity whose application is accepted by the President pursuant to Section 11.6(c) shall execute a supplement to this Agreement in substantially the form prescribed in Schedule 4, which supplement shall be countersigned by the President. The entity shall become a Member effective on the date the supplement is countersigned by the President.

(f) Entities whose applications contemplate expansion or rearrangement of the PJM Region may become Members promptly as described in Sections 11.6(c) and 11.6(e) above, but the integration of the applicant's system into all of the operation and accounting provisions of this Agreement and the Reliability Assurance Agreement, shall occur only after completion of all required installations and modifications of metering, communications, computer programming, and other necessary and appropriate facilities and procedures, as determined by the Office of the Interconnection. The Office of the Interconnection shall notify the other Members when such integration has occurred.

(g) Entities that become Members will be listed in Schedule 12 of this Agreement.

(h) In accordance with the MAAC Agreement, a Member serving load in the MAAC Control Zone shall be a member of MAAC and any other Member may be a member of MAAC.

11.7 Associate Membership Requirements.

(a) If any of the following conditions apply, an entity may qualify as an Associate Member:

(i) The entity is not a member of the End-Use Customer sector and has not been a Market Participant over the past six months, and has no verifiable plans to become a Market Participant over the next six months;

(ii) The entity does not meet the requirements of Section 11.6 of this Agreement;

(b) The following rights and obligations shall apply to Associate Members:

(i) Associate Members shall pay the one half of the annual membership fee, and the application fee is waived;

(ii) Associate Members may participate in all stakeholder process activities;

(iii) Associate Members shall not vote in any stakeholder activities, working groups or committees;

(iv) Associate Members shall not participate in any of PJM's markets;

(v) Associate Members may become Members if they meet the requirements of Section 1.24 of this Agreement;

(vi) Associate Members may participate in training offered by PJM at no cost;

(vii) Associate Members shall not be subject to default assessments pursuant to this Agreement.

12. TRANSFERS OF MEMBERSHIP INTEREST

The rights and obligations created by this Agreement shall inure to and bind the successors and assigns of such Member; provided, however, that the rights and obligations of any Member hereunder shall not be assigned without the approval of the Members Committee except as to a successor in operation of a Member's electric operating properties by reason of a merger, consolidation, reorganization, sale, spin-off, or foreclosure, as a result of which substantially all such electric operating properties are acquired by such a successor, and such successor becomes a Member.

13. INTERCHANGE

13.1 Interchange Arrangements with Non-Members.

Any Member may enter into interchange arrangements with others that are not Members with respect to the delivery or receipt of capacity and energy to fulfill its obligations hereunder or for any other purpose, subject to the standards and requirements established in or pursuant to this Agreement.

13.2 Energy Market.

The Office of the Interconnection shall administer an efficient energy market within the PJM Region, to be known as the PJM Interchange Energy Market, in which Members may buy and sell energy. The Office of the Interconnection will schedule in advance and dispatch generation on the basis of least-cost, security-constrained dispatch and the prices and operating characteristics offered by sellers within and into the PJM Region, continuing until sufficient generation is dispatched to serve the energy purchase requirements of such region and buyers out of such region, as well as the requirements of the PJM Region for ancillary services provided by such generation. Scheduling and dispatch shall be conducted in accordance with applicable schedules to the PJM Tariff and the Schedules to this Agreement.

14. METERING

14.1 Installation, Maintenance and Reading of Meters.

The quantities of electric energy involved in determination of the amounts of the billing rendered hereunder shall be ascertained by means of meters installed, maintained and read either at the expense of the party on whose premises the meters are located or as otherwise provided for by agreement between the parties concerned.

14.2 Metering Procedures.

Procedures with respect to maintenance, testing, calibrating, correction and registration records, and precision tolerance of all metering equipment shall be in accordance with Good Utility Practice. The expense of testing any meter shall be borne by the party owning such meter, except that when a meter tested upon request of another party is found to register within the established tolerance the party making the request shall bear the expense of such test.

14.3 Integrated Megawatt-Hours.

All metering of energy required herein shall be the integration of megawatt hours in the clock hour, and the quantities thus obtained shall constitute the megawatt load for such clock hour; provided, however, that adjustment shall be made for other contractual obligations of any Member as may be required to determine the quantity to be accounted for hereunder, and for transmission losses.

14.4 Meter Locations.

The meter locations to be used by the Members in determining their energy transactions on the PJM Region shall be as reasonably determined from time to time by the Member or the Office of the Interconnection.

14.5 Metering of Behind The Meter Generation.

Generating units, designated as Behind The Meter Generation, individually rated at ten megawatts or greater or that otherwise have been identified by the Office of the Interconnection as requiring metering for operational security reasons must have both revenue quality metering and telemetry equipment for operational security purposes. Multiple generating units, designated as Behind The Meter Generation, that are individually rated less than ten megawatts but together total more than ten megawatts and are identified by the Office of the Interconnection as requiring revenue quality metering and telemetry equipment may meet these metering requirements by being metered as a single unit.

14A. TRANSMISSION LOSSES

14A.1 Description of Transmission Losses.

Transmission losses refer to the loss of energy in the transmission of electricity from generation resources to load, which is dissipated as heat through transformers, transmission lines and other transmission facilities.

14A.2 Inclusion of State Estimator Transmission Losses.

Whenever in this Agreement, transmission losses are included in the determination of a charge, credit, load (including deviations), or demand reduction, it is explicitly so stated and such included losses shall be those losses incurred on facilities included in the PJM network model and determined by, and reflected in, the PJM State Estimator. Absent such explicit statement, such losses are not included in the determination.

14A.3 Other Losses.

Losses incurred on facilities not included in the PJM network model and therefore not reflected in the PJM State Estimator may be included in the determination of charges, credits, load (including real-time deviations), or demand reductions as determined by electric distribution companies, unless this Agreement explicitly excludes such losses.

14B BILLING AND PAYMENT

14B.1 Billing Procedure:

(a) **Monthly Bills.** By the fifth business day of each month, the Office of the Interconnection shall issue a bill to Members and other entities for monthly activity and detailing the charges and credits for all services furnished under this Agreement, the PJM Tariff and any service or rate schedule during the preceding month ("billing month"), excluding amounts billed pursuant to weekly bills for activity during the preceding month.

(b) **Weekly Bills**. By 5:00 p.m. Eastern Prevailing Time each Tuesday (or Wednesday in the event that a Tuesday is a holiday), the Office of the Interconnection will issue a weekly bill to Members and other entities for all activity for certain services furnished under this Agreement, the PJM Tariff and any service or rate schedule for the days of the billing month during the week ending the prior Wednesday. The services for which such weekly bills shall be issued are set forth in PJM Manual 29.

(c) **Billing Statement.** The Office of the Interconnection shall provide Members and other entities with billing statements at the time of issuance of the monthly and weekly bills, reflecting, in the form and manner set forth in PJM Manuals, the Member's or other entity's activity during the billing month and amounts due, net of activity previously billed.

14B.2 Payments:

(a) **Monthly Bills.** Net amounts due pursuant to a monthly bill shall be due and payable by the Member or other entity no later than noon Eastern Prevailing Time on the due date of the first weekly bill issued for activity in the month that the monthly bill is issued. It is possible, due to the timing of holidays, that the billing and payment cycle for monthly bills stated here would call for payment of a monthly bill on a Friday that occurs less than three business days after the issuance of the bill by PJM. Where this occurs, the payment period of the monthly bill will be extended such that payment will be due when payment for the second weekly bill is due.

(b) **Weekly Bills.** Net amounts due pursuant to a weekly bill shall be due and payable by the Member or other entity no later than noon Eastern Prevailing Time on the third business day following the issuance of the weekly bill. Weekly bills issued after 5:00 p.m. Eastern Prevailing Time shall be considered to be issued the following business day.

(c) **Form of Payments.** All payments tendered in satisfaction of a Member's or other entity's obligations shall be made in the form of immediately available funds payable to the LLC, or by wire transfer to a bank named by the LLC.

(d) **Payments by the LLC.** Unless delayed by unforeseen events, payments made by the LLC for amounts due to Members and other entities shall be paid no later than 5:00 p.m. Eastern Prevailing Time on the business day following the payment due date for net amounts owed to the LLC, as specified above.

(e) **Payment Calendar.** A comprehensive billing and settlement calendar will be posted on the LLC's website prior to March 31 for the upcoming June – May annual period to communicate the schedule of holidays for settlement and billing purposes.

14B.3 Interest on Unpaid Balances:

Interest on any unpaid amounts shall be calculated in accordance with the methodology specified for interest on refunds in the Commission's regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by the LLC.

15. ENFORCEMENT OF OBLIGATIONS

15.1 Failure to Meet Obligations.

15.1.1 Termination of Market Buyer Rights.

The Office of the Interconnection shall terminate a Market Buyer's right to make purchases from the PJM Interchange Energy Market, the PJM Capacity Credit Market or any other market operated by PJM if it determines that the Market Buyer does not continue to meet the obligations set forth in this Agreement, including but not limited to the obligation to be in compliance with PJM's creditworthiness requirements and the obligation to make timely payment, provided that the Office of the Interconnection has notified the Market Buyer of any such deficiency and afforded the Market Buyer a reasonable opportunity to cure pursuant to Section 15.1.3. The Office of the Interconnection shall reinstate a Market Buyer's right to make purchases from the PJM Interchange Energy Market and PJM Capacity Credit Market upon demonstration by the Market Buyer that it has come into compliance with the obligations set forth in this Agreement.

15.1.2 Termination of Market Seller Rights.

The Office of the Interconnection shall not accept offers from a Market Seller that has not complied with the prices, terms, or operating characteristics of any of its prior scheduled transactions in the PJM Interchange Energy Market, unless such Market Seller has taken appropriate measures to the satisfaction of the Office of the Interconnection to ensure future compliance.

15.1.2A Close Out and Liquidation of Member Financial Transmission Rights

The Office of the Interconnection shall close out and liquidate all of a Member's current and forward Financial Transmission Rights positions if it determines the Member (i) no longer meets PJM's creditworthiness requirements, or (ii) fails to make timely payment when due under the PJM Operating Agreement or PJM Tariff, in each case following any opportunity given to cure the deficiency. Financial Transmission Rights shall be closed out and liquidated pursuant to Schedule 1, Section 7.3.9 of the PJM Operating Agreement and the Appendix to Attachment K, Section 7.3.9 of the PJM Tariff.

15.1.2A(1): Allocation of Costs and Proceeds Resulting from Liquidation

The liquidation of the defaulting Member's Financial Transmission Rights portfolio shall result in a final liquidated settlement amount. The final liquidated settlement amount may be aggregated with any other amounts owed by the defaulting Member to the Office of the Interconnection and may be set off by the Office of the Interconnection against any amounts owed by the Office of the Interconnection to the defaulting Member for purposes of determining the proper Default Allocation Assessment pursuant to the provisions of Section 15.2.2. Any payments made to a party purchasing some or all of a liquidated portfolio shall be net of that party's charge resulting from a Default Allocation Assessment

15.1.3 Payment of Bills.

A Member shall make full and timely payment, in accordance with the terms specified by the Office of the Interconnection, of all bills rendered in connection with or arising under or from this Agreement, any service or rate schedule, any tariff, or any services performed by the Office of the Interconnection, notwithstanding any disputed amount, but any such payment shall not be deemed a waiver of any right with respect to such dispute. With respect to any payment that the LLC is required to make to a Member in connection with or arising under this Agreement, any service or rate schedule, or any tariff, the LLC shall have a right of setoff equal to any amount that the Member is required to pay the LLC in connection with or arising under or from this Agreement, any service or rate schedule, any tariff, or any services performed by the Office of the Interconnection. Any Member that fails to make full and timely payment to the LLC, or otherwise fails to meet its financial or other obligations to a Member, the Office of the Interconnection or the LLC under this Agreement, shall, in addition to any requirement set forth in Section 15.1 and upon expiration of the 2-day period specified below be in default.

<u>15.1.4 Breach Notification and Remedy</u>

If the Office of the Interconnection concludes, upon its own initiative or the recommendation of or complaint by the Members Committee or any Member, that a Member is in breach of any obligation under this Agreement, including, but not limited to, the obligation to make timely payment and the obligation to meet PJM's creditworthiness standards and to otherwise comply with PJM's credit policies, the Office of the Interconnection shall so notify such Member. The notified Member may remedy such asserted breach by: (i) paying all amounts assertedly due, along with interest on such amounts calculated in accordance with the methodology specified for interest on refunds in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii); and (ii) demonstration to the satisfaction of the Office of the Interconnection that the Member has taken appropriate measures to meet any other obligation of which it was deemed to be in breach; provided, however, that any such payment or demonstration may be subject to a reservation of rights, if any, to subject such matter to the PJM Dispute Resolution Procedures; and provided, further, that any such determination by the Office of the Interconnection may be subject to review by the PJM Board upon request of the Member involved or the Office of the Interconnection.

15.1.5 Default Notification and Remedy

If a Member has not remedied a breach by the 2nd business day following receipt of the Office of the Interconnection's notice, or receipt of the PJM Board's decision on review, if applicable, then the Member shall be in default and, in addition to such other remedies as may be available to the LLC:

i) A defaulting Market Participant shall be precluded from buying or selling in the PJM Interchange Energy Market, the PJM Capacity Credit Market, or any other market operated by PJM until the default is remedied as set forth above;

ii) A defaulting Member shall not be entitled to participate in the activities of any committee or other body established by the Members Committee or the Office of the Interconnection; and

iii) A defaulting Member shall not be entitled to vote on the Members Committee or any other committee or other body established pursuant to this Agreement.

iv) PJM shall notify all other members of the default.

15.2 Enforcement of Obligations.

If the Office of the Interconnection sends a notice to the PJM Board that a Member has failed to perform an obligation under this Agreement, the PJM Board shall initiate such action against such Member to enforce such obligation as the PJM Board shall deem appropriate. Subject to the procedures specified in Section 15.1, a Member's failure to perform such obligation shall be deemed to be a default under this Agreement. In order to remedy a default, but without limiting any rights the LLC may have against the defaulting Member, the PJM Board may assess against, and collect from, the Members not in default, in proportion to their Default Allocation Assessment, an amount equal to the amount that the defaulting Member has failed to pay to the Office of the Interconnection (less amounts covered by Financial Security, as defined in Attachment Q to the PJM Tariff, held by the LLC or indemnifications paid to the LLC), along with appropriate interest. Such assessment shall in no way relieve the defaulting Member of its obligations. A Member that has paid such an assessment to the LLC shall have an independent right to seek and obtain payment and recovery from the defaulting Member of the amount of the assessment the Member paid to the LLC. In addition to any amounts in default, the defaulting Member shall be liable to the LLC for all reasonable costs incurred in enforcing the defaulting Member's obligations.

15.2.1 Collection by the Office of the Interconnection.

By vote at any Members Committee meeting, a majority of the Members that have paid a Default Allocation Assessment may request and appoint the Office of the Interconnection to act as agent on behalf of the Members that have paid a Default Allocation Assessment, solely for the purpose of pursuing and collecting any amounts so assessed; provided, however, that any Member that does not desire for the Office of the Interconnection to act on their behalf with regard to such collection shall so inform the Office of the Interconnection. In the event that the Office of the Interconnection is appointed as agent for the Members, the Office of the Interconnection shall be authorized to pursue collection through such actions, legal or otherwise, as it reasonably deems appropriate, including but not limited to the prosecution of legal actions and assertion of claims on behalf of the affected Members in the state and federal courts as well as under the United States Bankruptcy Code; provided, however, that the Office of the Interconnection shall take no action on behalf of those Members that have requested that the Office of the Interconnection not act on their behalf. After deducting the costs of collection, any amounts recovered by the Office of the Interconnection on behalf of the affected Members shall be distributed to the Members who have paid their Default Allocation Assessment in proportion to the Default Allocation Assessment paid by each Member except those Members who informed the Office of the Interconnection that it should not act as their agent.

15.2.2 Default Allocation Assessment.

(a) "Default Allocation Assessment" shall be equal to $(0.1(1/N) + 0.9(A/Z))$, where:

N = the total number of Members, calculated as of five o'clock p.m. eastern prevailing time on the date PJM declares a Member in default, excluding *ex officio* Members, State Consumer Advocates, Emergency and Economic Load Response Program Special Members, and municipal electric system Members that have been granted a waiver under section 17.2 of this Agreement.

A = for Members comprising factor "N" above, the Member's gross activity as determined by summing the absolute values of the charges and credits for each of the Activity Line Items identified in section 15.2.2(b) of this Agreement as accounted for and billed pursuant to section 3 of Schedule 1 of this Agreement for the month of default and the two previous months.

Z = the sum of factor A for all Members excluding *ex officio* Members, State Consumer Advocates, Emergency and Economic Load Response Program Special Members, and municipal electric system Members that have been granted a waiver under section 17.2 of this Agreement.

The assessment value of (0.1(1/N)) shall not exceed $10,000 per Member per calendar year, cumulative of all defaults. If one or more defaults arise that cause the value to exceed $10,000 per Member, then the excess shall be reallocated through the gross activity factor.

(b) Activity Line Items shall be each of the line items on the PJM monthly bills net of load reconciliation adjustments and adjustments applicable to activity for the current billing month appearing on the same bill.

15.3 Obligations to a Member in Default.

The Members have no continuing obligation to provide the benefits of interconnected operations to a Member in default.

15.4 Obligations of a Member in Default.

A Member found to be in default shall take all possible measures to mitigate the continued impact of the default on the Members not in default, including, but not limited to, loading its own generation to supply its own load to the maximum extent possible.

15.5 No Implied Waiver.

A failure of a Member, the PJM Board, or the LLC to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such entity's right to assert or rely upon any such provisions, rights and remedies in that or any other instance; rather, the same shall be and remain in full force and effect.

15.6 Limitation on Claims.

(a) No claim seeking an adjustment in the billing for any service, transaction, or charge under this Agreement may be asserted with respect to a month, if more than two years has elapsed since the first date upon which the billing for that month occurred. PJM may make no adjustment to billing with respect to a month for any service, transaction, or charge under this Agreement, if more than two years has elapsed since the first date upon which the billing for that month occurred, unless a claim seeking such adjustment had been received by PJM prior thereto.

(b) For claims that arose prior to the effective date of Section 15.6 of this Agreement, the claimant shall have two years from the effective date to assert such claims.

16. LIABILITY AND INDEMNITY

16.1 Members.

(a) As between the Members, except as may be otherwise agreed upon between individual Members with respect to specified interconnections, each Member will indemnify and hold harmless each of the other Members, and its directors, officers, employees, agents, or representatives, of and from any and all damages, losses, claims, demands, suits, recoveries, costs and expenses (including all court costs and reasonable attorneys' fees), caused by reason of bodily injury, death or damage to property of any third party, resulting from or attributable to the fault, negligence or willful misconduct of such Member, its directors, officers, employees, agents, or representatives, or resulting from, arising out of, or in any way connected with the performance of its obligations under this Agreement, excepting only, and to the extent, such cost, expense, damage, liability or loss may be caused by the fault, negligence or willful misconduct of any other Member. The duty to indemnify under this Agreement will continue in full force and effect notwithstanding the expiration or termination of this Agreement or the withdrawal of a Member from this Agreement, with respect to any loss, liability, damage or other expense based on facts or conditions which occurred prior to such termination or withdrawal.

(b) The amount of any indemnity payment arising hereunder shall be reduced (including, without limitation, retroactively) by any insurance proceeds or other amounts actually recovered by the Member seeking indemnification in respect of the indemnified action, claim, demand, costs, damage or liability. If any Member shall have received an indemnity payment for an action, claim, demand, cost, damage or liability and shall subsequently actually receive insurance proceeds or other amounts for such action, claim, demand, cost, damage or liability, then such Member shall pay to the Member that made such indemnity payment the lesser of the amount of such insurance proceeds or other amounts actually received and retained or the net amount of the indemnity payments actually received previously.

16.2 LLC Indemnified Parties.

(a) The LLC will indemnify and hold harmless the PJM Board, the LLC's officers, employees and agents, and any representatives of the Members serving on the Members Committee and any other committee created under Section 8 of this Agreement (all such Board Members, officers, employees, agents and representatives for purposes of this Section 16 being referred to as "LLC Indemnified Parties"), of and from any and all actions, claims, demands, costs (including consequential or indirect damages, economic losses and all court costs and reasonable attorneys' fees) and liabilities to any third parties, arising from, or in any way connected with, the performance of the LLC under this Agreement, or the fact that such LLC Indemnified Party was serving in such capacity, except to the extent that such action, claim, demand, cost or liability results from the willful misconduct of any LLC Indemnified Party with respect to participation in the misconduct. To the extent any dispute arises between any Member and the LLC arising from, or in any way connected with, the performance of the LLC under this Agreement, the Member and the LLC shall follow the PJM Dispute Resolution Procedures. To the extent that any such action, claim, demand, cost or liability arises from a Member's contractual or other obligation to provide electric service directly or indirectly to said third party, which obligation to provide service is limited by the terms of any tariff, service agreement, franchise, statute, regulatory requirement, court decision or other limiting provision, the Member designates the LLC and each LLC Indemnified Party a beneficiary of said limitation.

(b) An LLC Indemnified Party shall not be personally liable for monetary damages for any breach of fiduciary duty by such LLC Indemnified Party, except that an LLC Indemnified Party shall be liable to the extent provided by applicable law (i) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or (ii) for any transaction from which the LLC Indemnified Party derived an improper personal benefit. Notwithstanding (i) and (ii), indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the LLC if and to the extent that the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses that such court shall deem proper. If applicable law is hereafter construed or amended to authorize the further elimination or limitation of the liability of LLC Indemnified Parties, then the liability of the LLC Indemnified Parties, in addition to the limitation on personal liability provided herein, shall be limited to the fullest extent permitted by law. No amendment to or repeal of this section shall apply to or have any effect on the liability or alleged liability of any LLC Indemnified Party or with respect to any acts or omissions occurring prior to such amendment or repeal. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the LLC, and with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

(c) The LLC may pay expenses incurred by an LLC Indemnified Party in defending a civil, criminal, administrative or investigative action, suit or proceeding in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such LLC Indemnified Party to repay such amount if it shall ultimately be determined that such LLC Indemnified Party is not entitled to be indemnified by the LLC as authorized in this Section.

(d) In the event the LLC incurs liability under this Section 16.2 that is not adequately covered by insurance, such amounts shall be recovered pursuant to the PJM Tariff as provided in Schedule 3 of this Agreement.

16.3 Workers Compensation Claims.

Each Member shall be solely responsible for all claims of its own employees, agents and servants growing out of any Workers' Compensation Law.

16.4 Limitation of Liability.

No Member or its directors, officers, employees, agents, or representatives shall be liable to any other Member or its directors, officers, employees, agents, or representatives, whether liability arises out of contract, tort (including negligence), strict liability, or any other cause of or form of action whatsoever, for any indirect, incidental, consequential, special or punitive cost, expense, damage or loss, including but not limited to loss of profits or revenues, cost of capital of financing, loss of goodwill or cost of replacement power, arising from such Member's performance or failure to perform any of its obligations under this Agreement or the ownership, maintenance or operation of its System; provided, however, that nothing herein shall be deemed to reduce or limit the obligations of any Member with respect to the claims of persons or entities that are not parties to this Agreement.

16.5 Resolution of Disputes.

To the extent any dispute arises between one or more Members regarding any issue covered by this Agreement, the Members shall follow the dispute resolution procedures set forth in the PJM Dispute Resolution Procedures.

16.6 Gross Negligence or Willful Misconduct.

Neither the LLC nor the LLC Indemnified Parties shall be liable to the Members or any of them for any claims, demands or costs arising from, or in any way connected with, the performance of the LLC under this Agreement other than actions, claims or demands based on gross negligence or willful misconduct; provided, however, that nothing herein shall limit or reduce the obligations of the LLC to the Members or any of them under the express terms of this Agreement or the PJM Tariff, including, but not limited to, those set forth in Sections 6.2 and 6.3 of this Agreement.

16.7 Insurance.

The PJM Board shall be authorized to procure insurance against the risks borne by the LLC and the LLC Indemnified Parties, the cost of which shall be treated as a cost and expense of the LLC.

17. MEMBER REPRESENTATIONS, WARRANTIES AND COVENANTS

17.1 Representations and Warranties.

Each Member makes the following representations and warranties to the LLC and each other Member, as of the Effective Date or such later date as such Member shall become admitted as a Member of the LLC.

17.1.1 Organization and Existence.

Such Member is an entity duly organized, validly existing and in good standing under the laws of the state of its organization.

17.1.2 Power and Authority.

Such Member has the full power and authority to execute, deliver and perform this Agreement and to carry out the transactions contemplated hereby.

17.1.3 Authorization and Enforceability.

The execution and delivery of this Agreement by such Member and the performance of its obligations hereunder have been duly authorized by all requisite action on the part of the Member, and do not conflict with any applicable law or with any other agreement binding upon the Member. The Agreement has been duly executed and delivered by such Member and constitutes the legal, valid and binding obligation of such Member, enforceable against it in accordance with the terms thereof, except insofar as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws affecting the enforcement of creditors' rights generally, and to general principles of equity whether such principles are considered in proceedings in law or in equity.

17.1.4 No Government Consents.

No authorization, consent, approval or order of, notice to or registration, qualification, declaration or filing with, any governmental authority is required for the execution, delivery and performance by such Member of this Agreement or the carrying out by such Member of the transactions contemplated hereby other than such authorization, consent, approval or order of, notice to or registration, qualification, declaration or filing that is pending before such governmental authority.

17.1.5 No Conflict or Breach.

None of the execution, delivery and performance by such Member of this Agreement, the compliance with the terms and provisions hereof and the carrying out of the transactions contemplated hereby, conflicts or will conflict with or will result in a breach or violation of any of the terms, conditions or provisions of any law, governmental rule or regulation or the charter documents or bylaws of such Member or any applicable order, writ, injunction, judgment or decree of any court or governmental authority against such Member or by which it or any of its properties, is bound, or any loan agreement, indenture, mortgage, bond, note, resolution, contract or other agreement or instrument to which such Member is a party or by which it or any of its properties is bound, or constitutes or will constitute a default thereunder or will result in the imposition of any lien upon any of its properties.

17.1.6 No Proceedings.

There are no actions at law, suits in equity, proceedings or claims pending or, to the knowledge of the Member, threatened against the Member before any federal, state, foreign or local court, tribunal or government agency or authority that might materially delay, prevent or hinder the performance by the Member of its obligations hereunder.

17.2 Municipal Electric Systems.

Any provisions of Section 17.1 notwithstanding, if any Member that is a municipal electric system believes in good faith that the provisions of Sections 5.1(b) and 16.1 of this Agreement may not lawfully be applied to that Member under applicable state law governing municipal activities, the Member may request a waiver of the pertinent provisions of the Agreement. Any such request for waiver shall be supported by an opinion of counsel for the Member to the effect that the provision of the Agreement as to which waiver is sought may not lawfully be applied to the Member under applicable state law. The PJM Board shall have the right to have the opinion of the Member's counsel reviewed by counsel to the LLC. If the PJM Board concludes that either or both of Sections 5.1(b) and 16.1 of this Agreement may not lawfully be applied to a municipal electric system Member, it shall waive the application of the affected provision or provisions to such municipal Member. Any Member not permitted by law to indemnify the other Members shall not be indemnified by the other Members.

17.3 Survival.

All representations and warranties contained in this Section 17 shall survive the execution and delivery of this Agreement.

18. MISCELLANEOUS PROVISIONS

18.1 [Reserved.]

18.2 Fiscal and Taxable Year.

The fiscal year and taxable year of the LLC shall be the calendar year.

18.3 Reports.

Each year prior to the Annual Meeting of the Members, the PJM Board shall cause to be prepared and distributed to the Members a report of the LLC's activities since the prior report.

18.4 Bank Accounts; Checks, Notes and Drafts.

(a) Funds of the LLC shall be deposited in an account or accounts of a type, in form and name and in a bank(s) or other financial institution(s) which are participants in federal insurance programs as selected by the PJM Board. The PJM Board shall arrange for the appropriate conduct of such accounts. Funds may be withdrawn from such accounts only for *bona fide* and legitimate LLC purposes and may from time to time be invested in such short-term securities, money market funds, certificates of deposit or other liquid assets as the PJM Board deems appropriate. All checks or demands for money and notes of the LLC shall be signed by any officer or by any other person designated by the PJM Board.

(b) The Members acknowledge that the PJM Board may maintain LLC funds in accounts, money market funds, certificates of deposit, other liquid assets in excess of the insurance provided by the Federal Deposit Insurance Corporation, or other depository insurance institutions and that the PJM Board shall not be accountable or liable for any loss of such funds resulting from failure or insolvency of the depository institution.

(c) Checks, notes, drafts and other orders for the payment of money shall be signed by such persons as the PJM Board from time to time may authorize. When the PJM Board so authorizes, the signature of any such person may be a facsimile.

18.5 Books and Records.

(a) At all times during the term of the LLC, the PJM Board shall keep, or cause to be kept, full and accurate books of account, records and supporting documents, which shall reflect, completely, accurately and in reasonable detail, each transaction of the LLC. The books of account shall be maintained and tax returns prepared and filed on the method of accounting determined by the PJM Board. The books of account, records and all documents and other writings of the LLC shall be kept and maintained at the principal office of the Interconnection.

(b) The PJM Board shall cause the Office of the Interconnection to keep at its principal office the following:

i) A current list in alphabetical order of the full name and last known business address of each Member and the Members Committee sector of each Voting Member;

ii) A copy of the Certificate of Formation and the Certificate of Conversion, and all Certificates of Amendment thereto;

iii) Copies of the LLC's federal, state, and local income tax returns and reports, if any, for the three most recent years; and

iv) Copies of the Operating Agreement, as amended, and of any financial statements of the LLC for the three most recent years.

18.6 Amendment.

(a) Except as provided by law or otherwise set forth herein, this Agreement, including any Schedule hereto, may be amended, or a new Schedule may be created, only upon: (i) submission of the proposed amendment to the PJM Board for its review and comments; (ii) approval of the amendment or new Schedule by the Members Committee, after consideration of the comments of the PJM Board, in accordance with Section 8.4, or written agreement to an amendment of all Members not in default at the time the amendment is agreed upon; and (iii) approval and/or acceptance for filing of the amendment by FERC and any other regulatory body with jurisdiction thereof as may be required by law. If and as necessary, the Members Committee may file with FERC or other regulatory body of competent jurisdiction any amendment to this Agreement or to its Schedules or a new Schedule not filed by the Office of the Interconnection.

(b) Notwithstanding the foregoing, an applicant eligible to become a Member in accordance with the procedures specified in this Agreement shall become a Member by executing a counterpart of this Agreement without the need for amendment of this Agreement or execution of such counterpart by any other Member.

(c) Each of the following fundamental changes to the LLC shall require or be deemed to require an amendment to this Agreement and shall require the prior approval of FERC:

i) Adoption of any plan of merger or consolidation;

ii) Adoption of any plan of sale, lease or exchange of assets relating to all, or substantially all, of the property and assets of the LLC;

iii) Adoption of any plan of division relating to the division of the LLC into two or more corporations or other legal entities;

iv) Adoption of any plan relating to the conversion of the LLC into a stock corporation;

v) Adoption of any proposal of voluntary dissolution; or

vi) Taking any action which has the purpose or effect of the adoption of any plan or proposal described in items (i), (ii), (iii), (iv) or (v) above.

18.7 Interpretation.

Wherever the context may require, any noun or pronoun used herein shall include the corresponding masculine, feminine or neuter forms. The singular form of nouns, pronouns and verbs shall include the plural and vice versa.

18.8 Severability.

Each provision of this Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

18.9 *Force Majeure.*

No Member shall be liable to any other Member for damages or otherwise be in breach of this Agreement to the extent and during the period such Member's performance is prevented by any cause or causes beyond such Member's control and without such Member's fault or negligence, including but not limited to any act, omission, or circumstance occasioned by or in consequence of any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, or curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities; provided, however, that any such foregoing event shall not excuse any payment obligation. Upon the occurrence of an event considered by a Member to constitute a force majeure event, such Member shall use due diligence to endeavor to continue to perform its obligations as far as reasonably practicable and to remedy the event, provided that no Member shall be required by this provision to settle any strike or labor dispute.

18.10 Further Assurances.

Each Member hereby agrees that it shall hereafter execute and deliver such further instruments, provide all information and take or forbear such further acts and things as may be reasonably required or useful to carry out the intent and purpose of this Agreement and as are not inconsistent with the terms hereof.

18.11 Seal.

The seal of the LLC shall have inscribed thereon the name of the LLC, the year of its organization and the words "Corporate Seal, Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

18.12 Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be an original but all of which together will constitute one instrument, binding upon all parties hereto, notwithstanding that all of such parties may not have executed the same counterpart.

18.13 Costs of Meetings.

Each Member shall be responsible for all costs of its representative, alternate or substitute in attending any meeting. The Office of the Interconnection shall pay the other reasonable costs of meetings of the PJM Board and the Members Committee, and such other committees, subcommittees, task forces, working groups, User Groups or other bodies as determined to be appropriate by the Office of the Interconnection, which costs otherwise shall be paid by the

Members attending. The Office of the Interconnection shall reimburse all Board Members for their reasonable costs of attending meetings.

18.14 Notice.

(a) Except as otherwise expressly provided herein, notices required under this Agreement shall be in writing and shall be sent to a Member by overnight courier, hand delivery, telecopier or other reliable electronic means to the representative on the Members Committee of such Member at the address for such Member previously provided by such Member to the Office of the Interconnection. Any such notice so sent shall be deemed to have been given (i) upon delivery if given by overnight couriers or hand delivery, or (ii) upon confirmation if given by telecopier or other reliable electronic means. Notices of meetings of the Members Committee or committees, subcommittees, task forces, working groups and other bodies under its auspices may be given as provided in the Members Committee by-laws.

(b) Notices, as well as copies of the agenda and minutes of all meetings of committees, subcommittees, task forces, working groups, User Groups, or other bodies formed under this Agreement, shall be posted in a timely fashion on and made available for downloading from the PJM website.

18.15 Headings.

The section headings used in this Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions of this Agreement.

18.16 No Third-Party Beneficiaries.

This Agreement is intended to be solely for the benefit of the Members and their respective successors and permitted assigns and, unless expressly stated herein, is not intended to and shall not confer any rights or benefits on any third party (other than successors and permitted assigns) not a signatory hereto.

18.17 Confidentiality.

18.17.1 Party Access.

(a) No Member shall have a right hereunder to receive or review any documents, data or other information of another Member, including documents, data or other information provided to the Office of the Interconnection and/or the PJM Market Monitor, to the extent such documents, data or information have been designated as confidential pursuant to the procedures adopted by the Office of the Interconnection and/or the PJM Market Monitor or to the extent that they have been designated as confidential by such other Member; provided, however, a Member may receive and review any composite documents, data and other information that may be developed based on such confidential documents, data or information if the composite does not disclose any individual Member's confidential data or information.

(b) Except as may be provided in this Agreement or in the PJM Open Access Transmission Tariff, the Office of the Interconnection and/or the PJM Market Monitor shall not disclose to its Members or to third parties, any documents, data, or other information of a Member or entity applying for Membership, to the extent such documents, data, or other information has been designated confidential pursuant to the procedures adopted by the Office of the Interconnection and/or the PJM Market Monitor or by such Member or entity applying for membership; provided that nothing contained herein shall prohibit the Office of the Interconnection and/or the PJM Market Monitor from providing any such confidential information to its agents, representatives, or contractors to the extent that such person or entity is bound by an obligation to maintain such confidentiality; provided further that nothing contained herein shall prohibit the Office of the Interconnection from providing Member confidential information to the North American Electric Reliability Council or any of its regional reliability councils, or to any reliability coordinator, to the extent that (i) the Office of the Interconnection determines in its reasonable discretion that the exchange of such information is required to enhance and/or maintain reliability within the Members' Applicable Regional Reliability Councils and their neighboring reliability councils, or within the region of any reliability coordinator, (ii) such entity is bound by a written agreement to maintain such confidentiality, and (iii) the Office of the Interconnection has notified the affected party of its intention to release such information no less than five business days prior to the release. The Office of the Interconnection and/or the PJM Market Monitor shall collect and use confidential information only in connection with its authority under this Agreement and the Open Access Transmission Tariff and the retention of such information shall be in accordance with PJM's data retention policies.

(c) Nothing contained herein shall prevent the Office of the Interconnection and/or the PJM Market Monitor from releasing a Member's confidential data or information to a third party provided that the Member has delivered to the Office of the Interconnection and/or the PJM Market Monitor specific, written authorization for such release setting forth the data or information to be released, to whom such release is authorized, and the period of time for which such release shall be authorized. The Office of the Interconnection and/or the PJM Market Monitor shall limit the release of a Member's confidential data or information to that specific authorization received from the Member. Nothing herein shall prohibit a Member from withdrawing such authorization upon written notice to the Office of the Interconnection and/or the PJM Market Monitor, who shall cease such release as soon as practicable after receipt of such withdrawal notice.

18.17.2 Required Disclosure.

(a) Notwithstanding anything in the foregoing Section to the contrary, and subject to the provisions of Section 18.17.3, if a Member, the Office of the Interconnection, and/or the PJM Market Monitor is required by applicable law, or in the course of administrative or judicial proceedings, to disclose to third parties, information that is otherwise required to be maintained in confidence pursuant to this Agreement, that Member, the Office of the Interconnection, and/or the PJM Market Monitor may make disclosure of such information; provided, however, that as soon as the Member, the Office of the Interconnection, and/or the PJM Market Monitor learns of the disclosure requirement and prior to making disclosure, that Member, the Office of the Interconnection, and/or the PJM Market Monitor shall notify the affected Member or Members of the requirement and the terms thereof and the affected Member or Members may direct, at their sole discretion and cost, any challenge to or defense against the disclosure requirement. The disclosing Member, the Office of the Interconnection, and/or the PJM Market Monitor shall cooperate with such affected Members to the maximum extent practicable to minimize the disclosure of the information consistent with applicable law. Each Member, the Office of the Interconnection, and/or the PJM Market Monitor shall cooperate with the affected Members to obtain proprietary or confidential treatment of such information by the person to whom such information is disclosed prior to any such disclosure.

(b) Nothing in this Section 18.17 shall prohibit or otherwise limit the Office of the Interconnection's and/or the PJM Market Monitor's use of information covered herein if such information was: (i) previously known to the Office of the Interconnection and/or the PJM Market Monitor without an obligation of confidentiality; (ii) independently developed by or for the Office of the Interconnection and/or the PJM Market Monitor using nonconfidential information; (iii) acquired by the Office of the Interconnection and/or the PJM Market Monitor from a third party which is not, to the Office of the Interconnection's or PJM Market Monitor's knowledge, under an obligation of confidence with respect to such information; (iv) which is or becomes publicly available other than through a manner inconsistent with this Section 18.17.

(c) The Office of the Interconnection and/or the PJM Market Monitor shall impose on any contractors retained to provide technical support or otherwise to assist with the implementation or administration of this Agreement or of the Open Access Transmission Tariff a contractual duty of confidentiality consistent with this Agreement. A Member shall not be obligated to provide confidential or proprietary information to any contractor that does not assume such a duty of confidentiality, and the Office of the Interconnection and/or the PJM Market Monitor shall not provide any such information to any such contractor without the express written permission of the Member providing the information.

18.17.3 Disclosure to FERC.

(a) Notwithstanding anything in this Section to the contrary, if the FERC or its staff, during the course of an investigation or otherwise, requests information from the Office of the Interconnection and/or the PJM Market Monitor that is otherwise required to be maintained in confidence pursuant to this Agreement, the Office of the Interconnection and/or the PJM Market Monitor shall provide the requested information to the FERC or its staff, within the time provided for in the request for information. In providing the information to the FERC or its staff, the Office of the Interconnection and/or the PJM Market Monitor may, consistent with 18 C.F.R. § 388.112, request that the information be treated as confidential and non-public by the FERC and its staff and that the information be withheld from public disclosure. The Office of the Interconnection and/or the PJM Market Monitor shall notify any affected Member(s) when it is notified by FERC or its staff, that a request for disclosure of, or decision to disclose, confidential information has been received, at which time the Office of the Interconnection, the PJM Market Monitor, and/or the affected Member may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

(b) Section 18.17.3(a) shall not apply to requests for production of information under Subpart D of the FERC's Rules of Practice and Procedure (18 CFR Part 385) in proceedings before FERC and its administrative law judges. In all such proceedings, PJM and/or the PJM Market Monitor shall follow the procedures in Section 18.17.2.

18.17.4 Disclosure to Authorized Commissions.

(a) Notwithstanding anything in this section to the contrary, the Office of the Interconnection and/or the PJM Market Monitor shall disclose confidential information, otherwise required to be maintained in confidence pursuant to this Agreement, to an Authorized Commission under the following conditions:

i) The Authorized Commission has provided the FERC with a properly-executed Certification in the form attached hereto as Schedule 10A. Upon receipt of the Authorized Commission's Certification, the FERC shall provide public notice of the Authorized Commission's filing pursuant to 18 C.F.R. § 385.2009. If any interested party disputes the accuracy and adequacy of the representations contained in the Authorized Commission's Certification, that party may file a protest with the Commission within 14 days of the date of such notice, pursuant to 18 C.F.R. § 385.211. The Authorized Commission may file a response to any such protest within seven days. Each party shall bear its own costs in connection with such a FERC protest proceeding. If there are material changes in law that affect the accuracy and adequacy of the representations in the Certification filed with the Commission, the Authorized Commission shall, within thirty (30) days, submit an amended Certification identifying such changes. Any such amended Certification shall be subject to the same procedures for comment and review by the Commission as set forth above in this paragraph.

Neither the Office of the Interconnection nor the PJM Market Monitor may disclose data to an Authorized Commission during the Commission's consideration of the Certification and any filed protests. If the Commission does not act upon an Authorized Commission's Certification within 90 days of the date of filing, the Certification shall be deemed approved and the Authorized Commission shall be permitted to receive confidential information pursuant to this section. In the event that an interested party protests the Authorized Commission's Certification and the Commission approves the Certification, that party may not challenge any Information Request made by the Authorized Commission on the grounds that the Authorized Commission is unable to protect the confidentiality of the information requested, in the absence of a showing of changed circumstances.

ii) Any confidential information provided to an Authorized Commission pursuant to this section shall not be further disclosed by the recipient Authorized Commission except by order of the Commission.

iii) The Office of the Interconnection and/or the PJM Market Monitor shall be expressly entitled to rely upon such Authorized Commission Certifications in providing confidential information to the Authorized Commission, and shall in no event be liable, or subject to damages or claims of any kind or nature hereunder, due to the ineffectiveness or inaccuracy of such Authorized Commission Certifications.

iv) The Authorized Commission may provide confidential information obtained from the Office of the Interconnection and/or the PJM Market Monitor to such of its employees, attorneys and contractors as needed to examine or handle that information in the course and scope of their work on behalf of the Authorized Commission, provided that (a) the Authorized Commission has internal procedures in place, pursuant to the Certification, to ensure that each person receiving such information agrees to protect the confidentiality of such information (such employees, attorneys or contractors to be defined hereinafter as "Authorized Persons"); (b) the Authorized Commission provides, pursuant to the Certification, a list of such Authorized Persons to the Office of the Interconnection and the PJM Market Monitor and updates such list, as necessary, every ninety (90) days; and (c) any third-party contractors provided access to confidential information sign a non-disclosure agreement in the form attached hereto as Schedule 10 before being provided access to any such confidential information.

v) The Office of the Interconnection shall maintain a schedule of all Authorized Persons and the Authorized Commissions they represent, which shall be made publicly available on its website, or by written request. Such schedule shall be compiled by the Office of the Interconnection, based on information provided by any Authorized Commission. The Office of the Interconnection shall update the schedule promptly upon receipt of information from an Authorized Commission, but shall have no obligation to verify or corroborate any such information, and shall not be liable or otherwise responsible for any inaccuracies in the schedule due to incomplete or erroneous information conveyed to and relied upon by the Office of the Interconnection in the compilation and/or maintenance of the schedule.

(b) The Office of the Interconnection and/or the PJM Market Monitor may, in the course of discussions with an Authorized Person, orally disclose information otherwise required to be maintained in confidence, without the need for a prior Information Request. Such oral disclosures shall provide enough information to enable the Authorized Person or the Authorized Commission with which that Authorized Person is associated to determine whether additional Information Requests are appropriate. The Office of the Interconnection and/or the PJM Market Monitor will not make any written or electronic disclosures of confidential information to the Authorized Person pursuant to this Section 18.17.4(b). In any such discussions, the Office of the Interconnection and/or the PJM Market Monitor shall ensure that the individual or individuals receiving such confidential information are Authorized Persons as defined herein, orally designate confidential information that is disclosed, and refrain from identifying any specific Affected Member whose information is disclosed. The Office of the Interconnection and/or the PJM Market Monitor shall also be authorized to assist Authorized Persons in interpreting confidential information that is disclosed. The Office of the Interconnection and/or the PJM Market Monitor shall provide any Affected Member with oral notice of any oral disclosure immediately, but not later than one (1) business day after the oral disclosure. Such oral notice to the Affected Member shall include the substance of the oral disclosure, but shall not reveal any confidential information of any other Member and must be received by the Affected Member before the name of the Affected Member is released to the Authorized Person; provided however, disclosure of the identity of the Affected Party must be made to the Authorized Commission with which the Authorized Person is associated within two (2) business days of the initial oral disclosure.

(c) As regards Information Requests:

(i) Information Requests to the Office of the Interconnection and/or PJM Market Monitor by an Authorized Commission shall be in writing, which shall include electronic communications, addressed to the Office of the Interconnection and/or the PJM Market Monitor, and shall: (a) describe the information sought in sufficient detail to allow a response to the Information Request; (b) provide a general description of the purpose of the Information Request; (c) state the time period for which confidential information is requested; and (d) re-affirm that only Authorized Persons shall have access to the confidential information requested. The Office of the Interconnection and/or the PJM Market Monitor shall provide an Affected Member with written notice, which shall include electronic communication, of an Information Request by an Authorized Commission as soon as possible, but not later than two (2) business days after the receipt of the Information Request.

(ii) Subject to the provisions of section (c)(iii), the Office of the Interconnection and/or the PJM Market Monitor shall supply confidential information to the Authorized Commission in response to any Information Request within five (5) business days of the receipt of the Information Request, to the extent that the requested confidential information can be made available within such period; provided however, that in no event shall confidential information be released prior to the end of the fourth (4^{th}) business day without the express consent of the Affected Member. To the extent that the Office of the Interconnection and/or the PJM Market Monitor cannot reasonably prepare and deliver the requested confidential information within such five (5) day period, it shall, within such period, provide the Authorized Commission with a written schedule for the provision of such remaining confidential information. Upon providing confidential information to the Authorized Commission, the Office of the Interconnection and/or the PJM Market Monitor shall either provide a copy of the confidential information to the Affected Member(s), or provide a listing of the confidential information disclosed; provided, however, that the Office of the Interconnection and/or the PJM Market Monitor shall not reveal any Member's confidential information to any other Member.

(iii) Notwithstanding section (c)(ii), above, should the Office of the Interconnection, the PJM Market Monitor or an Affected Member object to an Information Request or any portion thereof, any of them may, within four (4) business days following the Office of the Interconnection's and/or the PJM Market Monitor's receipt of the Information Request, request, in writing, a conference with the Authorized Commission to resolve differences concerning the scope or timing of the Information Request; provided, however, nothing herein shall require the Authorized Commission to participate in any conference. Any party to the conference may seek assistance from FERC staff in resolution of the dispute or terminate the conference process at any time. Should such conference be refused or terminated by any participant or should such conference not resolve the dispute, then the Office of the Interconnection, PJM Market Monitor, or the Affected Member may file a complaint with the Commission pursuant to Rule 206 objecting to the Information Request within ten (10) business days following receipt of written notice from any conference participant terminating such conference. Any complaints filed at FERC objecting to a particular Information Request shall be designated by the party as a "fast track" complaint and each party shall bear its own costs in connection with such FERC proceeding. The grounds for such a complaint shall be limited to the following: (a) the Authorized Commission is no longer able to preserve the confidentiality of the requested information due to changed circumstances relating to the Authorized Commission's ability to protect confidential information arising since the filing of or rejection of a protest directed to the Authorized Commission's Certification; (b) complying with the Information Request would be unduly burdensome to the complainant, and the complainant has made a good faith effort to negotiate limitations in the scope of the requested information; or (c) other exceptional circumstances exist such that complying with the Information Request would result in harm to the complainant. There shall be a presumption that "exceptional circumstances," as used in the prior sentence, does not include circumstances in which an Authorized Commission has requested wholesale market data (or PJM Market Monitor workpapers that support or explain conclusions or analyses) generated in the ordinary course and scope of the operations of the Office of the Interconnection and/or the PJM Market Monitor. There shall be a presumption that circumstances in which an Authorized Commission has requested personnel files, internal emails and internal company memos, analyses and related work product constitute "exceptional circumstances" as used in the prior sentence.

If no complaint challenging the Information Request is filed within the ten (10) day period defined above, the Office of the Interconnection and/or PJM Market Monitor shall utilize its best efforts to respond to the Information Request promptly. If a complaint is filed, and the Commission does not act on that complaint within ninety (90) days, the complaint shall be deemed denied and the Office of Interconnection and/or PJM Market Monitor shall use its best efforts to respond to the Information Request promptly.

(iv) Any Authorized Commission may initiate appropriate legal action at FERC within ten (10) business days following receipt of information designated as "Confidential," challenging such designation. Any complaints filed at FERC objecting to the designation of information as "Confidential" shall be designated by the party as a "fast track" complaint and each party shall bear its own costs in connection with such FERC proceeding. The party filing such a complaint shall be required to prove that the material disclosed does not merit "Confidential" status because it is publicly available from other sources or contains no trade secret or other sensitive commercial information (with "publicly available" not being deemed to include unauthorized disclosures of otherwise confidential data).

(d) In the event of any breach of confidentiality of information disclosed pursuant to an Information Request by an Authorized Commission or Authorized Person:

(i) The Authorized Commission or Authorized Person shall promptly notify the Office of the Interconnection and/or the PJM Market Monitor, who shall, in turn, promptly notify any Affected Member of any inadvertent or intentional release, or possible release, of confidential information provided pursuant to this section.

(ii) The Office of the Interconnection and/or PJM Market Monitor shall terminate the right of such Authorized Commission to receive confidential information under this section upon written notice to such Authorized Commission unless: (i) there was no harm or damage suffered by the Affected Member; or (ii) similar good cause is shown. Any appeal of the Office of the Interconnection's and/or the PJM Market Monitor's actions under this section shall be to FERC. An Authorized Commission shall be entitled to reestablish its certification as set forth in Section 18.17.4(a) by submitting a filing with the Commission showing that it has taken appropriate corrective action. If the Commission does not act upon an Authorized Commission's re-certification filing with sixty (60) days of the date of the filing, the re-certification shall be deemed approved and the Authorized Commission shall be permitted to receive confidenetial information pursuant to this section.

(iii) The Office of the Interconnection, the PJM Market Monitor, and/or the Affected Member shall have the right to seek and obtain at least the following types of relief: (a) an order from FERC requiring any breach to cease and preventing any future breaches; (b) temporary, preliminary, and/or permanent injunctive relief with respect to any breach; and (c) the immediate return of all confidential information to the Office of the Interconnection and/or the PJM Market Monitor.

(iv) No Authorized Person or Authorized Commission shall have responsibility or liability whatsoever under this section for any and all liabilities, losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with the release of confidential information to persons not authorized to receive it, provided that such Authorized Person is an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release. Nothing in this Section (d)(iv) is intended to limit the liability of any person who is not an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release for any and all economic losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with such unauthorized release.

(v) Any dispute or conflict requesting the relief in section (d)(ii) or (d)(iii)(a) above, shall be submitted to FERC for hearing and resolution. Any dispute or conflict requesting the relief in section (d)(iii)(c) above may be submitted to FERC or any court of competent jurisdiction for hearing and resolution.

18.17.5 Market Monitoring.

a) Subject to the requirements of section 18.17.5(b), the PJM Market Monitor and PJM may release confidential information of Public Service Electric & Gas Company ("PSE&G"), Consolidated Edison Company of New York ("ConEd"), and their affiliates, and the confidential information of any Member regarding generation and/or transmission facilities located within the PSE&G Zone to the market monitoring unit of the new York Independent System Operator, Inc. ("New York ISO") and the New York ISO Market Advisor to the limited extent that the PJM Market Monitor determines necessary to carry out the responsibilities of the market monitoring units of PJM and the New York ISO under FERC Opinion No. 476 (see Consolidated Edison Company v. Public Service Electric and Gas Company, et al., 108 FERC ¶ 61,120, at P 215 (2004)) to conduct joint investigations to ensure that gaming, abuse of market power, or similar activities do not take place with regard to power transfers under the contracts that are the subject of FERC Opinion No. 476.

b) The PJM Market Monitor and PJM may release a Member's confidential information pursuant to section 18.17.5(a) to the market monitoring unit of the New York ISO and the New York ISO Market Advisor only if the market monitoring unit of the New York ISO and the New York ISO Market Advisor are subject to obligations limiting the disclosure of such information that are equivalent to or greater than the limitations on disclosure specified in this section 18.17. Information received from the New York ISO, the market monitoring unit of the New York ISO, or the New York ISO Market Advisor under section 18.17.5(a) that is designated as confidential shall be protected from disclosure in accordance with this section 18.17.

18.17.6 Disclosure of EMS Data to Transmission Owners

a) While the Office of the Interconnection has overall power system reliability in the Office of the Interconnection region, Transmission Owners within the Office of the Interconnection region perform certain reliability functions with respect to their individual Transmission Facilities and distribution systems. In order to facilitate reliable operations between the Office of the Interconnection and the Transmission Owners, the Office of the Interconnection may, without written authorization from any Member, install a read-only terminal in any Transmission Owner's secure control room facility, with access to Office of the Interconnection's Energy Management System (EMS) and its associated data transmission and generation data under the terms and conditions set forth in this section 18.17.6.

b) The data and information produced by the Office of the Interconnection's EMS are confidential and/or commercially sensitive because it will display the real-time status of electric transmission lines and generation facilities, the disclosure of which could impact the market and the commercial interests of its participants. In addition, the responsive information will contain detailed information about real-time grid conditions, transmission lines, power flows, and outages, which may fall within the definition of Critical Energy Infrastructure Information (CEII) as set forth in 18 CFR § 388.112. The Office of the Interconnection shall not release any generator cost, price or other market information without written authorization pursuant to section § 18.17.1 (c) supra. The only generator information that will be made available is real-time MW/MVAR output and Minimum/Maximum MW Range.

c) The confidential or CEII information provided to the Transmission Owner on a read-only PJM EMS terminal shall only be held in the secure control room facility of the Transmission Owner. Such data shall be used for informational and operational purposes within the control room by Transmission Function employees as defined in the FERC's rules and regulations, 18 C.F.R. § 358.3 (j). No "screen-scraping" or other data transfer of information from the read-only terminal to other Transmission Owner systems or databases shall be permitted. No storage of information from the read-only terminal shall be permitted. The data shall be held confidential within the transmission function environment and not be disclosed to other personnel within the Transmission Owners' company, subsidiaries, marketing organizations, energy affiliates or independent third parties. The Transmission Owner may use the confidential or CEII information only for the purpose of performing Transmission Owner's Reliability Function and shall not otherwise use the confidential information for its own benefit or for the benefit of any other person.

d) In the event of any breach:

(i) The Transmission Owners shall promptly notify the Office of the Interconnection, which shall, in turn, promptly notify FERC and any Affected Member(s) of any inadvertent or intentional release, or possible release, of confidential or CEII information disclosed as provided above.

(ii) The Office of the Interconnection shall terminate all rights of the Transmission Owner to receive confidential or CEII information as provided in this section 18.17.6; provided, however, that the Office of the Interconnection may restore a Transmission Owners' status after consulting with the Affected Member(s) and to the extent that: (a) the Office of the Interconnection determines that the disclosure was not due to the intentional, reckless or negligent action or omission of the Authorized Person; (b) there were no harm or damages suffered by the Affected Member(s); or (c) similar good cause shown. Any appeal of the Office of the Interconnection's actions under this section shall be to FERC.

(iii) The Office of the Interconnection and/or the Affected Member(s) shall have the right to seek and obtain at least the following types of relief: (a) an order from FERC requiring any breach to cease and preventing any future breaches; (b) temporary, preliminary, and/or permanent injunctive relief and/or damages with respect to any breach; and (c) the immediate return of all confidential or CEII information to the Office of the Interconnection.

(iv) Any dispute or conflict requesting the relief in section (d)(ii) or (d)(iii)(a) above, shall be submitted to FERC for hearing and resolution. Any dispute or conflict requesting the relief in section (d)(iii)(b) and (c) above may be submitted to FERC or any court of competent jurisdiction for hearing and resolution.

18.18 Termination and Withdrawal.

18.18.1 Termination.

Upon termination of this Agreement, final settlement for obligations under this Agreement shall include the accounting for the period ending with the last day of the last month for which the Agreement was effective.

18.18.2 Withdrawal.

Subject to the requirements of Section 4.1(c) of this Agreement and Section 1.4.6 of the Schedule 1 to this Agreement, any Member may withdraw from this Agreement upon 90 days notice to the Office of the Interconnection.

18.18.3 Winding Up.

Any provision of this Agreement that expressly or by implication comes into or remains in force following the termination or expiration of this Agreement shall survive such termination or expiration. The surviving provisions shall include, but shall not be limited to: (i) those provisions necessary to permit the orderly conclusion, or continuation pursuant to another agreement, of transactions entered into prior to the decision to terminate this Agreement, (ii) those provisions necessary to conduct final billing, collection, and accounting with respect to all matters arising hereunder, and (iii) the indemnification provisions as applicable to periods prior to such termination or expiration.

IN WITNESS whereof, the Members have caused this Agreement to be executed by their duly authorized representatives.

RESOLUTION REGARDING ELECTION OF DIRECTORS

1. Subject to the approval of the Federal Energy Regulatory Commission, the provisions of Section 7.1 of the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (the "Operating Agreement"), to the extent that such section requires that the election of members to the PJM Board of Managers be held at the Annual Meeting of the Members, be, and they hereby are, waived, solely for election to those positions on the PJM Board of Managers that expire in the year 2001; and

2. An election of members of the PJM Board of Managers from the slate approved by the independent consultant retained by the Office of the Interconnection, is, and hereby shall be, authorized by the PJM Members Committee to occur at its meeting held on August 30, 2001; and

3. The Office of the Interconnection is, and hereby shall be, authorized to file such documents and make such pleadings before the Federal Energy Regulatory Commission as the Office of the Interconnection determines to be reasonably necessary seeking such waivers and authorizations as may be required to assure the validity of the aforementioned election of members to the PJM Board of Managers.

SCHEDULE 1

PJM INTERCHANGE ENERGY MARKET

1. MARKET OPERATIONS

1.1 Introduction.

This Schedule sets forth the scheduling, other procedures, and certain general provisions applicable to the operation of the PJM Interchange Energy Market within the PJM Region. This Schedule addresses each of the three time-frames pertinent to the daily operation of the PJM Interchange Energy Market: Prescheduling, Scheduling, and Dispatch.

1.2 Cost-based Offers.

Unless and until the FERC shall authorize the use of market-based prices in the PJM Interchange Energy Market, all offers for energy or other services to be sold on the PJM Interchange Energy Market from generating resources located within the PJM Region shall not exceed the variable cost of producing such energy or other service, as determined in accordance with Schedule 2 to this Agreement and applicable regulatory standards, requirements and determinations; provided that, a Market Seller may offer to the PJM Interchange Energy Market the right to call on energy from a resource the output of which has been sold on a bilateral basis, with the rate for such energy if called equal to the curtailment rate specified in the bilateral contract.

1.2A Transmission Losses.

1.2A.1 Description of Transmission Losses.

Transmission losses refer to the loss of energy in the transmission of electricity from generation resources to load, which is dissipated as heat through transformers, transmission lines and other transmission facilities.

1.2A.2 Inclusion of State Estimator Transmission Losses.

Whenever in this Schedule 1, transmission losses are included in the determination of a charge, credit, load (including deviations), or demand reduction, it is explicitly so stated and such included losses shall be those losses incurred on facilities included in the PJM network model and determined by, and reflected in, the PJM State Estimator. Absent such explicit statement, such losses are not included in the determination.

1.2A.3 Other Losses.

Losses incurred on facilities not included in the PJM network model and therefore not reflected in the PJM State Estimator may be included in the determination of charges, credits, load (including real-time deviations) or demand reductions, as determined by electric distribution companies, unless this Schedule explicitly excludes such losses.

1.3 Definitions.

1.3.1 Acceleration Request.

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

1.3.1A Auction Revenue Rights.

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

1.3.1A.001 Batch Load Demand Resource.

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

1.3.1B Auction Revenue Rights Credits.

"Auction Revenue Rights Credits" shall mean the allocated share of total FTR auction revenues or costs credited to each holder of Auction Revenue Rights, calculated and allocated as specified in Section 7.4.3 of this Schedule.

1.3.1B.01 Congestion Price.

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

1.3.1B.02 Curtailment Service Provider.

"Curtailment Service Provider" shall mean a Member or a Special Member, which action on behalf of itself or one or more other Members or non-Members, participates in the PJM Interchange Energy Market by causing a reduction in demand.

1.3.1B.03 Day-ahead Congestion Price.

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

1.3.1C Day-ahead Energy Market.

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

1.3.1C.01 Day-ahead Loss Price.

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

1.3.1D Day-ahead Prices.

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

1.3.1D.01 Day-ahead Scheduling Reserves.

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

1.3.1D.02 Day-ahead Scheduling Reserves Requirement.

"Day-ahead Scheduling Reserves Requirement" shall mean the thirty-minute reserve requirement for the PJM Region established consistent with Reliability First Corporation and SERC reliability standards, or those of any additional and/or successor regional reliability organization(s) that are responsible for establishing reliability requirements for the PJM Region, plus any additional thirty-minute reserves scheduled in response to an RTO-wide Hot or Cold Weather Alert or other reasons for conservative operations.

1.3.1D.03 Day-ahead Scheduling Reserves Resources.

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

1.3.1D.04 Day-ahead Scheduling Reserves Market.

"Day-ahead Scheduling Reserves Market" shall mean the schedule of commitments for the purchase or sale of Day-ahead Scheduling Reserves developed by the Office of the Interconnection as a result of the offers and specifications submitted in accordance with Section 1.10 of this Schedule.

1.3.1D.05 Day-ahead System Energy Price.

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

1.3.1E Decrement Bid.

"Decrement Bid" shall mean a bid to purchase energy at a specified location in the Day-ahead Energy Market. An accepted Decrement Bid results in scheduled load at the specified location in the Day-ahead Energy Market.

1.31E.01 Demand Resource.

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

1.3.1F Dispatch Rate.

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

1.3.2 Equivalent Load.

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

1.3.2A Economic Load Response Participant.

"Economic Load Response Participant" shall mean a Member or Special Member that qualifies under Section 1.5A of this Schedule to participate in the PJM Interchange Energy Market through reductions in demand.

1.3.3 External Market Buyer.

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

1.3.4 External Resource.

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

1.3.5 Financial Transmission Right.

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

1.3.5A Financial Transmission Right Obligation.

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

1.3.5B Financial Transmission Right Option.

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

1.3.6 Generating Market Buyer.

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

1.3.7 Generator Forced Outage.

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

1.3.8 Generator Maintenance Outage.

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

1.3.9 Generator Planned Outage.

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

1.3.9A Increment Bid.

"Increment Bid" shall mean an offer to sell energy at a specified location in the Day-ahead Energy Market. An accepted Increment Bid results in scheduled generation at the specified location in the Day-ahead Energy Market.

1.3.9B Interface Pricing Point

"Interface Pricing Point" shall have the meaning specified in section 2.6A.

1.3.10 Internal Market Buyer.

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

1.3.11 Inadvertent Interchange.

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

1.3.11A Load Reduction Event.

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

1.3.11B Loss Price.

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

1.3.12 Market Operations Center.

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

1.3.13 Maximum Generation Emergency.

"Maximum Generation Emergency" shall mean an Emergency declared by the Office of the Interconnection in which the Office of the Interconnection anticipates requesting one or more Generation Capacity Resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Generation Capacity Resource, in order to manage, alleviate, or end the Emergency.

1.3.14 Minimum Generation Emergency.

"Minimum Generation Emergency" shall mean an Emergency declared by the Office of the Interconnection in which the Office of the Interconnection anticipates requesting one or more generating resources to operate at or below Normal Minimum Generation, in order to manage, alleviate, or end the Emergency.

1.3.14A NERC Interchange Distribution Calculator.

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

1.3.15 Network Resource.

"Network Resource" shall have the meaning specified in the PJM Tariff.

1.3.16 Network Service User.

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

1.3.17 Network Transmission Service.

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

1.3.18 Normal Maximum Generation.

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

1.3.19 Normal Minimum Generation.

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

1.3.20 Offer Data.

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

1.3.21 Office of the Interconnection Control Center.

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

1.3.21A On-Site Generators.

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

1.3.22 Operating Day.

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

1.3.23 Operating Margin.

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

1.3.24 Operating Margin Customer.

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

1.3.25 PJM Interchange.

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

1.3.26 PJM Interchange Export.

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

1.3.27 PJM Interchange Import.

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

1.3.28 PJM Open Access Same-time Information System.

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

1.3.28A Planning Period Quarter.

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

1.3.28B Planning Period Balance.

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

1.3.29 Point-to-Point Transmission Service.

"Point-to-Point Transmission Service" shall mean transmission service provided pursuant to the rates, terms and conditions set forth in Part II of the PJM Tariff.

1.3.30 Ramping Capability.

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

1.3.30.01 Real-time Congestion Price.

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

1.3.30.02 Real-time Loss Price.

"Real-time Loss Price" shall mean the Loss Price resulting from the Office of the Interconnection's dispatch of the PJM Interchange Energy Market in the Oeprating Day.

1.3.30A Real-time Prices.

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

1.3.30B Real-time Energy Market.

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

1.3.30B.01 Real-time System Energy Price.

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

1.3.31 Regulation.

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

1.3.31.01 Residual Auction Revenue Rights.

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

1.3.31.02 Special Member.

"Special Member" shall mean an entity that satisfies the requirements of Section 1.5A.02 of this Schedule or the special membership provisions established under the Emergency Load Response Program.

1.3.31A [Reserved.]

1.3.31B [Reserved.]

1.3.32 Spot Market Backup.

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

1.3.33 Spot Market Energy.

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

1.3.33A *State Estimator.*

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

1.3.33B Station Power.

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

1.3.33B.01 Synchronized Reserve.

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

1.3.33B.02 Synchronized Reserve Event.

"Synchronized Reserve Event" shall mean a request from the Office of the Interconnection to generation resources and/or Demand Resources able, assigned or self-scheduled to provide Synchronized Reserve, within ten minutes, to increase the energy output or reduce load by the amount of assigned or self-scheduled Synchronized Reserve capability.

1.3.33B.03 System Energy Price.

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

1.3.33C Target Allocation.

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

1.3.34 Transmission Congestion Charge.

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

1.3.35 Transmission Congestion Credit.

"Transmission Congestion Credit" shall mean the allocated share of total Transmission Congestion Charges credited to each holder of Financial Transmission Rights, calculated and allocated as specified in Section 5.2 of this Schedule.

1.3.36 Transmission Customer.

"Transmission Customer" shall mean an entity using Point-to-Point Transmission Service.

1.3.37 Transmission Forced Outage.

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

1.3.37ATransmission Loading Relief.

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

1.3.37B Transmission Loading Relief Customer.

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

1.3.37CTransmission Loss Charge.

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

1.3.38 Transmission Planned Outage.

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

1.3.39 Zonal Base Load.

"Zonal Base Load" shall mean the lowest daily zonal peak load from the twelve month period ending October 21 of the calendar year immediately preceding the calendar year in which an annual Auction Revenue Right allocation is conducted, increased by the projected load growth rate for the relevant Zone.

1.4 Market Buyers.

1.4.1 Qualification.

(a) To become a Market Buyer, an entity shall submit an application to the Office of the Interconnection, in such form as shall be established by the Office of the Interconnection.

(b) An applicant that is a Load Serving Entity or that will purchase on behalf of or for ultimate delivery to a Load Serving Entity shall establish to the satisfaction of the Office of the Interconnection that the end-users that will be served through energy and related services purchased in the PJM Interchange Energy Market, are located electrically within the PJM Region, or will be brought within the PJM Region prior to any purchases from the PJM Interchange Energy Market. Such applicant shall further demonstrate that:

i) The Load Serving Entity for the end users is obligated to meet the requirements of the Reliability Assurance Agreement; and

ii) The Load Serving Entity for the end users has arrangements in place for Network Transmission Service or Point-To-Point Transmission Service for all PJM Interchange Energy Market purchases.

(c) An applicant that is not a Load Serving Entity or purchasing on behalf of or for ultimate delivery to a Load Serving Entity shall demonstrate that:

i) The applicant has obtained or will obtain Network Transmission Service or Point-to-Point Transmission Service for all PJM Interchange Energy Market purchases; and

ii) The applicant's PJM Interchange Energy Market purchases will ultimately be delivered to a load in another Control Area that is recognized by NERC and that complies with NERC's standards for operating and planning reliable bulk electric systems.

(d) An applicant shall not be required to obtain transmission service for purchases from the PJM Interchange Energy Market to cover quantity deviations from its sales in the Day-ahead Energy Market.

(e) All applicants shall demonstrate that:

i) The applicant is capable of complying with all applicable metering, data storage and transmission, and other reliability, operation, planning and accounting standards and requirements for the operation of the PJM Region and the PJM Interchange Energy Market;

ii) The applicant meets the creditworthiness standards established by the Office of the Interconnection, or has provided a letter of credit or other form of security acceptable to the Office of the Interconnection; and

iii) The applicant has paid all applicable fees and reimbursed the Office of the Interconnection for all unusual or extraordinary costs of processing and evaluating its application to become a Market Buyer, and has agreed in its application to subject any disputes arising from its application to the PJM Dispute Resolution Procedures.

(f) The applicant shall become a Market Buyer upon a final favorable determination on its application by the Office of the Interconnection as specified below, and execution by the applicant of counterparts of this Agreement.

1.4.2 Submission of Information.

The applicant shall furnish all information reasonably requested by the Office of the Interconnection in order to determine the applicant's qualification to be a Market Buyer. The Office of the Interconnection may waive the submission of information relating to any of the foregoing criteria, to the extent the information in the Office of the Interconnection's possession is sufficient to evaluate the application against such criteria.

1.4.3 Fees and Costs.

The Office of the Interconnection shall require all applicants to become a Market Buyer to pay a uniform application fee, initially in the amount of $1,500, to defray the ordinary costs of processing such applications. The application fee shall be revised from time to time as the Office of the Interconnection shall determine to be necessary to recover its ordinary costs of processing applications. Any unusual or extraordinary costs incurred by the Office of the Interconnection in processing an application shall be reimbursed by the applicant.

1.4.4 Office of the Interconnection Determination.

Upon submission of the information specified above, and such other information as shall reasonably be requested by the Office of the Interconnection, the Office of the Interconnection shall undertake an evaluation and investigation to determine whether the applicant meets the criteria specified above. As soon as practicable, but in any event not later than 60 days after submission of the foregoing information, or such later date as may be necessary to satisfy the requirements of the Reliability Assurance Agreement, the Office of the Interconnection shall notify the applicant and the members of the Members Committee of its determination, along with a written summary of the basis for the determination. The Office of the Interconnection shall respond promptly to any reasonable and timely request by a Member for additional information regarding the basis for the Office of the Interconnection's determination, and shall take such action as it shall deem appropriate in response to any request for reconsideration or other action submitted to the Office of the Interconnection not later than 30 days from the initial notification to the Members Committee.

1.4.5 Existing Participants.

Any entity that was qualified to participate as a Market Buyer in the PJM Interchange Energy Market under the Operating Agreement of PJM Interconnection L.L.C. in effect immediately prior to the Effective Date shall continue to be qualified to participate as a Market Buyer in the PJM Interchange Energy Market under this Agreement.

1.4.6 Withdrawal.

(a) An Internal Market Buyer that is a Load Serving Entity may withdraw from this Agreement by giving written notice to the Office of the Interconnection specifying an effective date of withdrawal not earlier than the effective date of (i) its withdrawal from the Reliability Assurance Agreement, or (ii) the assumption of its obligations under the Reliability Assurance Agreement by an agent that is a Market Buyer.

(b) An External Market Buyer or an Internal Market Buyer that is not a Load Serving Entity may withdraw from this Agreement by giving written notice to the Office of the Interconnection specifying an effective date of withdrawal at least one day after the date of the notice.

(c) Withdrawal from this Agreement shall not relieve a Market Buyer of any obligation to pay for electric energy or related services purchased from the PJM Interchange Energy Market prior to such withdrawal, to pay its share of any fees and charges incurred or assessed by the Office of the Interconnection prior to the date of such withdrawal, or to fulfill any obligation to provide indemnification for the consequences of acts, omissions or events occurring prior to such withdrawal; and provided, further, that withdrawal from this Agreement shall not relieve any Market Buyer of any obligations it may have under, or constitute withdrawal from, any other Related PJM Agreement.

(d) A Market Buyer that has withdrawn from this Agreement may reapply to become a Market Buyer in accordance with the provisions of this Section 1.4, provided it is not in default of any obligation incurred under this Agreement.

1.5 Market Sellers.

1.5.1 Qualification.

A Member that demonstrates to the Office of the Interconnection that the Member meets the standards for the issuance of an order mandating the provision of transmission service under section 211 of the Federal Power Act, as amended by the Energy Policy Act of 1992, may become a Market Seller upon execution of this Agreement and submission to the Office of the Interconnection of the applicable Offer Data in accordance with the provisions of this Schedule. All Members that are Market Buyers shall become Market Sellers upon submission to the Office of the Interconnection of the applicable Offer Data in accordance with the provisions of this Schedule.

1.5.2 Withdrawal.

(a) A Market Seller may withdraw from this Agreement by giving written notice to the Office of the Interconnection specifying an effective date of withdrawal at least one day after the date of the notice; provided, however, that withdrawal shall not relieve a Market Seller of any obligation to deliver electric energy or related services to the PJM Interchange Energy Market pursuant to an offer made prior to such withdrawal, to pay its share of any fees and charges incurred or assessed by the Office of the Interconnection prior to the date of such withdrawal, or to fulfill any obligation to provide indemnification for the consequences of acts, omissions, or events occurring prior to such withdrawal; and provided, further, that withdrawal shall not relieve any entity that is a Market Seller and is also a Market Buyer of any obligations it may have as a Market Buyer under, or constitute withdrawal as a Market Buyer from, this Agreement or any other Related PJM Agreement.

(b) A Market Seller that has withdrawn from this Agreement may reapply to become a Market Seller at any time, provided it is not in default with respect to any obligation incurred under this Agreement.

1.5A Economic Load Response Participant.

1.5A.1 Qualification.

A Member or Special Member that is an end-use customer, Load Serving Entity or Curtailment Service Provider that has the ability to cause a reduction in demand as metered on an electric distribution company account basis or has an On-Site Generator that enables demand reduction may become an Economic Load Response Participant by complying with the requirements of section 1.5A unless the laws or regulations of the Relevant Electric Retail Regulatory Authority expressly prohibit their participation. A Member or Special Member may aggregate multiple individual end-use customer sites to qualify as an Economic Load Response Participant, subject to the requirements of Section 1.5A.10.

1.5A.2 Special Member.

Entities that are not Members and desire to participate solely in the Real-time Energy Market by reducing demand may become a Special Member by paying an annual membership fee of $500 plus 10% of each payment owed by the Office of the Interconnection for a Load Reduction Event not to exceed $5,000 in a calendar year. For entities that become Special Members pursuant to this section, the following obligations are waived: (1) the $1,500 membership application fee set forth in section 1.4.3 of this Agreement; (ii) liability under section 15.2 of this Agreement for Member defaults; (iii) thirty days notice for waiting period; and (iv) the requirement for 24/7 control center coverage. In addition, such Members shall not have voting privileges in committees or sector designations, and shall not be permitted to form user groups. On January 1 of a calendar year, a Special Member under this section, at its sole election, may become a Member rather than a Special Member subject to all rules governing being a Member, including regular application and membership fee requirements.

1.5A.3 Registration.

Prior to participating in the PJM Interchange Energy Market, Economic Load Response Participants must complete the Economic Load Response Registration Form posted on the Office of the Interconnection's website and submit such form to the Office of the Interconnection for each end-use customer pursuant to the requirements set forth in the PJM Manuals. After confirming that an entity has met all of the qualifications to be an Economic Load Response Participant, the Office of the Interconnection shall notify the appropriate electric distribution company or Load Serving Entity of an Economic Load Response Participant's registration and request verification as to whether the load that may be reduced is subject to another contractual obligation or to laws or regulations of the Relevant Electric Retail Regulatory Authority that expressly prohibit the end-use customer's participation in PJM's Economic Load Response Program, and for confirmation of any associated transmission or distribution charges. The electric distribution company or Load Serving Entity shall have ten business days to respond. An electric distribution company which seeks to assert that the laws or regulations of the Relevant Electric Retail Regulatory Authority expressly prohibit end-use customer participation in PJM's Economic 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 expressly barring end-use customer participation, (b) an opinion of the Relevant Electric Retail Regulatory Authority's legal counsel attesting to the existence of a regulation or law expressly barring end-use customer 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 expressly barring end-use customer participation. PJM may seek additional clarification, if necessary, from the Relevant Electric Retail Regulatory Authority and shall post on its web site all relevant, non-confidential documentation submitted by an electric distribution company or Relevant Electric Retail Regulatory Authority to PJM during the registration process provided pursuant to this section. In the absence of a response from the electric distribution company or Load Serving Entity within the referenced ten business day 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 expressly prohibit the end-use customer's participation in PJM's Economic Load Response Program. In the event that the end-use customer is subject to another contractual obligation, special settlement terms may be employed to accommodate such contractual obligation. The Office of the Interconnection shall notify the end-use customer or appropriate Curtailment Service Provider or Load Serving Entity that the Economic Load Response Participant has or has not met the requirements of this section 1.5A. End-use customers that desire not to be simultaneously registered to reduce demand under

Serving Entity that the Economic Load Response Participant has or has not met the requirements of this section 1.5A. End-use customers that desire not to be simultaneously registered to reduce demand under the Emergency Load Response Program and under this section, upon one-day advance notice to the Office of the Interconnection, may switch its registration for reducing demand, if it has been registered to reduce load for 15 consecutive days under its current registration.

1.5A.4 Metering.

The Curtailment Service Provider is responsible to ensure that the Economic Load Response 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 Economic Load Response Participant must meter reductions in demand either by recording integrated hourly values for On-Site Generators running to serve local load (net of output used by the On-Site Generator), by metering load on an electric distribution company account basis and comparing actual metered load to its Customer Baseline Load, calculated pursuant to section 3.3A of this Schedule, or on an alternative metering basis approved by the Office of the Interconnection and agreed upon by all relevant parties, including any Curtailment Service Provider, Load Serving Entity and end-use customer. To qualify for compensation for such load reductions that are not metered directly by the Office of the Interconnection, data reflecting meter readings for each hour during in which the load reduction occurred must be submitted to the Office of the Interconnection in accordance with the PJM Manuals within 60 days of the load reduction.

1.5A.5 On-Site Generators.

An Economic Load Response Participant that intends to use an On-Site Generator for the purpose of reducing demand to participate in the PJM Interchange Energy Market shall represent to the Office of the Interconnection in writing that it holds all necessary environmental permits applicable to the operation of the On-Site Generator. Unless notified otherwise, the Office of the Interconnection shall deem such representation applies to each time the On-Site Generator is used to reduce demand to enable participation in the PJM Interchange Energy Market and that the On-Site Generator is being operated in compliance with all applicable permits, including any emissions, run-time limits or other operational constraints that may be imposed by such permits.

1.5A.6 Active Load Management Participation.

An Active Load Management ("ALM") customer may qualify to submit offers to reduce demand in the PJM Interchange Energy Market during Active Load Management events provided that, if the ALM customer entered into an ALM contract prior to June 1, 2002, such contract explicitly excludes payment or credit for energy not consumed during ALM events. In the event that the Load Serving Entity that is eligible to receive an ALM credit based on a contract with an ALM customer entered into prior to June 1, 2002 indicates that such contract does not permit the ALM customer to simultaneously participate in the PJM Interchange Energy Market pursuant to this section 1.5A.6, then such ALM customer may qualify to submit offers to reduce demand in the PJM Interchange Energy Market only for amounts in excess of its contractual obligations under its ALM contract. An ALM customer that has entered into an ALM contract on or after June 1, 2002 shall be eligible to submit offers to reduce demand in the Interchange Energy Market without limitation notwithstanding any terms or conditions to the contrary in its ALM contract.

1.5A.7 Non-Hourly Metered Customer Pilot.

Non-hourly metered customers may participate in the PJM Interchange Energy Market as

Economic Load Response Participants 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 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 as set forth in Section 1.5A.04 of this Schedule, non-hourly metered customers that qualify as Economic Load Response Participants pursuant to this section 1.5A.07 shall be subject to the rules and procedures for participation by Economic Load Response Participants in the PJM Interchange Energy Market. 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 PJM Interchange Energy Market.

1.5A.8 Batch Load Demand Resource Provision of Synchronized Reserve or Day-Ahead Scheduling Reserves.

(a) A Batch Load Demand Resource may provide Sychronized Reserve or Day-Ahead Scheduling Reserves in the PJM Interchange Energy Market provided it has pre-qualified by providing the Office of the Interconnection with documentation acceptable to the Office of the Interconnection that shows six months of one minute incremental load history of the Batch Load Demand Resource, or in the event such history is unavailable, other such information or data acceptable to the Office of the Interconnection to demonstrate that the resource meets the definition of "Batch Load Demand Resource" pursuant to section 1.3.1A.001 of this Schedule. This requirement is a one-time pre-qualification requirement for a Batch Load Demand Resource.

(b) Batch Load Demand Resources may provide up to 20 percent of the total system-wide PJM Synchronized Reserve requirement in any hour, or up to 20 percent of the total system-wide Day-Ahead Scheduling Reserves requirement in any hour; provided, however, that in the event the Office of the Interconnection determines in its sole discretion that satisfying 20 percent of either such requirement from Batch Load Demand Resources is causing or may cause a reliability degradation, the Office of the Interconnection may reduce the percentage of either such requirement that may be satisfied by Batch Load Demand Resources in any hour to as low as 10 percent. This reduction will be effective seven days after the posting of the reduction on the PJM website. Notwithstanding anything to the contrary in this Agreement, as soon as practicable, the Office of the Interconnection unilaterally shall make a filing under section 205 of the Federal Power Act to revise the rules for Batch Load Demand Resources so as to continue such reduction. The reduction shall remain in effect until the Commission acts upon the Office of the Interconnection's filing and thereafter if approved or accepted by the Commission.

(c) A Batch Load Demand Resource that is consuming energy at the start of a Synchronized Reserve Event, or, if committed to provide Day-Ahead Scheduling Reserves, at the time of a dispatch instruction from the Office of the Interconnection to reduce load, shall respond to the Office of the Interconnection's calling of a Synchronized Reserve Event, or to such instruction to reduce load, by reducing load as quickly as it is capable and by keeping its consumption at or near zero megawatts for the entire length of the Synchronized Reserve Event following the reduction, or, in the case of Day-Ahead Scheduling Reserves, until a dispatch instruction that load reductions are no longer required. A Batch Load Demand Resource that has reduced its consumption of energy for its production processes to minimal or zero megawatts before the start of a Synchronized Reserve Event (or, in the case of Day-Ahead Scheduling Reserves, before a dispatch instruction to reduce load) shall respond to the Office of the Interconnection's calling of a Synchronized Reserve Event (or such instruction to reduce load) by reducing any load that is present at the time the Synchronized Reserve Event is called (or at the time of such instruction to reduce load) as quickly as it is capable, delaying the restart of its production processes, and keeping its consumption at or near zero megawatts for the entire length of the Synchronized Reserve Event following any such reduction (or, in the case of Day-Ahead Scheduling Reserves, until a dispatch instruction that load reductions are no longer required). Failure to respond as described in this section shall be considered non-compliance with the Office of the Interconnection's dispatch instruction associated with a Sychronized Reserve Event, or as applicable, associated with an instruction to a resource committed to provide Day-Ahead Scheduling Reserves to reduce load.

1.5A.9 Day-ahead and Real-time Energy Market Participation.

Economic Load Response Participants may participate in the Day-ahead and Real-time Energy Markets as dispatchable or self-scheduled resources, provided that Demand Resources that are self-scheduled pursuant to Section 1.5A.9(a) shall not be dispatched by the Office of the Interconnection pursuant to this section.

(a) Self-scheduled Demand Resources shall be subject to the following requirements:

i. An Economic Load Response Participant self-scheduling a Demand Resource shall notify the Office of the Interconnection no less than 5 minutes prior to beginning a load reduction event and no more than 7 days prior to an event;

ii. Economic Load Response Participants may self-schedule a Demand Resource intra-hour;

iii. A Notification pursuant to this section may be withdrawn or adjusted downward during the relevant event hour, but not after the event hour;

iv. A Notification submitted pursuant to this section shall include the start and stop times of the event and the amount of the demand reduction;

v. The event period for self-scheduled Demand Resources shall be defined as all hours in the day for which the Economic Load Response Participant has provided a Notification.

1.5A.10Economic Load Response Participant Aggregation.

Aggregations pursuant to Section 1.5A.1 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;

iii. All end-use customers in an aggregation that settle at zonal or nodal prices shall be located in the same Zone or at the same node, respectively;

iv. If all end-use customers in an aggregation are not subject to the same generation and transmission charges, the generation and transmission charge for the aggregation shall be the load weighted average of the generation and transmision charges for all end-use customers in the aggregation. The Economic Load Response Participant shall provide the load weighted average, the calculation of the load weighted average, and the supporting data to the LSE and PJM. For the purposes of this section, the applicable generation and transmission charges are the charges an end-use customer would have otherwise paid the Load Serving Entity absent the demand reduction;

v. A single CBL for the aggregation shall be used to determine settlements pursuant to Sections 3.3A.4 and 3.3A.5.

1.6 Office of the Interconnection.

1.6.1 Operation of the PJM Interchange Energy Market.

The Office of the Interconnection shall operate the PJM Interchange Energy Market in accordance with this Agreement.

1.6.2 Scope of Services.

The Office of the Interconnection shall, on behalf of the Market Participants, perform the services pertaining to the PJM Interchange Energy Market specified in this Agreement, including but not limited to the following:

i) Administer the PJM Interchange Energy Market as part of the PJM Region, including scheduling and dispatching of generation resources, accounting for transactions, rendering bills to the Market Participants, receiving payments from and disbursing payments to the Market Participants, maintaining appropriate records, and monitoring the compliance of Market Participants with the provisions of this Agreement, all in accordance with applicable provisions of the Office of the Interconnection Agreement, and the Schedules to this Agreement;

ii) Review and evaluate the qualification of entities to be Market Buyers, Market Sellers, or Economic Load Response Participants under applicable provisions of this Agreement;

iii) Coordinate, in accordance with applicable provisions of this Agreement, the Reliability Assurance Agreement, and the Consolidated Transmission Owners Agreement, maintenance schedules for generation and transmission resources operated as part of the PJM Region;

iv) Provide or coordinate the provision of ancillary services necessary for the operation of the PJM Region or the PJM Interchange Energy Market;

v) Determine and declare that an Emergency is expected to exist, exists, or has ceased to exist, in all or any part of the PJM Region, or in another directly or indirectly interconnected Control Area and serve as a primary point of contact for interested state or federal agencies;

vi) Enter into (a) agreements for the transfer of energy in conditions constituting an Emergency in the PJM Region or in an interconnected Control Area, and the mutual provision of other support in such Emergency conditions with other interconnected Control Areas, and (b) purchases of Emergency energy offered by Members from resources that are not Capacity Resources in conditions constituting an Emergency in the PJM Region;

vii) Coordinate the curtailment or shedding of load, or other measures appropriate to alleviate an Emergency, in order to preserve reliability in accordance with NERC, or Applicable Regional Reliability Council principles, guidelines and standards, and to ensure the operation of the PJM Region in accordance with Good Utility Practice and this Agreement;

viii) Protect confidential information as specified in this Agreement; and

ix) Send a representative to meetings of the Members Committee or other Committees, subcommittees, or working groups specified in this Agreement or formed by the Members Committee when requested to do so by the chair or other head of such committee or other group.

1.6.3 Records and Reports.

The Office of the Interconnection shall prepare and maintain such records and prepare such reports, including, but not limited to quarterly budget reports, as are required to document the performance of its obligations to the Market Participants hereunder in a form adopted by the Office of the Interconnection upon consideration of the advice and recommendations of the Members Committee. The Office of the Interconnection shall also produce special reports reasonably requested by the Members Committee and consistent with FERC's standards of conduct; provided, however, the Market Participants shall reimburse the Office of the Interconnection for the costs of producing any such report. Notwithstanding the foregoing, the Office of the Interconnection shall not be required to disclose confidential or commercially sensitive information in any such report.

1.6.4 PJM Manuals.

The Office of the Interconnection shall prepare, maintain and update the PJM Manuals consistent with this Agreement. The PJM Manuals shall be available for inspection by the Market Participants, regulatory authorities with jurisdiction over the LLC or any Member, and the public.

1.7 General.

1.7.1 Market Sellers.

Only Market Sellers shall be eligible to submit offers to the Office of the Interconnection for the sale of electric energy or related services in the PJM Interchange Energy Market. Market Sellers shall comply with the prices, terms, and operating characteristics of all Offer Data submitted to and accepted by the PJM Interchange Energy Market.

1.7.2 Market Buyers.

Only Market Buyers shall be eligible to purchase energy or related services in the PJM Interchange Energy Market. Market Buyers shall comply with all requirements for making purchases from the PJM Interchange Energy Market.

1.7.2A Economic Load Response Participants.

Only Economic Load Response Participants shall be eligible to participate in the Real-time Energy Market and the Day-ahead Energy Market by submitting offers to the Office of the Interconnection to reduce demand.

1.7.3 Agents.

A Market Participant may participate in the PJM Interchange Energy Market through an agent, provided that the Market Participant informs the Office of the Interconnection in advance in writing of the appointment of such agent. A Market Participant participating in the PJM Interchange Energy Market through an agent shall be bound by all of the acts or representations of such agent with respect to transactions in the PJM Interchange Energy Market, and shall ensure that any such agent complies with the requirements of this Agreement.

1.7.4 General Obligations of the Market Participants.

(a) In performing its obligations to the Office of the Interconnection hereunder, each Market Participant shall at all times (i) follow Good Utility Practice, (ii) comply with all applicable laws and regulations, (iii) comply with the applicable principles, guidelines, standards and requirements of FERC, NERC and Applicable Regional Reliability Councils, (iv) comply with the procedures established for operation of the PJM Interchange Energy Market and PJM Region and (v) cooperate with the Office of the Interconnection as necessary for the operation of the PJM Region in a safe, reliable manner consistent with Good Utility Practice.

(b) Market Participants shall undertake all operations in or affecting the PJM Interchange Energy Market and the PJM Region including but not limited to compliance with all Emergency procedures, in accordance with the power and authority of the Office of the Interconnection with respect to the operation of the PJM Interchange Energy Market and the PJM Region as established in this Agreement, and as specified in the Schedules to this Agreement and the PJM Manuals. Failure to comply with the foregoing operational requirements shall subject a Market Participant to such reasonable charges or other remedies or sanctions for non-compliance as may be established by the PJM Board, including legal or regulatory proceedings as authorized by the PJM Board to enforce the obligations of this Agreement.

(c) The Office of the Interconnection may establish such committees with a representative of each Market Participant, and the Market Participants agree to provide appropriately qualified personnel for such committees, as may be necessary for the Office of the Interconnection to perform its obligations hereunder.

(d) All Market Participants shall provide to the Office of the Interconnection the scheduling and other information specified in the Schedules to this Agreement, and such other information as the Office of the Interconnection may reasonably require for the reliable and efficient operation of the PJM Region and PJM Interchange Energy Market, and for compliance with applicable regulatory requirements for posting market and related information. Such information shall be provided as much in advance as possible, but in no event later than the deadlines established by the Schedules to this Agreement, or by the Office of the Interconnection in conformance with such Schedules. Such information shall include, but not be limited to, maintenance and other anticipated outages of generation or transmission facilities, scheduling and related information on bilateral transactions and self-scheduled resources, and implementation of active load management, interruption of load, and other load reduction measures. The Office of the Interconnection shall abide by appropriate requirements for the non-disclosure and protection of any confidential or proprietary information given to the Office of the Interconnection by a Market Participant. Each Market Participant shall maintain or cause to be maintained compatible information and communications systems, as specified by the Office of the Interconnection, required to transmit scheduling, dispatch, or other time-sensitive information to the Office of the Interconnection in a timely manner.

(e) Subject to the requirements for Economic Load Response participants in section 1.5A above, each Market Participant shall install and operate, or shall otherwise arrange for, metering and related equipment capable of recording and transmitting all voice and data communications reasonably necessary for the Office of the Interconnection to perform the services specified in this Agreement. A Market Participant that elects to be separately billed for its PJM Interchange shall, to the extent necessary, be individually metered in accordance with Section 14 of this Agreement, or shall agree upon an allocation of PJM Interchange between it and the Market Participant through whose meters the unmetered Market Participant's PJM Interchange is delivered. The Office of the Interconnection shall be notified of the allocation by the foregoing Market Participants.

(f) Each Market Participant shall operate, or shall cause to be operated, any generating resources owned or controlled by such Market Participant that are within the PJM Region or otherwise supplying energy to or through the PJM Region in a manner that is consistent with the standards, requirements or directions of the Office of the Interconnection and that will permit the Office of the Interconnection to perform its obligations under this Agreement; provided, however, no Market Participant shall be required to take any action that is inconsistent with Good Utility Practice or applicable law.

(g) Each Market Participant shall follow the directions of the Office of the Interconnection to take actions to prevent, manage, alleviate or end an Emergency in a manner consistent with this Agreement and the procedures of the PJM Region as specified in the PJM Manuals.

(h) Each Market Participant shall obtain and maintain all permits, licenses or approvals required for the Market Participant to participate in the PJM Interchange Energy Market in the manner contemplated by this Agreement.

1.7.5 Market Operations Center.

Each Market Participant shall maintain a Market Operations Center, or shall make appropriate arrangements for the performance of such services on its behalf. A Market Operations Center shall meet the performance, equipment, communications, staffing and training standards and requirements specified in this Agreement for the scheduling and completion of transactions in the PJM Interchange Energy Market and the maintenance of the reliable operation of the PJM Region, and shall be sufficient to enable (i) a Market Seller or an Economic Load Response Participant to perform all terms and conditions of its offers to the PJM Interchange Energy Market, and (ii) a Market Buyer or an Economic Load Response Participant to conform to the requirements for purchasing from the PJM Interchange Energy Market.

1.7.6 Scheduling and Dispatching.

(a) The Office of the Interconnection shall schedule and dispatch in real-time generation resources and/or Demand Resources economically on the basis of least-cost, security-constrained dispatch and the prices and operating characteristics offered by Market Sellers, continuing until sufficient generation resources and/or Demand Resources are dispatched to serve the PJM Interchange Energy Market energy purchase requirements under normal system conditions of the Market Buyers, as well as the requirements of the PJM Region for ancillary services provided by generation resources and/or Demand Resources, in accordance with this Agreement. Such scheduling and dispatch shall recognize transmission constraints on coordinated flowgates external to the Transmission System in accordance with Appendix A to the Joint Operating Agreement between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. (PJM Rate Schedule FERC No. 38) and on other such flowages that are coordinated in accordance with agreements between the LLC and other entities. Scheduling and dispatch shall be conducted in accordance with this Agreement.

(b) The Office of the Interconnection shall undertake to identify any conflict or incompatibility between the scheduling or other deadlines or specifications applicable to the PJM Interchange Energy Market, and any relevant procedures of another Control Area, or any tariff (including the PJM Tariff). Upon determining that any such conflict or incompatibility exists, the Office of the Interconnection shall propose tariff or procedural changes, and undertake such other efforts as may be appropriate, to resolve any such conflict or incompatibility.

(c) To protect its generation or distribution facilities, or local Transmission Facilities not under the monitoring responsibility and dispatch control of the Office of the Interconnection, an entity may request that the Office of the Interconnection schedule and dispatch generation or reductions in demand to meet a limit on Transmission Facilities different from that which the Office of the Interconnection has determined to be required for reliable operation of the Transmission System. To the extent consistent with its other obligations under this Agreement, the Office of the Interconnection shall schedule and dispatch generation and reductions in demand in accordance with such request. An entity that makes a request pursuant to this section 1.7.6(c) shall be responsible for all generation and other costs resulting from its request that would not have been incurred by operating the Transmission System and scheduling and dispatching generation in the manner that the Office of the Interconnection otherwise has determined to be required for reliable operation of the Transmission System.

1.7.7 Pricing.

The price paid for energy bought and sold in the PJM Interchange Energy Market and for demand reductions will reflect the hourly Locational Marginal Price at each load and generation bus, determined by the Office of the Interconnection in accordance with this Agreement. Transmission Congestion Charges and Transmission Loss Charges, which shall be determined by differences in Congestion Prices and Loss Prices in an hour, shall be calculated and collected, and the revenues therefrom shall be disbursed, by the Office of the Interconnection in accordance with this Schedule.

1.7.8 Generating Market Buyer Resources.

A Generating Market Buyer may elect to self-schedule its generation resources up to that Generating Market Buyer's Equivalent Load, in accordance with and subject to the procedures specified in this Schedule, and the accounting and billing requirements specified in Section 3 to this Schedule.

1.7.9 Delivery to an External Market Buyer.

A purchase of Spot Market Energy by an External Market Buyer shall be delivered to a bus or buses at the electrical boundaries of the PJM Region specified by the Office of the Interconnection, or to load in such area that is not served by Network Transmission Service, using Point-to-Point Transmission Service paid for by the External Market Buyer. Further delivery of such energy shall be the responsibility of the External Market Buyer.

1.7.10 Other Transactions.

(a) Bilateral Transactions.

(i) In addition to transactions in the PJM Interchange Energy Market, Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity, subject to the obligations of Market Participants to make Generation Capacity Resources available for dispatch by the Office of the Interconnection. Such bilateral contracts shall be for the physical transfer of energy to or from a Market Participant and shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule and pursuant to the LLC's rules of relating to its eSchedules and Enhanced Energy Scheduler tools.

(ii) For purposes of clarity, with respect to all bilateral contracts for the physical transfer of energy to a Market Participant inside the PJM Region, title to the energy that is the subject of the bilateral contract shall pass to the buyer at the source specified for the bilateral contract, and the further transmission of the energy or further sale of the energy into the Interchange Energy Market shall be transacted by the buyer under the bilateral contract. With respect to all bilateral contracts for the physical transfer of energy to an entity outside the PJM Region, title to the energy shall pass to the buyer at the border of the PJM Region and shall be delivered to the border using transmission service. In no event shall the purchase and sale of energy between Market Participants under a bilateral contract constitute a transaction in the PJM Interchange Energy Market.

(iii) Market Participants that are parties to bilateral contracts for the purchase and sale and physical transfer of energy reported to and coordinated with the Office of the Interconnection under this Schedule shall use all reasonable efforts, consistent with Good Utility Practice, to limit the megawatt hours of such reported transactions to amounts reflecting the expected load and other physical delivery obligations of the buyer under the bilateral contract.

(iv) All payments and related charges for the energy associated with a bilateral contract shall be arranged between the parties to the bilateral contract and shall not be billed or settled by the Office of the Interconnection. Neither the LLC nor the Members will assume financial responsibility for the failure of a party to perform obligations owed to the other party under a bilateral contract reported and coordinated with the Office of the Interconnection under this Schedule.

(v) A buyer under a bilateral contract shall guarantee and indemnify the LLC and the Members for the costs of any Spot Market Backup used to meet the bilateral contract seller's obligation to deliver energy under the bilateral contract and for which payment is not made to the LLC by the seller under the bilateral contract, as determined by the Office of the Interconnection. Upon any default in obligations to the LLC by a Market Participant, the Office of the Interconnection shall (i) not accept any new eSchedules or Enhanced Energy Scheduler reporting by the Market Participant and (ii) terminate all of the Market Participant's eSchedules and Enhanced Energy Schedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the eSchedules and Enhanced Energy Schedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection. The Office of the Interconnection shall assign its claims against a seller with respect to a seller's nonpayment for Spot Market Backup to a buyer the extent that the buyer has made an indemnification payment to the Office of the Interconnection with respect to the seller's nonpayment.

(vi) Bilateral contracts that do not contemplate the physical transfer of energy to or from a Market Participant are not subject to this Schedule, shall not ~~be~~ reported to and coordinated with the Office of the Interconnection, and shall not in any way constitute a transaction in the PJM Interchange Energy Market.

(b) Market Participants shall have Spot Market Backup with respect to all bilateral transactions that contemplate the physical transfer of energy to or from a Market Participant, that are not dynamically scheduled pursuant to Section 1.12 and that are curtailed or interrupted for any reason (except for curtailments or interruptions through active load management for load located within the PJM Region).

(c) To the extent the Office of the Interconnection dispatches a Generating Market Buyer's generation resources, such Generating Market Buyer may elect to net the output of such resources against its hourly Equivalent Load. Such a Generating Market Buyer shall be deemed a buyer from the PJM Interchange Energy Market to the extent of its PJM Interchange Imports, and shall be deemed a seller to the PJM Interchange Energy Market to the extent of its PJM Interchange Exports.

(d) A Market Seller may self-supply Station Power for its generation facility in accordance with the following provisions:

(i) A Market Seller may self-supply Station Power for its generation facility during any month (1) when the net output of such facility is positive, or (2) when the net output of such facility is negative and the Market Seller during the same month has available at other of its generation facilities positive net output in an amount at least sufficient to offset fully such negative net output. For purposes of this subsection (d), "net output" of a generation facility during any month means the facility's gross energy output, less the Station Power requirements of such facility, during that month. The determination of a generation facility's or a Market Seller's monthly net output under this subsection (d) will apply only to determine whether the Market Seller self-supplied Station Power during the month and will not affect the price of energy sold or consumed by the Market Seller at any bus during any hour during the month. For each hour when a Market Seller has positive net output and delivers energy into the Transmission System, it will be paid the locational marginal price ("LMP") at its bus for that hour for all of the energy delivered. Conversely, for each hour when a Market Seller has negative net output and has received Station Power from the Transmission System, it will pay the LMP at its bus for that hour for all of the energy consumed.

(ii) Transmission Provider will determine the extent to which each affected Market Seller during the month self-supplied its Station Power requirements or obtained Station Power from third-party providers (including affiliates) and will incorporate that determination in its accounting and billing for the month. In the event that a Market Seller self-supplies Station Power during any month in the manner described in clause (1) of paragraph (d)(i) above, Market Seller will not use, and will not incur any charges for, transmission service. In the event, and to the extent, that a Market Seller self-supplies Station Power during any month in the manner described in clause (2) of paragraph (d)(i) above (hereafter referred to as "remote self-supply of Station Power"), Market Seller shall use and pay for transmission service for the transmission of energy in an amount equal to the facility's negative net output from Market Seller's generation facility(ies) having positive net output. Unless the Market Seller makes other arrangements with Transmission Provider in advance, such transmission service shall be provided under Part II of the PJM Tariff and shall be charged the hourly rate under Schedule 8 of the PJM Tariff for non-firm point-to-point transmission service with an election to pay congestion charges, provided, however, that no reservation shall be necessary for such transmission service and the terms and charges under Schedules 1, 1A, 2 through 6, 9 and 10 of the PJM Tariff shall not apply to such service. The amount of energy that a Market Seller transmits in conjunction with remote self-supply of Station Power will not be affected by any other sales, purchases, or transmission of capacity or energy by or for such Market Seller under any other provisions of the PJM Tariff.

(iii) A Market Seller may self-supply Station Power from its generation facilities located outside of the PJM Region during any month only if such generation facilities in fact run during such month and Market Seller separately has reserved transmission service and scheduled delivery of the energy from such resource in advance into the PJM Region.

1.7.11 Emergencies.

(a) The Office of the Interconnection, with the assistance of the Members' dispatchers as it may request, shall be responsible for monitoring the operation of the PJM Region, for declaring the existence of an Emergency, and for directing the operations of Market Participants as necessary to manage, alleviate or end an Emergency. The standards, policies and procedures of the Office of the Interconnection for declaring the existence of an Emergency, including but not limited to a Minimum Generation Emergency, and for managing, alleviating or ending an Emergency, shall apply to all Members on a non-discriminatory basis. Actions by the Office of the Interconnection and the Market Participants shall be carried out in accordance with this Agreement, the NERC Operating Policies, Applicable Regional Reliability Council reliability principles and standards, Good Utility Practice, and the PJM Manuals. A declaration that an Emergency exists or is likely to exist by the Office of the Interconnection shall be binding on all Market Participants until the Office of the Interconnection announces that the actual or threatened Emergency no longer exists. Consistent with existing contracts, all Market Participants shall comply with all directions from the Office of the Interconnection for the purpose of managing, alleviating or ending an Emergency. The Market Participants shall authorize the Office of the Interconnection to purchase or sell energy on their behalf to meet an Emergency, and otherwise to implement agreements with other Control Areas interconnected with the PJM Region for the mutual provision of service to meet an Emergency, in accordance with this Agreement.

(b) To the extent load must be shed to alleviate an Emergency in a Control Zone, the Office of the Interconnection shall, to the maximum extent practicable, direct the shedding of load within such Control Zone. The Office of the Interconnection may shed load in one Control Zone to alleviate an Emergency in another Control Zone under its control only as necessary after having first shed load to the maximum extent practicable in the Control Zone experiencing the Emergency and only to the extent that PJM supports other control areas (not under its control) in those situations where load shedding would be necessary, such as to prevent isolation of facilities within the Eastern Interconnection, to prevent voltage collapse, or to restore system frequency following a system collapse; provided, however, that the Office of the Interconnection may not order a manual load dump in a Control Zone solely to address capacity deficiencies in another Control Zone. This paragraph shall be implemented consistent with North American Electric Reliability Council and applicable reliability council standards.

1.7.12 Fees and Charges.

Each Market Participant, except for Special Members, shall pay all fees and charges of the Office of the Interconnection for operation of the PJM Interchange Energy Market as determined by and allocated to the Market Participant by the Office of the Interconnection in accordance with Schedule 3.

1.7.13 Relationship to the PJM Region.

The PJM Interchange Energy Market operates within and subject to the requirements for the operation of the PJM Region.

1.7.14 PJM Manuals.

The Office of the Interconnection shall be responsible for maintaining, updating, and promulgating the PJM Manuals as they relate to the operation of the PJM Interchange Energy

Market. The PJM Manuals, as they relate to the operation of the PJM Interchange Energy Market, shall conform and comply with this Agreement, NERC operating policies, and Applicable Regional Reliability Council reliability principles, guidelines and standards, and shall be designed to facilitate administration of an efficient energy market within industry reliability standards and the physical capabilities of the PJM Region.

1.7.15 Corrective Action.

Consistent with Good Utility Practice, the Office of the Interconnection shall be authorized to direct or coordinate corrective action, whether or not specified in the PJM Manuals, as necessary to alleviate unusual conditions that threaten the integrity or reliability of the PJM Region, or the regional power system.

1.7.16 Recording.

Subject to the requirements of applicable State or federal law, all voice communications with the Office of the Interconnection Control Center may be recorded by the Office of the Interconnection and any Market Participant communicating with the Office of the Interconnection Control Center, and each Market Participant hereby consents to such recording.

1.7.17 Operating Reserves.

(a) The following procedures shall apply to any generation unit subject to the dispatch of the Office of the Interconnection for which construction commenced before July 9, 1996, or any Demand Resource subject to the dispatch of the Office of the Interconnection.

(b) The Office of the Interconnection shall schedule to the Operating Reserve and load-following objectives of the Control Zones of the PJM Region and the PJM Interchange Energy Market in scheduling generation resources and/or Demand Resources pursuant to this Schedule. A table of Operating Reserve objectives for each Control Zone is calculated and published annually in the PJM Manuals. Reserve levels are probabilistically determined based on the season's historical load forecasting error and forced outage rates.

(c) Nuclear generation resources shall not be eligible for Operating Reserve payments unless: 1) the Office of the Interconnection directs such resources to reduce output; or 2) a physical problem at the unit requires a risk premium, provided that the risk premium is approved by the MMU. The foregoing notwithstanding, the Office of the Interconnection and the MMU shall consider requests by nuclear generation resources for Operating Reserve payments for specific circumstances not covered by the foregoing rules. Such requests shall be evaluated on a case-by-case basis.

1.7.18 Regulation.

(a) Regulation to meet the Regulation objective of each Regulation Zone shall be supplied from generation resources and/or Demand Resources located within the metered electrical boundaries of such Regulation Zone. Generating Market Buyers, and Market Sellers offering Regulation, shall comply with applicable standards and requirements for Regulation capability and dispatch specified in the PJM Manuals.

(b) The Office of the Interconnection shall obtain and maintain for each Regulation Zone an amount of Regulation equal to the Regulation objective for such Regulation Zone as specified in the PJM Manuals.

(c) The Regulation range of a generation unit or Demand Resource shall be at least twice the amount of Regulation assigned.

(d) A generation unit capable of automatic energy dispatch that is also providing Regulation shall have its energy dispatch range reduced by twice the amount of the Regulation provided. The amount of Regulation provided by a generation unit shall serve to redefine the Normal Minimum Generation and Normal Maximum Generation energy limits of that generation unit, in that the amount of Regulation shall be added to the generation unit's Normal Minimum Generation energy limit, and subtracted from its Normal Maximum Generation energy limit.

(e) Qualified Regulation must satisfy the verification tests described in the PJM Manuals.

1.7.19 Ramping.

A generator dispatched by the Office of the Interconnection pursuant to a control signal appropriate to increase or decrease the generator's megawatt output level shall be able to change output at the ramping rate specified in the Offer Data submitted to the Office of the Interconnection for that generator.

1.7.19A Synchronized Reserve.

(a) Synchronized Reserve shall be supplied from generation resources and/or Demand Resources located within the metered boundaries of the PJM Region. Generating Market Buyers, and Market Sellers offering Synchronized Reserve shall comply with applicable standards and requirements for Synchronized Reserve capability and dispatch specified in the PJM Manuals.

(b) The Office of the Interconnection shall obtain and maintain for each Synchronized Reserve Zone an amount of Synchronized Reserve equal to the Synchronized Reserve objective for such Synchronized Reserve Zone, as specified in the PJM Manuals.

(c) The Synchronized Reserve capability of a generation resource and Demand Resource shall be the increase in energy output or load reduction achievable by the generation resource and Demand Resource within a continuous 10-minute period.

(d) A generation unit capable of automatic energy dispatch that also is providing Synchronized Reserve shall have its energy dispatch range reduced by the amount of the Synchronized Reserve provided. The amount of Synchronized Reserve provided by a generation unit shall serve to redefine the Normal Maximum Generation energy limit of that generation unit in that the amount of Synchronized Reserve provided shall be subtracted from its Normal Maximum Generation energy limit.

1.7.20 Communication and Operating Requirements.

(a) Market Participants. Each Market Participant shall have, or shall arrange to have, its transactions in the PJM Interchange Energy Market subject to control by a Market Operations Center, with staffing and communications systems capable of real-time communication with the Office of the Interconnection during normal and Emergency conditions and of control of the Market Participant's relevant load or facilities sufficient to meet the requirements of the Market Participant's transactions with the PJM Interchange Energy Market, including but not limited to the following requirements as applicable.

(b) Market Sellers selling from generation resources and/or Demand Resources within the PJM Region shall: report to the Office of the Interconnection sources of energy and Demand Resources available for operation; supply to the Office of the Interconnection all applicable Offer Data; report to the Office of the Interconnection generation resources and Demand Resources that are self-scheduled; with respect to generation resources, report to the Office of the Interconnection bilateral sales transactions to buyers not within the PJM Region; confirm to the Office of the Interconnection bilateral sales to Market Buyers within the PJM Region; respond to the Office of the Interconnection's directives to start, shutdown or change output levels of generation units, or change scheduled voltages or reactive output levels of generation units, or reduce load from Demand Resources; continuously maintain all Offer Data concurrent with on-line operating information; and ensure that, where so equipped, generating equipment and Demand Resources are operated with control equipment functioning as specified in the PJM Manuals.

(c) Market Sellers selling from generation resources outside the PJM Region shall: provide to the Office of the Interconnection all applicable Offer Data, including offers specifying amounts of energy available, hours of availability and prices of energy and other services; respond to Office of the Interconnection directives to schedule delivery or change delivery schedules; and communicate delivery schedules to the Market Seller's Control Area.

(d) Market Participants that are Load Serving Entities or purchasing on behalf of Load Serving Entities shall: respond to Office of the Interconnection directives for load management steps; report to the Office of the Interconnection Generation Capacity Resources to satisfy capacity obligations that are available for pool operation; report to the Office of the Interconnection all bilateral purchase transactions; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(e) Market Participants that are not Load Serving Entities or purchasing on behalf of Load Serving Entities shall: provide to the Office of the Interconnection requests to purchase specified amounts of energy for each hour of the Operating Day during which it intends to purchase from the PJM Interchange Energy Market, along with Dispatch Rate levels above which it does not desire to purchase; respond to other Office of the Interconnection directives such as those required during Emergency operation.

(f) Economic Load Response Participants are responsible for maintaining demand reduction information, including the amount and price at which demand may be reduced. The Economic Load Response Participant shall provide this information to the Office of the Interconnection by posting it on the Load Response Program Registration link of the PJM website as required by the PJM Manuals. The Economic Load Response Participant shall notify the Office of the Interconnection of a demand reduction concurrent with, or prior to, the beginning of such demand reduction in accordance with the PJM Manuals. In the event that an Economic Load Response Participant chooses to measure load reductions using a Customer Baseline Load, the Economic Load Response Participant shall inform the Office of the Interconnection of a change in its operations or the operations of the end-use customer that would affect a relevant Customer Baseline Load as required by the PJM Manuals.

1.8 Selection, Scheduling and Dispatch Procedure Adjustment Process.

1.8.1 PJM Dispute Resolution Agreement.

Subject to the condition specified below, any Member adversely affected by a decision of the Office of the Interconnection with respect to the operation of the PJM Interchange Energy Market, including the qualification of an entity to participate in that market as a buyer or seller, may seek such relief as may be appropriate under the PJM Dispute Resolution Procedures on the grounds that such decision does not have an adequate basis in fact or does not conform to the requirements of this Agreement.

1.8.2 Market or Control Area Hourly Operational Disputes.

(a) Market Participants shall comply with all determinations of the Office of the Interconnection on the selection, scheduling or dispatch of resources in the PJM Interchange Energy Market, or to meet the operational requirements of the PJM Region. Complaints arising from or relating to such determinations shall be brought to the attention of the Office of the Interconnection not later than the end of the fifth business day after the end of the Operating Day to which the selection or scheduling relates, or in which the scheduling or dispatch took place, and shall include, if practicable, a proposed resolution of the complaint. Upon receiving notification of the dispute, the Office of the Interconnection and the Market Participant raising the dispute shall exert their best efforts to obtain and retain all data and other information relating to the matter in dispute, and to notify other Market Participants that are likely to be affected by the proposed resolution. Subject to confidentiality or other non-disclosure requirements, representatives of the Office of the Interconnection, the Market Participant raising the dispute, and other interested Market Participants, shall meet within three business days of the foregoing notification, or at such other or further times as the Office of the Interconnection and the Market Participants may agree, to review the relevant facts, and to seek agreement on a resolution of the dispute.

(b) If the Office of the Interconnection determines that the matter in dispute discloses a defect in operating policies, practices or procedures subject to the discretion of the Office of the Interconnection, the Office of the Interconnection shall implement such changes as it deems appropriate and shall so notify the Members Committee. Alternatively, the Office of the Interconnection may notify the Members Committee of a proposed change and solicit the comments or other input of the Members.

(c) If either the Office of the Interconnection, the Market Participant raising the dispute, or another affected Market Participant believes that the matter in dispute has not been adequately resolved, or discloses a need for changes in standards or policies established in or pursuant to the Operating Agreement, any of the foregoing parties may make a written request for review of the matter by the Members Committee, and shall include with the request the forwarding party's recommendation and such data or information (subject to confidentiality or other non-disclosure requirements) as would enable the Members Committee to assess the matter and the recommendation. The Members Committee shall take such action on the recommendation as it shall deem appropriate.

(d) Subject to the right of a Market Participant to obtain correction of accounting or billing errors, the LLC or a Market Participant shall not be entitled to actual, compensatory, consequential or punitive damages, opportunity costs, or other form of reimbursement from the LLC or any other Market Participant for any loss, liability or claim, including any claim for lost profits, incurred as a result of a mistake, error or other fault by the Office of the Interconnection in the selection, scheduling or dispatch of resources.

1.9 Prescheduling.

The following procedures and principles shall govern the prescheduling activities necessary to plan for the reliable operation of the PJM Region and for the efficient operation of the PJM Interchange Energy Market.

1.9.1 Outage Scheduling.

The Office of the Interconnection shall be responsible for coordinating and approving requests for outages of generation and transmission facilities as necessary for the reliable operation of the PJM Region, in accordance with the PJM Manuals. The Office of the Interconnection shall maintain records of outages and outage requests of these facilities.

1.9.2 Planned Outages.

(a) A Generator Planned Outage shall be included in Generator Planned Outage schedules established prior to the scheduled start date for the outage, in accordance with standards and procedures specified in the PJM Manuals.

(b) The Office of the Interconnection shall conduct Generator Planned Outage scheduling for Generation Capacity Resources in accordance with the Reliability Assurance Agreement and the PJM Manuals and in consultation with the Members owning or controlling the output of such resources. A Market Participant shall not be expected to submit offers for the sale of energy or other services, or to satisfy delivery obligations, from all or part of a generation resource undergoing an approved Generator Planned Outage. If the Office of the Interconnection determines that approval of a Generator Planned Outage would significantly affect the reliable operation of the PJM Region, the Office of the Interconnection may withhold approval or withdraw a prior approval. Approval for a Generator Planned Outage of a Generation Capacity Resource shall be withheld or withdrawn only as necessary to ensure the adequacy of reserves or the reliability of the PJM Region in connection with anticipated implementation or avoidance of Emergency procedures. If the Office of the Interconnection withholds or withdraws approval, it shall coordinate with the Market Participant owning or controlling the resource to reschedule the

Generator Planned Outage of the Generation Capacity Resource at the earliest practical time. The Office of the Interconnection shall if possible propose alternative schedules with the intent of minimizing the economic impact on the Market Participant of a Generator Planned Outage.

(c) The Office of the Interconnection shall conduct Transmission Planned Outage scheduling in accordance with procedures specified in, the Consolidated Transmission Owners Agreement, and the PJM Manuals, and in accordance with the following procedures:

(i) Transmission Owners shall use *reasonable* efforts to submit Transmission Planned Outage schedules one year in advance but by no later than the first of the month six months in advance of the requested start date for all outages that are expected to exceed five working days duration, with regular (at least monthly) updates as new information becomes available.

(ii) If notice of a Transmission Planned Outage is not provided in accordance with the requirements in paragraph (i) above, and if such outage is determined by the Office of the Interconnection to have the potential to cause significant system impacts, including but not limited to reliability impacts and transmission system congestion, then the Office of the Interconnection may require the Transmission Owner to implement an alternative outage schedule to reduce or avoid such impacts.

(iii) Transmission Owners shall submit notice of all Transmission Planned Outages to the Office of the Interconnection by the first day of the month preceding the month the outage will commence, with updates as new information becomes available.

(iv) If notice of a Transmission Planned Outage is not provided by the first day of the month preceding the month the outage will commence, and if such outage is determined by the Office of the Interconnection to have the potential to causesignificant system impacts, including but not limited to reliability impacts and transmission system congestion, then the Office of the Interconnection may require the Transmission Owner to implement an alternative outage schedule to reduce or avoidsuch impacts. The Office of the Interconnection shall perform this analysis and notify the Transmission Owner in a timely manner if it will require rescheduling of the outage.

(v) The Office of the Interconnection reserves the right to approve, deny, or reschedule any outage deemed necessary to ensure reliable system operations on a case by case basis regardless of duration or date of submission.

(vi) The Office of the Interconnection shall post notice of Transmission Planned Outages on OASIS upon receipt of such notice from the Transmission Owner; provided, however, that the Office of the Interconnection shall not post on OASIS notice of any component of a Transmission Planned Outage to the extent such component shall directly reveal a generator outage. In such cases, the Transmission Owner, in addition to providing notice to the Office of Interconnection as required above, concurrently shall inform the affected Generation Owner of such outage, limiting such communication to that necessary to describe the outage and to coordinate with the Generation Owner on matters of safety to persons, facilities, and equipment. The Transmission Owner shall not notify any other Market Participant of such outage and shall arrange any other necessary coordination through the Office of the Interconnection.

In addition, if the Office of the Interconnection determines that transmission maintenance schedules proposed by one or more Members would significantly affect the efficient and reliable operation of the PJM Region, the Office of the Interconnection may establish alternative schedules, but such alternative shall minimize the economic impact on the Member or Members whose maintenance schedules the Office of the Interconnection proposes to modify.

(d) The Office of the Interconnection shall coordinate resolution of outage or other planning conflicts that may give rise to unreliable system conditions. The Members shall comply with all maintenance schedules established by the Office of the Interconnection.

1.9.3 Generator Maintenance Outages.

A Market Participant may request approval for a Generator Maintenance Outage of any Generation Capacity Resource from the Office of the Interconnection in accordance with the timetable and other procedures specified in the PJM Manuals. The Office of the Interconnection shall approve requests for Generator Maintenance Outages for such a Generation Capacity Resource unless the outage would threaten the adequacy of reserves in, or the reliability of, the PJM Region. A Market Participant shall not be expected to submit offers for the sale of energy or other services, or to satisfy delivery obligations, from a generation resource undergoing an approved full or partial Generator Maintenance Outage.

1.9.4 Forced Outages.

(a) Each Market Seller that owns or controls a pool-scheduled resource, or a Generation Capacity Resource whether or not pool-scheduled, shall: (i) advise the Office of the Interconnection of a Generator Forced Outage suffered or anticipated to be suffered by any such resource as promptly as possible; (ii) provide the Office of the Interconnection with the expected date and time that the resource will be made available; and (iii) make a record of the events and circumstances giving rise to the Generator Forced Outage. A Market Seller shall not be expected to submit offers for the sale of energy or other services, or satisfy delivery obligations, from a generation resource undergoing a Generator Forced Outage. A Generation Capacity Resource committed to PJM loads through an RPM Auction, FRR Capacity Plan, or by designation as a replacement resource under Attachment DD of the PJM Tariff, that does not deliver all or part of its scheduled energy shall be deemed to have experienced a Generator Forced Outage with respect to such undelivered energy, in accordance with standards and procedures for full and partial Generator Forced Outages specified in the Reliability Assurance Agreement, and the PJM Manuals.

(b) The Office of the Interconnection shall receive notification of Forced Transmission Outages, and information on the return to service, of Transmission Facilities in the PJM Region in accordance with standards and procedures specified in, as applicable, the Consolidated Transmission Owners Agreement and the PJM Manuals.

1.9.4A Transmission Outage Acceleration.

(a) Planned Transmission Outages and Forced Transmission Outages otherwise scheduled pursuant to sections 1.9.2 and 1.9.4 respectively of this Schedule may be accelerated or rescheduled at the request of a Generation Owner or other Market Participant in accordance with the terms and conditions of this section 1.9.4A and the PJM Manuals.

(b) **Transmission Outages Requiring Coordination With A Specific Generation Owner.**

(i) **Receipt of Acceleration Request.** Prior to a scheduled Planned Transmission Outage associated with the interconnection of a generating unit to the Transmission System, the affected Generation Owner may request that the outage be accelerated or rescheduled. Such Acceleration Request shall be submitted to the Office of the Interconnection in accordance with the procedures set forth in the PJM Manuals.

(ii) **Determination to Accommodate Acceleration Request.** Upon receipt of an Acceleration Request, the Office of the Interconnection shall notify the affected Transmission Owner of such Acceleration Request. The affected Transmission Owner shall determine, in its sole discretion, whether to accelerate or reschedule a transmission outage. In making this determination, the affected Transmission Owner shall follow Good Utility Practice, applicable Occupational Safety and Heath Administration standards, and applicable company safety standards, and shall consider any requirements contained in pertinent collective bargaining agreements. In the event that the affected Transmission Owner determines to accelerate or reschedule a transmission outage, it shall provide the Office of the Interconnection, within the time set forth in the PJM Manuals, an estimate of the cost to accelerate or reschedule the transmission outage and the revised schedule for the transmission outage ("Acceleration Estimate").

(iii) **Provision of Acceleration Estimate.** Upon receipt of the Acceleration Estimate and verification that Generation Owner has met reasonable creditworthiness standards established by the Office of the Interconnection, the Office of the Interconnection shall provide the Generation Owner with the Acceleration Estimate. In the event that the Generation Owner does not meet the creditworthiness standard, the Office of the Interconnection shall not provide the Acceleration Estimate and the transmission outage shall not be accelerated or rescheduled. Upon receipt of the Acceleration Estimate, the Generation Owner, within the time period specified in the PJM Manuals, shall notify the Office of the Interconnection as to whether it desires to accelerate or reschedule the transmission outage pursuant to the terms of the Acceleration Estimate.

(iv) **Cost Responsibility.** In the event the Generation Owner notifies the Office of the Interconnection that it desires to proceed with the acceleration or rescheduling of the transmission outage pursuant to section 1.9.4A(a)(iii), the Generation Owner shall be solely responsible for actual costs incurred by the affected Transmission Owner for the acceleration or rescheduling of the transmission outage. The Generation Owner's cost responsibility is not relieved, if, despite the good faith efforts of the Transmission Owner, the amount of costs set forth in the Acceleration Estimate is exceeded by less than 20 percent, or the Transmission Owner is unable successfully to complete the outage pursuant to the revised schedule set forth in the Acceleration Estimate. Prior to incurring costs exceeding 120 percent of the cost estimate set forth in the Acceleration Estimate, the affected Transmission Owner shall advise the Office of the Interconnection of such increase, and the Office of the Interconnection then shall notify the Generation Owner. After receipt of such notification, within the time period set forth in the PJM Manuals, the Generation Owner shall inform the Office of the Interconnection whether it desires to continue with the revised transmission outage schedule and pay the additional costs. The Office of the Interconnection shall notify the affected Transmission Owner of the Generation Owner's decision. In the event the Generation Owner desires not to proceed, the transmission outage shall occur according to normal work practices and the Generation Owner shall be responsible for all incurred costs and committed costs and obligations of the affected Transmission Owner for the acceleration or rescheduling of the transmission outage as of the date that the affected Transmission Owner notified the Office of the Interconnection of the increase in costs.

(c) **Transmission Outages That Could Cause Congestion Revenue Inadequacy.**

(i) **Posting of Transmission Outage.** In the event that the Office of the Interconnection determines that a Planned Transmission Outage or Forced Transmission Outage could exceed five days and could cause congestion revenue inadequacy in excess of $500,000, the Office of the Interconnection shall post a notice of such transmission outage on its internet site. Within the time period and pursuant to the procedures set forth in the PJM Manuals, any Market Participant may request that such transmission outage be accelerated or rescheduled.

(ii) **Determination to Accelerate or Reschedule Transmission Outage.** Upon receipt of the Acceleration Request(s) pursuant to section 1.9.4A(b)(i), the Office of the Interconnection shall notify the affected Transmission Owner of such request(s). The affected Transmission Owner shall determine in its sole discretion whether to accelerate or reschedule the transmission outage. In making this determination, the affected Transmission Owner shall follow Good Utility Practice, applicable Occupational Safety and Heath Administration standards, and applicable company safety standards and shall consider any requirements contained in pertinent collective bargaining agreements. If the affected Transmission Owner determines to accelerate or reschedule the transmission outage, it shall provide the Office of the Interconnection, within the time set forth in the PJM Manuals, an Acceleration Estimate. In the event that Market Participants submit requests which would require different schedules for a transmission outage, the Office of the Interconnection, in consultation with the affected Transmission Owner, shall determine the most effective option, which will be included in the Acceleration Estimate.

(iii) **Notification of Acceleration Estimate.** Upon receipt of the Acceleration Estimate and verification that Market Participants requesting acceleration or rescheduling of transmission outages have met reasonable creditworthiness standards established by the Office of the Interconnection, the Office of the Interconnection shall provide the Market Participants with the Acceleration Estimate and the number of Market Participants requesting acceleration or rescheduling of the transmission outage that meet the creditworthiness standards. After receipt of the Acceleration Request, within the time period set forth in the PJM Manuals, each requesting Market Participant meeting the creditworthiness standards shall notify the Office of the Interconnection whether it desires to accelerate or reschedule the transmission outage as set forth in the Acceleration Estimate, and if it desires to accelerate or reschedule the transmission outage, the amount it is willing to pay for such acceleration or rescheduling.

(iv) **Evaluation of Acceleration Requests.** Upon receipt of Market Participant(s) notifications pursuant to subsection 1.9.4A(b)(iii), the Office of the Interconnection shall determine, based on the amount Market Participants collectively are willing to pay for accelerating or rescheduling of the transmission outage, whether the transmission outage should be accelerated or rescheduled. The transmission outage shall be accelerated or rescheduled if the amount that the Market Participants collectively are willing to pay for accelerating or rescheduling a transmission outage exceeds the Acceleration Estimate by the following margins: (a) for outages to equipment outside a substation, two times the Acceleration Estimate; and (b) for outages to equipment inside a substation, five times the Acceleration Estimate. These margins are designed to provide a reasonable degree of certainty that the actual costs of accelerating or rescheduling the transmission outage will not exceed the amount the Market Participants are willing to pay. In all events, transmission outages will be accelerated or rescheduled pursuant to requests made under section 1.9.4A(c) only when the requested acceleration or rescheduling would reduce the amount of congestion revenue inadequacy resulting from the outage as determined by the Office of the Interconnection.

(v) **Cost Responsibility.** Each Market Participant which notifies the Office of the Interconnection pursuant to section 1.9.4A(b)(iii) that it is willing to pay for the acceleration or rescheduling of a transmission outage shall be responsible for the actual costs of such acceleration or rescheduling on a pro-rata basis based on the amount it specified it was willing to pay for the acceleration or rescheduling. Market Participants' cost responsibility is not relieved, if, despite the good faith efforts of the Transmission Owner, the amount of costs set forth in the Acceleration Estimate is exceeded by less than 20 percent, or the Transmission Owner is unable successfully to complete a transmission outage pursuant to the revised schedule set forth in the Acceleration Estimate. Prior to incurring costs exceeding 120 percent of the cost estimate set forth in the Acceleration Estimate, the affected Transmission Owner shall advise the Office of the Interconnection of such increase, and the Office of the Interconnection then shall notify the affected Market Participants of such increase

Within the time period set forth in the PJM Manuals, each affected Market Participant shall inform the Office of the Interconnection whether it desires to continue with the revised transmission outage schedule and pay the additional costs. The Office of the Interconnection then shall notify the affected Transmission Owner of each affected Market Participant's decision. In the event that, because one or more Market Participants determine not to proceed, there would be insufficient funds to pay for the full cost of accelerating or rescheduling a transmission outage, the transmission outage shall not continue to be accelerated or rescheduled and shall occur according to normal work practices. In such instance, the Market Participants shall be responsible on a pro-rata basis for all incurred costs and committed costs and obligations of the affected Transmission Owner as of the date the affected TransmissionOwner notified the Office of the Interconnection of the increase in costs.

(d) **Posting Revised Transmission Outages.** The Office of the Interconnection shall post on its internet site all revised transmission outage schedules resulting from implementation of this section 1.9.4A, pursuant to the procedures in the PJM Manuals, and simultaneously shall notify affected Market Participants or Generation Owners that submitted Acceleration Requests of the Transmission Owner's agreement to accelerate or reschedule the outage.

1.9.5 Market Participant Responsibilities.

Each Market Participant making a bilateral sale covering a period greater than the following Operating Day from a generating resource located within the PJM Region for delivery outside the PJM Region shall furnish to the Office of the Interconnection, in the form and manner specified in the

PJM Manuals, information regarding the source of the energy, the load sink, the energy schedule, and the amount of energy being delivered.

1.9.6 Internal Market Buyer Responsibilities.

Each Internal Market Buyer making a bilateral purchase covering a period greater than the following Operating Day shall furnish to the Office of the Interconnection, in the form and manner specified in the PJM Manuals, information regarding the source of the energy, the load sink, the energy schedule, and the amount of energy being delivered. Each Internal Market Buyer shall provide the Office of the Interconnection with details of any load management agreements with customers that allow the Office of the Interconnection to reduce load under specified circumstances.

1.9.7 Market Seller Responsibilities.

(a) Not less than 30 days before a Market Seller's initial offer to sell energy from a given generation resource on the PJM Interchange Energy Market, the Market Seller shall furnish to the Office of the Interconnection the information specified in the Offer Data for new generation resources.

(b) Market Sellers authorized to request market-based start-up and no-load fees may choose to submit such fees on either a market or a cost basis. Market Sellers must elect to submit both start-up and no-load fees on either a market basis or a cost basis and any such election shall be submitted on or before March 31 for the period of April 1 through September 30, and on or before September 30 for the period October 1 through March 31. The election of market-based or cost-based start-up and no-load fees shall remain in effect without change throughout the applicable periods.

(i) If a Market Seller chooses to submit market-based start-up and no-load fees, such Market Seller, in its Offer Data, shall submit the level of such fees to the Office of the Interconnection for each generating unit as to which the Market Seller intends to request such fees. The Office of the Interconnection shall reject any request for start-up and no-load fees in a Market Seller's Offer Data that does not conform to the Market Seller's specification on file with the Office of the Interconnection.

(ii) If a Market Seller chooses to submit cost-based start-up and no-load fees, such fees must be calculated as specified in the PJM Manuals and the Market Seller may change both cost-based fees daily and must change both fees as the associated costs change, but no more frequently than daily.

1.9.8 Transmission Owner Responsibilities.

All Transmission Owners shall regularly update and verify facility ratings, subject to review and approval by PJM, in accordance with the following procedures and the procedures in the PJM Manuals:

(a) Each Transmission Owner shall verify to the Operations Planning Department (or successor Department) of the Office of the Interconnection all of its transmission facility ratings two months prior to the beginning of the summer season (i.e., on April 1) and two months prior to the beginning of the winter season (i.e., on October 1) each calendar year, and shall provide detailed data justifying such transmission facility ratings when directed by the Office of the Interconnection.

(b) In addition to the seasonal verification of all ratings, each Transmission Owner shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection updates to its transmission facility ratings as soon as such Transmission Owner is aware of any changes. Such Transmission Owner shall provide the Office of the Interconnection with detailed data justifying all such transmission facility ratings changes.

(c) All Transmission Owners shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection formal documentation of any procedure for changing facility ratings under specific conditions, including: the detailed conditions under which such procedures will apply, detailed explanations of such procedures, and detailed calculations justifying such pre-established changes to facility ratings. Such procedures must be updated twice each year consistent with the provisions of this Section.

1.9.9 Office of the Interconnection Responsibilities.

(a) The Office of the Interconnection shall perform seasonal operating studies to assess the forecasted adequacy of generating reserves and of the transmission system, in accordance with the procedures specified in the PJM Manuals.

(b) The Office of the Interconnection shall maintain and update tables setting forth Operating Reserve and other reserve objectives as specified in the PJM Manuals and as consistent with the Reliability Assurance Agreement.

(c) The Office of the Interconnection shall receive and process requests for firm and non-firm transmission service in accordance with procedures specified in the PJM Tariff.

(d) The Office of the Interconnection shall maintain such data and information relating to generation and transmission facilities in the PJM Region as may be necessary or appropriate to conduct the scheduling and dispatch of the PJM Interchange Energy Market and PJM Region.

(e) The Office of the Interconnection shall maintain an historical database of all transmission facility ratings, and shall review, and may modify or reject, any submitted change or any submitted procedure for pre-established transmission facility rating changes. Any dispute between a Transmission Owner and the Office of the Interconnection concerning transmission facility ratings shall be resolved in accordance with the dispute resolution procedures in schedule 5 to the Operating Agreement; provided, however, that the rating level determined by the Office of the Interconnection shall govern and be effective during the pendency of any such dispute.

(f) The Office of the Interconnection shall coordinate with other interconnected Control Area as necessary to manage, alleviate or end an Emergency.

1.10 Scheduling.

1.10.1 General.

(a) The Office of the Interconnection shall administer scheduling processes to implement a Day-ahead Energy Market and a Real-time Energy market.

(b) The Day-ahead Energy Market shall enable Market Participants to purchase and sell energy through the PJM Interchange Energy Market at Day-ahead Prices and enable transmission customers to reserve transmission service with Transmission Congestion Charges and Transmission Loss Charges based on locational differences in Day-ahead Prices. Market Participants whose purchases and sales, and transmission customers whose transmission uses are scheduled in the Day-ahead Energy Market, shall be obligated to purchase or sell energy, or pay Transmission Congestion Charges and Transmission Loss Charges, at the applicable Day-ahead Prices for the amounts scheduled.

(c) In the Real-time Energy Market, Market Participants that deviate from the amounts of energy purchases or sales, or transmission customers that deviate from the transmission uses, scheduled in the Day-ahead Energy Market shall be obligated to purchase or sell energy, or pay Transmission Congestion Charges and Transmission Loss Charges, for the amount of the deviations at the applicable Real-time Prices or price differences, unless otherwise specified by this Schedule.

(d) The following scheduling procedures and principles shall govern the commitment of resources to the Day-ahead Energy Market and the Real-time Energy Market over a period extending from one week to one hour prior to the real-time dispatch. Scheduling encompasses the day-ahead and hourly scheduling process, through which the Office of the Interconnection determines the Day-ahead Energy Market and determines, based on changing forecasts of conditions and actions by Market Participants and system constraints, a plan to serve the hourly energy and reserve requirements of the Internal Market Buyers and the purchase requests of the External Market Buyers in the least costly manner, subject to maintaining the reliability of the PJM Region. Scheduling shall be conducted as specified below, subject to the following condition. If the Office of the Interconnection's forecast for the next seven days projects a likelihood of Emergency conditions, the Office of the Interconnection may commit, for all or part of such seven day period, to the use of generation resources with notification or start-up times greater than one day as necessary in order to alleviate or mitigate such Emergency, in accordance with the Market Sellers' offers for such units for such periods and the specifications in the PJM Manuals.

1.10.1A Day-ahead Energy Market Scheduling.

The following actions shall occur not later than 12:00 noon on the day before the Operating Day for which transactions are being scheduled, or such other deadline as may be specified by the Office of the Interconnection in order to comply with the practical requirements and the economic and efficiency objectives of the scheduling process specified in this Schedule.

(a) Each Market Participant may submit to the Office of the Interconnection specifications of the amount and location of its customer loads and/or energy purchases to be included in the Day-ahead Energy Market for each hour of the next Operating Day, such specifications to comply with the requirements set forth in the PJM Manuals. Each Market Buyer shall inform the Office of the Interconnection of the prices, if any, at which it desires not to include its load in the Day-ahead Energy Market rather than pay the Day-ahead Price.

(b) Each Generating Market Buyer shall submit to the Office of the Interconnection: (i) hourly schedules for resource increments, including hydropower units, self-scheduled by the Market Buyer to meet its Equivalent Load; and (ii) the Dispatch Rate at which each such self-scheduled resource will disconnect or reduce output, or confirmation of the Market Buyer's intent not to reduce output.

(c) All Market Participants shall submit to the Office of the Interconnection schedules for any bilateral transactions involving use of generation or Transmission Facilities as specified below, and shall inform the Office of the Interconnection whether the transaction is to be included in the Day-ahead Energy Market. Any Market Participant that elects to include a bilateral transaction in the Day-ahead Energy Market may specify the price (such price not to exceed the maximum price that may be specified in the PJM Manuals), if any, at which it will be wholly or partially curtailed rather than pay Transmission Congestion Charges. The foregoing price specification shall apply to the price difference between the specified bilateral transaction source and sink points in the day-ahead scheduling process only. Any Market Participant that elects not to include its bilateral transaction in the Day-ahead Energy Market shall inform the Office of the Interconnection if the parties to the transaction are not willing to incur Transmission Congestion Charges in the Real-time Energy Market in order to complete any such scheduled bilateral transaction. Scheduling of bilateral transactions shall be conducted in accordance with the specifications in the PJM Manuals and the following requirements:

i) Internal Market Buyers shall submit schedules for all bilateral purchases for delivery within the PJM Region, whether from generation resources inside or outside the PJM Region;

ii) Market Sellers shall submit schedules for bilateral sales to entities outside the PJM Region from generation within the PJM Region that is not dynamically scheduled to such entities pursuant to Section 1.12; and

iii) In addition to the foregoing schedules for bilateral transactions, Market Participants shall submit confirmations of each scheduled bilateral transaction from each other party to the transaction in addition to the party submitting the schedule, or the adjacent Control Area.

(d) Market Sellers wishing to sell into the Day-ahead Energy Market shall submit offers for the supply of energy (including energy from hydropower units), demand reductions, Regulation, Operating Reserves or other services for the following Operating Day. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, as applicable. Market Sellers owning or controlling the output of a Generation Capacity Resource that was committed in an FRR Capacity Plan, self-supplied, offered and cleared in a Base Residual Auction or Incremental Auction, or designated as replacement capacity, as specified in Attachment DD of the PJM Tariff, and that has not been rendered unavailable by a Generation Planned Outage, a Generator Maintenance Outage, or a Generation Forced Outage shall submit offers for the available capacity of such Generation Capacity Resource, including any portion that is self-scheduled by the Generating Market Buyer. The submission of offers for resource increments that have not cleared in a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, and were not designated as replacement capacity under Attachment DD of the PJM Tariff shall be optional, but any such offers must contain the information specified in the Office of the Interconnection's Offer Data specification, as applicable. Energy offered from generation resources that have not cleared a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, and were not designated as replacement capacity under Attachment DD of the PJM Tariff shall not be supplied from resources that are included in or otherwise committed to supply the Operating Reserves of a Control Area outside the PJM Region. The foregoing offers:

i) Shall specify the Generation Capacity Resource or Demand Resource and energy or demand reduction, amount, respectively, for each hour in the offer period, and the minimum run time for generation resources and minimum down time for Demand Resources;

ii) Shall specify the amounts and prices for the entire Operating Day for each resource component offered by the Market Seller to the Office of the Interconnection;

iii) If based on energy from a specific generating unit, may specify start-up and no-load fees equal to the specification of such fees for such unit on file with the Office of the Interconnection, if based on reductions in demand from a Demand Resource may specify shutdown costs;

iv) Shall set forth any special conditions upon which the Market Seller proposes to supply a resource increment, including any curtailment rate specified in a bilateral contract for the output of the resource, or any cancellation fees;

v) May include a schedule of offers for prices and operating data contingent on acceptance by the deadline specified in this Schedule, with a second schedule applicable if accepted after the foregoing deadline;

vi) Shall constitute an offer to submit the resource increment to the Office of the Interconnection for scheduling and dispatch in accordance with the terms of the offer, which offer shall remain open through the Operating Day for which the offer is submitted;

vii) Shall be final as to the price or prices at which the Market Seller proposes to supply energy or other services to the PJM Interchange Energy Market, such price or prices being guaranteed by the Market Seller for the period extending through the end of the following Operating Day; and

viii) Shall not exceed an energy offer price of $1,000/megawatt-hour.

(e) A Market Seller that wishes to make a resource available to sell Regulation service shall submit an offer for Regulation that shall specify the MW of Regulation being offered, the Regulation Zone for which such regulation is offered, the price of the offer in dollars per MWh, and such other information specified by the Office of the Interconnection as may be necessary to evaluate the offer and the resource's opportunity costs. The price of the offer shall not exceed $100 per MWh in the case of Regulation offered for all Regulation Zones. In addition to any market-based offer for Regulation, the Market Seller also shall submit a cost-based offer. A cost-based offer must be in the form specified in the PJM Manuals and consist of the following components as well as any other components specified in the PJM Manuals:

i. The costs (in $/MW) of the fuel cost increase due to the heat rate increase resulting from operating the unit at lower MW output incurred from the provision of Regulation;

ii. The cost increase (in \$/MW) in variable operating and maintenance costs resulting from operating the unit at lower MW output incurred from the provision of Regulation; and

iii. An adder of up to \$12.00 per MW of Regulation provided.

Qualified Regulation capability must satisfy the verification tests specified in the PJM Manuals.

(f) Each Market Seller owning or controlling the output of a Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative shall submit a forecast of the availability of each such Generation Capacity Resource for the next seven days. A Market Seller (i) may submit a non-binding forecast of the price at which it expects to offer a generation resource increment to the Office of the Interconnection over the next seven days, and (ii) shall submit a binding offer for energy, along with start-up and no-load fees, if any, for the next seven days or part thereof, for any generation resource with minimum notification or start-up requirement greater than 24 hours.

(g) Each offer by a Market Seller of a Generation Capacity Resource shall remain in effect for subsequent Operating Days until superseded or canceled.

(h) The Office of the Interconnection shall post on the PJM Open Access Same-time Information System the total hourly loads scheduled in the Day-ahead Energy Market, as well as, its estimate of the combined hourly load of the Market Buyers for the next four days, and peak load forecasts for an additional three days.

(i) Except for Economic Load Response Participants, all Market Participants may submit Increment Bids and/or Decrement Bids that apply to the Day-ahead Energy Market only. Such bids must comply with the requirements set forth in the PJM Manuals and must specify amount, location and price, if any, at which the Market Participant desires to purchase or sell energy in the Day-ahead Energy Market. The Office of the Interconnection may require that a market participant shall not submit in excess of 3000 bid/offer segments in the Day-ahead Energy Market, when the Office of the Interconnection determines that such limit is required to avoid or mitigate significant system performance problems related to bid/offer volume. Notice of the need to impose such limit shall be provided prior to 10:00 a.m. EPT on the day that the Day-ahead Energy Market will clear. For purposes of this provision, a bid/offer segment is each pairing of price and megawatt quantity submitted as part of an Increment Bid or Decrement Bid.

(j) A Market Seller that wishes to make a generation resource or Demand Resource available to sell Synchronized Reserve shall submit an offer for Synchronized Reserve that shall specify the megawatts of Synchronized Reserve being offered, the price of the offer in dollars per megawatt hour, and such other information specified by the Office of the Interconnection as may be necessary to evaluate the offer and the energy used by the generation resource to provide the Synchronized Reserve and the generation resource's unit specific opportunity costs. The price of the offer shall not exceed the variable operating and maintenance costs for providing Synchronized Reserve plus seven dollars and fifty cents.

(k) An Economic Load Response Participant that wishes to participate in the Day-ahead Energy Market by reducing demand shall submit an offer to reduce demand to the Office of the Interconnection. The offer shall specify: (i) the amount of the offered curtailment in minimum increments of .1 megawatts: (ii) the Day-ahead Locational Marginal Price above which the end-use customer will reduce load; and (iii) at the Economic Load Response Participant's option, start-up costs associated with reducing load, including direct labor and equipment costs, opportunity costs, and/or a minimum of number of contiguous hours for which the load reduction must be committed. Economic Load Response Participants submitting offers to reduce demand in the Day-ahead Energy Market may establish an incremental offer curve, provided that such offer curve shall be limited to ten price pairs (in MWs).

(l) Market Sellers owning or controlling the output of a Demand Resource that was committed in an FRR Capacity Plan, self-supplied or offered and cleared in the Base Residual Auction or one of the Incremental Auctions, or owning or controlling the output of an ILR resource which was certified as specified in Attachment DD of the PJM Tariff, may submit demand reduction bids for the available load reduction capability of the Demand Resource or ILR resource. The submission of demand reduction bids for resource increments that have not cleared in the Base Residual Auction or in one of the Incremental Auctions, or for ILR resources that were not certified, or were not committed in an FRR Capacity Plan, shall be optional, but any such bids must contain the information specified in the PJM Economic Load Response Program to be included in such bids. A Demand Resource that was committed in an FRR Capacity Plan, self-supplied or offered and cleared in a Base Residual Auction or an Incremental Auction may submit a demand reduction bid in the Day-ahead Energy Market as specified in the Economic Load Response Program, provided however, that in the event of an Emergency, PJM shall require Demand Resources and ILR resources to reduce load notwithstanding that the Zonal LMP at the time such Emergency is declared is below the price identified in the demand reduction bid.

(m) Market Sellers that wish to make Day-ahead Scheduling Reserves Resources available to sell Day-ahead Scheduling Reserves shall submit offers in the Day-ahead Scheduling Reserves Market specifying: 1) the price of the offer in dollars per megawatt hour; and 2) such other information specified by the Office of the Interconnection as may be necessary to determine any relevant opportunity costs for the resource(s). The foregoing notwithstanding, to qualify to submit offers pursuant to this section, the Day-ahead Scheduling Reserves Resources shall submit energy offers in the Day-ahead Energy Market including start-up and shut-down costs for generation resource and Demand Resources, respectively, and all generation resources that are capable of providing Day-ahead Scheduling Reseerves that a particular resource can provide that service. The MW quantity of Day-Ahead Scheduling Reserves that a particular resource can provide in a given hour will be determined based on the energy offer data submitted in the Day-Ahead Energy Market, as detailed in the PJM Manuals.

1.10.2 Pool-scheduled Resources.

Pool-scheduled resources are those resources for which Market Participants submitted offers to sell energy in the Day-ahead Energy Market and offers to reduce demand in the Day-ahead Energy Market, which the Office of the Interconnection scheduled in the Day-ahead Energy Market as well as generators committed by the Office of the Interconnection subsequent to the Day-ahead Energy Market. Such resources shall be committed to provide energy in the real-time dispatch unless the schedules for such units are revised pursuant to Sections 1.10.9 or 1.11. Pool-scheduled resources shall be governed by the following principles and procedures.

(a) Pool-scheduled resources shall be selected by the Office of the Interconnection on the basis of the prices offered for energy and demand reductions and related services, start-up, no-load and cancellation fees, and the specified operating characteristics, offered by Market Sellers to the Office of the Interconnection by the offer deadline specified in Section 1.10.1A.

(b) A resource that is scheduled by a Market Participant to support a bilateral sale, or that is self-scheduled by a Generating Market Buyer, shall not be selected by the Office of the Interconnection as a pool-scheduled resource except in an Emergency.

(c) Market Sellers offering energy from hydropower or other facilities with fuel or environmental limitations may submit data to the Office of the Interconnection that is sufficient to enable the Office of the Interconnection to determine the available operating hours of such facilities.

(d) The Market Seller of a resource selected as a pool-scheduled resource shall receive payments or credits for energy, demand reductions or related services, or for start-up and no-load fees, from the Office of the Interconnection on behalf of the Market Buyers in accordance with Section 3 of this Schedule 1. Alternatively, the Market Seller shall receive, in lieu of start-up and no-load fees, its actual costs incurred, if any, up to a cap of the resource's start-up cost, if the Office of the Interconnection cancels its selection of the resource as a pool-scheduled resource and so notifies the Market Seller before the resource is synchronized.

(e) Market Participants shall make available their pool-scheduled resources to the Office of the Interconnection for coordinated operation to supply the Operating Reserves needs of the applicable Control Zone.

(f) Economic Load Response Participants offering to reduce demand shall specify: (i) the amount of the offered curtailment in minimum increments of .1 megawatts; (ii) the Real-time Locational Marginal Price above which the end-use customer will reduce load; and (iii) at the Economic Load Response Participant's option, shut-down costs associated with reducing load, including direct labor and equipment costs, opportunity costs, and/or a minimum number of contiguous hours for which the load reduction must be committed. Economic Load Response Participants submitting offers to reduce demand in the Real-time Energy Market may establish an incremental offer curve, provided that such offer curve shall be limited to ten price pairs (in MWs). Economic Load Response Participants offering to reduce demand shall also indicate the hours that the demand reduction is not available.

1.10.3 Self-scheduled Resources.

Self-scheduled resources shall be governed by the following principles and procedures.

(a) Each Generating Market Buyer shall use all reasonable efforts, consistent with Good Utility Practice, not to self-schedule resources in excess of its Equivalent Load.

(b) The offered prices of resources that are self-scheduled, or otherwise not following the dispatch orders of the Office of the Interconnection, shall not be considered by the Office of the Interconnection in determining Locational Marginal Prices.

(c) Market Participants shall make available their self-scheduled resources to the Office of the Interconnection for coordinated operation to supply the Operating Reserves needs of the applicable Control Zone, by submitting an offer as to such resources.

(d) A Market Participant self-scheduling a resource in the Day-ahead Energy Market that does not deliver the energy in the Real-time Energy Market, shall replace the energy not delivered with energy from the Real-time Energy Market and shall pay for such energy at the applicable Real-time Price.

1.10.4 Capacity Resources.

(a) A Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative that is selected as a pool-scheduled resource shall be made available for scheduling and dispatch at the direction of the Office of the Interconnection. Such a Generation Capacity Resource that does not deliver energy as scheduled shall be deemed to have experienced a Generator Forced Outage to the extent of such energy not delivered. A Market Participant offering such Generation Capacity Resource in the Day-ahead Energy Market shall replace the energy not delivered with energy from the Real-time Energy Market and shall pay for such energy at the applicable Real-time Price.

(b) Energy from a Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative that has not been scheduled in the Day-ahead Energy Market may be sold on a bilateral basis by the Market Seller, may be self-scheduled, or may be offered for dispatch during the Operating Day in accordance with the procedures specified in this Schedule. Such a Generation Capacity Resource that has not been scheduled in the Day-ahead Energy Market and that has been sold on a bilateral basis must be made available upon request to the Office of the Interconnection for scheduling and dispatch during the

Operating Day if the Office of the Interconnection declares a Maximum Generation Emergency. Any such resource so scheduled and dispatched shall receive the applicable Real-time Price for energy delivered.

(c) A resource that has been self-scheduled shall not receive payments or credits for start-up or no-load fees.

1.10.5 External Resources.

(a) External Resources may submit offers to the PJM Interchange Energy Market, in accordance with the day-ahead and real-time scheduling processes specified above. An External Resource selected as a pool-scheduled resource shall be made available for scheduling and dispatch at the direction of the Office of the Interconnection, and except as specified below shall be compensated on the same basis as other pool-scheduled resources. External Resources that are not capable of dynamic dispatch shall, if selected by the Office of the Interconnection on the basis of the Market Seller's Offer Data, be block loaded on an hourly scheduled basis. Market Sellers shall offer External Resources to the PJM Interchange Energy Market on either a resource-specific or an aggregated resource basis. A Market Participant whose pool-scheduled resource does not deliver the energy scheduled in the Day-ahead Energy Market shall replace such energy not delivered as scheduled in the Day-ahead Energy Market with energy from the PJM Real-time Energy Market and shall pay for such energy at the applicable Real-time Price.

(b) Offers for External Resources from an aggregation of two or more generating units shall so indicate, and shall specify, in accordance with the Offer Data requirements specified by the Office of the Interconnection: (i) energy prices; (ii) hours of energy availability; (iii) a minimum dispatch level; (iv) a maximum dispatch level; and (v) unless such information has previously been made available to the Office of the Interconnection, sufficient information, as specified in the PJM Manuals, to enable the Office of the Interconnection to model the flow into the PJM Region of any energy from the External Resources scheduled in accordance with the Offer Data. If a Market Seller submits more than one offer on an aggregated resource basis, the withdrawal of any such offer shall be deemed a withdrawal of all higher priced offers for the same period.

(c) Offers for External Resources on a resource-specific basis shall specify the resource being offered, along with the information specified in the Offer Data as applicable.

1.10.6 External Market Buyers.

(a) Deliveries to an External Market Buyer not subject to dynamic dispatch by the Office of the Interconnection shall be delivered on a block loaded basis to the load bus or buses at the electrical boundaries of the PJM Region, or in such area with respect to an External Market Buyer's load within such area not served by Network Service, at which the energy is delivered to or for the External Market Buyer. External Market Buyers shall be charged or credited at either the Day-ahead Prices or Real-time Prices, whichever is applicable, for energy at the foregoing load bus or buses.

(b) An External Market Buyer's hourly schedules for energy purchased from the PJM Interchange Energy Market shall conform to the ramping and other applicable requirements of the interconnection agreement between the PJM Region and the Control Area to which, whether as an intermediate or final point of delivery, the purchased energy will initially be delivered.

(c) The Office of the Interconnection shall curtail deliveries to an External Market Buyer if necessary to maintain appropriate reserve levels for a Control Zone as defined in the PJM Manuals, or to avoid shedding load in such Control Zone.

1.10.6A Transmission Loading Relief Customers.

(a) An entity that desires to elect to pay Transmission Congestion Charges in order to continue its energy schedules during an Operating Day over contract paths outside the PJM Region in the event that PJM initiates Transmission Loading Relief that otherwise would cause PJM to request security coordinators to curtail such Member's energy schedules shall:

(i) enter its election on OASIS by 12:00 p.m. of the day before the Operating Day, in accordance with procedures established by PJM, which election shall be applicable for the entire Operating Day; and

(ii) if PJM initiates Transmission Loading Relief, provide to PJM, at such time and in accordance with procedures established by PJM, the hourly integrated energy schedules that impacted the PJM Region (as indicated from the NERC Interchange Distribution Calculator) during the Transmission Loading Relief.

(b) If an entity has made the election specified in Section (a), then PJM shall not request security coordinators to curtail such entity's energy transactions, except as may be necessary to respond to Emergencies.

(c) In order to make elections under this Section 1.10.6A, an entity must (i) have met the creditworthiness standards established by the Office of the Interconnection or provided a letter of credit or other form of security acceptable to the Office of the Interconnection, and (ii) have executed either the Agreement, a Service Agreement under the PJM Tariff, or other agreement committing to pay all Transmission Congestion Charges incurred under this Section.

1.10.7 Bilateral Transactions.

Bilateral transactions as to which the parties have notified the Office of the Interconnection by the deadline specified in Section 1.10.1A that they elect not to be included in the Day-ahead Energy Market and that they are not willing to incur Transmission Congestion Charges in the Real-time Energy Market shall be curtailed by the Office of the Interconnection as necessary to reduce or alleviate transmission congestion. Bilateral transactions that were not included in the Day-ahead Energy Market and that are willing to incur congestion charges and bilateral transactions that were accepted in the Day-ahead Energy Market shall continue to be implemented during periods of congestion, except as may be necessary to respond to Emergencies.

1.10.8 Office of the Interconnection Responsibilities.

(a) The Office of the Interconnection shall use its best efforts to determine (i) the least-cost means of satisfying the projected hourly requirements for energy, Operating Reserves, and other ancillary services of the Market Buyers, including the reliability requirements of the PJM

Region, of the Day-ahead Energy Market, and (ii) the least-cost means of satisfying the Operating Reserve and other ancillary service requirements for any portion of the load forecast of the Office of the Interconnection for the Operating Day in excess of that scheduled in the Day-ahead Energy Market. In making these determinations, the Office of the Interconnection shall take into account: (i) the Office of the Interconnection's forecasts of PJM Interchange Energy Market and PJM Control Area, and PJM West Region energy requirements, giving due consideration to the energy requirement forecasts and purchase requests submitted by Market Buyers; (ii) the offers submitted by Market Sellers; (iii) the availability of limited energy resources; (iv) the capacity, location, and other relevant characteristics of self-scheduled resources; (v) the objectives of each Control for Operating Reserves, as specified in the PJM Manuals; (vi) the requirements of each Regulation Zone for Regulation and other ancillary services, as specified in the PJM Manuals; (vii) the benefits of avoiding or minimizing transmission constraint control operations, as specified in the PJM Manuals; and (viii) such other factors as the Office of the Interconnection reasonably concludes are relevant to the foregoing determination, including, without limitation, transmission constraints on external coordinated flowgates to the extent provided by section 1.7.6. The Office of the Interconnection shall develop a Day-ahead Energy Market based on the foregoing determination, and shall determine the Day-ahead Prices resulting from such schedule. The Office of the Interconnection shall report the planned schedule for a hydropower resource to the operator of that resource as necessary for plant safety and security, and legal limitations on pond elevations.

(b) Not later than 4:00 p.m. of the day before each Operating Day, or such earlier deadline as may be specified by the Office of the Interconnection in the PJM Manuals, the Office of the Interconnection shall: (i) post the aggregate Day-ahead Energy Market; (ii) post the Day-ahead Prices; and (iii) inform the Market Sellers, Market Buyers, and Economic Load Response Participants of their scheduled injections, withdrawals, and demand reductions respectively.

(c) Following posting of the information specified in Section 1.10.8(b), the Office of the Interconnection shall revise its schedule of generation resources to reflect updated projections of load, conditions affecting electric system operations in the PJM Region, the availability of and constraints on limited energy and other resources, transmission constraints, and other relevant factors. The Office of the Interconnection shall post on the PJM Open Access Same-time Information System at times specified in the PJM Manuals a revised forecast of the location and duration of any expected transmission congestion, and of the range of differences in Locational Marginal Prices between major subareas of the PJM Region expected to result from such transmission congestion.

(d) Market Buyers shall pay and Market Sellers shall be paid for the quantities of energy scheduled in the Day-ahead Energy Market at the Day-ahead Prices. Economic Load Response Participants shall be paid for scheduled demand reductions pursuant to Section 3.3A of this Schedule.

1.10.9 Hourly Scheduling.

(a) Following the initial posting by the Office of the Interconnection of the Locational Marginal Prices resulting from the Day-ahead Energy Market, and subject to the right of the Office of the Interconnection to schedule and dispatch pool-scheduled resources and to direct that schedules be changed in an Emergency, a generation rebidding period shall exist from 4:00 p.m. to 6:00 p.m. on the day before each Operating Day. During the rebidding period, Market Participants may submit revisions to generation offer data for any generation resource that was not selected as a pool-scheduled resource in the Day-ahead Energy Market. Adjustments to Day-ahead Energy Markets shall be settled at the applicable Real-time Prices, and shall not affect the obligation to pay or receive payment for the quantities of energy scheduled in the Day-ahead Energy market at the applicable Day-ahead Prices.

(b) A Market Participant may adjust the schedule of a resource under its dispatch control on an hour-to-hour basis beginning at 10:00 p.m. of the day before each Operating Day, provided that the Office of the Interconnection is notified not later than 60 minutes prior to the hour in which the adjustment is to take effect, as follows:

i) A Generating Market Buyer may self-schedule any of its resource increments, including hydropower resources, not previously designated as self-scheduled and not selected as a pool-scheduled resource in the Day-ahead Energy Market;

ii) A Market Participant may request the scheduling of a non-firm bilateral transaction; or

iii) A Market Participant may request the scheduling of deliveries or receipts of Spot Market Energy; or

iv) A Generating Market Buyer may remove from service a resource increment, including a hydropower resource, that it had previously designated as self-scheduled, provided that the Office of the Interconnection shall have the option to schedule energy from any such resource increment that is a Capacity Resource at the price offered in the scheduling process, with no obligation to pay any start-up fee.

(c) With respect to a pool-scheduled resource that is included in the Day-ahead Energy Market, a Market Seller may not change or otherwise modify its offer to sell energy.

(d) An External Market Buyer may refuse delivery of some or all of the energy it requested to purchase in the Day-ahead Energy Market by notifying the Office of the Interconnection of the adjustment in deliveries not later than 60 minutes prior to the hour in which the adjustment is to take effect, but any such adjustment shall not affect the obligation of the External Market Buyer to pay for energy scheduled on its behalf in the Day-ahead Energy Market at the applicable Day-ahead Prices.

(e) For each hour in the Operating Day, as soon as practicable after the deadlines specified in the foregoing subsection of this Section 1.10, the Office of the Interconnection shall provide External Market Buyers and External Market Sellers and parties to bilateral transactions with any revisions to their schedules for the hour.

1.11 Dispatch.

The following procedures and principles shall govern the dispatch of the resources available to the Office of the Interconnection.

1.11.1 Resource Output.

The Office of the Interconnection shall have the authority to direct any Market Seller to adjust the output of any pool-scheduled resource increment within the operating characteristics specified in the Market Seller's offer. The Office of the Interconnection may cancel its selection of, or otherwise release, pool-scheduled resources, subject to an obligation to pay any applicable start-up, no-load or cancellation fees. The Office of the Interconnection shall adjust the output of pool-scheduled resource increments as necessary: (a) to maintain reliability, and subject to that constraint, to minimize the cost of supplying the energy, reserves, and other services required by the Market Buyers and the operation of the PJM Region; (b) to balance load and generation, maintain scheduled tie flows, and provide frequency support within the PJM Region; and (c) to minimize unscheduled interchange not frequency related between the PJM Region and other Control Areas.

1.11.2 Operating Basis.

In carrying out the foregoing objectives, the Office of the Interconnection shall conduct the operation of the PJM Region in accordance with the PJM Manuals, and shall: (i) utilize available generating reserves and obtain required replacements; and (ii) monitor the availability of adequate reserves.

1.11.3 Pool-dispatched Resources.

(a) The Office of the Interconnection shall implement the dispatch of energy from pool-scheduled resources with limited energy by direct request. In implementing mandatory or economic use of limited energy resources, the Office of the Interconnection shall use its best efforts to select the most economic hours of operation for limited energy resources, in order to make optimal use of such resources consistent with the dynamic load-following requirements of the PJM Region and the availability of other resources to the Office of the Interconnection.

(b) The Office of the Interconnection shall implement the dispatch of energy from other pool-dispatched resource increments, including generation increments from Capacity Resources the remaining increments of which are self-scheduled, by sending appropriate signals and instructions to the entity controlling such resources, in accordance with the PJM Manuals. Each Market Seller shall ensure that the entity controlling a pool-dispatched resource offered or made available by that Market Seller complies with the energy dispatch signals and instructions transmitted by the Office of the Interconnection.

1.11.3A Maximum Generation Emergency.

If the Office of the Interconnection declares a Maximum Generation Emergency, all deliveries to load that is served by Point-to-Point Transmission Service outside the PJM Region from Generation Capacity Resources committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative may be interrupted in order to serve load in the PJM Region.

1.11.4 Regulation.

(a) A Market Buyer may satisfy its Regulation Obligation from its own generation resources and/or Demand Resources capable of performing Regulation service, by contractual arrangements with other Market Participants able to provide Regulation service, or by purchases from the PJM Interchange Energy Market at the rates set forth in Section 3.2.2.

(b) The Office of the Interconnection shall obtain Regulation service from the least-cost alternatives available from either pool-scheduled or self-scheduled generation resources and/or Demand Resources as needed to meet Regulation Zone requirements not otherwise satisfied by the Market Buyers. Generation resources or Demand Resources offering to sell Regulation shall be selected to provide Regulation on the basis of each generation resource's and Demand Resource's regulation offer and the estimated opportunity cost of a resource providing regulation and in accordance with the Office of the Interconnection's obligation to minimize the total cost of energy, Operating Reserves, Regulation, and other ancillary services. Estimated opportunity costs for generation resources shall be determined by the Office of the Interconnection on the basis of the expected value of the energy sales that would be foregone or uneconomic energy that would be produced by the resource in order to provide Regulation, in accordance with procedures specified in the PJM Manuals. Estimated opportunity costs for Demand Resources will be zero. If the Office of the Interconnection is not able to distinguish resources offering Regulation on the basis of their regulation offers and estimated opportunity costs, resources shall be selected on the basis of the quality of Regulation provided by the resource as determined by tests administered by the Office of the Interconnection.

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

1.11.4A Synchronized Reserve.

(a) A Market Buyer may satisfy its Synchronized Reserve Obligation from its own generation resources and/or Demand Resources capable of providing Synchronized Reserve, by contractual arrangements with other Market Participants able to provide Synchronized Reserve, or by purchases from the PJM Synchronized Reserve Market at the rates set forth in Section 3.2.3A.

(b) The Office of the Interconnection shall obtain Synchronized Reserve from the least-cost alternatives available from either pool-scheduled or self-scheduled generation resources and/or Demand Resources as needed to meet the Synchronized Reserve requirements of each Synchronized Reserve Zone of the PJM Region not otherwise satisfied by the Market Buyers. Resources offering to sell Synchronized Reserve shall be selected to provide Synchronized Reserve on the basis of each generation resource's and/or Demand Resource's Synchronized Reserve offer and the estimated unit specific opportunity cost of the resource providing Synchronized Reserve, and in accordance with the Office of the Interconnection's obligation to minimize the total cost of energy, Operating Reserves, Synchronized Reserve and other ancillary services. Estimated unit specific opportunity costs for generation resources shall be equal to the sum of (i) the product of (A) the megawatts of energy used by the generation resource to provide Synchronized Reserve as submitted as part of the generation resource's Synchronized Reserve offer times (B) the Locational Marginal Price at the generation bus of the generation resource, and (ii) the product of (A) the deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order, times (B) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the resource) in the PJM Interchange Energy Market. Opportunity costs for Demand Resources will be zero.

(c) The Office of the Interconnection shall dispatch generation resources and/or Demand Resources for Synchronized Reserve by sending Synchronized Reserve instructions to generation resources and/or Demand Resources from which Synchronized Reserve has been offered by Market Sellers, in accordance with the PJM Manuals. Market Sellers shall comply with Synchronized Reserve dispatch instructions transmitted by the Office of the

Interconnection and, in the event of a conflict, Synchronized Reserve dispatch instructions shall take precedence over energy dispatch signals and instructions. Market Sellers shall exert all reasonable efforts to operate, or ensure the operation of, their generation resources supplying load in the PJM Region as close to desired output levels as practical, consistent with Good Utility Practice.

1.11.5 PJM Open Access Same-time Information System.

The Office of the Interconnection shall update the information posted on the PJM Open Access Same-time Information System to reflect its dispatch of generation resources.

1.12 Dynamic Scheduling.

(a) An entity that owns or controls a generating resource in the PJM Region may request that the Transmission Provider electrically remove all or part of the generating resource's output from the PJM Region through dynamic scheduling of the output to load outside the PJM Region. Such output shall not be available for economic dispatch by the Office of the Interconnection. A generating unit otherwise eligible pursuant to section 3.2.3 to submit start-up and no-load values for consideration in calculation of the Operating Reserve Credit shall not be so eligible if all of the output of the unit is dynamically scheduled outside of the PJM Region.

(b) An entity that owns or controls a generating resource outside of the PJM Region may request that the Transmission Provider electrically add all or part of the generating resource's output to the PJM Region through dynamic scheduling of the output to load inside the PJM Region. A generating unit otherwise eligible pursuant to section 3.2.3 to submit start-up and no-load values for consideration in calculation of the Operating Reserve Credit shall be so eligible only if all of the output of the unit is dynamically scheduled into the PJM Region.

(c) The Transmission Provider shall implement dynamic scheduling pursuant to a request under subsections (a) or (b) above, provided that the requesting entity can demonstrate to the satisfaction of the Transmission Provider that the requesting entity has arranged for the provision of signal processing and communications from the generator to the Office of the Interconnection and other participating control areas and remains in compliance with any other procedures and operational requirements established by the Office of the Interconnection regarding dynamic scheduling as set forth in the PJM Manuals.

(d) An entity requesting dynamic scheduling shall be responsible for reserving amounts of firm or non-firm transmission service necessary to deliver the range of the dynamic transfer and any required ancillary services.

(e) The generating unit shall cooperate with PJM to ensure that changes in the dynamic schedule value do not adversely impact PJM's management of the PJM Area Control Error in a manner unacceptable to PJM, and, in the event that PJM, in its sole discretion, determines that the generating unit's actions in this regard are unacceptable, PJM may terminate the dynamic scheduling arrangement and may require such additional conditions as it deems appropriate prior to any further dynamic scheduling.

2. CALCULATION OF LOCATIONAL MARGINAL PRICES

2.1 Introduction.

The Office of the Interconnection shall calculate the price of energy at the load busses and generation busses in the PJM Region and at the Interface Pricing Points between adjacent Control Areas and the

PJM Region on the basis of Locational Marginal Prices. Locational Marginal Prices determined in accordance with this Section shall be calculated on a day-ahead basis for each hour of the Day-ahead Energy Market, and every five minutes the Operating Day for the Real-time Energy Market.

2.2 General.

The Office of the Interconnection shall determine the least cost security-constrined dispatch, which is the least costly means of serving load at different locations in the PJM Region based on actual operating conditions existing on the power grid (including transmission constraints on external coordinated flowgates to the extent provided by section 1.7.6) and on the prices at which Market Sellers have offered to supply energy and offers bu Economic Load Response Participants to reduce demand that qualify to set Locational Marginal Prices in the PJM Interchange Energy Market. Locational Marginal Prices for the generation and load busses in the PJM Region, including interconnections with other Control Areas, will be calculated based on the actual economic dispatch and the prices of energy and demand reduction offers. The process for the determination of Locational Marginal Prices shall be as follows:

(a) To determine actual operating conditions on the power grid in the PJM Region, the Office of the Interconnection shall use a computer model of the interconnected grid that uses available metered inputs regarding generator output, loads, and power flows to model remaining flows and conditions, producing a consistent representation of power flows on the network. The computer model employed for this purpose, referred to as the State Estimator program, is a standard industry tool and is described in Section 2.3 below. It will be used to obtain information regarding the output of generation supplying energy to the PJM Region, loads at buses in the PJM Region, transmission losses, and power flows on binding transmission constraints for use in the calculation of Locational Marginal Prices. Additional information used in the calculation, including Dispatch Rates and real time schedules for external transactions between PJM and other Control Areas and dispatch and pricing information from entities with whom PJM has executed a joint operating agreement, will be obtained from the Office of the Interconnection's dispatchers.

(b) Using the prices at which energy is offered by Market Sellers and demand reductions are offered by Economic Load Response Participants to the PJM Interchange Energy Market, the Office of the Interconnection shall determine the offers of energy and demand reductions that will be considered in the calculation of Locational Marginal Prices. As described in Section 2.4 below, every qualified offer for demand reduction and of energy by a Market Seller from resources that are following economic dispatch instructions of the Office of the Interconnection will be utilized in the calculation of Locational Marginal Prices. Offers of demand reduction from Demand Resources in the Real-time Energy Market will not be eligible to set Locational Marginal Prices, unless metered directly by the Office of the Interconnection.

(c) Based on the system conditions on the PJM power grid, determined as described in (a), and the eligible energy and demand reduction offers, determined as described in (b), the Office of the Interconnection shall determine the least costly means of obtaining energy to serve the next increment of load at each bus in the PJM Region, in the manner described in Section 2.5 below. The result of that calculation shall be a set of Locational Marginal Prices based on the system conditions at the time.

2.3 Determination of System Conditions Using the State Estimator.

Power system operations, including, but not limited to, the determination of the least costly means of serving load, depend upon the availability of a complete and consistent representation of generator outputs, loads, and power flows on the network. In calculating Locational Marginal Prices, the Office of the Interconnection shall obtain a complete and consistent description of conditions on the electric network in the PJM Region by using the most recent power flow solution produced by the State Estimator, which is also used by the Office of the Interconnection for other functions within power system operations. The State Estimator is a standard industry tool that produces a power flow model based on available real-time metering information, information regarding the current status of lines, generators, transformers, and other equipment, bus load distribution factors, and a representation of the electric network, to provide a complete description of system conditions, including conditions at buses for which real-time information is unavailable. The Office of the Interconnection shall obtain a State Estimator solution every five minutes, which shall provide the megawatt output of generators and the loads at buses in the PJM Region, transmission line losses, and actual flows or loadings on constrained transmission facilities. External transactions between PJM and other Control Areas shall be included in the Locational Marginal Price calculation on the basis of the real time transaction schedules implemented by the Office of the Interconnection's dispatcher.

2.4 Determination of Energy Offers Used in Calculating Real-time Prices.

(a) During the Operating Day, real-time Locational Marginal Prices derived in accordance with this Section shall be determined every five minutes and integrated hourly values of such determinations shall be the basis of sales and purchases of energy in the Real-time Energy Market and of Transmission Congestion Charges under the PJM Tariff not covered by the Day-ahead Energy Market.

(b) To determine the energy offers submitted to the PJM Interchange Energy Market that shall be used during the Operating Day to calculate the Real-time Prices, the Office of the Interconnection shall determine which resources are following its economic dispatch instructions. A resource will be considered to be following economic dispatch instructions and shall be included in the calculation of Real-time Prices if:

i) the applicable price bid by a Market Seller for energy from the resource is less than or equal to the Dispatch Rate for the area of the PJM Region in which the resource is located; or

ii) the resource is specifically requested to operate by the Office of the Interconnection's dispatcher.

(c) In determining whether a resource satisfies the condition described in (b), the Office of the Interconnection will determine the bid price associated with an energy offer by comparing the actual megawatt output of the resource with the Market Seller's offer price curve. Because of practical generator response limitations, a resource whose megawatt output is not ten percent more than the megawatt level specified on the offer price curve for the applicable Dispatch Rate shall be deemed to be following economic dispatch instructions, but the energy price offer used in the calculation of Real-time Prices shall not exceed the applicable Dispatch Rate. Units that must be run for local area protection shall not be considered in the calculation of Real-time Prices.

2.5 Calculation of Real-time Prices.

(a) The Office of the Interconnection shall determine the least costly means of obtaining energy to serve the next increment of load at each bus in the PJM Region represented in the State Estimator and each Interface Pricing Point between PJM and an adjacent Control Area, based on the system conditions described by the most recent power flow solution produced by the State Estimator program and the energy offers that are the basis for the Day-ahead Energy Market, or that are determined to be eligible for consideration under Section 2.4 in connection with the real-time dispatch, as applicable. This calculation shall be made by applying an incremental linear optimization method to minimize energy costs, given actual system conditions, a set of energy offers, and any binding transmission constraints that may exist. In performing this calculation, the Office of the Interconnection shall calculate the cost of serving an increment of load at each bus from each resource associated with an eligible energy offer as the sum of the following components of Locational Marginal Price: (1) System Energy Price, which is the price at which the Market Seller has offered to supply an additional increment of energy from a generation resource or decrease an increment of energy being consumed by a Demand Resource, (2) Congestion Price, which is the effect on transmission congestion costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource, based on the effect of increased generation from the resource on transmission line loadings, and (3) Loss Price, which is the effect on transmission loss costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource based on the effect of increased generation from or consumption by the resource on transmission losses.

increment of load at a bus at the lowest cost, calculated in this manner, shall determine the Real-time Price at that bus.

(b) During the Operating Day, the calculation set forth in (a) shall be performed every five minutes, using the Office of the Interconnection's Locational Marginal Price program, producing a set of Real-time Prices based on system conditions during the preceding interval. The prices produced at five-minute intervals during an hour will be integrated to determine the Real-time Prices for that hour.

2.6 Calculation of Day-ahead Prices.

For the Day-ahead Energy Market, day-ahead Locational Marginal Prices shall be determined on the basis of the least-cost, security-constrained dispatch, model flows and system conditions resulting from the load specifications, offers for generation, dispatchable load, Increment Bids, Decrement Bids, offers for demand reductions, and bilateral transactions submitted to the Office of the Interconnection and scheduled in the Day-ahead Energy Market. Such prices shall be determined in accordance with the provisions of this Section applicable to the Day-ahead Energy Market and shall be the basis for purchases and sales of energy and Transmission Congestion Charges resulting from the Day-ahead Energy Market. This calculation shall be made for each hour in the Day-ahead Energy Market by applying a linear optimization method to minimize energy costs, given scheduled system conditions, scheduled transmission outages, and any transmission limitations that may exist. In performing this calculation, the Office of the Interconnection shall calculate the cost of serving an increment of load at each bus from each resource associated with an eligible energy offer as the sum of the following components of Locational Marginal Price: (1) System Energy Price, which is the price at which the Market Seller has offered to supply an additional increment of energy from a resource, (2) Congestion Price, which is the effect on transmission congestion costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing consumption by a Demand Resource, based on the effect of increased generation from the resource on transmission line loadings, and (3) Loss Price, which is the effect on transmission loss costs (whether positive or negative) associated with increasing the output of a generation resource or decreasing the consumption by a Demand Resource based on the effect of increased generation from or consumption by the resource on transmission line losses. The energy offer or offers that can serve an increment of load at a bus at the lowest cost, calculated in this manner, shall determine the Day-ahead Price at that bus.

2.6A Interface Prices

PJM shall from time to time, as appropriate, define and revise Interface Pricing Points for purposes of calculating LMPs for energy exports to or energy imports from external balancing authority areas. Such Interface Pricing Points may represent external balancing authority areas, aggregates of external balancing authority areas, or portions of any external balancing authority area. Subject to the terms of this Section 2.6A, PJM may define Interface Pricing Points and interface pricing methods for a sub-area of a balancing authority area different from the pricing points and interface pricing methods applicable to the adjacent balancing authority area where the sub-area is located, and no action of the balancing authority area or any entity whose transactions do not source and/or sink within the sub-area shall affect the pricing points or interface pricing methods established for such sub-area. Definitions of Interface Pricing Points and price calculation methodologies may vary, depending on such factors as whether an external balancing authority area operates an organized electric market with locational pricing, whether the external balancing authority has entered an interregional congestion management agreement with PJM, and the availability of data from the external balancing authority area on such relevant items as unit costs, run status, and output. PJM shall negotiate in good faith with any external balancing authority that seeks to enter into an interregional congestion management agreement with PJM, and will file such agreement, upon execution, with the Commission. In the event PJM and an external balancing authority do not reach a mutually acceptable agreement, the external balancing authority may request, and PJM shall file with the Commission within 90 days after such request, an unexecuted congestion management agreement for such balancing authority. Nothing herein precludes PJM from entering into agreements with external resource owners for the dynamic scheduling of such resources, as contemplated by section 1.12 of this Appendix, at prices determined in accordance with such agreements. Acceptable pricing point definitions and pricing methodologies include, but are not limited to, the following:

(a) External Balancing Authority Areas that are Part of Larger Centrally Dispatched Organizations. PJM shall determine a set of nodes external to the PJM system representing an external balancing authority area or set of balancing authority areas via flow analysis, utilizing standard power flow analysis tools, of the impact of transactions from the balancing authority area or areas on the transmission facilities connecting PJM with such external area(s). PJM shall then weight the contribution of each identified node to the calculation of the interface price. For each Interface Pricing Point, a set of tie lines will be defined and each node in the interface definition will be assigned to a tie line. PJM shall utilize the sensitivity of the tie lines to an injection at each external pricing point to weight the node associated with that tie line in the Interface Pricing Point calculation, as more fully described in the PJM Manuals.

(b) External Areas that are Not Part of Larger Centrally Dispatched Organizations. PJM may define pricing points aggregating multiple directly or non-directly connected external balancing authority areas that are not part of larger centrally dispatched organizations. Prices at such points representing aggregated balancing authority areas shall be determined as described in paragraph (a) above; provided, however, that PJM shall define Interface Pricing Points corresponding to individual, directly connected balancing authority areas, and establish alternative pricing methodologies for use as to such areas, to the extent that necessary supporting data is provided from the external area, as follows:

(1) PJM will define an Interface Pricing Point corresponding to a directly connected individual external balancing authority area or sub-area within a directly connected balancing authority area and determine prices in accordance with High-Low Pricing, as defined in section (A) below, if the balancing authority area or sub-area within the balancing authority area provides the data described in section (B) below.

(A) Under High-Low Pricing, the price for imports of energy to PJM from the external balancing authority area shall equal the LMP calculated by PJM at the generator bus in such area with an output greater than 0 MW that has the lowest price in such area; and the price for exports of energy from PJM to the external balancing authority area shall equal the price at the generator bus in such area with an output greater than 0 MW that has the highest price in such area, updated every 5 minutes and aggregated on an hourly basis in the real time market and calculated for each hour in the Day-Ahead market, to the extent and for the periods that the information described below is provided.

(B) Such pricing point and pricing methodology shall be provided only to the extent the external balancing authority area or sub-area provides or causes to be provided to PJM real-time telemetered load, generation and similar data for such area or sub-area demonstrating that the transaction receiving such pricing sources, or sinks as appropriate, in such area or sub-area. Such data shall be of the type and in the form specified in the PJM Manuals. If such data is provided, any transaction, regardless of participant, sourcing or sinking in such area will be priced in accordance with section (A) above. During any hour in which any entity makes any purchases from other external areas outside of such area or sub-area (other than delivery of external designated network resources or such other exceptions specifically documented for such area or sub-area in the

PJM Manuals) at the same time that energy sales into PJM are being made, or purchases energy from PJM for delivery into such area or sub-area while sales from such area to other external areas are simultaneously implemented (subject to any exceptions specifically documented for such area or sub-area in the PJM Manuals), pricing will revert to the applicable import or export pricing point that would otherwise be assigned to such external area or sub-area.

(2) PJM will define an Interface Pricing Point corresponding to an individual external balancing authority area or sub-area within a directly connected balancing authority area and determine prices in accordance with Marginal Cost Proxy Pricing, as defined in section (A) below, if the balancing authority area or sub-area within a directly connected balancing authority area provides, in addition to the data specified in section (1)(B) above, the data described in section (B) below; provided, however, that such pricing methodology shall terminate, and pricing shall be governed by the methodology described in subsection (a) or (b)(1) above, as applicable, on January 31, 2010 for any external balancing authority area that has not executed an interregional congestion management agreement with the Office of the Interconnection prior to January 31, 2010.

(A) Under Marginal Cost Proxy Pricing, PJM shall compare the individual bus LMP for each generator in the PJM model in the directly connected balancing authority area or sub-area having a telemetered output greater than zero MW to the marginal cost for that generator.

In real time, during each 5-minute calculation of LMPs for the PJM Region, PJM shall calculate the energy price for imports to PJM from such area or sub-area as the lowest LMP of any generator bus in such area or sub-area with an output greater than 0 MW that has an LMP less than its marginal cost for such 5-minute interval. If no generator with an output greater than 0 MW has an LMP less than its marginal cost, then the import price shall be the average of the bus LMPs for the set of generators in such area with an output greater than 0 MW that PJM determines to be the marginal units in that area for that 5-minute interval. PJM shall determine the set of marginal units in the external area by summing the output of the units serving load in that area in ascending order of the units' marginal costs until such sum equals the real time load in such external area. Units in the external area with marginal costs at or above that of the last unit included in the sum shall be the marginal units for that area for that interval.

PJM similarly shall calculate the energy price for exports from PJM to such area or sub-area as the highest LMP of any generator bus in such area or sub-area with an output greater than 0 MW that has an LMP greater than its marginal cost for such 5-minute interval. If no generator with an output greater than 0 MW has an LMP greater than its marginal cost, then the export price shall be the average of the bus LMPs for the set of generators with an output greater than 0 MW that PJM determines to be the marginal units in such area for that 5-minute interval, as described above.

The hourly integrated import and export prices will be the average of all 5-minute interval prices during such hour.

Locational interface prices in the Day-ahead Market shall be calculated in the same manner as set forth above for the Real-time Market, utilizing information regarding whether each unit in such area is scheduled to run for each hour of the following day, provided as specified in paragraph (B) below.

(B) Such pricing point and pricing methodology shall be provided only to the extent the external balancing authority area or sub-area provides or causes to be provided to PJM (i) unit-specific, real time telemetered output data for each unit in the PJM network model in such area or sub-area; (ii) unit-specific marginal cost data for each unit in the PJM network model in such area or sub-area, prepared in accordance with the PJM Manuals and subject to the same review of the PJM Independent Market Monitor as any such cost data for internal PJM units; and iii) a day-ahead indication for each unit in such area or sub-area as to whether that unit is scheduled to run for each hour of the following day. During any hour in which any entity makes any purchases from other external areas outside of such area or sub-area (other than delivery of external designated network resources or such other exceptions specifically documented for such area or sub-area in the PJM Manuals) at the same time that energy sales into PJM are being made, or purchases energy from PJM for delivery into such area or sub-area while sales from such area to other external areas are simultaneously implemented (subject to any exceptions specifically documented for such area or sub-area in the PJM Manuals), pricing will revert to the applicable import or export pricing point that would otherwise be assigned to such external area or sub-area.

(C) PJM shall post the individual generator bus LMPs in the directly connected external control areas for informational purposes; provided, however, that no settlement shall take place at such external bus LMPs, and such nodes shall not be available for virtual trading in the PJM Day-Ahead Energy Market.

(3) All data provided to PJM by balancing and/or reliability authorities hereunder will be used only for the purpose of implementing the interface pricing set forth herein, will be treated confidentially by PJM, and will be afforded the same treatment provided to Member confidential data under the PJM Operating Agreement.

(4) PJM reserves the right to audit the data supplied to PJM hereunder by giving written notice to the relevant balancing/reliability authority/market operator no more than three months following provision of such data, and at least ten (10) business days in advance of the date that PJM wishes to initiate such audit, with completion of the audit occurring within sixty (60) days of such notice. Each party shall be responsible for its own expenses related to any such audit.

2.7 Performance Evaluation.

The Office of the Interconnection shall undertake an evaluation of the foregoing procedures for the determination of Locational Marginal Prices, as well as the procedures for determining and allocating Financial Transmission Rights and associated Transmission Congestion Charges and Credits, not less often than every two years, in accordance with the PJM Manuals. To the extent practical, the Office of the Interconnection shall retain all data needed to perform comparisons and other analyses of locational marginal pricing. The Office of the Interconnection shall report the results of its evaluation to the Market Participants, along with its recommendations, if any, for changes in the procedures. The Office of the Interconnection shall prepare reports, with regard to participation of Economic Load Response Participants in the PJM Interchange Energy Market, as required by the FERC and the PJM Manuals.

3. ACCOUNTING AND BILLING

3.1 Introduction.

This schedule sets forth the accounting and billing principles and procedures for the purchase and sale of services on the PJM Interchange Energy Market and for the operation of the PJM Region.

3.2 Market Buyers.

3.2.1 Spot Market Energy Charges.

(a) The Office of the Interconnection shall calculate System Energy Prices in the form of Day-ahead System Energy Prices and Real-time System Energy Prices for the PJM Region, in accordance with Section 2 of this Schedule.

(b) Market Buyers shall be charged for all load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served from the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead System Energy Price.

(c) Generating Market Buyers shall be paid for all energy scheduled to be delivered to the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead System Energy Price.

(d) At the end of each hour during an Operating Day, the Office of the Interconnection shall calculate the total amount of net hourly PJM Interchange for each Market Buyer, including Generating Market Buyers, in accordance with the PJM Manuals. For Internal Market Buyers that are Load Serving Entities or purchasing on behalf of Load Serving Entities, this calculation shall include determination of the net energy flows from: (i) tie lines; (ii) any generation resource the output of which is controlled by the Market Buyer but delivered to it over another entity's Transmission Facilities; (iii) any generation resource the output of which is controlled by another entity but which is directly interconnected with the Market Buyer's transmission system; (iv) deliveries pursuant to bilateral energy sales; (v) receipts pursuant to bilateral energy purchases; and (vi) an adjustment to account for the day-ahead PJM Interchange, calculated as the difference between scheduled withdrawals and injections by that Market Buyer in the Day-ahead Energy Market. For External Market Buyers and Internal Market Buyers that are not Load Serving Entities or purchasing on behalf of Load Serving Entities, this calculation shall determine the energy scheduled hourly for delivery to the Market Buyer net of the amounts scheduled by the External Market Buyer in the Day-ahead Energy Market.

(e) An Internal Market Buyer shall be charged for Spot Market Energy purchases to the extent of its hourly net purchases from the PJM Interchange Energy Market, determined as specified in Section 3.2.1(d) above. An External Market Buyer shall be charged for its Spot Market Energy purchases based on the energy delivered to it, determined as specified in Section 3.2.1(d) above. The total charge shall be determined by the product of the hourly net amount of PJM Interchange Imports times the hourly Real-time System Energy Price for that Market Buyer.

(f) A Generating Market Buyer shall be paid as a Market Seller for sales of Spot Market Energy to the extent of its hourly net sales into the PJM Interchange Energy Market, determined as specified in Section 3.2.1(d) above. The total payment shall be determined by the product of the hourly net amount of PJM Interchange Exports times the hourly Real-time System Energy Price for that Market Seller.

3.2.2 Regulation.

(a) Each Internal Market Buyer that is a Load Serving Entity in a Regulation Zone shall have an hourly Regulation objective equal to its *pro rata* share of the Regulation requirements of such Regulation Zone for the hour, based on the Market Buyer's total load (net of operating Behind The Meter Generation, but not to be less than zero) in such Regulation Zone for the hour ("Regulation Obligation"). An Internal Market Buyer that does not meet its hourly Regulation obligation shall be charged for Regulation dispatched by the Office of the Interconnection to meet such obligation at the Regulation market-clearing price determined in accordance with paragraph (c) of this Section, plus the amounts, if any, described in paragraph (f) of this section.

(b) A Generating Market Buyer supplying Regulation in a Regulation Zone at the direction of the Office of the Interconnection in excess of its hourly Regulation obligation shall be credited for each increment of such Regulation at the higher of (i) the Regulation market-clearing price in such Regulation Zone or (ii) the sum of the regulation offer and the unit-specific opportunity cost of the generation resource supplying the increment of Regulation, as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

(c) The Regulation market-clearing price in each Regulation Zone shall be determined at a time to be determined by the Office of the Interconnection which shall be no earlier than the day before the Operating Day. The market-clearing price for each regulating hour shall be equal to the highest sum of a resource's Regulation offer plus its estimated unit-specific opportunity costs, determined as described in paragraph (d) below from among the resources selected to provide Regulation. A resource's Regulation offer by any Market Seller that fails the three-pivotal supplier test set forth in section 3.3.2A.1 of this Schedule shall not exceed the cost of providing Regulation from such resource, plus twelve dollars, as determined pursuant to the formula in section 1.10.1A(e) of this Schedule.

(d) In determining the Regulation market-clearing price for each Regulation Zone, the estimated unit-specific opportunity costs of a generation resource offering to sell Regulation in each regulating hour shall be equal to the sum of the unit-specific opportunity costs (i) incurred during the hour in which the obligation is fulfilled, plus costs (ii) associated with uneconomic operation during the hour preceding the initial regulating hour ("preceding shoulder hour"), plus costs (iii) associated with uneconomic operation during the hour after the final regulating hour ("following shoulder hour").

The unit-specific opportunity costs incurred during the hour in which the Regulation obligation is fulfilled shall be equal to the product of (i) the deviation of the set point of the generation resource that is expected to be required in order to provide Regulation from the generation resource's expected output level if it had been dispatched in economic merit order times (ii) the absolute value of the difference between the expected Locational Marginal Price at the generation bus for the generation resource and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the megawatt level of the Regulation set point for the resource) in the PJM Interchange Energy Market.

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The unit-specific opportunity costs associated with uneconomic operation during the preceding shoulder hour shall be equal to the product of (i) the deviation between the set point of the generation resource that is expected to be required in the initial regulating hour in order to provide Regulation and the lesser of the resource's actual or expected output in the preceding shoulder hour when the resource is requested at a lower output than what is otherwise economic in order to provide Regulation, or, the higher of the resource's actual or expected output in the preceding shoulder hour when the resource is requested at a higher output than what is otherwise economic in order to provide Regulation, times (ii) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource in the preceding shoulder hour and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the megawatt level of the Regulation set point for the resource in the initial regulating hour) in the PJM Interchange Energy Market, times (iii) the percentage of the preceding shoulder hour during which the deviation was incurred, all as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

The unit-specific opportunity costs associated with uneconomic operation during the following shoulder hour shall be equal to the product of (i) the deviation between the set point of the generation resource that is expected to be required in the final regulating hour in order to provide Regulation and the lesser of the resource's actual or expected output in the following shoulder hour when the resource is requested at a lower output than what is otherwise economic in order to provide Regulation, or, the higher of the resource's actual or expected output in the following shoulder hour when the resource is requested at a higher output than what is otherwise economic in order to provide Regulation, times (ii) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource in the following shoulder hour and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the megawatt level of the Regulation set point for the resource in final regulating hour) in the PJM Interchange Energy Market.

Estimated opportunity costs for Demand Resources to provide Regulation are zero.

(e) In determining the credit under subsection (b) to a Generating Market Buyer selected to provide Regulation in a Regulation Zone and that actively follows the Office of the Interconnection's Regulation signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each hour that the Office of the Interconnection requires a generation resource to provide Regulation, and for the percentage of the preceding shoulder hour and the following shoulder hour during which the Generating Market Buyer or Market Seller provided Regulation. The unit-specific opportunity cost incurred during the hour in which the Regulation obligation is fulfilled shall be equal to the product of (i) the deviation of the generation resource's output necessary to follow the Office of the Interconnection's Regulation signals from the generation resource's expected output level if it had been dispatched in economic merit order times (ii) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the actual megawatt level of the resource when the actual megawatt level is within the tolerance defined in the PJM Manuals for the Regulation set point, or at the Regulation set point for the resource when it is not within the corresponding tolerance) in the PJM Interchange Energy Market. Opportunity costs for Demand Resources to provide Regulation are zero.

The unit-specific opportunity costs associated with uneconomic operation during the preceding shoulder hour shall be equal to the product of (i) the deviation between the set point of the generation resource that is expected to be required in the initial regulating hour in order to provide Regulation and the lesser of the resource's actual or expected output in the preceding shoulder hour when the resource is requested at a lower output than what is otherwise economic in order to provide Regulation, or, the higher of the resource's actual or expected output in the preceding shoulder hour when the resource is requested at a higher output than what is otherwise economic in order to provide Regulation, times (ii) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource in the preceding shoulder hour and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the megawatt level of the Regulation set point for the resource in the initial regulating hour) in the PJM Interchange Energy Market, times (iii) the percentage of the preceding shoulder hour during which the deviation was incurred, all as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

The unit-specific opportunity costs associated with uneconomic operation during the following shoulder hour shall be equal to the product of (i) the deviation between the set point of the generation resource that is expected to be required in the final regulating hour in order to provide Regulation and the lesser of the resource's actual or expected output in the following shoulder hour when the resource is requested at a lower output than what is otherwise economic in order to provide Regulation, or, the higher of the resource's actual or expected output in the following shoulder hour when the resource is requested at a higher output than what is otherwise economic in order to provide Regulation, times (ii) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource in the following shoulder hour and the lesser of the available market-based or highest available cost-based energy offer from the generation resource (at the megawatt level of the Regulation set point for the resource in final regulating hour) in the PJM Interchange Energy Market, times (iii) the percentage of the following shoulder hour during which the deviation was incurred, all as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

(f) Any amounts credited for Regulation in an hour in excess of the Regulationmarket-clearing price in that hour shall be allocated and charged to each Internal Market Buyer in a Regulation Zone that does not meet its hourly Regulation obligation in proportion to its purchases of Regulation in such Regulation Zone in megawatt-hours during that hour.

3.2.2A Offer Price Caps.

3.2.2A.1 Applicability.

(a) Each hour, the Office of the Interconnection shall conduct a three-pivotal supplier test as described in this section. Regulation offers from Market Sellers that fail the three-pivotal supplier test shall be capped in the hour in which they failed the test at their cost based offers as determined pursuant to section 1.10.1A(e) of this Schedule. A Regulation supplier fails the three-pivotal supplier test in any hour in which such Regulation supplier and the two largest other Regulation suppliers are jointly pivotal.

(b) For the purposes of conducting the three-pivotal supplier test pursuant to this section, the following applies:

(i) The three-pivotal supplier test will include in the definition of available supply all offers from resources capable of satisfying the Regulation requirement of the PJM Region for which the cost-based offer plus any eligible opportunity costs is no greater than 150 percent of the clearing price that would be calculated if all offers were limited to cost (plus eligible opportunity costs).

(ii) The three-pivotal supplier test will apply on a Regulation supplier basis (i.e. not a resource by resource basis) and only the Regulation suppliers that fail the three-pivotal supplier test will have their Regulation offers capped. A Regulation supplier for the purposes of this section includes corporate affiliates. Regulation from resources controlled by a Regulation supplier or its affiliates, whether by contract with unaffiliated third parties or otherwise, will be included as Regulation of that Regulation supplier. Regulation provided by resources owned by a Regulation supplier but controlled by an unaffiliated third party, whether by contract or otherwise, will be included as Regulation of that third party.

3.2.3 Operating Reserves.

(a) A Market Seller's pool-scheduled resources capable of providing Operating Reserves shall be credited as specified below based on the prices offered for the operation of such resource, provided that the resource was available for the entire time specified in the Offer Data for such resource. To the extent that Section 3.2.A.01 of Schedule 1 of this Agreement does not meet the Day-ahead Scheduling Reserves Requirement, the Office of the Interconnection shall schedule additional Operating Reserves pursuant to Section 1.7.17 and 1.10 of Schedule 1 of this Agreement. In addition the Office of the Interconnection shall schedule Operating Reserves pursuant to those sections to satisfy any unforseen Operating Reserve requirements that are not reflected in the Day-ahead Scheduling Reserves Requirement.

(b) The following determination shall be made for each pool-scheduled resource that is scheduled in the Day-ahead Energy Market: the total offered price for start-up and no-load fees and energy, determined on the basis of the resource's scheduled output, shall be compared to the total value of that resource's energy – as determined by the Day-ahead Energy Market and the Day-ahead Prices applicable to the relevant generation bus in the Day-ahead Energy Market. Except as provided in Section 3.2.3(n), if the total offered price summed over all hours exceeds the total value summed over all hours, the difference shall be credited to the Market Seller. The Office of the Interconnection shall apply any balancing Operating Reserve credits allocated pursuant to this Section 3.2.3(b) to real-time deviations from day-ahead schedules or real-time load share plus exports, pursuant to Section 3.2.3(p), depending on whether the balancing Operating Reserve credits are related to resources scheduled during the reliability analysis for an Operating Day, or during the actual Operating Day.

(i) For resources scheduled by the Office of the Interconnection during the reliability analysis for an Operating Day, the associated balancing Operating Reserve credits shall be allocated based on the reason the resource was scheduled according to the following provisions:

(A) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource was committed to operate in real-time to augment the physical resources committed in the Day-ahead Energy Market to meet the forecasted real-time load plus the Operating Reserve requirement, the associated balancing Operating Reserve credits, identified as RA Credits for Deviations, shall be allocated to real-time deviations from day-ahead schedules.

(B) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource was committed to maintain system reliability, the associated balancing Operating Reserve credits, identified as RA Credits for Reliability, shall be allocated according to ratio share of real time load plus export transactions.

(C) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource with a day-ahead schedule is required to deviate from that schedule to provide balancing Operating Reserves, the associated balancing Operating Reserve credits shall be segmented and separately allocated pursuant to subsections 3.2.3(b)(i)(A) or 3.2.3(b)(i)(B) hereof. Balancing Operating Reserve credits for such resources will be identified in the same manner as units committed during the reliability analysis pursuant to subsections 3.2.3(b)(i)(A) and 3.2.3(b)(i)(B) hereof.

(ii) For resources scheduled during an Operating Day, the associated balancing Operating Reserve credits shall be allocated according to the following provisions:

(A) If the Office of the Interconnection directs a resource to operate during an Operating Day to provide balancing Operating Reserves, the associated balancing Operating Reserve credits, identified as RT Credits for Reliability, shall be allocated according to ratio share of load plus exports. The foregoing notwithstanding, credits will be applied pursuant to this section only if the LMP at the unit's bus is less than the offer of the resource for at least four-5-minute intervals during one or more discrete hour periods during the relevant Operating Day.

(B) If the Office of the Interconnection directs a resource not covered by Section 3.2.3(b)(ii)(A) hereof to operate in real-time during an Operating Day, the associated balancing Operating Reserve credits, identified as RT Credits for Deviations, shall be allocated according to real-time deviations from day-ahead schedules.

(iii) PJM shall post on its Web site the aggregate amount of MWs committed that meet the criteria referenced in subsections (b)(i) and (b)(ii) hereof.

(c) The sum of the foregoing credits calculated in accordance with Section 3.2.3(b) plus any unallocated charges from Section 3.2.3(h) and 5.1.7, and any shortfalls paid pursuant to the Market Settlement provision of the Day-ahead Economic Load Response Program shall be the cost of Operating Reserves in the Day-ahead Energy Market.

(d) The cost of Operating Reserves in the Day-ahead Energy Market shall be allocated and charged to each Market Participant in proportion to the sum of its (i) scheduled load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) and accepted Decrement Bids in the Day-ahead Energy Market in megawatt-hours for that Operating Day; and (ii) scheduled energy sales in the Day-ahead Energy Market from within the PJM Region to load outside such region in megawatt-hours for that Operating Day, but not including its bilateral transactions that are dynamically scheduled to load outside such area pursuant to Section 1.12.

(e) At the end of each Operating Day, the following determination shall be made for each synchronized pool-scheduled resource of each Market Seller that operates as requested by the Office of the Interconnection and that is not committed solely for the purpose of providing Synchronized Reserve: For each calendar day, pool-scheduled resources in the Real-time Energy Market shall be made whole for each of the following segments: 1) the greater of their day-ahead schedules or minimum run time (minimum down time for Demand Resources); and 2) any block of hours the resource operates at PJM's direction in excess of the greater of its day-ahead schedule or minimum run time (minimum down time for Demand Resources). For each calendar day, and for each synchronized start of a generation resource or PJM-dispatched economic load reduction, there will be a maximum of two segments for each resource. Segment 1 will be the greater of the day-ahead schedule and minimum run time (minimum down time for Demand Resources) and Segment 2 will include the remainder of the contiguous hours when the resource is operating at the direction of the Office of the Interconnection, provided that a segment is limited to the Operating Day in which it commenced and cannot include any part of the following Operating Day.

Credits received pursuant to this section shall be equal to the positive difference between a resource's total offered price for start-up (shutdown costs for Demand Resources) and no-load fees and energy, determined on the basis of the resource's scheduled output, and the total value of the resource's energy as determined by the Real-time Energy Market and the real-time LMP(s) applicable to the relevant generation bus in the Real-time Energy Market. The foregoing notwithstanding, credits for segment 2 shall exclude start up (shutdown costs for Demand Resources) costs for generation resources.

Except as provided in Section 3.2.3(m), if the total offered price exceeds the total value, the difference less any credit as determined pursuant to Section 3.2.3(b) plus the resources opportunity cost and less any amounts credited for Synchronized Reserve in excess of the Synchronized Reserve offer plus the resource's opportunity cost, shall be credited to the Market Seller.

Regulation, Synchronized Reserve and Day-ahead Scheduling Reserve credits applied against Operating Reserve credits pursuant to this section shall be netted against the Operating Reserve credits earned in the corresponding hour(s) in which the Regulation, Synchronized Reserve, and Day-ahead Scheduling Reserve credits accrued, provided that for condensing combustion turbines, Synchronized Reserve credits will be netted against the total Operating Reserve credits accrued during each period the unit operates in condensing and generation mode for one or more contiguous hours.

(f) A Market Seller's steam-electric generating unit or combined cycle unit operating in combined cycle mode that is pool scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), the output of which is reduced or suspended at the request of the Office of the Interconnection due to a transmission constraint or other reliability issue, and for which the hourly integrated, real-time LMP at the unit's bus is higher than the unit's offer corresponding to the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall be credited hourly in an amount equal to {(LMPDMW - AG) x (URTLMP – UB)}, where:

LMPDMW equals the level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the hourly integrated real time LMP;

AG equals the actual hourly integrated output of the unit;

URTLMP equals the real time LMP at the unit's bus;

UB equals the unit offer for that unit for which output is reduced or suspended, determined according to the real-time scheduled offer curve on which the unit was operating, unless such schedule was a price-based schedule and the offer associated with that price schedule is less than the cost-based offer provided for the unit, in which case the offer for the unit will be determined from the cost-based schedule; and

where URTLMP - UB shall not be negative.

(f-1) A Market Seller's combustion turbine unit or combined cycle unit operating in simple cycle mode that is pool-scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), operated as requested by the Office of the Interconnection, shall be compensated for lost opportunity cost if either of the following conditions occur:

(i) if the unit output is reduced at the direction of the Office of the Interconnection and the real time LMP at the unit's bus is higher than the unit's offer corresponding to the level of output requested by the Office of the Interconnection (as directed by the PJM dispatcher), then the Market Seller shall be credited in a manner consistent with that described above for a steam unit or combined cycle unit operating in combined cycle mode.

(ii) if the unit is scheduled to produce energy in the day-ahead market, but the unit is not called on by PJM and does not operate in real time, then the Market Seller shall be credited hourly in an amount equal to the higher of (i) {(URTLMP – UDALMP) x DAG}, or (ii) {(URTLMP – UB) x DAG} where:

URTLMP equals the real time LMP at the unit's bus;

UDALMP equals the day-ahead LMP at the unit's bus;

DAG equals the day-ahead scheduled unit output for the hour;

UB equals the offer price for the unit, determined according to the schedule on which the unit was committed day-ahead, unless such schedule was a price-based schedule and the offer associated with that price schedule is less than the cost-based offer provided for the unit, in which case the offer for the unit will be determined from the cost-based schedule; and

where URTLMP - UDALMP and URTLMP – UB shall not be negative.

(f-2) A Market Seller's hydroelectric resource that is pool-scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), the output of which is altered at the request of the Office of the Interconnection from the schedule submitted by the owner, due to a transmission constraint or other reliability issue, shall be compensated for lost opportunity cost in the same manner as provided in sections 3.2.2A(d) and 3.2.3A(f) and further detailed in the PJM Manuals.

(f-3) If a Market Seller can demonstrate to the satisfaction of the Office of the Interconnection and the Market Monitoring Unit that, due to specific pre-existing binding commitments to which it is a party, and that properly should be recognized for purposes of this section, the above calculations do not accurately compensate the Market Seller for opportunity cost associated with following PJM dispatch instructions and reducing or suspending a unit's output due to a transmission constraint or other reliability issue, then the Office of the Interconnection will negotiate with the individual Market Seller such appropriate compensation, subject to approval of such compensation by the Market Monitoring Unit.

(g) The sum of the foregoing credits, plus any cancellation fees paid in accordance with Section 1.10.2(d), such cancellation fees to be applied to the Operating Day for which the unit was scheduled, plus any shortfalls paid pursuant to the Market Settlement provision of the Real-time Economic Load Response Program, less any payments received from another Control Area for Operating Reserves, plus any redispatch costs incurred in accordance with section 10(a) of this Schedule, shall be the cost of Operating Reserves for the Real-time Energy Market in each Operating Day.

(h) The cost of Operating Reserves for the Real-time Energy Market for each Operating Day shall be allocated and charged to each Market Participant in proportion to the sum of the absolute values of its (i) load deviations (net of operating Behind The Meter Generation) from the Day-ahead Energy Market in megawatt-hours during that Operating Day; (ii) generation deviations (not including deviations in Behind The Meter Generation) from the Day-ahead Energy Market for non-dispatchable generation resources, including External Resources, in megawatt-hours during the Operating Day; (iii) deviations from the Day-ahead Energy Market for bilateral transactions from outside the PJM Region for delivery within such region in megawatt-hours during the Operating Day; and (iv) deviations of energy sales from the Day-ahead Energy Market from within the PJM Region to load outside such region in megawatt-hours during that Operating Day, but not including its bilateral transactions that are dynamically scheduled to load outside such region pursuant to Section 1.12.

Deviations that occur within a single Zone shall be associated with the Eastern or Western Region, as defined in Section 3.2.3(q) of Schedule 1 of this Operating Agreement, and shall be subject to the regional balancing Operating Reserve rate determined in accordance with Section 3.2.3(q). Deviations at interfaces and hubs shall be associated with the Eastern or Western Region if all the busses that define all interfaces or all hubs are located in the region. If deviations at interfaces and hubs are associated with the Eastern or Western region, they shall be subject to the regional balancing Operating Reserve rate.

Demand and supply deviations shall be based on total activity in a Zone, including all aggregates and hubs defined by busses that are wholly contained within the same Zone.

The foregoing notwithstanding, netting deviations shall be allowed in accordance with the following provisions:

(i) Generation resources with multiple units located at a single bus shall be able to offset deviations in accordance with the PJM Manuals to determine the net deviation MW at the relevant bus;

(ii) Demand deviations will be assessed by comparing all day-ahead demand transactions at a single transmission zone, hub, or interface against the real-time demand transactions at that same transmission zone, hub, or interface;

(iii) Supply deviations will be assessed by comparing all day-ahead transactions at a single transmission zone, hub, or interface against the real-time transactions at that same transmission zone, hub, or interface.

(i) At the end of each Operating Day, Market Sellers shall be credited on the basis of their offered prices for synchronous condensing for purposes other than providing Synchronized Reserve or Reactive Services, as well as the credits calculated as specified in Section 3.2.3(b) for those generators committed solely for the purpose of providing synchronous condensing for purposes other than providing Synchronized Reserve or Reactive Services, at the request of the Office of the Interconnection.

(j) The sum of the foregoing credits as specified in Section 3.2.3(i) shall be the cost of Operating Reserves for synchronous condensing for the PJM Region for purposes other than providing Synchronized Reserve or Reactive Services, or in association with post-contingency operation for the Operating Day and shall be separately determined for each Control Zone of the PJM Region based on the Control Zone to which the resource was synchronized to provide synchronous condensing for purposes other than providing Synchronized Reserve or Reactive Services, or in association with post-contingency operation.

(k) The cost of Operating Reserves for synchronous condensing for purposes other than providing Synchronized Reserve or Reactive Services, or in association with post-contingency operation for each Operating Day shall be allocated and charged to each Market Participant in proportion to the sum of its (i) deliveries of energy to load (net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region, served under Network Transmission Service, in megawatt-hours during that Operating Day; and (ii) deliveries of energy sales from within the PJM Region to load outside such region in megawatt-hours during that Operating Day, but not including its bilateral transactions that are dynamically scheduled to load outside such Control Zone pursuant to Section 1.12, as compared to the sum of all such deliveries for all Market Participants.

(l) For any Operating Day in either, as applicable, the Day-ahead Energy Market or the Real-time Energy Market for which, for all or any part of such Operating Day, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues an alert that a Maximum Generation Emergency may be declared ("Maximum Generation Emergency Alert"); or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert, the Operating Reserves credit otherwise provided by Section 3.2.3.(b) or Section 3.2.3(e) in connection with marked-based offers shall be limited as provided in paragraphs (n) or (m), respectively. The Office of the Interconnection shall provide timely notice on its internet site of the commencement and termination of any of the actions described in clause (i), (ii), or (iii) of this paragraph (l) (collectively referred to as "MaxGen Conditions"). Following the posting of notice of the commencement of a MaxGen Condition, a Market Seller may elect to submit a cost-based offer in accordance with Schedule 2 of the Operating Agreement, in which case paragraphs (m) and (n) shall not apply to such offer; provided, however, that such offer must be submitted in accordance with the deadlines in Section 1.10 for the submission of offers in the Day-ahead Energy Market or Real-time Energy Market, as applicable. Submission of a cost-based offer under such conditions shall not be precluded by Section 1.9.7(b); provided, however, that the Market Seller must return to compliance with Section 1.9.7(b) when it submits its bid for the first Operating Day after termination of the MaxGen Condition.

(m) For the Real-time Energy Market, if the Effective Offer Price (as defined below) for a market-based offer is greater than $1,000/MWh, the Market Seller shall not receive any credit for Operating Reserves. For purposes of this paragraph (m), the Effective Offer Price shall be the amount that, absent paragraphs (l) and (m), would have been credited for Operating Reserves for such Operating Day pursuant to Section 3.2.3(e) plus the Real-time Energy Market revenues for the hours that the offer is economic divided by the megawatthours of energy provided during the hours that the offer is economic. The hours that the offer is economic shall be: (i) the hours that the offer price for energy is less than or equal to the Real-time Price for the relevant generation bus, (ii) the hours in which the offer for energy is greater than Locational Marginal Price and the unit is operated at the direction of the Office of the Interconnection that are in addition to any hours required due to the minimum run time or other operating constraint of the unit, and (iii) for any unit with a minimum run time of one hour or less and with more than one start available per day, any hours the unit operated at the direction of the Office of the Interconnection.

(n) For the Day-ahead Energy Market, if notice of a MaxGen Condition is provided prior to 12:00 noon on the day before the Operating Day for which transactions are being scheduled and the Effective Offer Price is greater than $1,000/MWh, the Market Seller shall not receive any credit for Operating Reserves. If notice of a MaxGen Condition is provided after 12:00 noon on the day before the Operating Day for which transactions are being scheduled and the Effective Offer Price is greater than $1,000/MWh, the Market Seller shall receive credit for Operating Reserves determined in accordance with Section 3.2.3(b), subject to the limit on total compensation stated below. If the Effective Offer Price is less than or equal to $1,000/MWh, regardless of when notice of a MaxGen Condition is provided, the Market Seller shall receive credit for Operating Reserves determined in accordance with Section 3.2.3(b), subject to the limit on total compensation stated below. For purposes of this paragraph (n), the Effective Offer Price shall be the amount that, absent paragraphs (l) and (n), would have been credited for Operating Reserves for such Operating Day divided by the megawatt hours of energy offered during the Specified Hours, plus the offer for energy during such hours. The Specified Hours shall be the lesser of: (1) the minimum run hours stated by the Market Seller in its Offer Data; and (2) either (i) for steam-electric generating units and for combined-cycle units when such units are operating in combined-cycle mode, the six consecutive hours of highest Day-ahead Price during such Operating Day when such units are running or (ii) for combustion turbine units and for combined-cycle units when such units are operating in combustion turbine mode, the two consecutive hours of highest Day-ahead Price during such Operating Day when such units are running. Notwithstanding any other provision in this paragraph, the total compensation to a Market Seller on any Operating Day that includes a MaxGen Condition shall not exceed $1,000/MWh during the Specified Hours, where such total compensation in each such hour is defined as the amount that, absent paragraphs (l) and (n), would have been credited for Operating Reserves for such Operating Day pursuant to Section 3.2.3(b) divided by the Specified Hours, plus the Day-ahead Price for such hour, and no Operating Reserves payments shall be made for any other hour of such Operating Day. If a unit operates in real time at the direction of the office of the Interconnection consistently with its day-ahead clearing, then paragraph (m) does not apply.

(o) Dispatchable pool-scheduled generation resources and dispatchable self-scheduled generation resources that follow dispatch shall not be assessed balancing Operating Reserve deviations. Pool-scheduled generation resources and dispatchable self-scheduled generation resources that do not follow dispatch shall be assessed balancing Operating Reserve deviations in accordance with the calculations described in the PJM Manuals. Ramp-limited desired MW values shall be used to determine generation resource real-time deviations from the resource's day-ahead schedules.

The Office of the Interconnection shall calculate a ramp-limited desired MW value for resources where the economic minimum and economic maximum are at least as far apart in real-time as they are in day-ahead according to the following parameters:

(i) real-time economic minimum <= 105% of day-ahead economic minimum or day-ahead economic minimum plus 5 MW, whichever is greater.

(ii) real-time economic maximum >= 95% day-ahead economic maximum or day-ahead economic maximum minus 5 MW, whichever is lower.

The ramp-limited desired MW value for a generation resource shall be equal to:

$$\text{Ramp\_Request}_t = {(\text{UDStarget}_{t-1} - \text{AOutput}_{t-1})} \Big/ {(\text{UDSLAtime}_{t-1})}$$

$$\text{RL\_Desired}_t = \text{AOutput}_{t-1} + \left(\text{Ramp\_Request}_t * \text{Case\_Eff\_time}_{t-1}\right)$$

where:

1. UDStarget = UDS basepoint for the previous UDS case
2. AOutput = Unit's output at case solution time
3. UDSLAtime = UDS look ahead time
4. Case_Eff_time = Time between base point changes
5. RL_Desired = Ramp-limited desired MW

To determine if a resource is following dispatch the Office of the Interconnection shall determine the unit's MW off dispatch and % off dispatch by using the lesser of the difference between the actual output and the UDS Basepoint or the actual output and ramp-limited desired MW value. The % off dispatch and MW off dispatch will be a time-weighted average over the course of an hour.

A pool-scheduled or dispatchable self-scheduled resource is considered to be following dispatch if its actual output is between its ramp-limited desired MW value and UDS Basepoint, or if its % off dispatch is <= 10, or it's hourly integrated Real-time MWh is within 5% or 5 MW (whichever is greater) of the hourly integrated ramp-limited desired MW. A self-scheduled generator must also be dispatched above economic minimum. The degree of deviations for resources that are not following dispatch shall be determined in accordance with the following provisions:

- A dispatchable self-scheduled resource that is not dispatched above economic minimum shall be assessed balancing Operating Reserve deviations according to the following formula: *hourly integrated Real-time MWh – Day-Ahead MWh.*

- A resource that is dispatchable day-ahead but is Fixed Gen in real-time shall be assessed balancing Operating Reserve deviations according to the following formula: *hourly integrated Real-time MWh – UDS LMP Desired MW.*

- Pool-scheduled generators that are not following dispatch shall be assessed balancing Operating Reserve deviations according to the following formula: *hourly integrated Real-time MWh – hourly integrated Ramp-Limited Desired MW.*

- If a resource's real-time economic minimum is greater than its day-ahead economic minimum by 5% or 5 MW, whichever is greater, or its real-time economic maximum is less than its Day Ahead economic maximum by 5% or 5 MW, whichever is lower, and UDS LMP Desired MWh for the hour is either below the real time economic minimum or above the real time economic maximum, then balancing Operating Reserve deviations for the resource shall be assessed according to the following formula: *hourly integrated Real time MWh – UDS LMP Desired MWh.*

- If a resource is not following dispatch and its % Off Dispatch is <= 20%, balancing Operating Reserve deviations shall be assessed according to the following formula: *hourly integrated Real-time Mwh – hourly integrated Ramp-Limited Desired MW.* If deviation value is within 5% or 5 MW (whichever is greater) of Ramp-Limited Desired MW, balancing Operating Reserve deviations shall not be assessed.

- If a resource is not following dispatch and its % off Dispatch is > 20%, balancing Operating Reserve deviations shall be assessed according to the following formula: *hourly integrated Real time MWh – UDS LMP Desired MWh.*

- If a resource is not following dispatch, and the resource has tripped, for the hour the resource tripped and the hours it remains offline throughout its day-ahead schedule balancing Operating Reserve deviations shall be assessed according to the following formula: *hourly integrated Real time MWh – Day-Ahead MWh.*

- For resources that are not dispatchable in both the Day-Ahead and Real-time Energy Markets balancing Operating Reserve deviations shall be assessed according to the following formula: *hourly integrated Real-time MWh and Day-Ahead MWh.*

(p) The Office of the Interconnection shall allocate the charges assessed pursuant to Section 3.2.3(h) of Schedule 1 of this Agreement to real-time deviations from day-ahead schedules or real-time load share plus exports depending on whether the underlying balancing Operating Reserve credits are related to resources scheduled during the reliability analysis for an Operating Day, or during the actual Operating Day.

(i) For resources scheduled by the Office of the Interconnection during the reliability analysis for an Operating Day, the associated balancing Operating Reserve charges shall be allocated based on the reason the resource was scheduled according to the following provisions:

(A) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource was committed to operate in real-time to augment the physical resources committed in the Day-ahead Energy Market to meet the forecasted real-time load plus the Operating Reserve requirement, the associated balancing Operating Reserve charges shall be allocated to real-time deviations from day-ahead schedules.

(B) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource was committed to maintain system reliability, the associated balancing Operating Reserve charges shall be allocated according to ratio share of real time load plus export transactions.

(C) If the Office of the Interconnection determines during the reliability analysis for an Operating Day that a resource with a day-ahead schedule is required to deviate from that schedule to provide balancing Operating Reserves, the associated balancing Operating Reserve charges shall be allocated pursuant to (A) or (B) above.

(ii) For resources scheduled during an Operating Day, the associated balancing Operating Reserve charges shall be allocated according to the following provisions:

(A) If the Office of the Interconnection directs a resource to operate during an Operating Day to provide balancing Operating Reserves, the associated charges shall be allocated according to ratio share of load plus exports. The foregoing notwithstanding, charges will be assessed pursuant to this section only if the LMP is less than the offer of the resource for at least four-5-minute intervals during one or more discrete hour periods during the relevant Operating Day.

(B) If the Office of the Interconnection directs a resource not covered by Section 3.2.3(h)(ii)(A) of Schedule 1 of this Agreement to operate in real-time during an Operating Day, the associated balancing Operating Reserve charges shall be allocated according to real-time deviations from day-ahead schedules.

(q) The Office of the Interconnection shall determine regional balancing Operating Reserve rates for the Western and Eastern Regions of the PJM Region. For the purposes of this section, the Western Region shall be the AEP, APS, ComEd, Duquesne, Dayton transmission Zones, and the Eastern Region shall be the AEC, BGE, Dominion, PENELEC, PEPCO, ME, PPL, JCPL, PECO, DPL, PSEG, RE transmission Zones. The regional balancing Operating Reserve rates shall be determined in accordance with the following provisions:

(i) The Office of the Interconnection shall calculate regional adder rates for the Eastern and Western Regions. Regional adder rates shall be equal to the total balancing Operating Reserve credits paid to generators for transmission constraints that occur on transmission system capacity equal to or less than 345kv. The regional adder rates shall be separated into reliability and deviation charges, which shall be allocated to real-time load or real-time deviations, respectively. Whether the underlying credits are designated as reliability or deviation charges shall be determined in accordance with Section 3.2.3(p).

(ii) The Office of the Interconnection shall calculate RTO balancing Operating Reserve rates. RTO balancing Operating Reserve rates shall be equal to balancing Operating Reserve credits in excess of the regional adder rates calculated pursuant to Section 3.2.3(q)(i) of Schedule 1 of this Agreement. The RTO balancing Operating Reserve rates shall be separated into reliability and deviation charges, which shall be allocated to real-time load or real-time deviations, respectively. Whether the underlying credits are allocated as reliability or deviation charges shall be determined in accordance with Section 3.2.3(p).

(iii) Reliability and deviation regional balancing Operating Reserve rates shall be determined by summing the relevant RTO balancing Operating Reserve rates and regional adder rates.

(iv) If the Eastern and/or Western Regions do not have regional adder rates, the relevant regional balancing Operating Reserve rate shall be the reliability and/or deviation RTO balancing Operating Reserve rate.

3.2.3A Synchronized Reserve.

(a) Each Internal Market Buyer that is a Load Serving Entity shall have an obligation for hourly Synchronized Reserve equal to its *pro rata* share of Synchronized Reserve requirements for the hour for each Synchronized Reserve Zone of the PJM Region, based on the Market Buyer's total load (net of operating Behind The Meter Generation, but not to be less than zero) in such Synchronized Reserve Zone, for the hour ("Synchronized Reserve Obligation"), less any amount obtained from condensers associated with provision of Reactive Services as described in section 3.2.3B(i) and any amount obtained from condensers associated with post-contingency operations, as described in section 3.2.3C(b). An Internal Market Buyer that does not meet its hourly Synchronized Reserve Obligation shall be charged for the Synchronized Reserve dispatched by the Office of the Interconnection to meet such obligation at the Synchronized Reserve Market Clearing Price determined in accordance with paragraph (d) of this section, plus the amounts if any, described in paragraphs (g), (h) and (i) of this section.

(b) A Generating Market Buyer supplying Synchronized Reserve at the direction of the Office of the Interconnection, in excess of its hourly Synchronized Reserve Obligation, shall be credited as follows:

i) Credits for Synchronized Reserve provided by generation units that are then subject to the energy dispatch signals and instructions of the Office of the Interconnection and that increase their current output or Demand Resources that reduce their load in response to a Synchronized

Reserve Event ("Tier 1 Synchronized Reserve") shall be at the Synchronized Energy Premium Price.

ii) Credits for Synchronized Reserve provided by generation resources that are synchronized to the grid but, at the direction of the Office of the Interconnection, are operating at a point that deviates from the Office of the Interconnection energy dispatch signals and instructions ("Tier 2 Synchronized Reserve") shall be the higher of (i) the Synchronized Reserve Market Clearing Price or (ii) the sum of (A) the Synchronized Reserve offer, and (B) the specific opportunity cost of the generation resource supplying the increment of Synchronized Reserve, as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

iii) Credits for Synchronized Reserve provided by Demand Resources that are synchronized to the grid and accept the obligation to reduce load in response to a Synchronized Reserve Event initiated by the Office of the Interconnection shall be the sum of (i) the higher of (A) the synchronized Reserve offer or (B) the Synchronized Reserve Market Clearing Price and (ii) if a Synchronized Reserve Event is actually initiated by the Office of the Interconnection and the Demand Resource reduced its load in response to the event, the fixed costs associated with achieving the load reduction, as specified in the PJM Manuals.

(c) The Synchronized Reserve Energy Premium Price is the average of the five-minute Locational Marginal Prices calculated during the Synchronized Reserve Event plus an adder in an amount to be determined periodically by the Office of the Interconnection not less than fifty dollars and not to exceed one hundred dollars per megawatt hour.

(d) The Synchronized Reserve Market Clearing Price shall be determined for each Synchronized Reserve Zone by the Office of the Interconnection prior to the operating hour and such market-clearing price shall be equal to, from among the generation resources or Demand Resources selected to provide Synchronized Reserve for such Synchronized Reserve Zone, the highest sum of either (i) a generation resource's Synchronized Reserve offer and opportunity cost or (ii) a demand response resource's Synchronized Reserve offer.

(e) In determining the Synchronized Reserve Market Clearing Price, the estimated unit-specific opportunity cost for a generation resource shall be equal to the sum of (i) the product of (A) the expected Locational Marginal Price at the generation bus for the generation resource times (B) the megawatts of energy used to provide Synchronized Reserve submitted as part of the Synchronized Reserve offer and (ii) the product of (A) the deviation of the set point of the generation resource that is expected to be required in order to provide Synchronized Reserve from the generation resource's expected output level if it had been dispatched in economic merit order times (B) the absolute value of the difference between the expected Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the resource) in the PJM Interchange Energy Market. The opportunity costs for a Demand Resource shall be zero.

(f) In determining the credit under subsection (b) to a Generating Market Buyer selected to provide Tier 2 Synchronized Reserve and that actively follows the Office of the Interconnection's signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each hour that the Office of the Interconnection requires a generation resource to provide Tier 2 Synchronized Reserve and shall be equal to the sum of (i) the product of (A) the megawatts of energy used by the resource to provide Synchronized Reserve as submitted as part of the generation resource's Synchronized Reserve offer times (B) the Locational Marginal Price at the generation bus of the generation resource, and (ii) the product of (A) the deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order, times (B) the absolute value of the difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the generation resource) in the PJM Interchange Energy Market. The opportunity costs for a Demand Resource shall be zero.

(g) Charges for Tier 1 Synchronized Reserve will be allocated in proportion to the amount of Tier 1 Synchronized Reserve applied to each Synchronized Reserve Obligation. In the event Tier 1 Synchronized Reserve is provided by a Market Seller in excess of that Market Seller's Synchronized Reserve Obligation, the remainder of the Tier 1 Synchronized Reserve that is not utilized to fulfill the Seller's obligation will be allocated proportionately among all other Synchronized Reserve Obligations.

(h) Any amounts credited for Tier 2 Synchronized Reserve in an hour in excess of the Synchronized Reserve Market Clearing Price in that hour shall be allocated and charged to each Internal Market Buyer that does not meet its hourly Synchronized Reserve Obligation in proportion to its purchases of Synchronized Reserve in megawatt-hours during that hour.

(i) In the event the Office of the Interconnection needs to assign more Tier 2 Synchronized Reserve during an hour than was estimated as needed at the time the Synchronized Reserve Market Clearing Price was calculated for that hour due to a reduction in available Tier 1 Synchronized Reserve, the costs of the excess Tier 2 Synchronized Reserve shall be allocated and charged to those providers of Tier 1 Synchronized Reserve whose available Tier 1 Synchronized Reserve was reduced from the needed amount estimated during the Synchronized Reserve Market Clearing Price calculation, in proportion to the amount of the reduction in Tier 1 Synchronized Reserve availability.

(j) In the event a generation resource or Demand Resource that either has been assigned by the Office of the Interconnection or self-scheduled by the owner to provide Tier 2 Synchronized Reserve fails to provide the assigned or self-scheduled amount of Synchronized Reserve in response to an actual Synchronized Reserve Event, the owner of the resource shall incur an additional Synchronized Reserve Obligation in the amount of the shortfall for a period of three consecutive days with the same peak classification (on-peak or off-peak) as the day of the Synchronized Reserve Event at least three business days following the Synchronized Reserve Event. The overall Synchronized Reserve requirement for each Synchronized Reserve Zone of the PJM Region on which the Synchronized Reserve Obligations, except for the additional obligations set forth in this section, are based shall be reduced by the amount of this shortfall for the applicable three-day period.

(k) The magnitude of response to a Synchronized Reserve Event by a generation resource or a Demand Resource, except for Batch Load Demand Resources covered by section 3.2.3A(l), is the difference between the generation resource's output or the Demand Resource's consumption at the start of the event and its output or consumption ten minutes after the start of the event. In order to allow for small fluctuations and possible telemetry delays, generation resource output or Demand Resource consumption at the start of the event is defined as the lowest telemetered generator resource output or greatest Demand Resource consumption between one minute prior to and one minute following the start of the event. Similarly, a generation resource's output or a Demand Resource's consumption 10 minutes after the event is defined as the greatest generator resource output or lowest Demand Resource consumption achieved between 9 and 11 minutes after the start of the event. Similarly, a generation resource's output or a Demand Resource's consumption ten minutes after the event is defined as the greatest generator resource output or lowest Demand Resource consumption achieved between 9 and 11 minutes after the start of the event. The response actually credited to a generation resource will be reduced by the amount the megawatt output of the generation resource falls below the level achieved after 10 minutes by either the end of the event or after 30 minutes from the start of the event, whichever is shorter. The response actually credited to a Demand Resource will be reduced by the amount the megawatt consumption of the Demand Resource exceeds the level achieved after 10 minutes by either the end of the event or after 30 minutes from the start of the event, whichever is shorter.

(l) The magnitude of response by a Batch Load Demand Resource that is at the stage in its production cycle when its energy consumption is less than the level of megawatts in its offer at the start of a Synchronized Reserve Event shall be the difference between (i) the Batch Load Demand Resource's consumption at the end of the Synchronized Reserve Event and (ii) the Batch Load Demand Resource's consumption during the minute within the ten minutes after the end of the Synchronized Reserve Event in which the Batch Load Demand Resource's consumption was highest and for which its consumption in all subsequent minutes within the ten minutes was not less than fifty percent of the consumption in such minute; provided that, the magnitude of the response shall be zero if, when the Synchronized Reserve Event commences, the scheduled off-cycle stage of the production cycle is greater than ten minutes.

3.2.3A.01 Day-ahead Scheduling Reserves.

(a) The Office of the Interconnection shall satisfy the Day-ahead Scheduling Reserves Requirement by procuring Day-ahead Scheduling Reserves in the Day-ahead Scheduling Reserves Market from Day-ahead Scheduling Reserves Resources, provided that Demand Resources shall be limited to providing the lesser of any limit established by the Reliability First Corporation or SERC, as applicable, or twenty-five percent of the total Day-ahead Scheduling Reserves Requirement. Day-ahead Scheduling Reserves Resources that clear in the Day-ahead Scheduling Reserves Market shall receive a Day-ahead Scheduling Reserves schedule from the Office of the Interconnection for the relevant Operating Day.

(b) A Day-ahead Scheduling Reserves Resource that receives a Day-ahead Scheduling Reserves schedule pursuant to subsection (a) of this section shall be paid the hourly Day-ahead Scheduling Reserves Market clearing price for the MW obligation in each hour of the schedule, subject to meeting the requirements of subsection (c) of this section.

(c) To be eligible for payment pursuant to subsection (b) of this section, Day-ahead Scheduling Reserves Resources shall comply with the following provisions:

(i) Generation resources with a start time greater than thirty minutes are required to be synchronized and operating at the direction of the Office of the Interconnection during the resource's Day-ahead Scheduling Reserves schedule and shall have a dispatchable range equal to or greater than the Day-ahead Scheduling Reserves schedule.

(ii) Generation resources and Demand Resources with start times or shut-down times, respectively, equal to or less than 30 minutes are required to respond to dispatch directives from the Office of the Interconnection during the resource's Day-ahead Scheduling Reserves schedule. To meet this requirement the resource shall be required to start or shut down within the specified notification time plus its start or shut down time, provided that such time shall be less than thirty minutes.

(iii) Demand Resources with a Day-ahead Scheduling Reserves schedule shall be credited based on the difference between the resource's MW consumption at the time the resource is directed by the Office of the

Interconnection to reduce its load (starting MW usage) and the resource's MW consumption at the time when the Demand Resource is no longer dispatched by PJM (ending MW usage). For the purposes of this subsection, a resource's starting MW usage shall be the greatest telemetered consumption between one minute prior to and one minute following the issuance of a dispatch instruction from the Office of the Interconnection, and a resource's ending MW usage shall be the lowest consumption between one minute before and one minute after a dispatch instruction from the Office of the Interconnection that is no longer necessary to reduce.

(iv) Notwithstanding subsection (iii) above, the credit for a Batch Load Demand Resource that is at the stage in its production cycle when its energy consumption is less than the level of megawatts in its offer at the time the resource is directed by the Office of the Interconnection to reduce its load shall be the difference between (i) the "ending MW usage" (as defined above) and (ii) the Batch Load Demand Resource's consumption during the minute within the ten minutes after the time of the "ending MW usage" in which the Batch Load Demand Resource's consumption was highest and for which its consumption in all subsequent minutes within the ten minutes was not less than fifty percent of the consumption in such minute; provided that, the credit shall be zero if, at the time the resource is directed by the Office of the Interconnection to reduce its load, the scheduled off-cycle stage of the production cycle is greater than the timeframe for which the resource was dispatched by PJM.

Resources that do not comply with the provisions of this subsection (c) shall not be eligible to receive credits pursuant to subsection (b) of this section.

(d) The cost of credits allocated to Day-ahead Scheduling Reserves Resources pursuant to this section shall be charged to Load-Serving Entities in the PJM Region based on load ratio share (net of operating Behind The Meter Generation, but not to be less than zero), provided that a Load-Serving Entity may satisfy its Day-ahead Scheduling Reserves obligation, which is equal to the Day-ahead Scheduling Reserves Requirement multiplied by the Load-Serving Entity's load ratio share for the PJM Region, through one or any combination of the following: 1) the Day-ahead Scheduling Reserves Market; 2) and bilateral arrangements. The Day-ahead Scheduling Reserve charges allocated pursuant to this section shall reflect any portion of a Load-Serving Entity's Day-ahead Scheduling Reserves obligation that is met by bilateral arrangement(s).

(e) If the Day-ahead Scheduling Reserves Requirement is not satisfied through the operation of subsection (a) of this section, any additional Operating Reserves required to meet the requirement shall be scheduled by the Office of the Interconnection pursuant to Section 3.2.3 of Schedule 1 of this Agreement.

3.2.3B Reactive Services.

(a) A Market Seller providing Reactive Services at the direction of the Office of the Interconnection shall be credited as specified below for the operation of its resource. These provisions are intended to provide payments to generating units when the LMP dispatch algorithms would not result in the dispatch needed for the required reactive service. LMP will be used to compensate generators that are subject to redispatch for reactive transfer limits.

(b) At the end of each Operating Day, where the active energy output of a Market Seller's resource is reduced or suspended at the request of the Office of the Interconnection for the purpose of maintaining reactive reliability within the PJM Region, the Market Seller shall be credited according to Sections 3.2.3B(c) & 3.2.3B(d).

(c) A Market Seller providing Reactive Services from either a steam-electric generating unit or combined cycle unit operating in combined cycle mode, where such unit is pool-scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), and where the hourly integrated, real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override) shall be compensated for lost opportunity cost by receiving a credit hourly in an amount equal to {(LMPDMW - AG) x (URTLMP - UB)}

where:

LMPDMW equals the level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the hourly integrated real time LMP;

AG equals the actual hourly integrated output of the unit;

URTLMP equals the real time LMP at the unit's bus;

UB equals the unit offer for that unit for which output is reduced or suspended determined according to the real time scheduled offer curve on which the unit was operating, unless such schedule was a price-based schedule and the offer associated with that price-based schedule is less than the cost-based offer for the unit, in which case the offer for the unit will be determined based on the cost-based schedule; and

where URTLMP - UB shall not be negative.

(d) A Market Seller providing Reactive Services from either a combustion turbine unit or combined cycle unit operating in simple cycle mode that is pool scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), operated as requested by the Office of the Interconnection, shall be compensated for lost opportunity cost if either of the following conditions occur:

(i) if the unit output is reduced at the direction of the Office of the Interconnection and the real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection as directed by the PJM dispatcher, then the Market Seller shall be credited in a manner consistent with that described above in Section 3.2.3B(c) for a steam unit or a combined cycle unit operating in combined cycle mode.

(ii) if the unit is scheduled to produce energy in the day-ahead market, but the unit is not called on by PJM and does not operate in real time, then the Market Seller shall be credited hourly in an amount equal to the higher of (i) {(URTLMP – UDALMP) x DAG, or (ii) {(URTLMP – UB) x DAG where:

URTLMP equals the real time LMP at the unit's bus;

UDALMP equals the day-ahead LMP at the unit's bus;

DAG equals the day-ahead scheduled unit output for the hour;

UB equals the offer price for the unit determined according to the schedule on which the unit was committed day-ahead, unless such schedule was a price-based schedule and the offer associated with that price-based schedule is less than the cost-based offer for the unit, in which case the offer for the unit will be determined based on the cost-based schedule; and

where URTLMP - UDALMP and URTLMP – UB shall not be negative.

(e) At the end of each Operating Day, where the active energy output of a Market Seller's unit is increased at the request of the Office of the Interconnection for the purpose of maintaining reactive reliability within the PJM Region and the offered price of the energy is above the real-time LMP at the unit's bus, the Market Seller shall be credited according to Section 3.2.3B(f).

(f) A Market Seller providing Reactive Services from either a steam-electric generating unit, combined cycle unit or combustion turbine unit, where such unit is pool scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), and where the hourly integrated, real time LMP at the unit's bus is lower than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall receive a credit hourly in an amount equal to {(AG - LMPDMW) x (UB - URTLMP)}where:

AG equals the actual hourly integrated output of the unit;

LMPDMW equals the level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the hourly integrated real time LMP;

UB equals the unit offer for that unit for which output is increased, determined according to the real time scheduled offer curve on which the unit was operating;

URTLMP equals the real time LMP at the unit's bus; and

where UB - URTLMP shall not be negative.

(g) A Market Seller providing Reactive Services from a hydroelectric resource where such resource is pool scheduled (or self-scheduled, if operating according to paragraph 1.10.3 (c)), and where the output of such resource is altered from the schedule submitted by the Market Seller for the purpose of maintaining reactive reliability at the request of the Office of the Interconnection, shall be compensated for lost opportunity cost in the same manner as provided in sections 3.2.2A(d) and 3.2.3A(f) and further detailed in the PJM Manuals.

(h) If a Market Seller can demonstrate to the satisfaction of the Office of the Interconnection and the Market Monitoring Unit that, due to specific pre-existing binding commitments to which it is a party, and that properly should be recognized for purposes of this section, the above calculations do not accurately compensate the Market Seller for lost opportunity cost associated with following the Office of the Interconnection's dispatch instructions to reduce or suspend a unit's output for the purpose of maintaining reactive reliability, then the Office of the Interconnection will provide such alternate lost opportunity cost compensation to the Market Seller as can be agreed upon by the Market Seller, the Office of the Interconnection and the Market Monitoring Unit.

(i) The amount of Synchronized Reserve provided by generating units maintaining reactive reliability shall be counted as Synchronized Reserve satisfying the overall PJM Synchronized Reserve requirements. Operators of these generating units shall be notified of such provision, and to the extent a generating unit's operator indicates that the generation unit is capable of providing Synchronized Reserve, shall be subject to the same requirements contained in Section 3.2.3A regarding provision of Tier 2 Synchronized Reserve. At the end of each Operating Day, to the extent a condenser operated to provide Reactive Services also provided Synchronized Reserve, a Market Seller shall be credited for providing synchronous condensing for the purpose of maintaining reactive reliability at the request of the Office of the Interconnection, in an amount equal to the higher of (i) the hourly Synchronized Reserve Market Clearing Price for each hour a generating unit provided synchronous condensing multiplied by the amount of spinning reserve provided by the synchronous condenser or (ii) the sum of (A) the unit's hourly cost to provide synchronous condensing, calculated in accordance with the PJM Manuals, (B) the hourly product of MW energy usage for providing synchronous condensing multiplied by the real time LMP at the generation unit's bus, (C) the generation unit's startup-cost of providing synchronous condensing, and (D) the unit-specific lost opportunity cost of the generation resource supplying the increment of Synchronized Reserve as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals. To the extent a condenser operated to provide Reactive Services was not also providing Synchronized Reserve, the Market Seller shall be credited only for the generation unit's cost to condense, as described in (ii) above. The total Synchronized Reserve Obligations of all Load Serving Entities under section 3.2.3A(a) in the zone where these condensers are located shall be reduced by the amount counted as satisfying the PJM Synchronized Reserve requirements. The Synchronized Reserve Obligation of each Load Serving Entity in the zone under section 3.2.3A(a) shall be reduced to the same extent that the costs of such condensers counted as Synchronized Reserve are allocated to such Load Serving Entity pursuant to paragraph (l) below.

(j) A Market Seller's pool scheduled steam-electric generating unit or combined cycle unit operating in combined cycle mode, that is not committed to operate in the Day-ahead Market, but that is directed by the Office of Interconnection to operate solely for the purpose of maintaining reactive reliability, at the request of the Office of the Interconnection, shall be credited in the amount of the unit's offered price for start-up and no-load fees. The unit also shall receive, if applicable, compensation in accordance with Sections 3.2.3B(e)-(f).

(k) The sum of the foregoing credits as specified in Sections 3.2.3B(b)-(j) shall be the cost of Reactive Services for the purpose of maintaining reactive reliability for the Operating Day and shall be separately determined for each transmission zone in the PJM Region based on whether the resource was dispatched for the purpose of maintaining reactive reliability in such transmission zone.

(l) The cost of Reactive Services for the purpose of maintaining reactive reliability in a transmission zone in the PJM Region for each Operating Day shall be allocated and charged to each Market Participant in proportion to its deliveries of energy to load (net of operating Behind The Meter Generation) in such transmission zone, served under Network Transmission Service, in megawatt-hours during that Operating Day, as compared to all such deliveries for all Market Participants in such transmission zone.

(m) Generating units receiving dispatch instructions from the Office of the Interconnection under the expectation of increased actual or reserve reactive shall inform the Office of the Interconnection dispatcher if the requested reactive capability is not achievable. Should the operator of a unit receiving such instructions realize at any time during which said instruction is effective that the unit is not, or likely would not be able to, provide the requested amount of reactive support, the operator shall as soon as practicable inform the Office of the Interconnection dispatcher of the unit's inability, or expected inability, to provide the required reactive support, so that the associated dispatch instruction may be cancelled. PJM Performance Compliance personnel will audit operations after-the-fact to determine whether a unit that has altered its active power output at the request of the Office of the Interconnection has provided the actual reactive support or the reactive reserve capability requested by the Office of the Interconnection. PJM shall utilize data including, but not limited to, historical reactive performance and stated reactive capability curves in order to make this determination, and may withhold such compensation as described above if reactive support as requested by the Office of the Interconnection was not or could not have been provided.

3.2.3C Synchronous Condensing for Post-Contingency Operation.

(a) Under normal circumstances, PJM operates generation out of merit order to control contingency overloads when the flow on the monitored element for loss of the contingent element ("contingency flow") exceeds the long-term emergency rating for that facility, typically a 4-hour or 2-hour rating. At times however, and under certain, specific system conditions, PJM does not operate generation out of merit order for certain contingency overloads until the contingency flow on the monitored element exceeds the 30-minute rating for that facility ("post-contingency operation"). In conjunction with such operation, when the contingency flow on such element exceeds the long-term emergency rating, PJM operates synchronous condensers in the areas affected by such constraints, to the extent they are available, to provide greater certainty that such resources will be capable of producing energy in sufficient time to reduce the flow on the monitored element below the normal rating should such contingency occur.

(b) The amount of Synchronized Reserve provided by synchronous condensers associated with post-contingency operation shall be counted as Synchronized Reserve satisfying the PJM Synchronized Reserve requirements. Operators of these generation units shall be notified of such provision, and to the extent a generation unit's operator indicates that the generation unit is capable of providing Synchronized Reserve, shall be subject to the same requirements contained in Section 3.2.3A regarding provision of Tier 2 Synchronized Reserve. At the end of each Operating Day, to the extent a condenser operated in conjunction with post-contingency operation also provided Synchronized Reserve, a Market Seller shall be credited for providing synchronous condensing in conjunction with post-contingency operation at the request of the Office of the Interconnection, in an amount equal to the higher of (i) the hourly Synchronized Reserve Market Clearing Price for each hour a generation resource provided synchronous condensing multiplied by the amount of Synchronized Reserve provided by the synchronous condenser or (ii) the sum of (A) the generation resource's hourly cost to provide synchronous condensing, calculated in accordance with the PJM Manuals, (B) the hourly product of the megawatts of energy used to provide synchronous condensing multiplied by the real-time LMP at the generation bus of the generation resource, (C) the generation resource's start-up cost of providing synchronous condensing, and (D) the unit-specific lost opportunity cost of the generation resource supplying the increment of Synchronized Reserve as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals. To the extent a condenser operated in association with post-contingency constraint control was not also providing Synchronized Reserve, the Market Seller shall be credited only for the generation unit's cost to condense, as described in (ii) above. The total Synchronized Reserve Obligations of all Load Serving Entities under section 3.2.3A(a) in the zone where these condensers are located shall be reduced by the amount counted as satisfying the PJM Synchronized Reserve requirements. The Synchronized Reserve Obligation of each Load Serving Entity in the zone under section 3.2.3A(a) shall be reduced to the same extent that the costs of such condensers counted as Synchronized Reserve are allocated to such Load Serving Entity pursuant to paragraph (d) below.

(c) The sum of the foregoing credits as specified in section 3.2.3C(b) shall be the cost of synchronous condensers associated with post-contingency operations for the Operating Day and shall be separately determined for each transmission zone in the PJM Region based on whether the resource was dispatched in association with post-contingency operation in such transmission zone.

(d) The cost of synchronous condensers associated with post-contingency operations in a transmission zone in the PJM Region for each Operating Day shall be allocated and charged to each Market Participant in proportion to its deliveries of energy to load (net of operating Behind The Meter Generation) in such transmission zone, served under Network Transmission Service, in megawatt-hours during that Operating Day, as compared to all such deliveries for all Market Participants in such transmission zone.

3.2.4 Transmission Congestion Charges.

Each Market Buyer shall be assessed Transmission Congestion Charges as specified in Section 5 of this Schedule.

3.2.5 Transmission Loss Charges.

Each Market Buyer shall be assessed Transmission Loss Charges as specified in Section 5 of this Schedule.

3.2.6 Emergency Energy.

(a) Market Participants shall be allocated a proportionate share of the net cost of Emergency energy purchased by the Office of the Interconnection. Such allocated share during each hour of such Emergency energy purchase shall be in proportion to the amount of each Market Participant's real-time deviation from its net PJM Interchange in the Day-ahead Energy Market, whenever that deviation increases the Market Participant's spot market purchases or decreases its spot market sales. This deviation shall not include any reduction or suspension of output of pool scheduled resources requested by PJM to manage an Emergency within the PJM Region.

(b) Net revenues in excess of Real-time Prices attributable to sales of energy in connection with Emergencies to other Control Areas shall be credited to Market Participants during each hour of such Emergency energy sale in proportion to the sum of (i) each Market Participant's real-time deviation from its net PJM Interchange in the Day-ahead Energy Market, whenever that deviation increases the Market Participant's spot market purchases or decreases its spot market sales, and (ii) each Market Participant's energy sales from within the PJM Region to entities outside the PJM Region that have been curtailed by PJM.

(c) The net costs or net revenues associated with sales or purchases of hourly energy in connection with a Minimum Generation Emergency in the PJM Region, or in another Control Area, shall be allocated during each hour of such Emergency sale or purchase to each Market Participant in proportion to the amount of each Market Participant's real-time deviation from its net PJM Interchange in the Day-ahead Market, whenever that deviation increases the Market Participant's spot market sales or decreases its spot market purchases.

3.2.7 Billing.

(a) The Office of the Interconnection shall prepare a billing statement each billing cycle for each Market Buyer in accordance with the charges and credits specified in Sections 3.2.1 through 3.2.6 of this Schedule, and showing the net amount to be paid or received by the Market Buyer. Billing statements shall provide sufficient detail, as specified in the PJM Manuals, to allow verification of the billing amounts and completion of the Market Buyer's internal accounting.

(b) If deliveries to a Market Buyer that has PJM Interchange meters in accordance with Section 14 of the Operating Agreement include amounts delivered for a Market Participant that does not have PJM Interchange meters separate from those of the metered Market Buyer, the Office of the Interconnection shall prepare a separate billing statement for the unmetered Market Participant based on the allocation of deliveries agreed upon between the Market Buyer and the unmetered Market Participant specified by them to the Office of the Interconnection.

3.3 Market Sellers.

Except as provided in the following sentence, the accounting and billing principles and procedures applicable to Generating Market Buyers functioning as Market Sellers shall be as set forth in Section 3.2. This Section sets forth the accounting and billing principles and procedures applicable to all other Market Sellers, and to Generating Market Buyers functioning as Market Sellers with respect to any matters not specified in Section 3.2.

3.3.1 Spot Market Energy Charges.

(a) Market Sellers shall be paid for all energy scheduled to be delivered in the Day-ahead Energy Market at the Day-ahead System Energy Prices.

(b) At the end of each hour during an Operating Day, the Office of the Interconnection shall determine the total net amount of energy delivered in the hour to the PJM Region by each of the Market Seller's resources, in accordance with the PJM Manuals and the calculation described in Section 3.2.1(f).

(c) The Office of the Interconnection shall calculate Day-ahead and Real-time System Energy Prices for the PJM Region, in accordance with Section 2 of this Schedule.

(d) A Market Seller shall be paid for Real-time sales of Spot Market Energy to the extent of its hourly net deliveries to the PJM Region of energy in excess of amounts scheduled in the Day-ahead Energy Market from the Market Seller's resources. For pool External Resources, the Office of the Interconnection shall model, based on an appropriate flow analysis, the hourly amounts delivered from each such resource to the corresponding Interface Pricing Point between adjacent Control Areas and the PJM Region. The total real-time generation revenues for each Market Seller shall be the sum of its payments determined by the product of (i) the hourly net amount of energy delivered to the PJM Region in excess of the amount scheduled to be delivered in that hour in the Day-ahead Energy Market from each of the Market Seller's resources, times (ii) the hourly Real-time System Energy Price. To the extent that the energy actually injected in any hour is less than the energy scheduled to be injected at that bus in the Day-ahead Energy Market, the Market Seller shall be debited for the difference at the Real-time System Energy Price at the time of the shortfall times the amount of the shortfall. The total generation revenue for each Market Seller shall be the sum of the revenues at Day-ahead System Energy Prices determined in accordance with the Day-ahead Energy Market as specified in Section 3.3.1(a) plus the revenues at Real-time System Energy Prices determined as specified herein, net of any debits specified herein for each Market Seller.

3.3.2 Regulation.

Each Market Seller that is also an Internal Market Buyer as to load in a Regulation Zone shall have an hourly Regulation objective and shall be credited or charged in connection therewith as specified in Section 3.2.2. All other Market Sellers supplying Regulation in such Regulation Zone at the direction of the Office of the Interconnection shall be credited for each increment of such Regulation at the price specified in Section 3.2.2(b), as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

3.3.3 Operating Reserves.

A Market Seller shall be credited for its pool-scheduled resources based on the prices offered for the operation of such resource, provided that the resource was available for the entire time specified in the Offer Data for such resource, in accordance with the procedures set forth in Section 3.2.3.

3.3.4 Emergency Energy.

The net costs or net revenues associated with purchases or sales of energy in connection with Emergencies in the PJM Region, or in another Control Area, shall be allocated to Market Participants in accordance with the procedures set forth in Section 3.2.6.

3.3.5 Synchronized Reserve.

Each Market Seller that is also an Internal Market Buyer shall have an hourly Synchronized Reserve objective and shall be credited or charged in connection therewith as specified in Section 3.2.3A(a). All other Market Sellers supplying Synchronized Reserve at the direction of the Office of the Interconnection shall be credited for each increment of such Synchronized Reserve at the price specified in Section 3.2.3A(b), as determined by the Office of the Interconnection in accordance with procedures specified in the PJM Manuals.

3.3.6 Billing.

The Office of the Interconnection shall prepare a billing statement each billing cycle for each Market Seller in accordance with the charges and credits specified in Sections 3.3.1 through 3.3.5 of this Schedule, and showing the net amount to be paid or received by the Market Seller. Billing statements shall provide sufficient detail, as specified in the PJM Manuals, to allow verification of the billing amounts and completion of the Market Seller's internal accounting.

3.3A Economic Load Response Participants.

3.3A.1 Compensation.

Economic Load Response Participants shall be compensated pursuant to Sections 3.3A.4 and/or 3.3A.5 of this Schedule, for demand reductions measured by: 1) comparing actual metered load to an end-use customer's Customer Baseline Load or alternative CBLdetermined in accordance with the provisions of Section 3.3A.2 or 3.3A.2.01, respectively; or 2) by the MWs produced by On-Site Generators pursuant to the provisions of Section 3.3A.2.02.

3.3A.2 Customer Baseline Load.

For Economic Load Response Participants that choose to measure demand reductions using an end-use customer's Customer Baseline Load ("CBL"), the CBL shall be determined using the following formula:

(a) The CBL for weekdays shall be the average of the highest 4 out of the 5 most recent highest load weekdays in the 45 calendar day period preceding the relevant load reduction event.

i. For the purposes of calculating the CBL for weekdays, weekdays shall not include:

1. NERC holidays;

2. Weekend days;

3. Event days. For the purposes of this section an event day shall be any weekday that an Economic Load Response Participant submits a settlement pursuant to Section 3.3A.4 or 3.3A.5, provided that Event Days shall exclude such days if the settlement is denied by the relevant LSE or electric distribution company or is disallowed by the Office of the Interconnection;

4. Any weekday where the average daily event period usage is less than 25% of the average event period usage for the five days.

ii. For the purposes of calculating the CBL for weekdays, the 45-day period shall be extended one day for each of the following days that occur within the relevant period, provided that extensions pursuant to this section shall not exceed 15 days (*i.e.* 60 days total including the relevant 45-day period):

1. NERC holidays;

2. Event day(s), as defined in subsection (a)(i)(3) above, in which the hourly LMP exceeds the annual threshold in at least 4 hours, where the annual threshold will be effective from June 1 through May 31 and will be determined based on the load weighted average PJM real time LMP for the 99th percentile for the calendar year prior to May 31;

3. Weekdays the relevant end-use customer site responds to the dispatch instructions of the Office of the Interconnection;

4. Any weekday the event period usage is less than 25% of the average event period usage for the five days.

iii. If a 45-day period does not include 5 weekdays that meet the conditions in subsection (a)(i) of this section, provided there are 4 weekdays that meet the conditions in subsection (a)(i) of this section, the CBL shall be based on the average of those 4 weekdays. If there are not 4 eligible weekdays, the CBL shall be determined in accordance with subsection (iv) of this section.

iv. Section 3.3A.2(a)(i)(3) notwithstanding, if a 45-day period does not include 4 weekdays that meet the conditions in subsection (a)(i) of this section, event days will be used as necessary to meet the 4 day requirement to calculate the CBL, provided that any such event days shall be the highest load event days within the relevant 45-day period.

(b) The CBL for weekend days and NERC holidays shall be determined in accordance with the following provisions:

i. The CBL for Saturdays and Sundays/NERC holidays shall be the average of the highest 2 load days out of the 3 most recent Saturdays or Sundays/NERC holidays, respectively, in the 45 calendar day period preceding the relevant load reduction event, provided that the following days shall not be used to calculate a Saturday or Sunday/NERC holiday CBL:

1. Event days. For the purposes of this section an event day shall be any Saturday and Sunday/NERC holiday that an Economic Load Response Participant submits a settlement pursuant to Section 3.3A.4 or 3.3A.5, provided that Event Days shall exclude such days if the settlement is denied by the relevant LSE or electric distribution company or is disallowed by the Office of the Interconnection;

2. Any Saturday or Sunday/NERC holiday where the average daily event period usage is less than 25% of the average event period usage level for the three days;

3. Any Saturday or Sunday/NERC holiday that corresponds to the beginning or end of daylight savings.

ii. For the purposes of calculating the CBL for Saturdays or Sundays/NERC holidays, the 45-day period shall be extended one day for each of the following days that occur within the relevant period, provided that extensions pursuant to this section shall not exceed 15 days (*i.e.* 60 days total including the relevant 45-day period):

1. Event day(s), as defined in subsection (b)(i)(1) above, in which the hourly LMP exceeds the annual threshold in at least 4 hours, where the annual threshold will be effective from June 1 through May 31 and will be determined based on the load weighted average PJM real time LMP for the 99th percentile for the calendar year prior to May 31;

2. Saturday or Sundays/NERC holidays where the relevant end-use customer site responds to the dispatch instructions of the Office of the Interconnection.

iii. If a 45-day period does not include 3 Saturdays or 3 Sundays/NERC holidays, respectively, that meet the conditions in subsection (b)(i) of this section, provided there are 2 Saturdays or Sundays/NERC holidays that meet the conditions in subsection (b)(i) of this section, the CBL will be based on the average of those 2 Saturdays or Sundays/NERC holidays. If there are not 2 eligible Saturdays or Sundays/NERC holidays, the CBL shall be determined in accordance with subsection (iv) of this section.

iv. Section 3.3A.2(b)(i)(1) notwithstanding, if a 45-day period does not include 2 Saturdays or Sundays/NERC holidays, respectively, that meet the conditions in subsection (b)(i) of this section, event days will be used as necessary to meet the 2 day requirement to calculate the CBL, provided that any such event days shall be the highest load event days within the relevant 45-day period.

(c) CBLs established pursuant to this section shall represent end-use customers' actual load patterns. If the Office of the Interconnection determines that a CBL or alternative CBL does not accurately represent a customer's actual load patterns, the CBL shall be revised accordingly pursuant to Section 3.3A.2.01. Consistent with this requirement, if an Economic Load Response Participant chooses to measure load reductions using a Customer Baseline Load, the Economic Load Response Participant shall inform the Office of the Interconnection of a change in its operations or the operations of the end-use costumer upon whose behalf it is acting that would result in the adjustment of more than half the hours in the affected party's Customer Baseline Load by twenty percent or more for more than twenty days.

3.3A.2.01 Alternative Customer Baseline Methodologies.

(a) During the Economic Load Response Participant registration process pursuant to Section 1.5A.3 of this Schedule, the relevant Economic Load Response Participant, Load Serving Entity, electric distribution company, and/or the Office of the Interconnection ("Interested Parties") may propose an alternative CBL calculation that more accurately reflects the relevant end-use customer's consumption pattern relative to the CBL determined pursuant to Section 3.3A.2. Any proposal made pursuant to this section shall be provided to all other Interested Parties.

(b) The Interested Parties shall have 30 days to agree on a proposal issued pursuant to subsection (a) of this section. The 30-day period shall start the day the proposal is received by all Interested Parties. If all Interested Parties agree on a proposal issued pursuant to this section, that alternative CBL calculation methodology shall be effective consistent with the date of the relevant Economic Load Response Participant registration.

(c) If agreement is not reached pursuant to subsection (b) of this section, the Office of the Interconnection shall determine a CBL methodology within 20 days from the expiration of the 30-day period established by subsection (b). A CBL established by the Office of the Interconnection pursuant to this subsection (c) shall be binding upon all Interested Parties unless the Interested Parties reach agreement on an alternative CBL methodology prior to the expiration of the 20-day period established by this subsection (c).

(d) Operation of this Section 3.3A.2.01 shall not delay Economic Load Response Participant registrations pursuant to Section 1.5A.3, provided that the alternative CBL established pursuant to this section shall be used for all related energy settlements made pursuant to Sections 3.3A.4 and 3.3A.5.

(e) The Office of the Interconnection shall periodically publish alternative CBL methodologies established pursuant to this section in the PJM Manuals.

3.3A.2.02 On-Site Generators.

On-Site Generators used as the basis for Economic Load Response Participant status pursuant to Section 1.5A shall be subject to the following provisions:

i. The On-Site Generator shall be used solcy to enable an Economic Load Response Participant to provide demand reductions in response to the Locational Marginal Prices in the Real-time Energy Market and/or the Day-ahead Energy Market;

i. If subsection (i) does not apply, the amount of energy from an On-Site Generator used to enable an Economic Load Response Participant to provide demand reductions in response to the Locational Marginal Prices in the Real-time Energy Market and/or the Day-ahead Energy Market shall be capable of being quantified in a manner that is acceptable to the Office of the Interconnection.

3.3A.3 Weather-Sensitive and Symmetric Additive Adjustment.

(a) Concurrent with submitting a Economic Load Response Registration Form to the Office of the Interconnection and annually thereafter, the Economic Load Response Participant shall notify the Office of the Interconnection whether it elects to apply the Weather-Sensitive Adjustment (or "WSA") or Symmetric Additive Adjustment for the summer period (May-October) or the winter period (November-April). The Weather-Sensitive Adjustment either will decrease or increase Customer Baseline Load values. The Weather-Sensitive Adjustment may apply to measure load reductions in both the Real-time Energy Market and Day-ahead Energy Market, except that the simplified analysis for the summer period cannot be used with regard to the Day-ahead Energy Market. Unless an alternative formula is approved by the Office of the Interconnection and agreed upon by all relevant parties, including any Curtailment Service Provider, Load Serving Entity and end-use customer, the Weather-Sensitive Adjustment and Symmetric Additive Adjustment shall be calculated using the following applicable formula:

Regression Analysis (available for the summer and winter period.)

Step 1: Perform a regression analysis in Excel using the slope & intercept functions between the end-use customer's on-peak (8 AM to 8 PM), non-holiday, weekday hourly loads and the temperature-humidity index ("THI") on a seasonal basis for the period the WSA is being applied.

The Office of the Interconnection will post on the Office of the Interconnection website a spreadsheet of the THI values for all relevant weather stations located within the PJM region.

The regression analysis will produce a slope (m), expressed in kW/THI, and an intercept (b), expressed in kW, that describes the sensitivity of the end-use customer's load to weather.

Step 2: Determine the average THI for the on-peak hours for the five days used in the weekday CBL calculation.

Step 3: Determine the average THI for the on-peak hours of the event day.

Step 4: Calculate the WSA based on the following formula:

$$WSA = [(m \times THI_{EVENT\ DAY}) + b]/[(m \times THI_{CBL\ DAYS}) + b]$$

Simplified Analysis (available only for the summer period and for the Real-time Energy Market)

Step 1: Determine that the load is weather sensitive by agreement of the end-use customer, the Curtailment Service Provider, and the Load Serving Entity or by the Office of the Interconnection if there is no agreement. Weather adjustments could be negative or positive.

Step 2: Show that the hourly temperature reading at the nearest airport that provides weather information to the Office of the Interconnection equaled or exceeded 85 degrees Fahrenheit during each hour of the reduction event. The hourly temperature reading of another major airport nearby the end-use customer's location may be used if it can be shown that the temperature at the end-use customer's location correlates more closely.

Step 3: Calculate the average hourly load over two full hours beginning three hours prior to the Load Reduction Event.

Step 4: Calculate the average hourly load for the same hours using the values given by the CBL calculation.

Step 5: Compare the resulting average two hour loads from Steps 3 and 4.

Step 6: Determine if the difference from Step 5 expressed as a percentage is greater than 5 percent. If the difference is greater than 5 percent then the percentage will be the WSA for the reduction event.

Step 7: Submit an Excel spreadsheet to the Office of the Interconnection documenting the weather adjustment.

- The WSA, expressed in percentage terms, shall be applied to each hour of the CBL during the event period in order to establish a weather-adjusted CBL.
- For end-use customers without interval data from the pervious summer that select the regression analysis, the WSA shall initially be set at 100 percent. After one month of actual program response, a regression analysis shall be performed and the WSA shall be adjusted in accordance with Steps 1-4 above.
- In no event shall application of the WSA produce a weather-adjusted CBL that exceeds the end-use customer's historical, seasonal, on-peak non-coincident peak load.

Symmetric Additive Adjustment

Step 1: Calculate the average usage over the 3 hour period ending 1 hour prior to the start of event.

Step 2: Calculate the average usage over the 3 hour period in the CBL that corresponds to the 3 hour period described in Step 1.

Step 3: Subtract the results of Step 2 from the results of Step 1 to determine the symmetric additive adjustment (this may be positive or negative).

Step 4: Add the symmetric additive adjustment (i.e. the results of Step 3) to each hour in the CBL that corresponds to each event hour.

(b) Following a Load Reduction Event that is submitted to the Office of the Interconnection for compensation, the Office of the Interconnection shall provide the Notification window(s), if applicable, directly metered data and Customer Baseline Load and Weather-Sensitive Adjustment calculations to the appropriate electric distribution company or Load Serving Entity for optional review. The electric distribution company or Load Serving Entity will have ten business days to provide the Office of the Interconnection with notification of any issues related to the metered data or calculations.

3.3A.4 Market Settlements in Real-time Energy Market.

(a) Economic Load Response Participants participating in the Real-time Energy Market shall be compensated for reducing demand based on the actual kWh relief provided in excess of committed day-ahead load reductions. The Economic Load Response Participant that curtails or causes the curtailment of demand in real-time will be compensated by the Office of the Interconnection the real-time Locational Market Price less an amount equal to the applicable generation and transmission charges. The applicable generation and transmission charges are the charges the participant would have otherwise paid the Load Serving Entity absent the demand reduction.

(b) In cases where the demand reduction is dispatched by the Office of the Interconnection, payment will not be less than the total value of the demand reduction bid less an amount equal to the applicable generation and transmission charges. For the purposes of this section, the applicable generation and transmission charges are the charges the participant would have otherwise paid the Load Serving Entity absent the demand reduction, and the total value of a demand reduction bid shall include any submitted start-up costs associated with reducing demand, including direct labor and equipment costs and opportunity costs and any costs associated with a minimum number of contiguous hours for which the demand reduction must be committed.

Any shortfall will be made up through normal, real-time operating reserves. In all cases, the applicable zonal or aggregate (including nodal) Locational Marginal Price is used as appropriate for the individual end-use customer.

(c) An Economic Load Response Participant shall accumulate credits for energy reductions in those hours when the energy delivered to the end-use customer is less than the end-use customer's Customer Baseline Load at the corresponding hourly rate. In the event the end-use customer's hourly energy consumption is greater than the Customer Baseline Load, the Economic Load Response Participant will accumulate debits at the corresponding hourly rate for the amount the end-use customer's hourly energy consumption is greater than the Customer Baseline Load. However, in no event will the Economic Load Response Participant credit be reduced below zero on a daily basis.

(d) Economic Load Response Participants that have Locational Marginal Price based contracts pursuant to which they have agreed to pay their Load Serving Entity for the physical delivery of energy according to the hour value of the real-time Locational Marginal Price as calculated by the Office of the Interconnection, may choose to reduce demand and be compensated for the reduction in the Real-time Energy Market under the following circumstances. The Economic Load Response Participant shall provide the Office of the Interconnection with a strike price for the end-use customer's zonal Locational Marginal Price at which the end-use customer will reduce demand, as well as any start-up costs associated with reducing load, including direct labor and equipment costs and opportunity costs and costs associated with the minimum number of contiguous hours for which the demand reduction must be committed. In cases where the Economic Load Response Participant's zonal Locational Marginal Price reaches the strike price and the demand reduction is dispatched by the Office of the Interconnection, the Office of the Interconnection shall pay such Economic Load Response Participant the difference between the actual savings achieved based on zonal Locational Marginal Price and the total value of the end-use customer's demand reduction bid. For purposes of this provision the total value of the demand reduction bid will be the sum of the strike price times the MW of reduction achieved during each hour of the time period the demand reduction was dispatched by the Office of the Interconnection or the minimum down-time whichever is greater, plus the submitted start-up costs. Demand reductions hereunder will not be eligible to set real-time Locational Marginal Price.

3.3A.5 Market Settlements in the Day-ahead Energy Market.

(a) Economic Load Response Participants participating in the Day-ahead Energy Market shall be compensated for reducing demand based on the reductions of kWh committed in the Day-ahead Energy Market. An Economic Load Response Participant that submits a demand reduction bid day ahead that is accepted by the Office of the Interconnection shall be paid the day-ahead Locational Marginal Price less an amount equal to the applicable generation and transmission charges. The applicable generation and transmission charges are the charges the participant would have otherwise paid the Load Serving Entity absent the demand reduction.

(b) Total payments to Economic Load Response Participants for accepted day-ahead demand reduction bids will not be less than the total value of the demand reduction bid less an amount equal to the applicable generation and transmission charges. For the purposes of this section, the applicable generation and transmission charges are the charges the participant would have otherwise paid the Load Serving Entity absent the demand reduction, and the total value of a demand reduction bid shall include any submitted start-up costs associated with reducing load, including direct labor and equipment costs and opportunity costs and any costs associated with a minimum number of contiguous hours for which the load reduction must be committed. Any shortfall will be made up through normal, day-ahead operating reserves. In all cases, the applicable zonal or aggregate (including nodal) Locational Marginal Price is used as appropriate for the individual end-use customer.

(c) Economic Load Response Participants that have demand reductions committed in the Day-ahead Energy Market that deviate from the day-ahead schedule in real time shall be charged or credited for such variance at the real time LMP plus or minus an amount equal to the applicable balancing operating reserve charge. Load Serving Entities that otherwise would have load that was reduced shall receive any associated operating reserve credit plus, if the real-time Locational Marginal Price is higher than the day-ahead Locational Marginal Price during the shortfall, the difference between the day-ahead and the real-time Locational Marginal Price times the shortfall.

(d) Economic Load Response Participants that have real-time Locational Marginal Price-based contracts may not participate in the Day-ahead Energy Market.

3.3A.6 Prohibited Economic Load Response Participant Market Settlements.

(a) Settlements pursuant to Sections 3.3A.4 and 3.3A.5 shall be limited to demand reductions executed in response to the Locational Marginal Price in the Real-time Energy Market and/or the Day-ahead Energy Market.

(b) Demand reductions that do not meet the requirements of Section 3.3A.6(a) shall not be eligible for settlement pursuant to Sections 3.3A.4 and 3.3A.5. Examples of settlements prohibited pursuant to this Section 3.3A.6(b) include, but are not limited to, the following:

i. Settlements based on variable demand where the timing of the demand reduction supporting the settlement did not change in direct response to Locational Marginal Prices in the Real-time Energy Market and/or the Day-ahead Energy Market;

ii. Consecutive daily settlements that are the result of a change in normal demand patterns that are submitted to maintain a CBL that no longer reflects the relevant end-use customer's demand;

iii. Settlements based on On-Site Generator data if the On Site Generation is not supporting demand reductions executed in response to the Locational Marginal Price in the Real-time Energy Market and/or the Day-ahead Energy Market;

iv. Settlements based on demand reductions that are the result of operational changes between multiple end-use customer sites in the PJM footprint, provided that, the foregoing notwithstanding, settlements based on such demand reduction shall be allowed if the demand reduction alleviates congestion.

(c) The Office of the Interconnection shall disallow settlements for demand reductions that do not meet the requirements of Section 3.3A.6(a). If the Economic Load Response Participant continues to submit settlements for demand reductions that do not meet the requirements of Section 3.3A.6(a), then the Office of the Interconnection shall suspend the Economic Load Response Participant's PJM Interchange Energy Market activity and refer the matter to the FERC Office of Enforcement.

3.3A.7 Economic Load Response Participant Review Process.

(a) The Office of the Interconnection shall review the participation of an Economic Load Response Participant in the PJM Interchange Energy Market under the following circumstances:

i. An Economic Load Response Participant's registrations submitted pursuant to Section 1.5A.3 are disputed more than 10% of the time by any relevant electric distribution company(ies) or Load Serving Entity(ies).

ii. An Economic Load Response Participant's settlements pursuant to 3.3A.4 and 3.3A.5 are disputed more than 10% of the time by any relevant electric distribution company(ies) or Load Serving Entity(ies).

iii. An Economic Load Response Participant's settlements pursuant to Sections 3.3A.4 and 3.3A.5 are denied by the Office of the Interconnection more than 10% of the time.

(b) The Office of the Interconnection shall have thirty days to conduct a review pursuant to this Section 3.3A.7. The Office of the Interconnection may refer the matter to the PJM MMU and/or the FERC Office of Enforcement if the review indicates the relevant Economic Load Response Participant and/or relevant electric distribution company or LSE is engaging in activity that is inconsistent with the PJM Interchange Energy Market rules governing Economic Load Response Participants.

3.4 Transmission Customers.

3.4.1 Transmission Congestion Charges.

Each Transmission Customer shall be assessed Transmission Congestion Charges as specified in Section 5 of this Schedule.

3.4.2 Transmission Loss Charges.

Each Transmission Customer shall be assessed Transmission Loss Charges as specified in Section 5 of this Schedule.

3.4.3 Billing.

The Office of the Interconnection shall prepare a billing statement each billing cycle for each Transmission Customer in accordance with the charges and credits specified in Sections 3.4.1 through 3.4.2 of this Schedule, and showing the net amount to be paid or received by the Transmission Customer. Billing statements shall provide sufficient detail, as specified in the PJM Manuals, to allow verification of the billing amounts and completion of the Transmission Customer's internal accounting.

3.5 Other Control Areas.

3.5.1 Energy Sales.

To the extent appropriate in accordance with Good Utility Practice, the Office of the Interconnection may sell energy to a Control Area interconnected with the PJM Region as necessary to alleviate or end an Emergency in that interconnected Control Area. Such sales shall be made (i) only to Control Areas that have undertaken a commitment pursuant to a written agreement with the LLC to sell energy on a comparable basis to the PJM Region, and (ii) only to the extent consistent with the maintenance of reliability in the PJM Region. The Office of the Interconnection may decline to make such sales to a Control Area that the Office of the Interconnection determines does not have in place and implement Emergency procedures that are comparable to those followed in the PJM Region. If the Office of the Interconnection sells energy to an interconnected Control Area as necessary to alleviate or end an Emergency in that Control Area, such energy shall be sold at 150% of the Real-time Price at the bus or buses at the border of the PJM Region at which such energy is delivered.

3.5.2 Operating Margin Sales.

To the extent appropriate in accordance with Good Utility Practice, the Office of the Interconnection may sell Operating Margin to an interconnected Control Area as requested to alleviate an operating contingency resulting from the effect of the purchasing Control Area's operations on the dispatch of resources in the PJM Region. Such sales shall be made only to Control Areas that have undertaken a commitment pursuant to a written agreement with the Office of the Interconnection (i) to purchase Operating Margin whenever the purchasing Control Area's operations will affect the dispatch of resources in the PJM Region, and (ii) to sell Operating Margin on a comparable basis to the LLC.

3.5.3 Transmission Congestion.

Each Control Area purchasing Operating Margin shall be assessed Transmission Congestion Charges as specified in Section 5.1.5 of this Schedule.

3.5.4 Billing.

The Office of the Interconnection shall prepare a billing statement each billing cycle for each Control Area to which Emergency energy or Operating Margin was sold, and showing the net amount to be paid by such Control Area. Billing statements shall provide sufficient detail, as specified in the PJM Manuals, to allow verification of the billing amounts.

3.6 Metering Reconciliation.

3.6.1 Meter Correction Billing.

Metering errors and corrections will be reconciled at the end of each month by a meter correction charge (positive or negative). The monthly meter correction charge for tie meter corrections shall be the product of the positive or negative deviation in energy amounts, times the load weighted average real-time Locational Marginal Price for all hours of that month for all load buses in the PJM Region. The monthly meter correction charge for generator meter corrections shall be the product of the positive or negative deviation in energy amounts, times the generation weighted average Locational Marginal Price at that generator's bus for all hours of that month.

3.6.2 Meter Corrections Between Market Participants.

If a Market Participant or the Office of the Interconnection discovers a meter error affecting an interchange of energy with another Market Participant and makes the error known to such other Market Participant prior to the completion by the Office of the Interconnection of the accounting for the interchange, and if both Market Participants are willing to adjust hourly load records to compensate for the error and such adjustment does not affect other parties, an adjustment in load records may be made by the Market Participants in order to correct for the meter error, provided corrected information is furnished to the Office of the Interconnection in accordance with the Office of the Interconnection's accounting deadlines. No such adjustment may be made if the accounting for the Operating Day in which the interchange occurred has been completed by the Office of the Interconnection.

3.6.3 500 kV Meter Errors.

Billing shall be adjusted to account for errors in meters on 500 kV Transmission Facilities within the PJM Pre-Expansion Zones (excluding Allegheny Power) or between the PJM Pre-Expansion Zones (excluding Allegheny Power) and Allegheny Power. The Market Participant with the tie meter or generator meter experiencing the error shall account for the full amount of the discrepancy and an appropriate debit or credit shall be applied among Electric Distributors that report hourly net energy flows from metered tie lines in the Pre-Expansion Zones (excluding Allegheny Power) in proportion to the load consumed in their territories.

3.6.4 Meter Corrections Between Control Areas.

An error between accounted for and metered interchange between a Party in the PJM Region and an entity in a Control Area other than the PJM Region shall be corrected by adjusting the hourly meter readings. If this is not practical, the error shall be accounted for by a correction at the end of the billing cycle. The Market Participant with ties to such other Control Area experiencing the error shall account for the full amount of the discrepancy. However, if the meter correction applies to a tie on the 500 kV system between the PJM Pre-Expansion Zones (excluding Allegheny Power) and other Control Areas, Electric Distributors that report hourly net energy flows from metered tie lines in the Pre-Expansion Zones (excluding Allegheny Power) shall account for the full amount of the discrepancy in proportion to the load consumed in their territories. The appropriate debit or credit shall be applied among Network Service Users in proportion to their deliveries to load served in the PJM Region. The Office of the Interconnection will adjust the actual interchange between the other Control Area and the PJM Region to maintain a proper record of inadvertent energy flow.

3.6.5 Meter Correction Data.

Meter error data shall be submitted to the Office of the Interconnection not later than noon on the third working day of the Office of the Interconnection after the end of the billing cycle applicable to the meter correction.

3.6.6 Correction Limits.

A Market Participant may not assert a claim for an adjustment in billing as a result of a meter error for any error discovered more than two years after the date on which the metering occurred. Any claim for an adjustment in billing as a result of a meter error shall be limited to bills for transactions occurring in the most recent annual accounting period of the billing Market Participant in which the meter error occurred, and the prior annual accounting period.

3.7 Inadvertent Interchange.

Inadvertent Interchange will be reconciled each hour by a charge allocation (positive or negative) applied to Network Service Users in proportion to their deliveries to load in the PJM Region, which shall be the product of the positive or negative Inadvertent Interchange amount times the PJM load weighted average Locational Marginal Price for that hour.

4. [Reserved For Future Use]

5. CALCULATION OF CHARGES AND CREDITS FOR TRANSMISSION CONGESTION AND LOSSES

5.1 Transmission Congestion Charge Calculation.

5.1.1 Calculation by Office of the Interconnection.

When the transmission system is operating under constrained conditions, or as necessary to provide third-party transmission provider losses in accordance with Section 9.3, the Office of the Interconnection shall calculate Transmission Congestion Charges for each Network Service User, the PJM Interchange Energy Market, and each Transmission Customer.

5.1.2 General.

The Office of the Interconnection shall calculate Congestion Prices in the form of Day-ahead Congestion Prices and Real-time Congestion Prices for the PJM Region, in accordance with Section 2 of this Schedule.

5.1.3 Network Service User Calculation.

(a) Each Network Service User shall be charged for the increased cost of energy incurred by it during each constrained hour to deliver the output of its firm *Generation* Capacity Resources or other owned or contracted for resources, its firm bilateral purchases, and its non-firm bilateral purchases as to which it has elected to pay Transmission Congestion Charges. The Transmission Congestion Charge for deliveries from each such source shall be the Network Service User's hourly congestion net bill.

(b) Market Buyers shall be charged for transmission congestion resulting from all load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served from the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead Congestion Prices applicable to each relevant load bus.

(c) Generating Market Buyers shall be reimbursed for transmission congestion resulting from all energy scheduled to be delivered to the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead Congestion Prices applicable to each relevant generation bus.

(d) Market Sellers shall be reimbursed for transmission congestion resulting from all energy scheduled to be delivered in the Day-ahead Energy Market at the Day-ahead Congestion Prices applicable to each relevant generation bus.

(e) The hourly net amount of energy delivered at each generation bus is determined by revenue meter data if available, or by the State Estimator, if revenue meter data is not available. The total load actually served at each load bus is initially determined by the State Estimator. For each Electric Distributor that reports hourly net energy flows from metered tie lines and for which all generators within the Electric Distributor's territory report revenue quality, hourly net energy delivered, the total revenue meter load within the Electric Distributor's territory is calculated as the sum of all net import energy flows reported by their tie revenue meters and all net generation reported via generator revenue meters. The amount of load at each of such Electric Distributor's load buses calculated by the State Estimator is then adjusted, in proportion to its share of the total load of that Electric Distributor, in order that the total amount of load across all of the Electric Distributor's load buses matches its total revenue meter calculated load.

(f) At the end of each hour during an Operating Day, the Office of the Interconnection shall calculate the Transmission Congestion Charges at each Market Buyer's load bus to be charged for congestion at Real-time Congestion Prices determined by the product of the hourly Real-time Congestion Price at the relevant bus times the Market Buyer's megawatts of load (net of operating Behind The Meter Generation, but not to be less than zero) at the bus in that hour in excess of the load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served at that bus in the hour in the Day-ahead Energy Market. To the extent that the load (net of operating Behind The Meter Generation, but not to be less than zero) actually served at a load bus is less than the load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served at that bus in the Day-ahead Energy Market, the Market Buyer shall be paid for the difference at the Real-time Congestion Price for the load bus at the time of the shortfall. The megawatts of load at each load bus shall be the sum of the megawatts of load (net of operating Behind The Meter Generation, but not less than zero) for that bus of that Market Buyer plus any megawatts of that Market Buyer's bilateral sales attributable to that bus. The total load charge for each Market Buyer shall be the sum, for each of a Market Buyer's load buses, of the charges at Day-ahead Congestion Prices determined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1a plus the charges at Real-time Congestion Prices determined as specified herein, net of any payments specified herein for each of the Market Buyer's load buses.

(g) At the end of each hour during an Operating Day, the Office of the Interconnection shall calculate the transmission congestion payments at each Generating Market Buyer's generation bus to be paid at Real-time Congestion Prices, determined by the product of the hourly Real-time Congestion Price at the relevant bus times the Generating Market Buyer's megawatts of generation at such generation bus in the hour in excess of the energy scheduled to be injected at that bus in that hour in the Day-ahead Energy Market. To the extent that the energy actually injected at the generation bus is less than the energy scheduled to be injected at that bus in the Day-ahead Energy Market, the Generating Market Buyer shall be debited for the difference at the Real-time Congestion Price for the generation bus at the time of the shortfall. The megawatts of generation at each generation bus shall be the sum of the megawatts of generation for that bus of that Generating Market Buyer plus any megawatts of bilateral purchases of that Generating Market Buyer attributable to that bus. The total generation revenue for each Generating Market Buyer shall be the sum, for each of the Generating Market Buyer's generation buses, of the revenues at Day-ahead Congestion Prices determined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1A plus the revenues at Real-time Congestion Prices determined as specified herein, net of any debits specified herein for each of the Market Buyer's generation buses.

(h) A Market Seller shall be paid for transmission congestion that results from the Real-time sales of energy to the extent of its hourly net deliveries to the PJM Region of energy in excess of amounts scheduled in the Day-ahead Energy Market from the Market Seller's resources. For pool External Resources, the Office of the Interconnection shall model, based on an appropriate flow analysis, the hourly amounts delivered from each such resource to the corresponding Interface Pricing Point between adjacent Control Areas and the PJM Region. The total real-time generation revenues for each Market Seller shall be the sum of its credits determined by the product of (i) the hourly net amount of energy delivered to the PJM Region at the applicable generation or interface bus in excess of the amount scheduled to be delivered in that hour at that bus in the Day-ahead Energy Market from each of the Market Seller's resources, times (ii) the hourly Real-time Congestion Price at that bus. To the extent that the energy actually injected at a generation or interface bus in any hour is less than the energy scheduled to be injected at that bus in the Day-ahead Energy Market, the Market Seller shall be debited for the difference at the Real-time Congestion Price for the applicable bus at the time of the shortfall times the amount of the shortfall. The total generation revenue for each Market Seller shall be the sum, for each of the Market Seller's generation buses or Interface Pricing Points, of the revenues at Day-ahead Congestion Prices determined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1A plus the revenues at Real-time Congestion Prices determined as specified herein, net of any debits specified herein for each of the Market Seller's generation or interface buses.

5.1.4 Transmission Customer Calculation.

Each Transmission Customer using Firm Point-to-Point Transmission Service (as defined in the PJM Tariff), and each Transmission Customer using Non-Firm Point-to-Point Transmission Service (as defined in the PJM Tariff) that has elected to pay Transmission Congestion Charges, shall be charged for the increased cost of energy during constrained hours for the delivery of energy using Point-to-Point Transmission Service. Except as specified in this subsection, a Transmission Congestion Charge shall be assessed for transmission use scheduled in the Day-ahead Energy Market, calculated as the amount to be delivered multiplied by the difference between the Day-ahead Congestion Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region and the Day-ahead Congestion Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. Transmission Congestion Charges shall be assessed for real-time transmission use in excess of the amounts scheduled for each hour in the Day-ahead Energy Market, calculated as the excess amount multiplied by the difference between the Real-time Congestion Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region, and the Real-time Congestion Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. A Transmission Customer shall be paid for Transmission Congestion Charges for real-time transmission use falling below the amounts scheduled for each hour in the Day-ahead Energy Market, calculated as the shortfall amount multiplied by the difference between the Real-time Congestion Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region, and the Real-time Congestion Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. Real-time deviations from the Point-to-Point Transmission Service scheduled in the Day-ahead Energy Market shall be determined by the lesser of the real-time injection or withdrawal associated with such transmission service.

5.1.5 Operating Margin Customer Calculation.

Each Control Area purchasing Operating Margin shall be assessed Transmission Congestion Charges for any increase in the cost of energy resulting from the provision of Operating Margin. The Transmission Congestion Charge shall be the amount of Operating Margin purchased in an hour multiplied by the difference in the Real-time Price at what would be the delivery Interface Pricing Point and the Real-time Price at what would be the source Interface Pricing Point, if the operating contingency that was the basis for the purchase of Operating Margin had occurred in that hour. Operating Margin may be allocated among multiple source and delivery Interface Pricing Points in accordance with an applicable load flow study.

5.1.6 Transmission Loading Relief Customer Calculation.

(a) Each Transmission Loading Relief Customer shall be assessed Transmission Congestion Charges for any increase in the cost of energy in the PJM Region resulting from its energy schedules over contract paths outside the PJM Region during Transmission Loading Relief.

(b) The Transmission Congestion Charge shall be the total amount of energy specified in such energy schedules multiplied by the difference between a Locational Marginal Price calculated by the Office of the Interconnection for the energy schedule source location specified in the NERC Interchange Distribution Calculator and a Locational Marginal Price calculated by the Office of the Interconnection for the energy schedule sink location specified in the NERC Interchange Distribution Calculator. Transmission Congestion Charges that are less than zero shall be set equal to zero for Transmission Loading Relief Customers.

(c) The Office of the Interconnection will determine the Locational Marginal Prices at the energy schedule source and sink locations external to PJM with reference to and based solely on the prices of energy in the PJM Region and at the Interface Pricing Points between adjacent Control Areas and the PJM Region and the system conditions and actual power flow distributions as described by the PJM State Estimator program. The Office of the Interconnection will determine the Locational Marginal Prices at the external energy schedule source and sink locations and the resulting Congestion Charge based on the portion of the energy schedule that flows through the PJM Region as reflected by the flow distributions from the PJM State Estimator program.

5.1.7 Total Transmission Congestion Charges.

The total Transmission Congestion Charges collected by the Office of the Interconnection each hour will be the aggregate net amounts determined as specified in this Schedule. The Office of the Interconnection shall collect Transmission Congestion Charges for each hour the transmission system operates under constrained conditions.

5.2 Transmission Congestion Credit Calculation.

5.2.1 Eligibility.

(a) Except as provided in Section 5.2.1(b), each holder of a Financial Transmission Right shall receive as a Transmission Congestion Credit a proportional share of the total Transmission Congestion Charges collected for each constrained hour.

(b) If a holder of a Financial Transmission Right between specified delivery and receipt buses acquired the Financial Transmission Right in a Financial Transmission Rights Auction (the procedures for which are set forth in Part 7 of this Schedule 1) and (i) had an Increment Bid and/or Decrement Bid that was accepted by the Office of the Interconnection for an applicable hour in the Day-ahead Energy Market for delivery or receipt at or near delivery or receipt buses of the Financial Transmission Right; and (ii) the result of the acceptance of such Increment Bid or Decrement Bid is that the difference in locational marginal prices in the Day-ahead Energy Market between such delivery and receipt buses is greater than the difference in locational marginal prices between such delivery and receipt buses in the Real-time Energy Market, then the Market Participant shall not receive any Transmission Congestion Credit, associated with such Financial Transmission Right in such hour, in excess of one divided by the number of hours in the applicable month multiplied by the amount that the Market Participant paid for the Financial Transmission Right in the Financial Transmission Rights Auction.

(c) For purposes of Section 5.2.1(b) a bus shall be considered at or near the Financial Transmission Right delivery or receipt bus if seventy-five percent or more of the energy injected or withdrawn at that bus and which is withdrawn or injected at any other bus is reflected in the constrained path between the subject Financial Transmission Right delivery and receipt buses that were acquired in the Financial Transmission Rights Auction.

5.2.2 Financial Transmission Rights.

(a) Transmission Congestion Credits will be calculated based upon the Financial Transmission Rights held at the time of the constrained hour. Except as provided in paragraph (e) below, Financial Transmission Rights shall be auctioned as set forth in Section 7.

(b) The hourly economic value of a Financial Transmission Right Obligation is based on the Financial Transmission Right MW reservation and the difference between the Day-ahead Congestion Price at the point of delivery and the point of receipt of the Financial Transmission Right. The hourly economic value of a Financial Transmission Right Obligation is positive (a benefit to the Financial Transmission Right holder) when the Day-ahead Congestion Price at the point of delivery is higher than the Day-ahead Congestion Price at the point of receipt. The hourly economic value of a Financial Transmission Right Obligation is negative (a liability to the holder) when the Day-ahead Congestion Price at the point of receipt is higher than the Day-ahead Congestion Price at the point of delivery.

(c) The hourly economic value of a Financial Transmission Right Option is based on the Financial Transmission Right MW reservation and the difference between the Day-ahead Congestion Price at the point of delivery and the point of receipt of the Financial Transmission Right when that difference is positive. The hourly economic value of a Financial Transmission Right Option is positive (a benefit to the Financial Transmission Right holder) when the Day-ahead Congestion Price at the point of delivery is higher than the Day-ahead Congestion Price at the point of receipt. The hourly economic value of a Financial Transmission Right Option is zero (neither a benefit nor a liability to the holder) when the Day-ahead Congestion Price at the point of receipt is higher than the Day-ahead Congestion Price at the point of delivery.

(d) A Financial Transmission Right, or the right to Transmission Congestion Credits attributable to a Financial Transmission Right, may be sold or otherwise transferred by agreement, subject to compliance with such procedures as may be established by the Office of the Interconnection for verification of the rights of the purchaser or transferee.

(e) Network Service Users and Firm Transmission Customers that take service *that sinks, sources in, or is transmitted through new PJM zones, at their election, may receive a direct* allocation of Financial Transmission Rights instead of an allocation of Auction Revenue Rights. Network Service Users and Firm Transmission Customers may make this election for the succeeding two annual FTR auctions after the integration of the new zone into the PJM interchange energy market. Such election shall be made prior to the commencement of each annual FTR auction. For purposes of this election, the Allegheny Power Zone shall be considered a new zone with respect to the annual Financial Transmission Right auction in 2003 and 2004. Network Service Users and Firm Transmission Customers in new PJM zones that elect not to receive direct allocations of Financial Transmission Rights shall receive allocations of Auction Revenue Rights. During the annual allocation process, the Financial Transmission Right allocation for new PJM zones shall be performed simultaneously with the Auction Revenue Rights allocations in existing and new PJM zones. Prior to the effective date of the initial allocation of FTRs in a new PJM Zone, PJM shall file with FERC, under section 205 of the Federal Power Act, the FTRs and ARRs allocated in accordance with sections 5 and 7 of this Schedule 1.

(f) For Network Service Users and Firm Transmission Customers that take service that sinks in, sources in, or is transmitted through new PJM zones, that elect to receive direct allocations of Financial Transmission Rights, Financial Transmission Rights shall be allocated using the same allocation methodology as is specified for the allocation of Auction Revenue Rights in Section 7.4.2 and in accordance with the following:

(i) Subject to subsection (ii) of this section, all Financial Transmission Rights must be simultaneously feasible. If all Financial Transmission Right requests made when Financial Transmission Rights are allocated for the new zone are not feasible then Financial Transmission Rights are prorated and allocated in proportion to the MW level requested and in inverse proportion to the effect on the binding constraints.

(ii) If any Financial Transmission Right requests that are equal to or less than a Network Service User's Zonal Base Load for the Zone or fifty percent of its transmission responsibility for Non-Zone Network Load, or fifty percent of megawatts of firm service between the receipt and delivery points of Firm Transmission Customers, are not feasible, then PJM shall increase the capability limits of the binding constraints that would have rendered the Financial Transmission Rights infeasible to the extent necessary in order to allocate such Financial Transmission Rights without their being infeasible, and such increased limits shall be included in all modeling used for subsequent Auction Revenue Rights and Financial Transmission Rights allocations and auctions for the Planning Year; provided that, the foregoing notwithstanding, this subparagraph (ii) shall not apply if the infeasibility is caused by extraordinary circumstances. For the purposes of this subsection, extraordinary circumstances shall mean an event of *force majeure* that reduces the capability of existing or planned transmission facilities and such reduction in capability is the cause of the infeasibility of such Financial Transmission Rights. Extraordinary circumstances do not include those system conditions and assumptions modeled in simultaneous feasibility analyses conducted pursuant to section 7.5 of Schedule 1 of this Agreement. If PJM allocates Financial Transmission Rights as a result of this subparagraph (ii) that would not otherwise have been feasible, then PJM shall notify Members and post on its web site (a) the aggregate megawatt quantities, by sources and sinks, of such Financial Transmission Rights and (b) any increases in capability limits used to allocate such Financial Transmission Rights.

(iii) In the event that Network Load changes from one Network Service User to another after an initial or annual allocation of Financial Transmission Rights in a new zone, Financial Transmission Rights will be reassigned on a proportional basis from the Network Service User losing the load to the Network Service User that is gaining the Network Load.

(g) At least one month prior to the integration of a new zone into the PJM interchange energy market, Network Service Users and Firm Transmission Customers that take service that sinks in, sources in, or is transmitted through the new zone, shall receive an initial allocation of Financial Transmission Rights that will be in effect from the date of the integration of the new zone until the next annual allocation of Financial Transmission Rights and Auction Revenue Rights. Such allocation of Financial Transmission Rights shall be made in accordance with Section 5.2.2(f) of this Schedule.

(h) The following congestion charge crediting and uplift (hereinafter, "mitigation") rules shall apply to each new zone first integrated on any date from May 1, 2004 through May 31, 2005 for which FERC orders such mitigation as a result of a filing for such zone of the type specified in subsection (g) above. Where FERC orders such mitigation, such rules shall remain in effect for such zone from the date of its integration through May 31, 2005. All such mitigation shall terminate for all such zones on May 31, 2005.

1.) Mitigation shall apply only to Long-Term Firm Point-to-Point Transmission Service customers in such a zone that did not receive an allocation of ARRs or FTRs, as applicable, equal to the ARRs or FTRs such customer requested in the allocation for such zone. Only pro-rated requests that complied with the source, sink, and service level limitations stated in section 7.4.2(f) are eligible for mitigation. Such mitigation shall continue for the period stated above if a customer eligible for mitigation renews or rolls over its service agreement, but shall no longer apply if such a customer redirects its service to alternate points on a firm basis.

2.) The affected customers that will receive mitigation will be notified by PJM of the MW amount of mitigation they will receive based on the difference between the amount of ARRs or FTRs requested and the amount of ARRs or FTRs awarded.

3.) Mitigation provided herein applies only to requests submitted and pro-rated in the interim or annual ARR/FTR allocation process conducted for such zones for the time period specified above.

4.) For each affected customer as described above, PJM each month will provide a mitigation credit to offset any congestion charges incurred by such customer in connection with the MW amount for the contract reservation eligible for mitigation as determined under paragraph (2) above. In no event shall the amount of any such credit exceed the net amount of any congestion paid (after taking account of any congestion credits) by such customer during such month with respect to such identified MW amount.

5.) The total cost of all such credits for all mitigated customers in a zone each month shall be charged to and collected from all Network Integration Transmission Service and Long-Term Firm Point-to-Point Transmission Service customers within such zone that received ARRs or FTRs or that received mitigation under this subsection (h), in proportion to each such customer's share of the total allocated ARR/FTR MWs (including mitigation MWs). Mitigation and uplift shall be determined separately for each such zone.

5.2.3 Target Allocation of Transmission Congestion Credits.

A target allocation of Transmission Congestion Credits for each entity holding a Financial Transmission Right shall be determined for each Financial Transmission Rights. Each Financial Transmission Right shall be multiplied by the Day-ahead Congestion Price differences for the receipt and delivery points associated with the Financial Transmission Right, calculated as the Day-ahead Congestion Price at the delivery point(s) minus the Day-ahead Congestion Price at the receipt point(s). For the purposes of calculating Transmission Congestion Credits, the Day-ahead Congestion Price of a Zone is calculated as the sum of the Day-ahead Congestion Price of the buses that comprise the Zone multiplied by the percent of annual peak load assigned to each node. When the FTR Target Allocation is positive, the FTR Target Allocation is a credit to the FTR holder. When the FTR

Target Allocation is negative, the FTR Target Allocation is a debit to the FTR holder if the FTR is a Financial Transmission Right Obligation. When the FTR Target Allocation is negative, the FTR Target Allocation is set to zero if the FTR is a Financial Transmission Right Option. The total target allocation for Network Service Users and Transmission Customers for each hour shall be the sum of the target allocations associated with all of the Network Service Users' or Transmission Customers' Financial Transmission Rights.

5.2.4 [Reserved.]

5.2.5 Calculation of Transmission Congestion Credits.

(a) The total of all the target allocations determined as specified above shall be compared to the total Transmission Congestion Charges in each hour resulting from both the Day-ahead Energy Market and the Real-time Energy Market. If the total of the target allocations is less than the total of the Transmission Congestion Charges, the Transmission Congestion Credit for each entity holding an FTR shall be equal to its target allocation. All remaining Transmission Congestion Charges shall be distributed as described below in Section 5.2.6 "Distribution of Excess Congestion Charges."

(b) If the total of the target allocations is greater than the total Transmission Congestion Charges for the hour resulting from both the Day-ahead Energy Market and the Real-time Energy Market, each holder of Financial Transmission Rights shall be assigned a share of the total Transmission Congestion Charges in proportion to its target allocations for Financial Transmission Rights which have a positive Target Allocation value. Financial Transmission Rights which have a negative Target Allocation value are assigned the full Target Allocation value as a negative Transmission Congestion Credit.

(c) At the end of a Planning Period if all FTR holders did not receive Transmission Congestion Credits equal to their target allocations, the Office of the Interconnection shall assess a charge equal to the difference between the Transmission Congestion Credit target allocations for all revenue deficient FTRs and the actual Transmission Congestion Credits allocated to those FTR holders. A charge assessed pursuant to this section shall also include any aggregate charge assessed pursuant to section 7.4.4(c) of Schedule 1 of this Agreement and shall be allocated to all FTR holders on a pro-rata basis according to the total target allocations for all FTRs held at any time during the relevant Planning Period. The charge shall be calculated and allocated in accordance with the following methodology:

1. The Office of the Interconnection shall calculate the total amount of uplift required as {[sum of the total monthly deficiencies in FTR target allocations for the Planning Period + the sum of the ARR target allocation deficiencies determined pursuant to section 7.4.4(c) of Schedule 1 of this Agreement] – [sum of the total monthly excess ARR revenues and congestion charges for the Planning Period]}.

2. For each Market Participant that held an FTR during the Planning Period, the Office of the Interconnection shall calculate the total target allocation associated with all FTRs held by the Market Participant during the Planning Period, provided that, the foregoing notwithstanding, if the total target allocation for an individual Market Participant calculated pursuant to this section is negative the Office of Interconnection shall set the value to zero.

3. The Office of the Interconnection shall then allocate an uplift charge to each Market Participant that held an FTR at any time during the Planning Period in

accordance with the following formula: {[total uplift] * [total target allocation for all FTRs held by the Market Participant at any time during the Planning Period] / [total target allocations for all FTRs held by all *PJM Market Participants at any time during the Planning Period]}*.

5.2.6 Distribution of Excess Congestion Charges.

(a) Excess Transmission Congestion Charges accumulated in a month shall be distributed to each holder of Financial Transmission Rights in proportion to, but not more than, any deficiency in the share of Transmission Congestion Charges received by the holder during that month as compared to its total target allocations for the month.

(b) After the excess Transmission Congestion Charge distribution described in Section 5.2.6(a) is performed, any excess Transmission Congestion Charges remaining at the end of a month shall be distributed to each holder of Financial Transmission Rights in proportion to, but not more than, any deficiency in the share of Transmission Congestion Charges received by the holder during the current Planning Period, including previously distributed excess Transmission Congestion Charges, as compared to its total target allocation for the Planning Period.

(c) Any excess Transmission Congestion Charges remaining at the end of a Planning Period shall be distributed to each holder of Auction Revenue Rights in proportion to, but not more than, any Auction Revenue Right deficiencies for that Planning Period.

(d) Any excess Transmission Congestion Charges remaining after a distribution pursuant to subsection (c) of this section shall be distributed to all FTR holders on a pro-rata basis according to the total target allocations for all FTRs held at any time during the relevant Planning Period. Any allocation pursuant to this subsection (d) shall be conducted in accordance with the following methodology:

1. For each Market Participant that held an FTR during the Planning Period, the Office of the Interconnection shall calculate the total target allocation associated with all FTRs held by the Market Participant during the Planning Period, provided that, the foregoing notwithstanding, if the total target allocation for an individual Market Participant calculated pursuant to this section is negative the Office of the Interconnection shall set the value to zero.

2. The Office of the Interconnection shall then allocate an excess Transmission Congestion Charge credit to each Market Participant that held an FTR at any time during the Planning Period in accordance with the following formula: {[total excess Transmission Congestion Charges remaining after distributions pursuant to subsection (a)-(c) of this section] * [total target allocation for all FTRs held by the Market Participant at any time during the Planning Period] / [total target allocations for all FTRs held by all PJM Market Participants at any time during the Planning Period]}.

5.3 Unscheduled Transmission Service (Loop Flow).

(a) When there are agreements between the Members (or the Office of the Interconnection on behalf of the Members) and others for compensation to be paid or received for unscheduled transmission service (loop flow) into or out of the PJM Region, the net compensation received shall be included in the total Transmission Congestion Charges that are distributed in accordance with Section 5.2.

(b) With respect to payments by the Office of the Interconnection to the New York Power Pool for the installation and operation of phase angle regulating facilities at Ramapo to control or limit unscheduled transmission service (loop flow), each of the following Transmission Owners with revenue requirements under the PJM Tariff shall pay a share of the charges on a transmission revenue requirements ratio share basis: *Allegheny Electric Cooperative, Inc., Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power & Light Company, Jersey Central Power & Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Power & Light Company, Potomac Electric Power Company, Public Service Electric and Gas Company, Rockland Electric Company, and UGI Utilities, Inc.*

5.4 Transmission Loss Charge Calculation.

5.4.1 Calculation by Office of the Interconnection.

The Office of the Interconnection shall calculate Transmission Loss Charges for each Network Service User, the PJM Interchange Energy Market, and each Transmission Customer.

5.4.2 General.

(a) The basis for the Transmission Loss Charges shall be the differences in the Locational Marginal Prices, defined as the Loss Price at a bus, between points of delivery and points of receipt, as determined in accordance with Section 2 of this Schedule.

(b) The Office of the Interconnection shall calculate Loss Prices in the form of Day-ahead Loss Prices and Real-time Loss Prices for the PJM Region, in accordance with Section 2 of this Schedule.

5.4.3 Network Service User Calculation.

(a) Each Network Service User shall be charged for the increased cost of transmission losses to deliver the output of its firm Capacity Resources or other owned or contracted for resources, its firm bilateral purchases, and its non-firm bilateral purchases. The Transmission Loss Charge for deliveries from each such source shall be the Network Service User's hourly losses net bill.

(b) Market Buyers shall be charged for transmission losses resulting from all load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served from the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead Loss Price applicable to each relevant load bus.

(c) Generating Market Buyers shall be reimbursed for transmission losses resulting from all energy scheduled to be delivered to the PJM Interchange Energy Market in the Day-ahead Energy Market at the Day-ahead Loss Price applicable to each relevant generation bus.

(d) Market Sellers shall be reimbursed for transmission losses resulting from all energy scheduled to be delivered in the Day-ahead Energy Market at the Day-ahead Loss Prices applicable to each relevant generation bus.

(e) The hourly net amount of energy delivered at each generation bus is determined by revenue meter data, if available, or by the State Estimator, if revenue meter data is not available. The total load actually served at each load bus is initially determined by the State Estimator. For each Electric Distributor that reports hourly net energy flows from metered tie lines and for which all generators within the Electric Distributor's territory report revenue quality, hourly net energy delivered, the total revenue meter load within the Electric Distributor's territory is calculated as the sum of all net import energy flows reported by their tie revenue meters and all net generation reported via generator revenue meters. The amount of load at each of such Electric Distributor's load buses calculated by the State Estimator is then adjusted, in proportion to its share of the total load of that Electric Distributor, in order that the total amount of load across all of the Electric Distributor's load buses matches its total revenue meter calculated load.

(f) At the end of each hour during an Operating Day, the Office of the Interconnection shall calculate the Transmission Loss Charges at each Market Buyer's load bus to be charged for losses at Real-time Loss Prices determined by the product of the hourly Real-time Loss Prices at the relevant bus times the Market Buyer's megawatts of load (net of operating Behind The Meter Generation, but not to be less than zero) at the bus in that hour in excess of the load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served at that bus in the hour in the Day-ahead Energy Market. To the extent that the load (net of operating Behind The Meter Generation, but not to be less than zero) actually served at a load bus is less than the load (net of Behind The Meter Generation expected to be operating, but not to be less than zero) scheduled to be served at that bus in the Day-ahead Energy Market, the Market Buyer shall be paid for the difference at the Real-time Loss Price for the load bus at the time of the shortfall. The megawatts of load at each load bus shall be the sum of the megawatts of load (net of operating Behind The Meter Generation, but not less than zero) for that bus of that Market Buyer plus any megawatts of that Market Buyer's bilateral sales attributable to that bus. The total load charge for each Market Buyer shall be the sum, for each of a Market Buyer's load buses, of the charges at Day-ahead Loss Pricedetermined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1a plus the charges at Real-time Loss Prices determined as specified herein, net of any payments specified herein for each of the Market Buyer's load buses.

(g) At the end of each hour during an Operating Day, the Office of the Interconnection shall calculate the transmission loss payments at each Generating Market Buyer's generation bus to be paid at Real-time Loss Prices, determined by the product of the hourly Real-time Loss Price at the relevant bus times the Generating Market Buyer's megawatts of generation at such generation bus in the hour in excess of the energy scheduled to be injected at that bus in that hour in the Day-ahead Energy Market. To the extent that the energy actually injected at the generation bus is less than the energy scheduled to be injected at that bus in the Day-ahead Energy Market, the Generating Market Buyer shall be debited for the difference at the Real-time Loss Price for the generation bus at the time of the shortfall. The megawatts of generation at each generation bus shall be the sum of the megawatts of generation for that bus of that Generating Market Buyer plus any megawatts of bilateral purchases of that Generating Market Buyer attributable to that bus. The total generation revenue for each Generating Market Buyer shall be the sum, for each of the Generating Market Buyer's generation buses, of the revenues at Day-ahead Loss Price determined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1A plus the revenues at Real-time Loss Prices determined as specified herein, net of any debits specified herein for each of the Market Buyer's generation buses.

(h) A Market Seller shall be paid for transmission losses that results from the Real-time sales of Spot Market Energy to the extent of its hourly net deliveries to the PJM Region of energy in excess of amounts scheduled in the Day-ahead Energy Market from the Market Seller's resources. For pool External Resources, the Office of the Interconnection shall model, based on an appropriate flow analysis, the hourly amounts delivered from each such resource to the corresponding Interface Pricing Point between adjacent Control Areas and the PJM Region. The total real-time generation revenues for each Market Seller shall be the sum of its credits determined by the product of (i) the hourly net amount of energy delivered to the PJM Region at the applicable generation or interface bus in excess of the amount scheduled to be delivered in that hour at that bus in the Day-ahead Energy Market from each of the Market Seller's resources, times (ii) the hourly Real-time Loss Price at that bus. To the extent that the energy actually injected at a generation bus or Interface Pricing Point in any hour is less than the energy scheduled to be injected at that bus or point in the Day-ahead Energy Market, the Market Seller shall be debited for the difference at the Real-time Loss Price for the applicable bus or point at the time of the shortfall times the amount of the shortfall. The total generation revenue for each Market Seller shall be the sum, for each of the Market Seller's generation buses or Interface Pricing Points, of the revenues at Day-ahead Loss Prices determined in accordance with the Day-ahead Energy Market as specified in Section 1.10.1A plus the revenues at Real-time Loss Prices determined as specified herein, net of any debits specified herein for each of the Market Seller's generation buses or Interface Pricing Points.

5.4.4 Transmission Customer Calculation.

Each Transmission Customer using Firm Point-to-Point Transmission Service (as defined in the PJM Tariff), and each Transmission Customer using Non-Firm Point-to-Point Transmission Service (as defined in the PJM Tariff), shall be charged for the increased cost of transmission losses for the delivery of energy using Point-to-Point Transmission Service. Except as specified in this subsection, a Transmission Loss Charge shall be assessed for transmission use scheduled in the Day-ahead Energy Market, calculated as the amount to be delivered multiplied by the difference between the Day-ahead Loss Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region and the Day-ahead Loss Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. Transmission Loss Charges shall be assessed for real-time transmission use in excess of the amounts scheduled for each hour in the Day-ahead Energy Market, calculated as the excess amount multiplied by the difference between the Real-time Loss Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region, and the Real-time Loss Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. A Transmission Customer shall be paid for Transmission Loss Charges for real-time transmission use falling below the amounts scheduled for each hour in the Day-ahead Energy Market, calculated as the shortfall amount multiplied by the difference between the Real-time Loss Price at the delivery point or the delivery Interface Pricing Point at the boundary of the PJM Region, and the Real-time Loss Price at the source point or the source Interface Pricing Point at the boundary of the PJM Region. Real-time deviations from the Point-to-Point Transmission Service scheduled in the Day-ahead Energy market shall be determined by the lesser of the real-time injection or withdrawal associated with such transmission service.

5.4.5 Total Transmission Loss Charges.

The total Transmission Loss Charges collected by the Office of the Interconnection each hour will be the aggregate net amounts determined as specified in this Schedule.

5.5 Distribution of Total Transmission Loss Charges.

The total Transmission Loss Charges accumulated by the Office of Interconnection in any hour shall be distributed pro-rata to each Network Service User and Transmission Customer in proportion to its ratio shares of the total MWhs of energy delivered to load (net of operating Behind The Meter Generation, but not to be less than zero) in the PJM Region, or the total exports of MWh of energy from the PJM Region, or the total MWh of cleared Up-To Congestion transactions (that paid for transmission service during such hour).

6. "MUST-RUN" FOR RELIABILITY GENERATION

6.1 Introduction.

Except as to the exempt generation resources identified in section 6.5 below, the following procedures shall apply to any generation resource subject to the dispatch of the Office of the Interconnection that, as a result of transmission constraints, the Office of the Interconnection determines, in the exercise of Good Utility Practice, must be run in order to maintain the reliability of service in the PJM Region. The provisions of this Schedule shall otherwise apply to the scheduling, dispatch, operation and accounting treatment of such resources, to the extent not inconsistent with the provisions of this Section 6.

6.2 Identification of Facility Outages.

Not later than one hour prior to the deadline specified in Section 1.10.1 of this Schedule, the Office of the Interconnection shall identify on the PJM Open Access Same-Time Information System any facility outage or other system condition which it has determined may give rise to a transmission constraint that may require, in order to maintain system reliability, the dispatch of one or more generation resources that otherwise would not be dispatched based on the merits of their offers to the PJM Interchange Energy Market.

6.3 Dispatch for Local Reliability.

6.3.1 Request and Dispatch.

In addition to the dispatch of generation by the Office of the Interconnection to maintain reliability on transmission facilities monitored by it, a Member that owns or leases with rights equivalent to ownership local Transmission Facilities, as defined in this Agreement and the Consolidated Transmission Owners Agreement and that operates a local control center in accordance with Section 11.3.3 of this Agreement or a Market Operations Center in accordance with Section 1.7.5 of this Schedule may request the Office of the Interconnection to dispatch generation in order to maintain reliability on any such local Transmission Facilities that are not then monitored by the Office of the Interconnection, subject to the rules and procedures in Section 6.3.2 and the PJM Manuals. The Office of the Interconnection shall dispatch generation to maintain reliability on such local Transmission Facilities by incorporating the facilities in the State Estimator program described in Section 2.3 as set forth below, unless the Office of the Interconnection determines that such dispatch would adversely affect reliability in the PJM Region or would otherwise not be in accordance with Good Utility Practice.

6.3.2 Designation of Local Transmission Facilities.

The following rules and procedures shall apply to a Member request that the Office of the Interconnection dispatch generation on one or more local Transmission Facilities that are not then directly monitored by the Office of the Interconnection.

(a) The local Transmission Facilities that are the subject of the request for monitoring and dispatch control must be among the facilities that comprise the Transmission System under the PJM Tariff and must meet the PJM Reliability Planning Criteria set forth in the PJM Manuals;

(b) The Member shall provide modeling information for such local Transmission Facilities and provide sufficient telemetry to the Office of the Interconnection such that power flows are observable by the State Estimator program described in Section 2.3;

(c) The request for monitoring and dispatch control of local Transmission Facilities shall constitute a request that such local Transmission Facilities become and remain monitored by the Office of the Interconnection and subject to its dispatch control for a period of not less than one year;

(d) Requests under this Section for monitoring and dispatch control of local Transmission Facilities may be made only annually pursuant to the procedures set forth in the PJM Manuals;

(e) The Office of the Interconnection shall post all requests for monitoring and dispatch control of local Transmission Facilities made under this Section on the PJM Internet site; and

(f) The Member shall comply with all other operating procedures established by the Office of the Interconnection regarding dispatch for local reliability as set forth in the PJM Manuals.

6.3.3 Transition Procedures for Local Transmission Facilities under the Monitoring Responsibility and Dispatch Control of the Office of the Interconnection as of June 1, 2002.

The Office of the Interconnection shall determine whether local Transmission Facilities under its monitoring responsibility and dispatch control as of June 1, 2002 meet the PJM Reliability and Planning Criteria. Members with such local Transmission Facilities that do not meet the PJM Reliability Planning Criteria must either (1) remove the local Transmission Facilities from the dispatch control and monitoring responsibility of the Office of the Interconnection within 60 days of notification by the Office of the Interconnection of its determination that the local Transmission Facilities do not meet the PJM Reliability and Planning Criteria; or (2) commit, at their own cost and by a completion date agreed to by the Office of the Interconnection and the Member, to reinforce the local Transmission Facilities to enable the local Transmission Facilities to meet the PJM Reliability and Planning Criteria. This commitment to reinforce the local Transmission Facilities is subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, provided that, in the event that a Member cannot reinforce the local Transmission Facilities due to the unavailability of required financing, the local Transmission Facilities must be removed from the monitoring responsibility and dispatch control of the Office of the Interconnection within 60 days of the determination that required financing is unavailable. The local Transmission Facilities will remain under the monitoring and dispatch control of the Office of the Interconnection during the construction of the reinforcements.

6.4 Offer Price Caps.

6.4.1 Applicability.

(a) If, at any time, it is determined by the Office of the Interconnection in accordance with Sections 1.10.8 or 6.1 of this Schedule that any generation resource may be dispatched out of economic merit order to maintain system reliability as a result of limits on transmission capability, the offer prices for energy from such resource shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the transmission limit affects the schedule of the affected resource, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the offer price of such resource.

(b) The energy offer price by any generation resource requested to be dispatched in accordance with Section 6.3 of this Schedule shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the affected resource is so scheduled, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the price of such resource.

(c) Generation resources subject to an offer price cap shall be paid for energy at the applicable Locational Marginal Price.

(d) [Reserved for Future Use]

(e) Except for the overall $1,000 energy offer cap, offer price caps under section 6.4 of this Schedule shall be suspended for a generation resource with respect to transmission limit(s) for any hour in which (1) there are not three or fewer generation suppliers available for redispatch under subsection (a) that are jointly pivotal with respect to such transmission limit(s), and (2) the generation reource's owner, when combined with the two largest other generation suppliers, is not pivitol ("three pivotal supplier test"). Notwithstanding the number of jointly pivotal suppliers in any hour, if the Market Monitoring Unit determines that a reasonable level of competition will not exist based on an evaluation of all facts and circumstances, it may propose to the Commission the removal of offer-capping suspensions otherwise authorized by this section. Such proposals shall take effect only upon Commission acceptance or approval.

(f) For the purposes of conducting the three pivotal supplier test in subsection (e), the following applies:

(i) All megawatts of available incremental supply for which the power distribution factor ("dfax") has an absolute value equal to or greater than the dfax used by the Office of the Interconnection's system operators when evaluating the impact of generation with respect to the constraint ("effective megawatts") will be included in the available supply analysis at costs equal to the cost-based offers of the available incremental supply adjusted for dfax ("effective costs"). The Office of the Interconnection will post on the PJM website the dfax value used by operators with respect to a constraint when it varies from three percent.

(ii) The three pivotal supplier test will include in the definition of the relevant market incremental supply up to and including all such supply available at an effective cost equal to 150% of the cost-based clearing price calculated using effective costs and effective megawatts and the need for megawatts to solve the constraint.

(iii) Offer price caps will apply on a generation supplier basis (i.e. not a generating unit by generating unit basis) and only the generation suppliers that fail the three pivotal supplier test will have their units that are dispatched with respect to the constraint offer capped. A generation supplier for the purposes of this section includes corporate affiliates. Supply controlled by a generation supplier or its affiliates by contract with unaffiliated third parties or otherwise will be included as supply of that generation supplier; supply owned by a generation supplier but controlled by an unaffiliated third party by contract or otherwise will be included as supply of that third party.

A generation supplier's units are offer capped if, when combined with the two largest other generation suppliers, the generation supplier is pivotal.

(iv) In the Day-ahead Energy Market, the Office of the Interconnection shall include price sensitive demand and virtual bids and offers as demand or supply, as applicable, in the relevant market.

6.4.2 Level.

(a) The offer price cap shall be one of the amounts specified below, as specified in advance by the Market Seller for the affected unit:

(i) The weighted average Locational Marginal Price at the generation bus at which energy from the capped resource was delivered during a specified number of hours during which the resource was dispatched for energy in economic merit order, the specified number of hours to be determined by the Office of the Interconnection and to be a number of hours sufficient to result in an offer price cap that reflects reasonably contemporaneous competitive market conditions for that unit;

(ii) The incremental operating cost of the generation resource as determined in accordance with Schedule 2 of the Operating Agreement and the PJM Manuals ("incremental cost"), plus 10% of such costs;

(iii) For units that are frequently offer capped, the following shall apply:

(a) For units that are offer capped for 60% or more of their run hours, but less than 70% of their run hours, the offer price cap will be either (i) incremental cost plus 10% or (ii) incremental cost plus $20 per megawatt-hour;

(b) For units that are offer capped for 70% or more of their run hours, but less than 80% of their run hours, the offer price cap will be either (i) incremental cost plus 15%, not to exceed incremental cost plus $40 per megawatt-hour, or (ii) incremental cost plus $30 per megawatt-hour;

(c) For units that are offer capped for 80% or more of their run hours, the offer price cap will be (i) incremental costs plus 10%; (ii) incremental cost plus $40 per megawatt-hour; or (iii) the agreed unit-specific going forward costs of the affected unit as reflected in an agreement entered pursuant to subparagraph (iv), below; or

(iv) An amount determined by agreement between the Office of the Interconnection and the Market Seller, provided that, if the Office of the Interconnection and the Market Seller cannot reach agreement after 60 days from the commencement of negotiations, then the Market Seller may submit the rates, terms, and conditions of its proposed offer cap to the Commission for resolution.

(b) For purposes of section 6.4.2(a)(iii), a generating unit shall qualify for the specified offer cap upon issuance of written notice from the Market Monitoring Unit that it is a "Frequently Mitigated Unit" or "FMU" because it was offer capped for the applicable percentage of its run hours, determined on a rolling 12-month average basis, effective with a one month lag.

(c) Any generating unit, without regard to ownership, located at the same site as a Frequently Mitigated Unit qualifying under Sections 6.4.2(a)(iii) shall become an "Associated Unit" upon issuance of written notice from the Market Monitoring Unit that it meets all of the following criteria:

1. The unit has the identical electric impact on the transmission system as the FMU;

2. The unit (i) belongs to the same design class (where a design class includes generation that is the same size and utilizes the same technology, without regard to manufacturer) and uses the identical primary fuel as the FMU or (ii) is regularly dispatched by PJM as a substitute for the FMU based on differences in cost that result from the currently applicable FMU adder;

3. The unit (i) has an average daily cost-based offer, as measured over the preceding 12-month period, that is less than or equal to the FMU's average daily cost-based offer adjusted to include the currently applicable FMU adder or (ii) is regularly dispatched by PJM as a substitute for the FMU based on differences in cost that result from the currently applicable FMU adder.

The offer cap for an associated unit shall be equal to the incremental operating cost of such unit, as determined in accordance with Schedule 2 of the Operating Agreement and the PJM Manuals, plus the applicable percentage adder or dollar per megawatt-hour adder as specified in Section 6.4.2(a)(iii)(a), (b), or (c) for the unit with which it is associated.

(d) For purposes of section 6.4.2(a)(iii), the unit-specific going forward costs determined by agreement between the Office of the Interconnection and the Market Seller shall include only the costs included in the Deactivation Avoidable Cost Rate, excluding costs associated with the Avoidable Project Investment Recovery Rate (APIR), set forth in section 115 of the PJM Tariff. Any costs that would be capitalized according to generally accepted accounting principles, associated carrying costs, or other fixed costs shall not be included. The agreement shall further provide that (i) in order for such costs to qualify for inclusion in the amounts determined by the agreement, the Market Seller must agree to provide to PJM relevant cost data concerning fuel, operating and maintenance, and other avoidable costs, (ii) the maintenance practices and incurrence of expense at the unit shall be subject to audit by the Office of the Interconnection, and (iii) the unit owner agrees to operate the unit in accordance with Good Utility Practice.

(e) Any agreement entered pursuant to section 6.4.2(a)(iv) shall be filed with the Commission and shall be effective only upon acceptance of the agreement for filing by the Commission; provided however, that agreements to reflect unit-specific going forward costs in accordance with section 6.4.2(a)(iii) shall be filed with the Commission for informational purposes only and shall be effective the day following the date of the informational filing.

(f) Market Participants shall have exclusive responsibility for preparing and submitting their offers on the basis of accurate information, inclusive of the level of any applicable offer cap, and in no event shall PJM be held liable for the consequences of or make any retroactive adjustment to any clearing price on the basis of any offer submitted on the basis of inaccurate information.

6.5 [Reserved for Future Use]

6.6 Minimum Generator Operating Parameters – Parameter Limited Schedules

(a) Generation resources shall be subject to pre-determined limits on non-price offer parameters ("parameter limited schedules") under the following circumstances:

(i) The Operating Reserve markets fail the three pivotal supplier test. When this subsection applies, the parameter limited schedule shall be the less limiting of the defined parameter limited schedules or the submitted offer parameters.

(ii) The Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues an alert that a Maximum Generation Emergency may be declared ("Maximum Generation Emergency Alert"); or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert for all, or any part, of an Operating Day.

(b) Parameter limited schedules applied pursuant to this section shall be determined in accordance with the PJM Manuals and shall consist of the following parameters:

(i) Turn Down Ratio;

(ii) Minimum Down Time;

(iii) Minimum Run Time;

(iv) Maximum Daily Starts;

(v) Maximum Weekly Starts.

6A Scarcity Pricing.

6A.1 Scarcity Conditions

6A.1.1 Commencement of Scarcity Conditions. Scarcity conditions that trigger scarcity pricing will occur when the Office of the Interconnection's system operators perform any one of the following identifiable, specifically defined actions for a Scarcity Pricing Region:

a) Begin to dispatch online generators, which are partially designated as Maximum Emergency, into emergency output levels.

b) Begin to dispatch online generators, which are designated entirely as Maximum Emergency, above their designated minimum load points, if they are currently online and operating at their minimum load points because of restrictive operating parameters associated with the generators.

c) Begin to dispatch any offline generators that are designated entirely as Maximum Emergency and that have start times plus notification times less than or equal to 30 minutes.

d) Voltage reduction action as described in the PJM Manuals.

e) Emergency energy purchases pursuant to section 1.6.2(vi) of this Schedule.

f) Manual load dump action as described in the PJM Manuals.

Whenever the Office of the Interconnection's system operators take any of the above designated actions triggering scarcity pricing, they shall post on the PJM website the emergency message describing the action and include in the posting the Scarcity Pricing Region for which the action is being taken.

6A.1.2 Termination of Scarcity Conditions.

Scarcity pricing will be terminated in a Scarcity Pricing Region when demand and reserves can be fully satisfied with generation that is not designated Maximum Emergency. Under this condition, some generation that is designated Maximum Emergency may continue to operate due to timing limitations or operating limitations, but that generation is no longer needed under dispatch to satisfy system requirements, and scarcity pricing will no longer apply. Under no circumstances shall scarcity conditions be terminated if any of the following conditions remain in effect for the Scarcity Pricing Region:

a) Voltage reduction action as described in the PJM Manuals.

b) Emergency energy purchases from offers that do not have minimum purchase requirements of greater than 30 minutes duration attached to the offer.

c) Manual load dump action as described in the PJM Manuals.

The Office of the Interconnection shall post on the PJM website the time when scarcity conditions are terminated.

6A.1.3 Maximum Emergency Offer Limitations.

For purposes of defining scarcity conditions, the Office of the Interconnection shall consider units that have been classified as Maximum Emergency only if they fall in one of the following categories:

a) Environmental limits. If the unit has a hard cap on its run hours imposed by an environmental regulator that will temporarily significantly limit its availability.

b). Fuel limits. If physical events beyond the control of the unit owner result in the temporary interruption of fuel supply and there is limited on-site fuel storage. A fuel supplier's exercise of a contractual right to interrupt supply or delivery under an interruptible service agreement shall not qualify as an event beyond the control of the unit owner.

c) Temporary emergency conditions at the unit. If temporary emergency physical conditions at the unit significantly limit its availability.

d) Temporary megawatt additions. If a unit can provide additional megawatts on a temporary basis by oil topping, boiler over-pressure, or similar techniques and such megawatts are not ordinarily otherwise available.

The Office of the Interconnection shall post on its website the aggregate amount of generation megawatts that are classified as Maximum Emergency.

6A.2 Scarcity Pricing Regions.

6A.2.1 Established Scarcity Pricing Regions.

There shall be the following Scarcity Pricing Regions: (1) Entire Market Region consisting of all transmission zones in the PJM market; (2) Bedington-Black Oak Region consisting of all pricing nodes that have a 5% or greater positive power distribution factor ("dfax") relative to the Bedington-Black Oak constraint; (3) the Eastern MAAC Region consisting of all pricing nodes that have a 5% or greater dfax relative to the Eastern Reactive Transfer constraint, (4) Eastern Market Region consisting of all pricing nodes that have a 5% or greater positive dfax relative to the Bedington-Black Oak and the Central Reactive Transfer constraints; (5) the MAAC Region, consisting of all pricing nodes that have a 5% or greater positive dfax relative to the Western Reactive Transfer constraint; and (6) the AP South Region, consisting of all pricing nodes that have a 5% or greater positive dfax relative to the AP South Reactive Transfer constraint.

6A.2.2 Annual Review of Scarcity Pricing Regions.

On an annual basis, PJM will review the defined Scarcity Pricing Regions and file changes (additions or deletions) to them with the Commission, as required. Additional Scarcity Pricing Regions must meet the following criteria: (1) consist of at least two entire transmission zones; (2) consist of contiguous transmission zones and sub-zones; (3) transmission import or transfer must be limited by EHV (500 kV or greater) constraints; and (4) consist of pricing nodes that have a 5% or greater positive dfax relative to the constraints.

6A.2.3 Additional Temporary Scarcity Pricing Regions.

Additional temporary Scarcity Pricing Regions shall be designated by the Office of the Interconnection during the year when warranted by a non-transitory change in the topology of the transmission system. Additional temporary Scarcity Pricing Regions must meet the criteria set forth in section 6A.2.2. The Office of the Interconnection shall designate and post on the PJM website an additional temporary Scarcity Pricing Region within 72 hours of operational conditions warranting the additional temporary Scarcity Pricing Region. The temporary Scarcity Pricing Region shall become effective on the day following such posting, provided that the posting is before noon. If and when the topology is restored to its prior state or the change otherwise no longer warrants the designation of a temporary Scarcity Pricing Region, the Office of the Interconnection shall make a posting ending the additional designation. The termination of the temporary Scarcity Pricing Region shall become effective on the day following the posting, provided that the posting is before noon.

6A.3 Scarcity Pricing.

When scarcity conditions exist in a Scarcity Pricing Region, the region is considered incapable of meeting demand under normal economic dispatch conditions. Under such scarcity conditions, the Locational Marginal Prices of all nodes in a Scarcity Pricing Region will be determined based on the highest market-based offer price of all generating units operating under the Office of the Interconnection's direction to supply either energy or reserves on a real-time dispatch basis. No offer capping under section 6.4 of this Schedule may be initiated or continued in the Scarcity Pricing Region while scarcity pricing is in effect; provided, however, that generation in the Scarcity Pricing Region shall remain subject to the overall offer cap of $1000 per megawatt-hour. During the period that scarcity pricing is in effect, the Office of the Interconnection's system operators may direct generating units in the Scarcity Pricing Region to reduce from their maximum output for system or local transmission control. In such event, such reductions shall be treated as reductions for reliability under which the generation supplier shall be entitled to opportunity cost compensation equal to the megawatt-hour reduction times the difference between the Locational Marginal Price at the generator bus and the generation supplier's offer price consistent with section 3.2.3(f) of this Schedule. In addition, if a generator outside of a Scarcity Pricing Region is called upon to relieve the transmission constraint that caused the scarcity pricing condition in a Scarcity Pricing Region, then during the time that scarcity pricing is in effect in that Scarcity Pricing Region, that generation supplier shall be paid the higher of the generation-weighted Locational Marginal Price within the region determined as explained above or the price it otherwise would have been paid under this Schedule; however, that generation supplier's offer shall not be used to set Locational Marginal Prices or scarcity prices in the Scarcity Pricing Region.

7. FINANCIAL TRANSMISSION RIGHTS AUCTIONS

7.1 Auctions of Financial Transmission Rights.

Annual, periodic and long-term auctions to allow Market Participants to acquire or sell Financial Transmission Rights shall be conducted by the Office of the Interconnection in accordance with the provisions of this Section.

7.1.1 Auction Period and Scope of Auctions.

(a) The periods covered by auctions shall be: (1) the one-year period beginning the month after the final round of an annual auction; (2) any single calendar month period remaining in the Planning Period that is within the three, or less, month period immediately following the month that the monthly auction is conducted; (3) any Planning Period Quarter remaining in the Planning Period following the month that the monthly auction is conducted; and (4) the Planning Period Balance. In addition to the period defined in (2) of this subsection, only one of the periods defined in (3) or (4) of this subsection will be included in the monthly auction clearing until the Office of the Interconnection determines that both of the periods defined in (3) and (4) can be solved simultaneously in the same monthly auction process within the timeframe specified in Section 7.3.7. With the exception of FTRs allocated pursuant to Section 5.2.2 (e) of this Schedule and the Financial Transmission Rights awarded as a result of the exercise of the conversion option pursuant to Section 7.1.1(b) of this Schedule, in the annual auction, the Office of the Interconnection shall offer for sale the entire Financial Transmission Rights capability for the year in four rounds with 25 percent of the capability offered in each round. In the monthly auction, the Office of the Interconnection shall offer for sale in the auction any remaining Financial Transmission Rights capability for the months remaining in the Planning Period after taking into account all of the Financial Transmission Rights already outstanding at the time of the auction. In addition, any holder of a Financial Transmission Right for the period covered by an auction may offer such Financial Transmission Right for sale in such auction. On-Peak, off-peak and 24-hour FTRs will be offered in the annual and monthly auctions. FTRs will be offered as Financial Transmission Right Obligations and Financial Transmission Right Options, provided that such Financial Transmission Right Obligations and Financial Transmission Right Options shall be awarded based only on the residual system capability that remains after the allocation of Financial Transmission Rights pursuant to Section 5.2.2(e) and the award of Financial Transmission Rights pursuant to Section 7.1.1(b) of this Schedule. Market Participants may bid for and acquire any number of Financial Transmission Rights, provided that all Financial Transmission Rights awarded are simultaneously feasible with each other and with all Financial Transmission Rights outstanding at the time of the auction and not sold into the auction. An ARR holder may self-schedule an FTR on the same path in the Annual FTR auction according to the rules described in the PJM Manuals.

(b) An Auction Revenue Rights holder may convert Auction Revenue Rights to Financial Transmission Rights. Such Financial Transmission Rights must (i) have the same source and sink points as the Auction Revenue Rights; (ii) be a 24-hour product; and (iii) be Financial Transmission Right Obligations. The Auction Revenue Rights holder must inform the Office of the Interconnection in accordance with the procedures established by the Office of the Interconnection that it intends to exercise the conversion option prior to close of round one of the annual Financial Transmission Rights auction. Once the conversion option is exercised, it will remain in effect for the entire Financial Transmission Rights auction. The Office of the Interconnection will designate twenty-five percent of the megawatt amount of the Auction Revenue Rights to be converted as price-taker bids in each of the four rounds of the Financial Transmission Rights auction. An Auction Revenue Rights holder that converts its Auction Revenue Rights may not designate a price bid for its converted Financial Transmission Rights and will receive a price equal to the clearing price set by other bids in the annual Financial Transmission Right auction. To the extent a market participant seeks to obtain FTRs in the annual auction through such conversion, the FTRs sought will not be included in the calculation of such market participant's credit requirement for such annual FTR auction.

7.1.2 Frequency and Time of Auctions.

Subject to Section 7.1.1 of this Schedule, annual Financial Transmission Rights auctions shall offer the entire FTR capability of the PJM system in four rounds with 25 percent of the capability offered in each round. All four rounds of the annual Financial Transmission Rights auction shall occur within the two-month period (April – May) preceding the start of the PJM Planning Period. Each round shall occur over five business days and shall be conducted sequentially. Each round shall begin with the bid and offer period. The bid and offer period for annual Financial Transmission Rights auctions shall be open for three consecutive business days, opening the first day at 12:00 midnight (Eastern Prevailing Time) and closing the third day at 5:00 p.m. (Eastern Prevailing Time). Monthly Financial Transmission Rights auctions shall be held each month. The bid and offer period for monthly Financial Transmission Rights auctions shall be open for three consecutive business days in the month preceding the first month for which Financial Transmission Rights are being auctioned, opening the first day at 12:00 midnight (Eastern Prevailing Time) and closing the third day at 5:00 p.m. (Eastern Prevailing Time).

7.1.3 Duration of Financial Transmission Rights.

Each Financial Transmission Right acquired in a Financial Transmission Rights auction shall entitle the holder to credits of Transmission Congestion Charges for the period that was specified in the corresponding auction.

Each Financial Transmission Right acquired in a Financial Transmission Rights auction shall entitle the holder to credits of Transmission Congestion Charges for the period that was specified in the corresponding auction.

7.1A Long-Term Financial Transmission Rights Auctions.

7.1A.1 Auctions.

(i) Subsequent to each annual FTR auction conducted pursuant to Section 7.1 of Schedule 1 of this Agreement, the Office of the Interconnection shall conduct a long-term FTR auction for the three consecutive Planning Periods immediately subsequent to the Planning Period during which the long-term FTR auction is conducted.

(ii) The capacity offered for sale in long-term FTR auctions shall be the residual system capability after the Annual Auction Revenue Rights allocations and annual FTR auction. In determining the residual capability the Office of the Interconnection shall assume that all Auction Revenue Rights allocated in the immediately prior annual Auction Revenue Rights allocation process are self-scheduled into FTRs, which shall be modeled as fixed injections and withdrawals in the long-term FTR auction.

7.1A.2 Frequency and Timing.

The long-term FTR auction process shall consist of two rounds. During the transition period when the long-term FTR auction process will be phased into PJM's market operations, the initial first round of the auction shall be conducted by the Office of the Interconnection approximately eight months prior to the start of the three Planning Period term covered by the first long-term FTR auction. The second round of the auction shall be conducted approximately two months after the first round. Thereafter, the first round shall be conducted by the Office of the Interconnection approximately 11 months prior to the start of the three Planning Period term covered by the relevant long-term FTR auction and the second round shall be conducted approximately 4 months after the first round. In each round 50% of total capacity available in the long-term FTR auction shall be offered for sale. Eligible entities may submit bids to purchase and offers to sell FTRs at the start of the bidding period in each round. The bidding period shall be three business days ending at 1700 on the last day. PJM performs the FTR auction clearing analysis for each round and posts the auction results on the MUI within five business days after the close of the bidding period for each round.

7.1A.3 Products.

(i) The periods covered by long-term FTR auctions shall be: (1) any single Planning Period within the three Planning Period term covered by the relevant auction; and (2) the three Planning Period term covered by the relevant auction.

(ii) On-Peak, off-peak and 24-hour FTR obligations, as defined in Section 7.3.4 of Schedule 1 of this Agreement, shall be offered in long-term FTR auctions; FTR options shall not be offered.

7.1A.4 Participation Eligibility.

(i) To participate in long-term FTR auctions an entity shall be a PJM Member or a PJM Transmission Customer. Eligible entities may submit bids or offers in long-term FTR auctions, provided they own FTRs offered for sale.

7.1A.5 Specified Receipt and Delivery Points.

Eligible sources and sinks in long-term FTR auctions shall be limited to hubs, zones, aggregates, generators, and Interface Pricing Points.

7.2 Financial Transmission Rights Characteristics.

7.2.1 Reconfiguration of Financial Transmission Rights.

Through an appropriate linear programming model, the Office of the Interconnection shall reconfigure the Financial Transmission Rights offered or otherwise available for sale in any auction to maximize the value to the bidders of the Financial Transmission Rights sold, provided that any Financial Transmission Rights acquired at auction shall be simultaneously feasible in combination with those Financial Transmission Rights outstanding at the time of the auction and not sold in the auction. The linear programming model shall, while respecting transmission constraints and the maximum MW quantities of the bids and offers, select the set of simultaneously feasible Financial Transmission Rights with the highest net total auction value as determined by the bids of buyers and taking into account the reservation prices of the sellers.

7.2.2 Specified Receipt and Delivery Points.

Auction bids for annual Financial Transmission Rights Obligations may specify as receipt and delivery points any combination of hubs, Zones, aggregates, generators, and Interface Pricing Points. Auction bids for annual Financial Transmission Rights Options may specify as receipt and delivery points such combination of hubs, Zones, aggregates, generators, and Interface Pricing Points as the Office of the Interconnection shall allow from time to time as set forth in its FTR business manual. Auction bids for Financial Transmission Rights submitted in the monthly auctions may specify as receipt and delivery points any combination of hubs, Zones, aggregates, generators, and Interface Pricing Points for bids that cover any month beyond the next month, including bids that cover Planning Period Quarters or the Planning Period Balance. Auction bids for Financial Transmission Rights submitted in the monthly auctions that cover the single calendar month period immediately following the month in which the monthly auction is conducted may specify any combination of receipt and delivery buses represented in the State Estimator model for which the Office of the Interconnection calculates and posts Locational Marginal Prices. Auction bids may specify receipt and delivery points from locations outside of the PJM Region to locations inside such region, from locations within the PJM Region to locations outside such region, or to and from locations within the PJM Region.

7.2.3 Transmission Congestion Charges.

Financial Transmission Rights shall entitle holders thereof to credits only for Transmission Congestion Charges, and shall not confer a right to credits for payments arising from or relating to transmission congestion made to any entity other than the Office of the Interconnection.

7.3 Auction Procedures.

7.3.1 Role of the Office of the Interconnection.

Financial Transmission Rights auctions shall be conducted by the Office of the Interconnection in accordance with standards and procedures set forth in the PJM Manuals, such standards and procedures to be consistent with the requirements of this Schedule. Financial Transmission Rights Auctions conducted to liquidate a defaulting Members' Financial Transmission Rights portfolio shall be conducted by the Office of the Interconnection in accordance with the procedures set forth in the Section 7.3.9 herein and with the standards and procedures set forth in the PJM Manuals.

7.3.2 Notice of Offer.

A holder of a Financial Transmission Right wishing to offer the Financial Transmission Right for sale shall notify the Office of the Interconnection of any Financial Transmission Rights to be offered. Each Financial Transmission Right sold in an auction shall, at the end of the period for which the Financial Transmission Rights were auctioned, revert to the offering holder or the entity to which the offering holder has transferred such Financial Transmission Right, subject to the term of the Financial Transmission Right itself and to the right of such holder or transferee to offer the Financial Transmission Right in the next or any subsequent auction during the term of the Financial Transmission Right.

7.3.3 Pending Applications for Firm Service.

(a) [Reserved.]

(b) Financial Transmission Rights may be assigned to entities requesting Network Transmission Service or Firm Point-to-Point Transmission Service pursuant to Section 5.2.2 (e), only if such Financial Transmission Rights are simultaneously feasible with all outstanding Financial Transmission Rights, including Financial Transmission Rights effective for the then-current auction period. If an assignment of Financial Transmission Rights pursuant to a pending application for Network Transmission Service or Firm Point-to-Point Transmission Service cannot be completed prior to an auction, Financial Transmission Rights attributable to such transmission service shall not be assigned for the then-current auction period. If a Financial Transmission Right cannot be assigned for this reason, the applicant may withdraw its application, or request that the Financial Transmission Right be assigned effective with the start of the next auction period.

7.3.4 On-Peak, Off-Peak and 24-Hour Periods.

On-peak, off-peak and 24-hour FTRs will be offered in the annual and monthly auction. On-Peak Financial Transmission Rights shall cover the periods from 7:00 a.m. up to the hour ending at 11:00 p.m. on Mondays through Fridays, except holidays as defined in the PJM Manuals. Off-Peak Financial Transmission Rights shall cover the periods from 11:00 p.m. up to the hour ending 7:00 a.m. on Mondays through Fridays and all hours on Saturdays, Sundays, and holidays as defined in the PJM Manuals. The 24-hour period shall cover the period from hour ending 1:00 a.m. to the hour ending 12:00 midnight on all days. Each bid shall specify whether it is for an on-peak, off-peak, or 24-hour period.

7.3.5 Offers and Bids.

(a) Offers to sell and bids to purchase Financial Transmission Rights shall be submitted during the period set forth in Section 7.1.2, and shall be in the form specified by the Office of the Interconnection in accordance with the requirements set forth below.

(b) Offers to sell shall identify the specific Financial Transmission Right, by term, megawatt quantity and receipt and delivery points, offered for sale. An offer to sell a specified megawatt quantity of Financial Transmission Rights shall constitute an offer to sell a quantity of Financial Transmission Rights equal to or less than the specified quantity. An offer to sell may not specify a minimum quantity being offered. Each offer may specify a reservation price, below which the offeror does not wish to sell the Financial Transmission Right. Offers submitted by entities holding rights to Financial Transmission Rights shall be subject to such reasonable standards for the verification of the rights of the offeror as may be established by the Office of the Interconnection. Offers shall be subject to such reasonable standards for the creditworthiness of the offer or for the posting of security for performance as the Office of the Interconnection shall establish.

(c) Bids to purchase shall specify the term, megawatt quantity, price per megawatt, and receipt and delivery points of the Financial Transmission Right that the bidder wishes to purchase. A bid to purchase a specified megawatt quantity of Financial Transmission Rights shall constitute a bid to purchase a quantity of Financial Transmission Rights equal to or less than the specified quantity. A bid to purchase may not specify a minimum quantity that the bidder wishes to purchase. A bid may specify receipt and delivery points in accordance with Section 7.2.2 and may include Financial Transmission Rights for which the associated Transmission Congestion Credits may have negative values. Bids shall be subject to such reasonable standards for the creditworthiness of the bidder or for the posting of security for performance as the Office of the Interconnection shall establish.

(d) Bids and offers shall be specified to the nearest tenth of a megawatt and shall be greater than zero. The Office of the Interconnection may require that a market participant shall not submit in excess of 5000 bids and offers for any single monthly auction, or for any single round of the annual auction, when the Office of the Interconnection determines that such limit is required to avoid or mitigate significant system performance problems related to bid/offer volume. Notice of the need to impose such limit shall be provided prior to the start of the bidding period if possible. Where such notice is provided after the start of the bidding period, market participants shall be required within one day to reduce their bids and offers for such auction below 5000, and the bidding period in such cases shall be extended by one day.

7.3.6 Determination of Winning Bids and Clearing Price.

(a) At the close of the bidding period each month, the Office of the Interconnection will create a base Financial Transmission Rights power flow model that includes all outstanding Financial Transmission Rights that have been approved and confirmed for any portion of the month for which the auction was conducted and that were not offered for sale in the auction. The base Financial Transmission Rights model also will include estimated uncompensated parallel flows into each interface point of the PJM Region and estimated scheduled transmission outages.

(b) In accordance with the requirements of Section 7.4 of this Schedule and subject to all applicable transmission constraints and reliability requirements, the Office of the Interconnection shall determine the simultaneous feasibility of all outstanding Financial Transmission Rights not offered for sale in the auction and of all Financial Transmission Rights that could be awarded in the auction for which bids were submitted. The winning bids shall be determined from an appropriate linear programming model that, while respecting transmission constraints and the maximum MW quantities of the bids and offers, selects the set of simultaneously feasible Financial Transmission Rights with the highest net total auction value as determined by the bids of buyers and taking into account the reservation prices of the sellers. In the event that there are two or more identical bids for the selected Financial Transmission Rights and there are insufficient Financial Transmission Rights to accommodate all of the identical bids, then each such bidder will receive a pro rata share of the Financial Transmission Rights that can be awarded.

(c) Financial Transmission Rights shall be sold at the market-clearing price for Financial Transmission Rights between specified pairs of receipt and delivery points, as determine by the bid value of the marginal Financial Transmission Right that could not be awarded because it would not be simultaneously feasible. The linear programming model shall determine the clearing prices of all Financial Transmission Rights paths based on the bid value of the marginal Financial Transmission Rights, which are those Financial Transmission Rights with the highest bid values that could not be awarded fully because they were not simultaneously feasible, and based on the flow sensitivities of each Financial Transmission Rights path relative to the marginal Financial Transmission Rights paths flow sensitivities on the binding transmission constraints.

7.3.7 Announcement of Winners and Prices.

Within two (2) business days after the close of the bid and offer period for an annual Financial Transmission Rights auction round and within five (5) business days after the close of the bid and offer period for a monthly Financial Transmission Rights auction, the Office of the Interconnection shall post the winning bidders, the megawatt quantity, the term and the receipt and delivery points for each Financial Transmission Right awarded in the auction and the price at which each Financial Transmission Right was awarded. The Office of the Interconnection shall not disclose the price specified in any bid to purchase or the reservation price specified in any offer to sell.

7.3.8 Auction Settlements.

All buyers and sellers of Financial Transmission Rights between the same points of receipt and delivery shall pay or be paid the market-clearing price, as determined in the auction, for such Financial Transmission Rights.

7.3.9 Liquidation of Financial Transmission Rights in the Event of Member Default.

In the event a Member fails to meet creditworthiness requirements or make timely payments when due pursuant to the PJM Operating Agreement or PJM Tariff, the Office of the Interconnection shall, as soon as practicable after such default is declared, initiate the following procedures to close out and liquidate the Financial Transmission Rights of a Member:

a) The Office of the Interconnection shall close out the defaulting Member's positions as of the date of its default, by unilaterally accelerating and terminating all forward Financial Transmission Rights positions.

b) The Office of the Interconnection shall post on its website all salient information relating to the closed out portfolio of Financial Transmission Rights.

c) All current planning period Financial Transmission Right positions within the defaulting Members' Financial Transmission Right portfolio will be offered for sale in the next available monthly balance of planning period Financial Transmission Rights auction at an offer price designed to maximize the likelihood of liquidation of those positions.

d) Financial Transmission Rights positions that do not settle until the next or subsequent planning period will be offered into the next available Financial Transmission Rights auction (taking into account timing constraints and the need for an orderly liquidation) where, based on the Office of Interconnection's commercially reasonable expectation, such positions would be expected to clear. In the event that the next scheduled Financial Transmission Rights auction is more than two (2) months subsequent to the date that the Office of the Interconnection declares a Member in default, a specially scheduled Financial Transmission Rights auction may be conducted by the Office of the Interconnection. The entire portfolio of the defaulting Member's Financial Transmission Rights will be offered for sale at an offer price designed to maximize the likelihood of liquidation of those positions.

e) The Financial Transmission Right positions comprising the defaulting Member's portfolio that are liquidated in a Financial Transmission Rights auction should avoid setting the price in the auction at the bid prices with which they were initially submitted. In the event that any of the closed out Financial Transmission Rights would set price based on the auction's preliminary solution, then only one-half of each Financial Transmission Rights position will be offered for sale and the auction will be re-executed. In the event that any Financial Transmission Rights position that has been closed out once again sets price, then all Financial Transmission Rights scheduled to be liquidated will be removed from the affected auction and the auction will be re-executed excluding the closed out Financial Transmission Right positions. Financial Transmission Right positions that are not liquidated will then be offered in the next available auction or specially scheduled auction, as appropriate.

f) The liquidation of the defaulting Members' Financial Transmission Rights portfolio pursuant to the foregoing procedures shall result in a final liquidated settlement amount. The final liquidated settlement amount will be included in calculating a Default Alloction Assessment as described in Section 15.1.2A(I) of the PJM Operating Agreement. If the Office of the Interconnection is unable to close out and liquidate a Financial Transmission Rights position under the foregoing procedures, the close out shall be deemed void and the defaulting Member shall remain liable for the full final value of its default, such full final value being realized at the normal time for performance of the Financial Transmission Rights position.

In all other respects, Financial Transmission Rights terminated pursuant to this section shall be liquidated pursuant to the appropriate provisions and procedures set forth in the PJM Manuals.

7.4 Allocation of Auction Revenues.

7.4.1 Eligibility.

(a) Annual auction revenues, net of payments to entities selling Financial Transmission Rights into the auction, shall be allocated among holders of Auction Revenue Rights in proportion to, but not more than, the Target Allocation of Auction Revenue Rights Credits for the holder.

(b) Auction Revenue Rights Credits will be calculated based upon the clearing price results of the applicable Annual Financial Transmission Rights auction.

(c) Monthly and Balance of Planning Period FTR auction revenues, net of payments to entities selling Financial Transmission Rights into the auction, shall be allocated according to the following priority schedule:

(i) To stage 1 and 2 Auction Revenue Rights holders in accordance with section 7.4.4 of Schedule 1 of this Agreement. If there are excess revenues remaining after a distribution made pursuant to this subsection, such revenues shall be distributed in accordance with subsection (c)(ii) of this section;

(ii) To the Residual Auction Revenue Rights holders in proportion to, but not more than their target allocation as determined pursuant to section 7.4.3(b) of Schedule 1 of this Agreement. If there are excess revenues remaining after a distribution made pursuant to this subsection, such revenues shall be distributed in accordance with subsection (c)(iii) of this section;

(iii) To FTR Holders in accordance with section 5.2.6 of Schedule 1 of this Agreement.

(d) Long-term FTR auction revenues associated with FTRs that cover individual Planning Periods shall be distributed in the Planning Period for which the FTR is effective. Long-term FTR auction revenues associated with FTRs that cover multiple Planning Years shall be distributed equally across each Planning Period in the effective term of the FTR. Long-term FTR auction revenue distributions within a Planning Period shall be in accordance with the following provisions:

(i) Long-term FTR Auction revenues shall be distributed to Auction Revenue Rights holders in the effective Planning Period for the FTR. The distribution shall be in proportion to the economic value of the ARRs when compared to the annual FTR auction clearing prices from each round proportionately. The distribution shall not exceed, when added to the distribution of revenues from the prompt-year annual FTR auction itself, the economic value of the ARRs when compared to the annual FTR auction clearing prices from each round proportionately.

(ii) Long-term FTR auction revenues remaining after distributions made pursuant to Section 7.4.1(d)(ii) of Schedule 1 of this Agreement shall be distributed pursuant to Section 5.2.6 of Schedule 1 of this Agreement.

7.4.2 Auction Revenue Rights.

(a) Prior to the end of each PJM Planning Period an annual allocation of Auction Revenue Rights for the next PJM Planning Period shall be performed using a two stage allocation process. Stage 1 shall consist of stages 1A and 1B, which shall allocate ten year and annual Auction Revenue Rights, respectively, and stage 2 shall allocate annual Auction Revenue Rights. The Auction Revenue Rights allocation process shall be performed in accordance with Sections 7.4 and 7.5 hereof and the PJM Manuals.

(b) In stage 1A of the allocation process, each Network Service User may request Auction Revenue Rights for a term covering ten consecutive PJM Planning Periods beginning with the *immediately ensuing PJM Planning Period from a subset of the historical generation resources that* were designated to be delivered to load based on the historical reference year for the Zone, and each Qualifying Transmission Customer (as defined in paragraph (f) of this section) may request Auction Revenue Rights based on the megawatts of firm service provided between the receipt and delivery points as to which the Transmission Customer had Point-to-Point Transmission Service during the historical reference year. The historical reference year for all Zones shall be 1998, except that the historical reference year shall be: 2002 for the Allegheny Power and Rockland Electric Zones; 2004 for the AEP East, The Dayton Power & Light Company and Commonwealth Edison Company Zones; 2005 for the Virginia Electric and Power Company and Duquesne Light Company Zones; and the Office of the Interconnection shall specify a historical reference year for a new PJM zone corresponding to the year that the zone is integrated into the PJM Interchange Energy Market. For stage 1, the Office of the Interconnection shall determine a set of eligible historical generation resources for each Zone based on the historical reference year and assign a pro rata amount of megawatt capability from each historical generation resource to each Network Service User in the Zone based on its proportion of peak load in the Zone. Auction Revenue Rights shall be allocated to each Network Service User in a Zone from each historical generation resource in a number of megawatts equal to or less than the amount of the historical generation resource that has been assigned to the Network Service User. Each Auction Revenue Right allocated to a Network Service User shall be to the aggregate load buses of such Network Service User in a Zone or, with respect to Non-Zone Network Load, to the border of the PJM Region. In stage 1A of the allocation process, the sum of each Network Service User's allocated Auction Revenue Rights for a Zone must be equal to or less than the Network Service User's pro-rata share of the Zonal Base Load for that Zone. Each Network Service User's pro-rata share of the Zonal Base Load shall be based on its proportion of peak load in the Zone. The sum of each Network Service User's Auction Revenue Rights for Non-Zone Network Load must be equal to or less than fifty percent (50%) of the Network Service User's transmission responsibility for Non-Zone Network Load as determined under Section 34.1 of the Tariff. The sum of each Qualifying Transmission Customer's Auction Revenue Rights must be equal to or less than fifty percent (50%) of the megawatts of firm service provided between the receipt and delivery points as to which the Transmission Customer had Point-to-Point Transmission Service during the historical reference year. If stage 1A Auction Revenue Rights are adversely affected by any new or revised statute, regulation or rule issued by an entity with jurisdiction over the Office of the Interconnection, the Office of the Interconnection shall, to the greatest extent practicable, and consistent with any such statute, regulation or rule change, preserve the priority of the stage 1A Auction Revenue Rights for a minimum period covering the ten (10) consecutive PJM Planning Periods ("Stage 1A Transition Period") immediately following the implementation of any such changes, provided that the terms of all stage 1A Auction Revenue Rights in effect at the time the Office of the Interconnection implements the Stage 1A Transition Period shall be reduced by one PJM Planning Period during each annual stage 1A Auction Revenue Rights allocation performed during the Stage 1A Transition Period so that all stage 1A Auction Revenue Rights that were effective at the start of the Stage 1A Transition Period expire at the end of that period.

(c) In stage 1B of the allocation process each Network Service User may request Auction Revenue Rights from the subset of the historical generation resources determined pursuant to Section 7.4.2(b) that were not allocated in stage 1A of the allocation process, and each Qualifying Transmission Customer may request Auction Revenue Rights based on the megawatts of firm service determined pursuant to Section 7.4.2(b) that were not allocated in stage 1A of the allocation process. In stage 1B of the allocation process, the sum of each Network Service User's allocation Auction Revenue Rights request for a Zone must be equal to or less than the difference between the Network Service User's peak load for that Zone as determined pursuant to Section 34.1 of the Tariff and the sum of its Auction Revenue Rights Allocation from stage 1A of the allocation process for that Zone. The sum of each Network Service User's Auction Revenue Rights for Non-Zone Network Load must be equal to or less than the difference between one hundred percent (100%) of the Network Service User's transmission responsibility for Non-Zone Network Load as determined pursuant to Section 7.4.2(b) and the sum of its Auction Revenue Rights Allocation from stage 1A of the allocation process for that Zone. The sum of each Qualifying Transmission Customer's Auction Revenue Rights must be equal to or less than the difference between one hundred percent (100%) of the megawatts of firm service as determined pursuant to Section 7.4.2(b) and the sum of its Auction Revenue Rights Allocation from stage 1A of the allocation process for that Zone.

(d) In stage 2 of the allocation process, the Office of the Interconnection shall conduct an iterative allocation process that consists of three rounds with up to one third of the remaining system Auction Revenue Rights capability allocated in each round. Each round of this allocation process will be conducted sequentially with Network Service users and Transmission Customers being given the opportunity to view results of each allocation round prior to submission of Auction Revenue Right requests into the subsequent round. In each round, each Network Service User shall designate a subset of buses from which Auction Revenue Rights will be sourced. Valid Auction Revenue Rights source buses include only zones, generators, hubs and external Interface Pricing Points. The Network Service User shall specify the amount of Auction Revenue Rights requested from each source bus. Each Auction Revenue Right shall be sinked to the aggregate load buses of the Network Service User in a Zone or, with respect to Non-Zone Network Load, to the border of the PJM Region. The sum of each Network Service User's Auction Revenue Rights requests in each stage 2 allocation round for each Zone must be equal to or less than one third of the difference between the Network Service User's peak load for that Zone as determined pursuant to Section 7.4.2(b) and the sum of its Auction Revenue Right Allocation from stages 1A and 1B of the allocation process for that Zone. The stage 2 allocation to Transmission Customers shall be as set forth in paragraph (f).

(e) On a daily basis within the annual Financial Transmission Rights auction period, a proportionate share of Network Service User's Auction Revenue Rights for each Zone are reallocated as Network Load changes from one Network Service User to another within that Zone.

(f) A Qualifying Transmission Customer shall be any customer with an agreement for Long-Term Point-to-Point Transmission Service, as defined in the PJM Tariff, used to deliver energy from a designated network resource located either outside or within the PJM Region to load located either outside or within the PJM Region, and that was confirmed and in effect during the historical reference year for the zone in which the resource is located. Such an agreement shall allow the Qualifying Transmission Customer to participate in the first stage of the allocation, but only if such agreement has remained in effect continuously following the historical reference year and is to continue in effect for the period addressed by the allocation, either by its term or by renewal or rollover. The megawatts of Auction Revenue Rights the Qualifying Transmission Customer may request in the first stage of the allocation may not exceed the lesser of: (i) the megawatts of firm service between the designated network resource and the load delivery point (or applicable point at the border of the PJM Region for load located outside such region) under contract during the historical reference year; and (ii) the megawatts of firm service presently under contract between such historical reference year receipt and delivery points. A Qualifying Transmission Customer may request Auction Revenue Rights in either or both of stage 1 or 2 of the allocation without regard to whether such customer is subject to a charge for firm Point-to-Point Transmission Service under Section 1 of Schedule 7 of the PJM Tariff ("Base Transmission Charge"). A Transmission Customer that is not a Qualifying Transmission Customer may request Auction Revenue Rights in stage 2 of the allocation process, but only if it is subject to a Base Transmission Charge. The Auction Revenue Rights that such a Transmission Customer may request in each round of stage 2 of the allocation process must be equal to or less than one third of the number of megawatts equal to the megawatts of firm service being provided between the receipt and delivery points as to which the Transmission Customer currently has firm Point-to-Point Transmission Service. The source point of the Auction Revenue Rights must be the designated source point that is specified in the transmission service request and the sink point of the Auction Revenue Rights must be the designated sink point that is specified in the transmission service request. A Qualifying Transmission Customer may request Auction Revenue Rights in each round of stage 2 of the allocation process in a number of megawatts equal to or less than one third of the difference between the number of megawatts of firm service being provided between the receipt and delivery points as to which the Transmission Customer currently has firm Point-to-Point Transmission Service and its Auction Revenue Right Allocation from stage 1 of the allocation process.

(g) PJM Transmission Customers that serve load in the Midwest ISO may participate in stage 1 of the allocation to the extent permitted by, and in accordance with, this Section 7.4.2 and other applicable provisions of this Schedule 1. For service from non-historic sources, these customers may participate in stage 2, but in no event can they receive an allocation of ARRs/FTRs from PJM greater than their firm service to loads in MISO.

(h) Subject to subsection (i) of this section, all Auction Revenue Rights must be simultaneously feasible. If all Auction Revenue Right requests made during the annual allocation process are not feasible then Auction Revenue Rights are prorated and allocated in proportion to the MW level requested and in inverse proportion to the effect on the binding constraints.

(i) If any Auction Revenue Right requests made during stage 1A of the annual allocation process are not feasible, then PJM shall increase the capability limits of the binding constraints that would have rendered the Auction Revenue Rights infeasible to the extent necessary in order to allocate such Auction Revenue Rights without their being infeasible, and such increased limits shall be included in all modeling used for subsequent Auction Revenue Rights and Financial Transmission Rights allocations and auctions for the Planning Year; provided that, the foregoing notwithstanding, this subparagraph (i) shall not apply if the infeasibility is caused by extraordinary circumstances. For the purposes of this subsection, extraordinary circumstances shall mean an event of *force majeure* that reduces the capability of existing or planned transmission facilities and such reduction in capability is the cause of the infeasibility of such Auction Revenue Rights. Extraordinary circumstances do not include those system conditions and assumptions modeled in simultaneous feasibility analyses conducted pursuant to section 7.5 of Schedule 1 of this Agreement. If PJM allocates stage 1A Auction Revenue Rights as a result of this paragraph (i) that would not otherwise have been feasible, then PJM shall notify Members and post on its web site (a) the aggregate megawatt quantities, by sources and sinks, of such Auction Revenue Rights and (b) any increases in capability limits used to allocate such Auction Revenue Rights.

(j) Long-Term Firm Point-to-Point Transmission Service customers that are not Qualifying Transmission Customers and Network Service Users serving Non-Zone Network Load may participate in stage 1 of the annual allocation of Auction Revenue Rights pursuant to Section 7.4.2(a)-(c) of Schedule 1 of this Agreement, subject to the following conditions:

i. The relevant transmission service shall be used to deliver energy from a designated network resource located either outside or within the PJM Region to load located outside the PJM Region.

ii. To be eligible to participate in stage 1A of the annual Auction Revenue Rights allocation: 1) the relevant transmission service shall remain in effect for the stage 1A period addressed by the allocation; and 2) the control area in which the external load is located has similar rules for load external to the relevant control area.

iii. Source points for stage 1 requests authorized pursuant to this subsection 7.4.2(j) shall be limited to: 1) generation resources owned by the LSE serving the load located outside the PJM Region; or 2) generation resources subject to a bona fide firm energy and capacity supply contract executed by the LSE to meet its load obligations, provided that such contract remains in force and effect for a minimum term of ten (10) years from the first effective Planning Period that follows the initial stage 1 request.

iv. For Long-Term Firm Point-to-Point Transmission customers requesting stage 1 Auction Revenue Rights pursuant to this subsection 7.4.2(j) , the generation resource(s) designated as source points may include any portion of the generating capacity of such resource(s) that is not, at the time of the request, already identified as a Capacity Resource.

v. For Network Service Users requesting stage 1 Auction Revenue Rights pursuant to this subsection 7.4.2(j), at the time of the request, the generation resource(s) designated as source points must either be committed into PJM's RPM market or be designated as part of the entity's FRR Capacity Plan for the purpose of serving the capacity requirement of the external load.

vi. All stage 1 source point requests made pursuant to this subsection 7.4.2(j) shall not increase the MW flow on facilities binding in the relevant annual Auction Revenue Rights allocation or in future stage 1A allocations and shall not cause MW flow to exceed applicable ratings on any other facilities in either set of conditions in the simultaneous feasibility test prescribed in paragraph (vii) of this subsection 7.4.2(j).

vii. To ensure the conditions of subsection (vi) of this subsection 7.4.2(j) are met, a simultaneous feasibility test shall be conducted: 1) based on next allocation year with all existing stage 1 and stage 2 Auction Revenue Rights modeled as fixed injection-withdrawal pairs; and 2) based on 10 year allocation model with all eligible stage 1A Auction Revenue Rights for each year including base load growth for each year.

viii. Requests for stage 1 Auction Revenue Rights made pursuant to this subsection 7.4.2(j) that are received by PJM by November 1st of a Planning Period shall be processed for the next annual Auction Revenue Rights allocation. Requests received after November 1st shall not be considered for the upcoming annual Auction Revenue Rights allocation. If all requests are not simultaneously feasible then requests will be awarded on a pro-rata basis.

ix. Requests for new or alternate stage 1 resources made by Network Service Users and External LSEs that are received by November 1st shall be evaluated at the same time. If all requests are not simultaneously feasible then requests will be awarded on a pro-rata basis.

x. Stage 1 Auction Revenue Rights source points that qualify pursuant to this subsection 7.4.2(j) shall be eligible as stage 1 Auction Revenue Rights source points in subsequent annual Auction Revenue Rights allocations.

xi. Long-Term Firm Point-to-Point Transmission customers requesting stage 1 Auction Revenue Rights pursuant to this subsection 7.4.2(j) may request Auction Revenue Rights MWs up to the lesser of: 1) the customer's Long-Term Firm Point-to-Point Transmission service contract MW amount; or 2) the customer's Firm Transmission Withdrawal Rights.

xii. Network Service Users requesting stage 1 Auction Revenue Rights pursuant to this subsection 7.4.2(j) may request Auction Revenue Rights MWs up to the lesser of: 1) the customer's network service peak load; or 2) the customer's Firm Transmission Withdrawal Rights.

xiii. Stage 1A Auction Revenue Rights requests made pursuant to this subsection 7.4.2(j) shall not exceed 50% of the maximum allowed MWs authorized by paragraphs (xi) and (xii) of this subsection 7.4.2(j).

xiv. Stage 1B Auction Revenue Rights requests made pursuant to this subsection 7.4.2(j) shall not exceed the difference between the maximum allowed MWs authorized by paragraphs (xi) and (xii) of this subsection 7.4.2(j) and the Auction Revenue Rights MWs granted in stage 1A.

xv. In each round of Stage 2 of an annual allocation of Auction Revenue Rights, MW requests made pursuant to this subsection 7.4.2(j) shall be equal to or less than one third of the difference between the maximum allowed MWs authorized by paragraphs (xi) and (xii) of this subsection 7.4.2(j) and the Auction Revenue Rights MW amount allocated in stage 1.

xvi. Stage 1 Auction Revenue Rights sources established pursuant to this subsection 7.4.2(j) and the associated Auction Revenue Rights MW amount may be replaced with an alternate resource pursuant to the process established in Section 7.7 of Schedule 1 of this Agreement.

7.4.3 Target Allocation of Auction Revenue Right Credits.

(a) A target allocation of Auction Revenue Right Credits for each entity holding an Auction Revenue Right shall be determined for each Auction Revenue Right. After each round of the annual Financial Transmission Right Auction, each Auction Revenue Right shall be divided by four and multiplied by the price differences for the receipt and delivery points associated with the Auction Revenue Right, calculated as the Locational Marginal Price at the delivery points(s) minus the Locational Marginal Price at the receipt point(s), where the price for the receipt and delivery point is determined by the clearing prices of each round of the annual Financial Transmission Right auction. The daily total target allocation for an entity holding the Auction Revenue Rights shall be the sum of the daily target allocations associated with all of the entity's Auction Revenue Rights.

(b) A target allocation of residual Auction Revenue Rights Credits for each entity allocated Residual Auction Revenue Rights pursuant to section 7.9 of Schedule 1 of this Agreement shall be determined on a monthly basis for each month in a Planning Period beginning with the month the Residual Auction Revenue Right(s) becomes effective through the end of the relevant Planning Period. The target allocation for Residual Auction Revenue Rights Credits shall be equal to MW amount of the Residual Auction Revenue Rights multiplied by the LMP differential between the source and sink nodes of the corresponding FTR obligation in each prompt-month FTR auction that occurs from the effective date of the Residual Auction Revenue Rights through the end of the relevant Planning Period.

7.4.4 Calculation of Auction Revenue Right Credits.

(a) Each day, the total of all the daily target allocations determined as specified above in Section 7.4.3 plus any additional Auction Revenue Rights target allocations applicable for that day shall be compared to the total revenues of all applicable monthly Financial Transmission Rights auction(s) (divided by the number of days in the month) plus the total revenues of the annual Financial Transmission Rights auction (divided by the number of days in the Planning Period). If the total of the target allocations is less than the total auction revenues, the Auction Revenue Right Credit for each entity holding an Auction Revenue Right shall be equal to its target allocation. All remaining funds shall be distributed as Excess Congestion Charges pursuant to Section 5.2.5.

(b) If the total of the target allocations is greater than the total auction revenues, each holder of Auction Revenue Rights shall be assigned a share of the total auction revenues in proportion to its Auction Revenue Rights target allocations for Auction Revenue Rights which have a positive Target Allocation value. Auction Revenue Rights which have a negative Target Allocation value are assigned the full Target Allocation value as a negative Auction Revenue Right Credit.

(c) At the end of a Planning Period, if all Auction Revenue Right holders did not receive Auction Revenue Right Credits equal to their target allocations, the Office of the Interconnection shall assess a charge equal to the difference between the Auction Revenue Right Credit target allocations for all revenue deficient Auction Revenue Rights and the actual Auction Revenue Right Credits allocated to those Auction Revenue Right holders. The aggregate charge for a Planning Period assessed pursuant to this section, if any, shall be added to the aggregate charge for a Planning Period assessed pursuant to section 5.2.5(c) of Schedule 1 of this Agreement and collected pursuant to section 5.2.5(c) of Schedule 1 of this Agreement and distributed to the Auction Revenue Right holders that did not receive Auction Revenue Right Credits equal to their target allocation.

7.5 Simultaneous Feasibility.

(a) The Office of the Interconnection shall make the simultaneous feasibility determinations specified herein using appropriate powerflow models of contingency-constrained dispatch. Such determinations shall take into account outages of both individual generation units and transmission facilities and shall be based on reasonable assumptions about the configuration and availability of transmission capability during the period covered by the auction that are not inconsistent with the determination of the deliverability of *Generation* Capacity Resources under the Reliability Assurance Agreement. The goal of the simultaneous feasibility determination shall be to ensure that there are sufficient revenues from Transmission Congestion Charges to satisfy all Financial Transmission Rights obligations for the auction period under expected conditions and to ensure that there are sufficient revenues from the annual Financial Transmission Right Auction to satisfy all Auction Revenue Rights obligations.

(b) On an annual basis the Office of the Interconnection shall conduct a simultaneous feasibility test for stage 1A Auction Revenue Rights, which shall assess the simultaneous feasibility for each year remaining in the term of the right(s). This test shall be based on the Auction Revenue Rights required to meet Zonal Base Load requirements. The Office of the Interconnection shall apply a zonal load growth rate to the simultaneous feasibility test for the ten year term of the stage 1A Auction Revenue Rights to reflect load growth as estimated by the Office of the Interconnection.

(c) Simultaneous feasibility tests for new stage 1 resource requests made pursuant to Section 7.6 of Schedule 1 of this Agreement shall ensure that the request for a new base resource does not increase the megawatt flow on facilities binding in the current Auction Revenue Rights allocation or in future stage 1A allocations and does not cause megawatt flow to exceed applicable ratings on any other facilities in either set of conditions. The most limiting set of conditions will be used as the limiting condition in these evaluations. A simultaneous feasibility test conducted pursuant to this section by the Office of the Interconnection shall assess the simultaneous feasibility under the following conditions:

- Based on next allocation year with all existing stage 1 and stage 2 Auction Revenue Rights modeled as fixed injection-withdrawal pairs.

- Based on 10 year allocation model with all eligible stage 1A Auction Revenue Rights for each year including base load growth for each year.

(d) Simultaneous feasibility tests conducted pursuant to this section shall be subject to Incremental Auction Revenue Rights granted pursuant to Section 7.8 of Schedule 1 of this Agreement and Section 46 of the PJM Tariff.

7.6 New Stage 1 Resources.

A Network Service User may request the addition of new stage 1 resources to the stage 1 resource list if the capacity of the historical generation resources for a Zone determined pursuant to Section 7.4.2(b) is less than the Zonal Base Load. Requests made pursuant to this section shall be subject to Section 7.5(c) of Schedule 1 of this Agreement and shall be limited to generation resources either owned by the requesting party or those subject to a bona fide firm energy and capacity supply contracts where such contract is executed by the requesting party to meet load obligations for which it is eligible to receive stage 1 Auction Revenue Rights and remains in force and effect for a minimum term of ten (10) years.

7.7 Alternate Stage 1 Resources.

A Network Service User may replace one or more of its existing stage 1 resources and its associated megawatt amount of Auction Revenue Rights determined pursuant to Section 7.4.2(b) with an alternate resource. It the Network Service User making such request accepts the megawatt amount of Auction Revenue Rights associated with the alternate resource as established by the Office of the Interconnection, the alternate resource shall replace the relevant existing stage 1 resource prospectively beginning with the next annual Auction Revenue Rights allocation. If the Network Service User making such request rejects the megawatt amount of Auction Revenue Rights established by the Office of the Interconnection for the alternate resource, the Auction Revenue Rights associated with the original stage 1 resource shall remain in effect for the Network Service User. Requests made pursuant to this section shall be subject to the following:

- Requests made pursuant to this section shall be subject to Section 7.5(c);
- Eligible alternate resources shall be limited to generation resources owned by the requesting party or bona fide firm energy and capacity supply contracts that meet the requirements set forth in Section 7.6 of Schedule 1 of this Agreement;
- Alternate resources shall be of an electrically equivalent megawatt amount, which means that relative to the existing resource, the alternate resource cannot consume a greater amount of transmission capability on facilities binding in the current Auction Revenue Rights allocation or future stage 1A allocations, and cannot allow megawatt flow(s) to exceed applicable ratings on any other facilities;
- The total amount of requested alternate stage 1 Auction Revenue Rights cannot exceed the original awarded stage 1 megawatt amounts of Auction Revenue Rights associated with the original historical resource as determined pursuant to Section 7.4.2(b).

7.8 Elective Upgrade Auction Revenue Rights.

(a) In addition to any Incremental Auction Revenue Rights (as defined in the PJM Tariff) established under the PJM Tariff, any party may elect to fully fund Network Upgrades (as defined in the PJM Tariff) to obtain Incremental Auction Revenue Rights pursuant to this section, provided that Incremental Auction Revenue Rights granted pursuant to this section shall be simultaneously feasible with outstanding Auction Revenue Rights, which shall include stage 1 and stage 2 Auction Revenue Rights, and against stage 1A Auction Revenue Right capability for the future 10 year period, as determined by the Office of the Interconnection pursuant to Section 7.8(b) of Schedule 1 of this Agreement. A request made pursuant to this section shall specify a source, sink and megawatt amount.

(b) The Office of the Interconnection shall assess the simultaneous feasibility of the requested Incremental Auction Revenue Rights and the outstanding Auction Revenue Rights against the existing base system Auction Revenue Right capability and stage 1A Auction Revenue Right capability for the future 10 year period and based on this preliminary assessment it shall conduct studies to determine the upgrades required to accommodate the requested Incremental Auction Revenue Rights and ensure all outstanding Auction Revenue Rights are simultaneously feasible.

(c) If a party elects to fund upgrades to obtain Incremental Auction Revenue Rights pursuant to this section, no less than forty-five (45) days prior to the in-service date of the relevant upgrades, as determined by the Office of the Interconnection, the Office of the Interconnection shall notify the party of the actual amount of Incremental Auction Revenue Rights that will be granted to the party based on the allocation process established pursuant to Section 23.1 of Part VI of the Tariff.

(d) Incremental Auction Revenue Rights established pursuant to this section shall be effective for the lesser of thirty (30) years, or the life of the project, from the in-service date of the Network Upgrade(s). At any time during this thirty-year period (or the life of the Network Upgrade whichever is less), in lieu of continuing this thirty-year Auction Revenue Right, the owner of the right shall have a one-time choice to switch to an optional mechanism, whereby, on an annual basis, it will have the choice to request an Auction Revenue Right during the annual Auction Revenue Rights allocation process between the same source and sink, provided the Auction Revenue Right is simultaneously feasible. A party that is granted Incremental Auction Revenue Rights pursuant to this section may return such rights at any time, provided that the Office of the Interconnection determines that it can simultaneously accommodate all remaining outstanding Auction Revenue Rights following the return of such Auction Revenue Rights. In the event a party returns Incremental Auction Revenue Rights, it shall retain no further rights regarding such Incremental Auction Revenue Rights.

(e) No Incremental Auction Revenue Rights shall be granted pursuant to this section if the costs associated with funding the associated Network Upgrades are included in the rate base of a public utility and on which a regulated return is earned.

7.9 Residual Auction Revenue Rights

(a) As necessary in each Planning Period PJM shall calculate Residual Auction Revenue Rights for Auction Revenue Rights pathways that were prorated pursuant to section 7.4.2(h) of Schedule 1 of this Agreement. Residual Auction Revenue Rights calculated pursuant to this section shall be determined prior to the increase in transmission capability or the effect of any other relevant factor that creates the Residual Auction Revenue Rights.

(b) Network Service Users and Qualifying Transmission Customers allocated stage 1 Auction Revenue Rights pursuant to section 7.4.2(a)-(c) of Schedule 1 of this Agreement that were subject to proration pursuant to section 7.4.2(h) of Schedule 1 of this Agreement shall be eligible to receive Residual Auction Revenue Rights. Residual Auction Revenue Rights shall be allocated pursuant to the following schedule:

(i) The initial allocation of Residual Auction Revenue Rights shall be to holders of prorated stage 1A Auction Revenue Rights in an amount equal to the difference between the allocated stage 1A Auction Revenue Rights and the requested stage 1A Auction Revenue Rights.

(ii) Residual Auction Revenue Rights remaining after an allocation made pursuant to section 7.9(b)(i) of Schedule 1 of this Agreement shall be allocated to holders of prorated stage 1B Auction Revenue Rights in an amount equal to the difference between the allocated stage 1B Auction Revenue Rights and the requested stage 1B Auction Revenue Rights.

(iii) Residual Auction Revenue Rights remaining after allocations made pursuant to section 7.9(b)(i) and (ii) of Schedule 1 of this Agreement shall not be allocated to any entity and shall not be considered by the Office of the

Interconnection in its administration of Section 7 of Schedule 1 of this Agreement.

(c) The sum of a Network Service User's and Qualifying Transmission Customer's Residual Auction Revenue Rights awarded pursuant to this section and its stage 1 and 2 Auction Revenue Rights awarded in an annual allocation shall not exceed the entity's peak load.

(d) Residual Auction Revenue Rights awarded pursuant to this section shall be effective on the first day of the month in a Planning Period the increase in transmission capability creating the Residual Auction Revenue Rights is included in the administration of section 7.1.1(a) of Schedule 1 of this Agreement.

(e) Residual Auction Revenue Rights awarded pursuant to this section shall be subject to section 7.4.2(e) of Schedule 1 of this Agreement.

7.10 Financial Settlement

Financial credits and charges for Auction Revenue Rights and Financial Transmission Rights, including associated auction charges, shall be calculated and accrued on a daily basis, and included in PJM's regular invoice to each participant for the relevant period of such invoice.

8. INTERREGIONAL TRANSMISSION CONGESTION MANAGEMENT PILOT PROGRAM

8.1 Introduction.

The following procedures shall govern the redispatch of generation to alleviate transmission congestion on selected pathways on the transmission systems operated by the Office of the Interconnection and the New York ISO ("NYISO"). The procedures shall be used solely when, in the exercise of Good Utility Practice, the Office of the Interconnection or NYISO determines that the redispatch of generation units on the other's transmission system would reduce or eliminate the need to resort to Transmission Loading Relief or other transmission-related emergency procedures.

8.2 Identification of Transmission Constraints.

(a) On a periodic basis determined by the Office of the Interconnection and NYISO, the Office of the Interconnection and NYISO shall identify potential transmission operating constraints that could result in the need to use Transmission Loading Relief or other emergency procedures in order to alleviate the transmission constraints, the need for which could be reduced or eliminated by the redispatch of generation on the other's system.

(b) In addition to the identification of such potential transmission operating constraints, the Office of the Interconnection and NYISO shall identify generation units on the other's system, the redispatch of which would alleviate the identified transmission constraints.

(c) From the identified transmission constraints, the Office of the Interconnection and NYISO shall agree in writing on the transmission operating constraints and redispatch options that shall be subject to Section 8 of this Schedule until otherwise agreed. In reaching such agreement, the Office of the Interconnection shall endeavor reasonably to limit the number of transmission constraints that are subject to Section 8 of this Schedule so as to minimize potential cost shifting among market participants in the control area of NYISO and the PJM Region resulting from the redispatch of generation under Section 8 of this Schedule. The Office of the Interconnection shall post the transmission operating constraints that are subject to Section 8 of this Schedule on PJM's internet site.

8.3 Redispatch Procedures.

If (i) a transmission constraint subject to Section 8 of this Schedule occurs and continues or reasonably can be expected to continue after the exhaustion of all economic alternatives that are reasonably available to the transmission system on which the constraint occurs and (ii) the Office of the Interconnection or NYISO, as applicable, has determined that it must either use Transmission Loading Relief or other emergency procedures, then (iii) the affected entity may request the other to redispatch one or more of the previously identified generation units to alleviate the transmission constraint. Upon such request, the Office of the Interconnection or NYISO, as applicable, shall redispatch such generation if it is then subject to its dispatch control and such redispatch is consistent with Good Utility Practice.

8.4 Locational Marginal Price.

(a) In the event that the Office of the Interconnection requests that NYISO redispatch generation under this Section 8, the Office of the Interconnection shall include the generator's offer price (in the NYISO energy market) in a reference price at the appropriate NYISO generator bus in the PJM State Estimator and in the calculation of Real-time Prices and shall include the cost of any applicable start-up and no-load fees in the cost of Operating Reserves for the Real-time Energy Market; provided, however, that if the energy offer price plus any applicable start-up or no-load fees exceeds $1000/megawatt-hour, then the entire cost of the redispatch will be included in the cost of Operating Reserves for the Real-time Energy Market and will not be included in the Real-time Prices calculation.

(b) The redispatch of a generator by the Office of the Interconnection in response to a request from NYISO under Section 8 of this Schedule shall not be included in the determination of Locational Marginal Prices under Section 2 of this Schedule.

8.5 Generator Compensation.

Generators that have increased or decreased generation output above or below the level that would otherwise represent the economic dispatch level and as a result of a request made pursuant to this Section 8 (the "MWh Adjustment") shall be compensated based on the following:

(a) For a positive MWh Adjustment:

Payment to Generator = MWh Adjustment * (unit offer price – marginal price at the generator bus) + any applicable start-up or no-load costs not recovered by the marginal price

(b) For a negative MWh Adjustment:

Payment to Generator = |MWh Adjustment| * (marginal price at the generator bus – unit offer price) + any applicable start-up or no-load costs not recovered by the marginal price

8.6 Settlements.

(a) If NYISO redispatches generation under this Section 8, then the Office of the Interconnection shall include in its monthly accounting and billing a payment to NYISO for the costs of such redispatch as determined in accordance with Section 8.5.

(b) If the Office of the Interconnection redispatches generation under this Section 8, then it shall include in its monthly accounting and billing a credit to each redispatched generator calculated in accordance with Section 8.5. The Office of the Interconnection shall invoice NYISO and NYISO shall collect from its market participants and pay to the Office of the Interconnection on behalf of such market participants an amount equal to all such credits to generators.

(c) Unless there is a separate emergency energy transaction accompanying any generation adjustment under this Schedule 8, there shall be no adjustment in interchange between PJM and NYISO as a result of redispatch under this Schedule 8. In the event that an emergency energy transaction accompanies any generation adjustment, compensation for such transaction shall be at the rates for emergency purchases and sales which have been approved by the FERC, as they may be amended from time-to-time.

8.7 Effective Date.

Section 8 of this Schedule shall become effective only upon (a) approval or acceptance by the Federal Energy Regulatory Commission and (b) approval or acceptance by the Federal Energy Regulatory Commission of any comparable amendments to rate schedules of NYISO, if required.

9. [Reserved]

[Reserved For Future Use]

[Reserved For Future Use]

[Reserved For Future Use]

10. PJM-FE INTERREGIONAL TRANSMISSION CONGESTION MANAGEMENT

(a) The Office of the Interconnection may from time to time enter into agreements with FirstEnergy Solutions Corp. ("FES") providing procedures for the redispatch of generation resources to alleviate transmission congestion, for use solely when, in the exercise of Good Utility Practice, the Office of the Interconnection determines, absent any other effective market-based solutions available to it, that the redispatch of generation units on the FE transmission system would reduce or eliminate the need to resort to Transmission Loading Relief or other transmission-related emergency procedures. The Office of the Interconnection is authorized to incur costs as described herein on behalf of the Market Participants to obtain such redispatch, and shall allocate and recover such costs as described herein. Such cost recovery shall be limited to the costs incurred by the Office of the Interconnection pursuant to an agreement providing for the redispatch of generation resources at FE's Sammis Generating Station to alleviate actual or contingency overloads on the PJM Wylie Ridge transformers (the #5 transformer or the #7 transformer) or the PJM Sammis-Wylie Ridge 345kV transmission line. The costs the Office of the Interconnection is authorized to incur and to recover hereunder to obtain such redispatch shall be those necessary to compensate for reasonable opportunity costs incurred by FE in connection with such redispatch as calculated based upon the cost of the energy that could have been produced by the Sammis units as developed in accordance with the PJM Cost Development Manual, as well as costs incurred by FE related to reduced efficiency caused by cycling its units at the request of the Office of the Interconnection.

(b) Any payments to FE associated with redispatch under section 10(a) shall be included in the cost of Operating Reserves for the Real-time Energy Market, in accordance with Section 3.2.3(g) of this Schedule 1.

PJM Emergency Load Response Program

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1.1 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. 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 an Active Load Management ("ALM") credit pursuant to Schedule 5.2 of the Reliability Assurance Agreement, the Reliability Assurance Agreement-West, and the Reliability Assurance Agreement-South, as applicable.

- Energy Only Option

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

1.2 Participant Qualifications

Two primary types of distributed resources are candidates to participate in either of the two options provided by the PJM 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 unless the laws or regulations of the Relevant Electric Retail Regulatory Authority expressly prohibit their participation. 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 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 the special members the $5,000 annual member 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.

To receive ALM Credits participants in the Full Program Option must satisfy the criteria set forth in Schedule 5.2 of the Reliability Assurance Agreement, the Reliability Assurance Agreement-West, and the Reliability Assurance Agreement-South, as applicable.

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 Providers 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.

1.3 Registration

Participants must complete the PJM Emergency Load Response Program Registration Form ("Emergency Registration Form") that is posted on the PJM web site (www.pjm.com). The following general steps will be followed:

1. The participant completes the Emergency Registration Form located on the PJM web site. PJM reviews the application and ensures that the qualifications are met, including verifying that the appropriate metering exists. PJM also confirms with the appropriate Load Serving Entity and electric distribution company whether the load reduction is under other contractual obligations, and with the electric distribution company whether the laws or regulations of the Relevant Electric Retail Regulatory Authority expressly prohibit the end-use customer's participation in PJM's Emergency Load Response Program pursuant to the process described below. 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. The electric distribution company and Load Serving Entity have ten (10) business days to respond or PJM assumes acceptance. An electric distribution company which seeks to assert that the laws or regulations of the Relevant Electric Retail Regulatory Authority expressly prohibit 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 expressly barring end-use customer participation, (b) an opinion of the Relevant Electric Retail Regulatory Authority's legal counsel attesting to the existence of a regulation or law expressly barring end-use customer 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 expressly barring end-use customer participation. PJM may seek additional clarification, if necessary, from the Relevant Electric Retail Regulatory Authority and shall post on its web site all documentation submitted by an electric distribution company or Relevant Electric Retail Regulatory Authority to PJM during the registration process pursuant to this section. In the absence of a response from the electric distribution company or Load Serving Entity within the referenced ten business day 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 expressly prohibit the end-use customer's participation in PJM's Emergency Load Response Program.

2. 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.

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 Operations

PJM will initiate the request for load reduction following the declaration of Maximum Emergency Generation and prior to the implementation of ILM Steps 1 and 2. (Implementation of the Emergency Load Response Program can be used for regional emergencies.) It is implemented whenever generation is needed that is greater than the highest economic incremental cost. PJM posts the request for load reduction on the PJM web site, on the Emergency Conditions page, and on eData, and issues a burst email to the Emergency Load Response majordomo. 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 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 the hour prior to the event, as well as every hour during the event.

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. All load reduction data are subject to PJM Market Monitoring Unit audit.

MARKET SETTLEMENTS

Payment for reducing load is based on the actual kWh relief provided plus the adjustment for losses. 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 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.

PJM 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 otherwise in use for settlement of the given load or \$500/MWh. If, however, the sum of the hourly payments (excluding any ALM Credits) 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 when dispatched by PJM shall be assessed the ALM Deficiency Charge specified in Schedule 11 of the Reliability Assurance Agreement, the Reliability Assurance Agreement-West, and Reliability Assurance Agreement-South, 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 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 from the PJM energy market during the hour from day-ahead to real time.

Full Program Option participants that, prior to June 1, 2002, entered into contracts with LSEs or CSPs that enable participation in the Full Program Option, may participate in the Emergency Load Response program during Interruptible Load for Reliability (ILR) events as long as the customer's ILR contract explicitly excludes payment or credit for energy not consumed during ILR events. If the LSE that submitted the Full Program Option participant for ILR credit indicates that such participant is not eligible for simultaneous credit under the Emergency Load Response program and ILR is called for concurrent with the Emergency Load Response program, then payments will be made to the participant according to the Emergency Load Response program only for the time during which ILR obligations were not in effect. Any response in excess of the contracted ILR amount will be compensated under the Emergency Load Response program for the entire duration of response.

In the event that a Full Program Option participant entered into an ALM contract with an LSE that enables participation in the Full Program Option after June 1, 2002, such participant shall be credited for load reductions pursuant to this Emergency Load Response Program, notwithstanding any terms or conditions to the contrary in the contract.

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

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

Actual load reductions of Full Program Option and Capacity Only resources that have been registered as Emergency Load Response resources and/or Economic Load Response resources, and which occur from June 1 through September 30, will be added back for the purpose of calculating peak load for capacity. 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 used for the purpose of calculating peak load for capacity, however, shall not exceed the quantity of kW committed and registered as Full Program Option or Capacity Only resources.

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 web site.

On an annual basis PJM will prepare a report that summarizes the status of the program and will submit it to the PJM Board of Managers, the Members Committee, the Reliability Committee, the Energy Market Committee, and the Operating Committee for review.

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.

[Sheet Nos. 149-166 Reserved for Future Use.]

SCHEDULE 2

COMPONENTS OF COST

(a) Each Market Participant obligated to sell energy from operating capacity on the PJM Interchange Energy Market at cost-based rates shall include the following components or their equivalent in the determination of costs for operating capacity supplied to or from the PJM Region:

(1) Boilers
Firing-up cost;
No-load cost during period of operation;
Peak-prepared-for maintenance cost;
Incremental labor cost; and
Other incremental operating costs.

(2) Machines
Starting cost from cold to synchronized operation;
No-load cost during period of operation;
Incremental labor cost; and
Other incremental operating costs.

(b) Each Member obligated to sell energy on the PJM Interchange Energy Market at cost-based rates shall include the following components or their equivalent in the determination of costs for energy supplied to the PJM Region:

Incremental fuel cost;
Incremental maintenance cost;
Incremental labor cost; and
Other incremental operating costs.

(c) All fuel costs shall employ the marginal fuel price experienced by the Member.

(d) The PJM Board, upon consideration of the advice and recommendations of the Members Committee, shall from time to time define in detail the method of determining the costs entering into the said components, and the Members shall adhere to such definitions in the preparation of incremental costs used on the Interconnection.

SCHEDULE 2 - EXHIBIT A
EXPLANATION OF THE TREATMENT OF THE COSTS OF EMISSION ALLOWANCES

The cost of emission allowances is included in "Other Incremental Operating Costs" pursuant to Schedule 2. The replacement cost of emission allowances will be used to recover the cost of emission allowances consumed as a result of producing energy for the PJM Region.

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Consistent with definitions promulgated by the PJM Board upon consideration of the advice and recommendations of the Members Committee under Schedule 2, each Member subject to Schedule 2 will determine and provide to the Interconnection its replacement cost of emission allowances, such cost to be an amount not exceeding the market price index published by Cantor-Fitzgerald Environmental Brokerage Services ("EBS"), or a PJM Board approved index in the event that EBS should cease publication of such index. As with all other components of cost required for accounting under this Agreement, each Member subject to Schedule 2 will use the same replacement cost of emissions allowances, so determined, as it uses for coordinating operation of its generating facilities hereunder.

For each Member subject to Schedule 2, the cost of emissions allowances is included in the cost of energy supplied to or received from the PJM Region.

Payment

The Members subject to Schedule 2 waive the right of payment-in-kind for emission allowances for transactions wholly between the parties. Cash payments for emission allowances consumed in providing energy for the PJM Region shall be incorporated into and conducted pursuant to the billing procedures for energy prescribed by this Agreement.

Calculation of Emission Allowance Amount and Cost

Pursuant to the letter from the PJM Interconnection to FERC dated June 26, 1995, the calculation of an annual average for the cost of emission allowances, described below, is required due to the profile of the PJM physical system and PJM Energy Management software system. An average emission allowance cost based on a standard production cost study case will be used to calculate the average cost of emission allowances for each pool megawatt produced.

The Emission Allowances (Tons of SO_2) associated with a transaction will be calculated by multiplying the magnitude of a transaction (MWhr) by an Emissions per MWHr Factor (Tons of SO_2 per MWhr):

Emission Allowances Used (Tons of $S0_2$)	=	Transaction Magnitude (MWhr)	x	Emissions per MWhr Factor (Tons of $S0_2$ per MWhr)

The Emissions per MWHr Factor will be calculated by dividing the forecast annual emissions from all Phase I units (Tons of SO_2) by the Forecast Annual Total PJM Energy Production (MWhr):

$$\text{Emissions per MWhr Factor (Tons of } SO_2 \text{ per MWhr)} = \frac{\text{Forecast Annual Phase I Unit Emissions (Tons of } SO_2\text{)}}{\text{Forecast Annual Total PJM Energy Production (MWhr)}}$$

Likewise, the cost (Dollars) of the Emission Allowances for a transaction will be calculated by multiplying the transaction magnitude (MWhr) by a Charge per MWhr Factor (Dollars per MWHr).

$$\text{Cost of Emission Allowances Used (Dollars)} = \text{Transaction Magnitude (MWhr)} \times \text{Charge per MWhr Factor (Dollars per MWhr)}$$

The Charge per MWhr Factor will be calculated by multiplying, for each Member subject to Schedule 2, its Forecast Annual Emissions (Tons of SO_2)by its respective Emissions Allowance Replacement Cost (Dollars per Ton of SO_2) to yield each the forecasted annual cost of emissions (Dollars). Then, the total of forecasted annual cost of emissions for each Member subject to Schedule 2 is divided by the Forecast Annual Total PJM Energy Production (MWhr) to determine the Charge per MWHr Factor (Dollars per MWHr).

$$\text{Charge per MWhr Factor} = \frac{\Sigma(A \times B)}{C}, \text{ where:}$$

A = Member's Forecasted Annual Emissions, (Tons of SO_2)
B = Emission Allowance Replacement Cost, (Dollars per Ton of SO_2, per company)
C = Forecast Annual PJM Energy Production, (MWhr)

SCHEDULE 3

ALLOCATION OF THE COST AND EXPENSES OF THE OFFICE OF THE INTERCONNECTION

(a) Each group of Affiliates, each group of Related Parties, and each Member that is not in such a group shall pay an annual membership fee, the proceeds of which shall be used to defray the costs and expenses of the LLC, including the Office of the Interconnection. The amount of the annual fee as of the Effective Date shall be $5,000. The annual membership fee shall be charged on a calendar year basis. In the year that a new membership commences, the annual membership fee may be reduced, at the election of the entity joining, by 1/12th for each full month that has passed prior to membership commencing. If the entity seeking to join elects to pay a prorated annual membership fee as provided here, it shall not be permitted to vote at meetings until the first day following the date that its entry as a new Member is announced at a Members Committee meeting, provided that if an entity's membership is terminated and it seeks to rejoin within twelve months, it will be subject to the full $5,000 annual membership fee. Annual membership fees shall not be refunded, in whole or in part, upon termination of membership.

(b) Each group of State Offices of Consumer Advocates from the same state or the District of Columbia and each State Consumer Advocate that nominates its representative to vote on the Members Committee but is not in such a group shall pay an annual fee, the proceeds of which shall be used to defray the costs and expenses of the LLC, including the Office of the Interconnection. The amount of the annual fee shall be $500. The annual membership fee shall be charged on a calendar year basis and shall not be subject to proration for memberships commencing during a calendar year.

(c) The amount of the annual fees provided for herein shall be adjusted from time to time by the PJM Board to keep pace with inflation.

(d) All remaining costs of the operation of the LLC and the Office of the Interconnection and the expenses, including, without limitation, the costs of any insurance and any claims not covered by insurance, associated therewith as provided in this Agreement shall be costs of PJM Interconnection, L.L.C. Administrative Services and shall be recovered as set forth in Schedule 9 to the PJM Tariff. Such costs may include costs associated with debt service, including the costs of funding reserve accounts or meeting coverage or similar requirements that financing covenants may necessitate.

(e) An entity accepted for membership in the LLC shall pay all costs and expenses associated with additions and modifications to its own metering, communication, computer, and other appropriate facilities and procedures needed to effect the inclusion of the entity in the operation of the Interconnection.

SCHEDULE 4

STANDARD FORM OF AGREEMENT TO BECOME A MEMBER OF THE LLC

Any entity which wishes to become a Member of the LLC shall, pursuant to Section 11.6 of this Agreement, tender to the President an application, upon the acceptance of which it shall execute a supplement to this Agreement in the following form:

Additional Member Agreement

1. This Additional Member Agreement (the "Supplemental Agreement"), dated as of ________________, is entered into among ____________ and the President of the LLC acting on behalf of its Members.

2. ____________ has demonstrated that it meets all of the qualifications required of a Member to the Operating Agreement. If expansion of the PJM Region is required to integrate __________________'s facilities, a copy of Attachment J from the PJM Tariff marked to show changes in the PJM Region boundaries is attached hereto. __________________ agrees to pay for all required metering, telemetering and hardware and software appropriate for it to become a member.

3. ____________________ agrees to be bound by and accepts all the terms of the Operating Agreement as of the above date.

4. ____________________ hereby gives notice that the name and address of its initial representative to the Members Committee under the Operating Agreement shall be:

____

5. The President of the LLC is authorized under the Operating Agreement to execute this Supplemental Agreement on behalf of the Members.

6. The Operating Agreement is hereby amended to include ___________ as a Member of the LLC thereto, effective as of __________________, _____, the date the President of the LLC countersigned this Agreement.

IN WITNESS WHEREOF, ____________________ and the Members of the LLC have caused this Supplemental Agreement to be executed by their duly authorized representatives.

Members of the LLC

By: ____________________________
Name: ____________________________
Title: President

By: ____________________________
Name: ____________________________
Title: ____________________________

SCHEDULE 5

PJM DISPUTE RESOLUTION PROCEDURES

1. DEFINITIONS

1.1 Alternate Dispute Resolution Coordinator.

"Alternate Dispute Resolution Coordinator" shall mean the individual designated by the Office of the Interconnection.

1.2 Related PJM Agreements.

"Related PJM Agreements" shall mean this Agreement, the Consolidated Transmission Owners Agreement and the Reliability Assurance Agreement.

2. PURPOSES AND OBJECTIVES

2.1 Common and Uniform Procedures.

The PJM Dispute Resolution Procedures are intended to establish common and uniform procedures for resolving disputes arising under the Related PJM Agreements. To the extent any of the foregoing agreements or the PJM Tariff contains dispute resolution provisions expressly applicable to disputes arising thereunder, however, this Agreement shall not supplant such provisions, which shall apply according to their terms.

2.2 Interpretation.

To the extent permitted by applicable law, the PJM Dispute Resolution Procedures are to be interpreted to effectuate the objectives set forth in Section 2.1. To the extent permitted by these PJM Dispute Resolution Procedures, the Alternate Dispute Resolution Coordinator shall coordinate with the established dispute resolution committee of an Applicable Regional Reliability Council, where appropriate, in order to conserve administrative resources and to avoid duplication of dispute resolution staffing.

3. NEGOTIATION AND MEDIATION

3.1 When Required.

The parties to a dispute shall undertake good-faith negotiations to resolve any dispute as to a matter governed by one of the Related PJM Agreements. Each party to a dispute shall designate an executive with authority to resolve the matter in dispute to participate in such negotiations. Any dispute as to a matter governed by one of the Related PJM Agreements that has not been resolved through good-faith negotiation shall be subject to non-binding mediation prior to the initiation of arbitral, regulatory, judicial, or other dispute resolution proceedings as may be appropriate as provided by these PJM Dispute Resolution Procedures.

3.2 Procedures.

3.2.1 Initiation.

If a dispute that is subject to the mediation procedures specified herein has not been resolved through good-faith negotiation, a party to the dispute shall notify the Alternate Dispute Resolution Coordinator in writing of the existence and nature of the dispute prior to commencing any other form of proceeding for resolution of the dispute. The Alternate Dispute Resolution Coordinator shall have ten calendar days from the date it first receives notification of the existence of a dispute from any of the parties to the dispute in which to distribute to the parties a list of mediators.

3.2.2 Selection of Mediator.

The Alternate Dispute Resolution Coordinator shall distribute to the parties by facsimile or other electronic means a list containing the names of seven mediators with mediation experience, or with technical or business experience in the electric power industry, or both, as it shall deem appropriate to the dispute. The Alternate Dispute Resolution Coordinator may draw from the lists of mediators maintained by the established dispute resolution committee of an Applicable Regional Reliability Council, as the Alternate Dispute Resolution Coordinator shall deem appropriate. In the event the Office of the Interconnection is one of the parties to the dispute, the Alternate Dispute Resolution Coordinator shall distribute the names of all qualified mediators on the Alternate Dispute Resolution Coordinator's list. The persons on the proposed list of mediators shall have no official, financial, or personal conflict of interest with respect to the issues in controversy, unless the interest is fully disclosed in writing to all participants in the mediation process and all such participants waive in writing any objection to the interest. The parties shall then alternate in striking names from the list with the last name on the list becoming the mediator. The determination of which party shall have the first strike off the list shall be determined by lot. The parties shall have ten calendar days to complete the mediator selection process, unless the time is extended by mutual agreement.

3.2.3 Advisory Mediator.

If the Alternate Dispute Resolution Coordinator deems it appropriate, it shall distribute two lists, one containing the names of seven mediators with mediation experience (or a list containing the names of all current mediators in the event of a dispute involving the Office of the Interconnection), and one containing the names of seven mediators with technical or business experience in the electric power industry. In connection with circulating the foregoing lists, the Alternate Dispute Resolution Coordinator shall specify one of the lists as containing the proposed mediators, and the other as a list of proposed advisors to assist the mediator in resolving the dispute. The parties shall then utilize the alternative strike procedure set forth above until one name remains on each list, with the last named persons serving as the mediator and advisor.

3.2.4 Mediation Process.

The disputing parties shall attempt in good faith to resolve their dispute in accordance with procedures and a timetable established by the mediator. In furtherance of the mediation efforts, the mediator may:

(a) Require the parties to meet for face-to-face discussions, with or without the mediator;..

(b) Act as an intermediary between the disputing parties;

(c) Require the disputing parties to submit written statements of issues and positions;

(d) If requested by the disputing parties at any time in the mediation process, provide a written recommendation on resolution of the dispute including, if requested, the assessment by the mediator of the merits of the principal positions being advanced by each of the disputing parties; and

(e) Adopt, when appropriate, the Center for Public Resources Model ADR Procedures for the Meditation of Business Disputes (as revised from time to time) to the extent such Procedures are not inconsistent with any rule, standard, or procedure adopted by the Office of the Interconnection or with any provision of this Agreement.

3.2.5 Mediator's Assessment.

(a) If a resolution of the dispute is not reached by the thirtieth day after the appointment of the mediator or such later date as may be agreed to by the parties, if not previously requested to do so the mediator shall promptly provide the disputing parties with a written, confidential, non-binding recommendation on resolution of the dispute, including the assessment by the mediator of the merits of the principal positions being advanced by each of the disputing parties. The recommendation may incorporate or append, if and as the mediator may deem appropriate, any recommendations or any assessment of the positions of the parties by the advisor, if any. Upon request, the mediator shall provide any additional recommendations or assessments the mediator shall deem appropriate.

(b) At a time and place specified by the mediator after delivery of the foregoing recommendation, the disputing parties shall meet in a good faith attempt to resolve the dispute in light of the recommendation of the mediator. Each disputing party shall be represented at the meeting by a person with authority to settle the dispute, along with such other persons as each disputing party shall deem appropriate. If the disputing parties are unable to resolve the dispute at or in connection with this meeting, then: (i) any disputing party may commence such arbitral, judicial, regulatory or other proceedings as may be appropriate as provided in the PJM Dispute Resolution Procedures; and (ii) the recommendation of the mediator, and any statements made by any party in the mediation process, shall have no further force or effect, and shall not be admissible for any purpose, in any subsequent arbitral, administrative, judicial, or other proceeding.

3.3 Costs.

Except as specified in Section 4.13, the costs of the time, expenses, and other charges of the mediator and any advisor, and of the mediation process, shall be borne by the parties to the dispute, with each side in a mediated matter bearing one-half of such costs, and each party bearing its own costs and attorney's fees incurred in connection with the mediation.

4. ARBITRATION

4.1 When Required.

Any dispute as to a matter: (i) governed by one of the Related PJM Agreements that has not been resolved through the mediation procedures specified herein, (ii) involving a claim that one or more of the parties owes or is owed a sum of money, and (iii) the amount in controversy is less than $1,000,000.00, shall be subject to binding arbitration in accordance with the procedures specified herein. If the parties so agree, any other disputes as to a matter governed by a Related PJM Agreement may be submitted to binding arbitration in accordance with the procedures specified herein.

4.2 Binding Decision.

Except as specified in Section 4.1, the resolution by arbitration of any dispute under this Agreement shall not be binding.

4.3 Initiation.

A party or parties to a dispute which is subject to the arbitration procedures specified herein shall send a written demand for arbitration to the Alternate Dispute Resolution Coordinator with a copy to the other party or parties to the dispute. The demand for arbitration shall state each claim for which arbitration is being demanded, the relief being sought, a brief summary of the grounds for such relief and the basis for the claim, and shall identify all other parties to the dispute.

4.4 Selection of Arbitrator(s).

The parties to a dispute for which arbitration has been demanded may agree on any person to serve as a single arbitrator, or shall endeavor in good faith to agree on a single arbitrator from a list of arbitrators prepared for the dispute by the Alternate Dispute Resolution Coordinator and delivered to the parties by facsimile or other electronic means promptly after receipt by the Alternate Dispute Resolution Coordinator of a demand for arbitration. The Alternate Dispute Resolution Coordinator may draw from the lists of arbitrators maintained by the established dispute resolution committee of an Applicable Regional Reliability Council, as the Alternate Dispute Resolution Coordinator deems appropriate. In the event the Office of the Interconnection is one of the parties to the dispute, the Alternate Dispute Resolution Coordinator shall distribute the names of all qualified arbitrators on the Alternate Dispute Resolution Coordinator's list. If the parties are unable to agree on a single arbitrator by the fourteenth day following delivery of the foregoing list of arbitrators or such other date as agreed to by the parties, then not later than the end of the seventh business day thereafter the party or parties demanding arbitration on the one hand, and the party or parties responding to the demand for arbitration on the other, shall each designate an arbitrator from a list for the dispute prepared by the Alternate Dispute Resolution Coordinator. The arbitrators so chosen shall then choose a third arbitrator.

4.5 Procedures.

The Alternate Dispute Resolution Coordinator shall compile and make available to the arbitrator(s) and the parties standard procedures for the arbitration of disputes, which procedures (i) shall include provision, upon good cause shown, for intervention or other participation in the proceeding by any party whose interests may be affected by its outcome, (ii) shall conform to the requirements specified in these PJM Dispute Resolution Procedures, and (iii) may be modified or adopted for use in a particular proceeding as the arbitrator(s) deem appropriate. To the extent deemed appropriate by the Alternate Dispute Resolution Coordinator, the procedures shall be based on the American Arbitration Association Rules, to the extent such Rules are not inconsistent with any rule, standard or procedure adopted by the Office of the Interconnection, or with any provision of these PJM Dispute Resolution Procedures. Upon selection of the arbitrator(s), arbitration shall go forward in accordance with applicable procedures.

4.6 Summary Disposition and Interim Measures.

4.6.1 Lack of Good Faith Basis.

The procedures for arbitration of a dispute shall provide a means for summary disposition of a demand for arbitration, or a response to a demand for arbitration, that in the reasoned opinion of the arbitrator(s) does not have a good faith basis in either law or fact. If the arbitrator(s) determine(s) that a demand for arbitration or response to a demand for arbitration does not have a good faith basis in either law or fact, the arbitrator(s) shall have discretion to award the costs of the time, expenses, and other charges of the arbitrator(s) to the prevailing party.

4.6.2 Discovery Limits.

The procedures for the arbitration of a dispute shall provide a means for summary disposition without discovery of facts if there is no dispute as to any material fact, or with such limited discovery as the arbitrator(s) shall determine is reasonably likely to lead to the prompt resolution of any disputed issue of material fact.

4.6.3 Interim Decision.

The procedures for the arbitration of a dispute shall permit any party to a dispute to request the arbitrator(s) to render a written interim decision requiring that any action or decision that is the subject of a dispute not be put into effect, or imposing such other interim measures as the arbitrator(s) deem necessary or appropriate, to preserve the rights and obligations secured by any of the Related PJM Agreements during the pendency of the arbitration proceeding. The parties shall be bound by such written decision pending the outcome of the arbitration proceeding.

4.7 Discovery of Facts.

4.7.1 Discovery Procedures.

The procedures for the arbitration of a dispute shall include adequate provision for the discovery of relevant facts, including the taking of testimony under oath, production of documents and other things, and inspection of land and tangible items. The nature and extent of such discovery shall be determined as provided herein and shall take into account (i) the complexity of the dispute, (ii) the extent to which facts are disputed, and (iii) the amount in controversy. The forms and methods for taking such discovery shall be as described in the Federal Rules of Civil Procedure, except as modified by the procedures established by the arbitrator(s) or agreement of the parties.

4.7.2 Procedures Arbitrator.

The sole arbitrator, or the arbitrator selected by the arbitrators chosen by the parties, as the case may be (such arbitrator being hereafter referred to as the "Procedures Arbitrator"), shall be responsible for establishing the timing, amount, and means of discovery, and for resolving discovery and other pre-hearing disagreement. If a dispute involves contested issues of fact, promptly after the selection of the arbitrator(s) the Procedures Arbitrator shall convene a meeting of the parties for the purpose of establishing a schedule and plan of discovery and other pre-hearing actions.

4.8 Evidentiary Hearing.

The procedures for the arbitration of a dispute shall provide for an evidentiary hearing, with provision for the cross-examination of witnesses, unless all parties consent to the resolution of the matter on the basis of a written record. The forms and methods for taking evidence shall be as described in the Federal Rules of Evidence, except as modified by the procedures established by the arbitrator(s) or agreement of the parties. The arbitrator(s) may require such written or other submissions from the parties as shall be deemed appropriate, including submission of the direct testimony of witnesses in written form. The arbitrator(s) may exclude any evidence that is irrelevant, immaterial, unduly repetitious or prejudicial, or privileged. Any party or parties may arrange for the preparation of a record of the hearing, and shall pay the costs thereof. Such party or parties shall have no obligation to provide or agree to the provision of a copy of the record of the hearing to any party that does not pay an equal share of the cost of the record. At the request of any party, the arbitrator(s) shall determine a fair and equitable allocation of the costs of the preparation of a record between or among the parties to the proceeding willing to share such costs.

4.9 Confidentiality.

4.9.1 Designation.

Any document or other information obtained in the course of an arbitral proceeding and not otherwise available to the receiving party, including any such information contained in documents or other means of recording information created during the course of the proceeding, may be designated "Confidential" by the producing party. The party producing documents or other information marked "Confidential" shall have twenty days from the production of such material to submit a request to the Procedures Arbitrator to establish such requirements for the protection of such documents or other information designated as "Confidential" as may be reasonable and necessary to protect the confidentiality and commercial value of such information and the rights of the parties, which requirements shall be binding on all parties to the dispute. Prior to the decision of the Procedures Arbitrator on a request for confidential treatment, documents or other information designated as "Confidential" shall not be used by the receiving party or parties, or the arbitrator(s), or anyone working for or on behalf of any of the foregoing, for any purpose other than the arbitration proceeding, and shall not be disclosed in any form to any person not involved in the arbitration proceeding without the prior written consent of the party producing the information or as permitted by the Procedures Arbitrator.

4.9.2 Compulsory Disclosure.

Any party receiving a request or demand for disclosure, whether by compulsory process, discovery request, or otherwise, of documents or information obtained in the course of an arbitration proceeding that have been designated "Confidential" and that are subject to a non-disclosure requirement under these PJM Dispute Resolution Procedures or a decision of the Procedures Arbitrator, shall immediately inform the party from which the information was obtained, and shall take all reasonable steps, short of incurring sanctions or other penalties, to afford the person or entity from which the information was obtained an opportunity to protect the information from disclosure. Any party disclosing information in violation of these PJM Dispute Resolution Procedures or requirements established by the Procedures Arbitrator shall thereby waive any right to introduce or otherwise use such information in any judicial, regulatory, or other legal or dispute resolution proceeding, including the proceeding in which the information was obtained.

4.9.3 Public Information.

Nothing in the Related PJM Agreements shall preclude the use of documents or information properly obtained outside of an arbitral proceeding, or otherwise public, for any legitimate purpose, notwithstanding that the information was also obtained in the course of the arbitral proceeding.

4.10 Timetable.

Promptly after the selection of the arbitrator(s), the arbitrator(s) shall set a date for the issuance of the arbitral decision, which shall be not later than eight months (or such earlier date as may be agreed to by the parties to the dispute) from the date of the selection of the arbitrator(s), with other dates, including the dates for an evidentiary hearing or other final submissions of evidence, set in light of this date. The date for the evidentiary hearing or other final submission of evidence shall not be changed absent extraordinary circumstances. The arbitrator(s) shall have the power to impose sanctions, including dismissal of the proceeding for dilatory tactics or undue delay in completing the arbitral proceedings.

4.11 Advisory Interpretations.

Except as to matters subject to decision in the arbitration proceeding, the arbitrator(s) may request as may be appropriate from any committee or subcommittee established under a Related PJM Agreement or by the Office of the Interconnection, an interpretation of any Related PJM Agreements, or of any standard, requirement, procedure, tariff, Schedule, principle, plan or other criterion or policy established by any committee or subcommittee. Except to the extent that the Office of the Interconnection is itself a party to a dispute, the arbitrator(s) may request the advice of the Office of the Interconnection with respect to any matter relating to a responsibility of the Office of the Interconnection under the Agreement or with respect to any of the Related PJM Agreements, or to the PJM Manuals. Any such interpretation or advice shall not relieve the arbitrator(s) of responsibility for resolving the dispute or deciding the arbitration proceeding in accordance with the standards specified herein.

4.12 Decisions.

The arbitrator(s) shall issue a written decision, including findings of fact and the legal basis for the decision. The arbitral decision shall be based on (i) the evidence in the record, (ii) the terms of the Related PJM Agreements, as applicable, (iii) applicable United States federal and state law, including the Federal Power Act and any applicable FERC regulations and decisions, and international treaties or agreements as applicable, and (iv) relevant decisions in previous arbitration proceedings. The arbitrator(s) shall have no authority to revise or alter any provision of the Related PJM Agreements. Any arbitral decision issued pursuant to these PJM Dispute Resolution Procedures that affects matters subject to the jurisdiction of FERC under Section 205 of the Federal Power Act shall be filed with FERC.

4.13 Costs.

Unless the arbitrator(s) shall decide otherwise, the costs of the time, expenses, and other charges of the arbitrator(s) shall be borne by the parties to the dispute, with each side on an arbitrated issue bearing its pro-rata share of such costs, and each party to an arbitral proceeding shall bear its own costs and fees. The arbitrator(s) may award all or a portion of the costs of the time, expenses, and other charges of the arbitrator(s), the costs of arbitration, attorney's fees, and the costs of mediation, if any, to any party that substantially prevails on an issue determined by the arbitrator(s) to have been raised without a substantial basis.

4.14 Enforcement.

If the decision of the arbitrator(s) is binding, the judgment may be entered on such arbitral award by any court having jurisdiction thereof; provided, however, that within one year of the issuance of the arbitral decision any party affected thereby may request FERC or any other federal, state, regulatory or judicial authority having jurisdiction to vacate, modify, or take such other action as may be appropriate with respect to any arbitral decision that is based upon an error of law, or is contrary to the statutes, rules, or regulations administered or applied by such authority. Any party making or responding to, or intervening in proceedings resulting from, any such request, shall request the authority to adopt the resolution, if not clearly erroneous, of any issue of fact expressly or necessarily decided in the arbitral proceeding, whether or not the party participated in the arbitral proceeding.

5. ALTERNATE DISPUTE RESOLUTION COORDINATOR

5.1 Responsibilities.

The duties of the Alternate Dispute Resolution Coordinator shall include the following:

i) Maintain a list of persons qualified by temperament and experience, and with technical or legal expertise in matters likely to be the subject of disputes, to serve as mediators or arbitrators under these PJM Dispute Resolution Procedures, which lists shall be updated no less than annually and shall include the names of any mediators or arbitrators recommended by any Member; and

ii) Provide to disputing parties lists of mediators, advisors or arbitrators to resolve particular disputes.

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SCHEDULE 6

REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL

1. REGIONAL TRANSMISSION EXPANSION PLANNING PROTOCOL

1.1 Purpose and Objectives.

This Regional Transmission Expansion Planning Protocol shall govern the process by which the Members shall rely upon the Office of the Interconnection to prepare a plan for the enhancement and expansion of the Transmission Facilities in order to meet the demands for firm transmission service, and to support competition, in the PJM Region. The Regional Transmission Expansion Plan (also referred to as "RTEP") to be developed shall enable the transmission needs in the PJM Region to be met on a reliable, economic and environmentally acceptable basis.

1.2 Conformity with NERC and Other Applicable Reliability Criteria.

(a) NERC establishes Planning Principles and Guides to promote the reliability and adequacy of the North American bulk power supply as related to the operation and planning of electric systems.

(b) Reliability First Corporation is responsible for ensuring the adequacy, reliability and security of the bulk electric supply systems in the region encompassing the former MAAC, ECAR and MAIN regions, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Planning Principles and Guides and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the Reliability First Corporation.

(c) **[Reserved]**

(c.01) **[Reserved]**

(c.02) SERC is responsible for ensuring the adequacy, reliability and security of the bulk electric supply systems in the VACAR subregion through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Planning Principles and Guides and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.

(d) The Regional Transmission Expansion Plan shall conform to the applicable reliability principles, guidelines and standards of NERC, Reliability First Corporation, SERC, and other Applicable Regional Reliability Councils in accordance with the operating criteria and other procedures detailed in the PJM Manuals.

(e) The Regional Transmission Expansion Plan reliability criteria shall include, Office of the Interconnection planning procedures, NERC planning standards, NERC Regional Council planning criteria, and the individual Transmission Owner FERC filed planning criteria as filed in FERC From No. 715, and posted on the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Crital Energy Infrastructure Information (CEII) requirements.

(f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

1.3 Establishment of Committees.

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee shall review and provide advice and recommendations on the Regional RTEP Projects and the Subregional RTEP Projects when in the judgment of the Office of the Interconnection, these projects are determined to substantially impact power flow(s) on the regional transmission facilities. The Transmission Expansion Advisory Committee shall incorporate all the Regional RTEP Projects and Subregional RTEP Projects in the final RTEP for approval by the PJM Board. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Regional and the State Consumer Advocates and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series), and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committee established by the Office of the Interconnection shall facilitate the development and review of the Subregional RTEP Projects. The Subregional RTEP Committee will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. The Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the Transmission Expansion Advisory Committee for further review, advice and recommendations.

(d) The Subregional RTEP Committee shall be responsible for the timely review of each Transmission Owner's Local Plan. This review shall include, but is not limited to, the coordination and integration of the Local Plans into the RTEP. The Subregional RTEP Committee will be provided sufficient opportunity to review the Local Plans and provide written comments to the Transmission Owners, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval.

(e) The Subregional RTEP Committee shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates and (v) any other interested entities or persons.

(f) The Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Project meeting for each of the three PJM subregions, the Mid-Atlantic, West and South, per Planning Period, and as required, the Subregional RTEP Committee may facilitate additional meetings to incorporate more localized areas within the three subregions into the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate the Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas. The Subregional RTEP Committee meetings will incorporate interregional coordination as required.

(g) The Subregional RTEP Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.

1.4 Contents of the Regional Transmission Expansion Plan.

(a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of maintaining the reliability of the PJM Region in an economic and environmentally acceptable and manner and in a manner that supports competition in the PJM Region.

(b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule 6, transmission enhancements and expansions; load forecasts; expected demand response; and capacity forecasts, including generation additions and retirements, for at least the ensuing ten years.

(c) The Regional Transmission Expansion Plan shall, as a minimum, include a designation of the Transmission Owner or Owners or other entity that will construct, own and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.

(d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) strive to maintain and, when appropriate, to enhance the economic and operational efficiency of wholesale electric service markets in the PJM region; (vi) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vii) strive for consistency in planning data and assumptions that may relieve transmission congestion across multiple regions.

1.5 Procedure for Development of the Regional Transmission Expansion Plan.

1.5.1 Commencement of the Process.

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the transmission system or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection's in its on-going evaluation of the transmission system's economic and operational adequacy and performance; (iii) required as a result of the Office of the Interconnection's assessment of the transmission system's compliance with Reliability First Corporation or SERC reliability criteria, more stringent reliability criteria, if any; or PJM operating criteria; (iv) constraints or available transfer capability shortage, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of Schedule 1 of this Agreement, that are identified by the Office of the Interconnection as a result of generation additions or retirements, evaluation of load forecasts, congestion events on or operational performance of the transmission system, or proposals for the addition of Transmission Facilities in the PJM region; or (v) expansion of the transmission system is proposed by one or more Transmission Owners, Interconnection Customer, Network Service User or Transmission Customer, or any party that funds Network Upgrades pursuant to Section 7.8 of Schedule 1 of this Agreement..

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee of the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee shall notify the Office of the Interconnection in writing of any additional transmission considerations to be included.

1.5.2 Development of Scope, Assumptions and Procedures.

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committee, as appropriate, to prepare the study's scope, assumptions and procedures.

1.5.3 Scope of Studies.

Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

(a) An identification of existing and projected limitations on the transmission system's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.

(b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.

(c) Identification, evaluation and analysis of potential expansions and enhancements including, demand response programs, and other alternative technologies as appropriate to maintain system reliability.

(d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition in the PJM region.

(e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to Section 7.8 of Schedule 1 of this Agreement.

(f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.

(g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and economic efficiency.

(h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of Schedule 1 of this Agreement. Enhancements and expansions related to stage 1A Auction Revenue Rights identified pursuant to this section shall be recommended for inclusion in the RTEP together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Section 1.5.3(f) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to Section 1.5.6(g) of Schedule 6 of this Agreement and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

1.5.4 Supply of Data.

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current Local Plan; and (v) all criteria and assumptions used in the current Local Plan. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study.

(d) The Transmission Expansion Advisory Committee and the Subregional RTEP Committee shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the RTEP process. The purpose of the assumptions meeting shall be the following: (i) establish the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities, (ii) incorporate regulatory initiatives as appropriate, including state regulatory agency initiated programs, (iii) provide an open forum to review the impacts of regulatory actions, projected changes in load growth, demand response resources, generating capacity, market efficiency and other trends in the industry, and (iv) provide an open forum for the review of alternative scenarios proposed by the Committee participants. The final assumptions shall be determined by the Transmission Expansion Advisory Committee for both the Regional RTEP Project and Subregional RTEP Project.

Issued By: Craig Glazer
Vice President, Federal Government Policy
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(e) After the assumptions meeting(s) the Transmission Expansion Advisory Committee and the Subregional RTEP Committee shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants, (as defined in Sections 1.3(b) and 1.3(c) of this Schedule 6) to review and evaluate the following: any identified violations of reliability criteria; analyses of the economic performance of the transmission system; potential transmission solutions; and the proposed RTEP. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the RTEP at these meetings or at the regularly scheduled meetings of the PJM Planning Committee.

(f) The Office of the Interconnection shall supply any information and data reasonably required by the Members, Transmission Customers and other impacted parties, including but not limited to, electric utility regulatory agencies within the States in the PJM Region, and the State Consumer Advocates, utilized to perform the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions.

(g) The Office of the Interconnection shall provide access throught the PJM website, to the Transmission Owner's Local Plan. This material will be provided for full review by the Planning Committee, the TEAC and the Subregional RTEP Committees.

1.5.5 Coordination of the Regional Transmission Expansion Plan.

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the transmission systems of the surrounding regional reliability councils and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements: Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.; Northeastern ISO/RTO Planning Coordination Protocol; Joint Reliability Coordination Agreement Between the Midwest independent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas. Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the Regional and subregional systems.

1.5.6 Development of the Recommended Regional Transmission Expansion Plan.

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) Upon completion of its studies and analysis, the Office of the Interconnection shall prepare a recommended enhancement and expansion plan, which shall include alternative projects or solutions as applicable, for review by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection.

(c) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committee.

(c.01) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(d) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in accordance with the procedures, criteria and analyses described in Section 1.5.7 below.

(e) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to Section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of Part IV of the PJM Tariff; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by Part IV of the PJM Tariff with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(f) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of Section 7.8 of Schedule 1 of this Agreement or to facilitate upgrades pursuant to Parts II, III or IV of the PJM Tariff, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. To the extent that one or more Transmission Owners are designated to construct, own and/or finance a recommended transmission enhancement or expansion, the recommended plan shall designate the Transmission Owner that owns transmission facilities located in the Zone where the particular enhancement or expansion is to be located. Otherwise, any designation under this paragraph of more than one entity to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of proportional responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(g) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to this Agreement or the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff or this Agreement, (2) in the event and to the extent that no provision of the PJM Tariff or this Agreement assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to Schedule 12 of the Tariff, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B), subject to FERC review and approval, shall be incorporated in any amendment to Schedule 12 of the PJM Tariff that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under Sections 1.5.6(d) and 1.5.7 of this Schedule 6 and (C), the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7 of Schedule 1 of this Agreement shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under Section (b) of Schedule 12 of the PJM Tariff for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(g.01) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, operational performance, or economic efficiency, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

(h) Any Transmission Owner and other participants on the Transmission Expansion Advisory Committee may offer an alternative.

(h.01) The Office of the Interconnection shall offer an alternative for review by the Transmission Expansion Advisory Committee or the Subregional RTEP Committee when the Office of the Interconnection determines, in its sole discretion that an alternative exists.

(i) If the Office of the Interconnection adopts the alternative, based upon its review of the relative costs and benefits, the ability of the alternative to supply the required level of transmission service, and its impact on the reliability of the Transmission Facilities, the Office of the Interconnection shall make any necessary changes to the recommended plan.

(j) If, based upon its review of the relative costs and benefits, the ability of the alternative to supply the required level of transmission service, and the alternative's impact on the reliability of the Transmission Facilities, the Office of the Interconnection does not adopt an alternative proposed by a Transmission Owner or Owners, the Transmission Owner or Owners whose alternative or alternatives have not been accepted or to whom cost responsibility has been assigned and other participants on the Transmission Expansion Advisory Committee may require that its or their alternative(s) be submitted to the Dispute Resolution Procedures in Schedule 5 of the Operating Agreement.

(k) Schedule 5 of the Operating Agreement, the Dispute Resolution Procedures may be requested by the parties to a dispute arising from the Regional Transmission Expansion Plan or its development.

1.5.7 Development of Economic Transmission Enhancements and Expansions.

(a) In June of each year, concurrent with the PJM Board's consideration and approval of the reliability-based transmission enhancement and expansions to be included in the Regional Transmission Expansion Plan, the Office of the Interconnection shall obtain PJM Board approval of the assumptions to be used in performing the market efficiency analysis described in this section to identify enhancements or expansions that could relieve transmission constraints that have an economic impact ("economic constraints"). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners' most recent after-tax embedded cost of capital weighted by each Transmission Owner's total transmission capitalization. Each Transmission Owner shall provide the Office of the Interconnection with the Transmission Owner's most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment.

(b) Following PJM Board approval of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause (1) significant historical gross congestion; (2) significant historical unhedgeable congestion; (3) pro-ration of Stage 1B ARR requests as described in section 7.4.2(c) of Schedule 1 of this Agreement; or (4) significant simulated congestion as forecast in the market efficiency analysis.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional economic-based enhancements or expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, any market participant at any time may submit to the Office of the Interconnection a proposal to construct an additional economic-based enhancement or expansion to relieve an economic constraint. To be considered in the market efficiency analysis commencing after approval of the Regional Transmission Expansion Plan by the PJM Board in June, market participant proposals to construct an additional economic-based enhancement or expansion must be received by the Office of the Interconnection by December 31 of the same year. Upon completion of its evaluation, including consideration of any eligible market participant proposed economic-based enhancements or expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of recommended new economic-based enhancements and expansions for review and comment. Upon consideration of the advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new economic-based enhancements and expansions for inclusion in the Regional Transmission Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional economic-based enhancements and expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional economic-based enhancements and expansions pursuant to section 1.5.6(g) of this Schedule 6. In the event the entity or entities designated as responsible for construction, owning or financing a designated new economic-based enhancement or expansion declines to construct, own or finance the new economic-based enhancement or expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with sections 1.6 and 1.7 of this Schedule. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional economic based enhancements or expansions and whether such economic-based enhancements or expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional economic-based enhancements or expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this section 1.5.7(d). An economic-based enhancement or expansion shall be included in the Regional Transmission Expansion Plan recommended to the PJM Board, if the relative benefits and costs of the economic-based enhancement or expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for each of the first 15 years of the life of the enhancement or expansion] ÷ [Present value of the Total Enhancement Cost for each of the first 15 years of the life of the enhancement or expansion]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

Energy Market Benefit = [.70] * [Change in Total Energy Production Cost] + [.30] * [Change in Load Energy Payment]

and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the economic-based enhancement or expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the economic-based enhancement or expansion]

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone without the economic-based enhancement or expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone with the economic-based enhancement or expansion)] – [the change in value of transmission rights for each Zone with the economic-based enhancement or expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or expansion)]. For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Energy Payment shall be the sum of the Change in Load Energy Payment in all Zones. For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in Load Energy Payment.

and

Reliability Pricing Benefit = [.70] * [Change in Total System Capacity Cost] + [.30] * [Change in Load Capacity Payment]

and

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the economic-based enhancement or expansion) * (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff with the economic-based enhancement or expansion) * (the number of days in the study year)]. *The Change in Load Capacity Payment shall take account of the change in* value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or expansion. For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Capacity Payment shall be the sum of the change in Load Capacity Payment in all Zones. For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the economic-based enhancement or expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new economic-based enhancement or expansion, the Office of the Interconnection shall calculate and post on the PJM internet site the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new economic based enhancement or expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new economic-based enhancements and expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the economic-based enhancement or expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of subsection (k).

(g) With respect to each new economic-based enhancement or expansion included in the Regional Transmission Expansion Plan, the Office of the Interconnection shall provide to the Transmission Expansion Advisory Committee the level and type of new generation and demand response that could eliminate the need for the enhancement or expansion.

(h) For new economic enhancements or expansions with costs in excess of $50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new economic-based enhancements and expansions is consistent with the new economic-based enhancements and expansions as recommended in the market efficiency analysis.

(i) For informational purposes only, the Office of the Interconnection shall post monthly on the PJM Internet site analyses of gross and unhedgeable congestion associated with transmission constraints in the PJM Region, including the level of available economic generation used to calculate unhedgeable congestion costs.

(j) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to Part IV of the PJM Tariff that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a "market solution" and, in the event of such designation, sections 36A or 41A of the PJM Tariff, as applicable, shall apply to the project.

(k) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

(i) Timely installation of Qualifying Transmission Upgrades, as defined in section 2.5.7 of Attachment DD of the PJM Tariff, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region, on file with FERC as PJM Interconnection, L.L.C. Rate Schedule FERC No. 44 ("RAA").

(ii) Availability of Generation Capacity Resources, as defined by section 1.33 of the RAA, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the RAA.

(iii) Availability of Demand Resources as defined in section 1.13 of the RAA that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the RAA.

(iv) Availability of ILR Resources certified pursuant to section 5.13 of Attachment DD of the PJM Tariff.

(v) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or Interim Interconnection Service Agreement.

(vi) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

(vii) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.

(viii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under Attachment DD of the PJM Tariff. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues.

(ix) Items (i) through (vi) will be included in the market efficiency assumptions if qualified before January 1 of the year that the assumptions are presented to the PJM Board for approval in June. In the event that any of the items listed in (i) through (vi) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an economic-based enhancement or expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the economic-based enhancement or expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(l) For informational purposes only, with regard to economic-based enhancements or expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses around key inputs, such as price forecasts and expected levels of demand response, used in the market simulations to determine the Benefit/Cost Ratio for such enhancements and expansions and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

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1.6 Approval of the Final Regional Transmission Expansion Plan.

(a) The PJM Board shall approve the final Regional Transmission Expansion Plan, including any alternatives therein, and any additions of economic transmission enhancements or expansions pursuant to Sections 1.5.6(d) and 1.5.7 above, in accordance with the requirements of this Section 1.6. The PJM Board shall not approve the Supplemental Projects listed in the Regional Transmission Expansion Plan. PJM Board approval of the Regional Transmission Expansion Plan shall not represent PJM Board review or approval of the Supplemental Projects, and Supplemental Projects are not eligible for cost allocation pursuant to Schedule 12 of the PJM Tariff.

The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owners to construct an economic expansion or enhancement developed pursuant to Sections 1.5.6(d) and 1.5.7 above, the Office of the Interconnection shall file with FERC a report identifying the economic expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Section 1.5.6(g) above to bear responsibility for the costs of the project.

(b) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.

(c) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be submitted to the Applicable Reliability Council for verification that all enhancements or expansions conform with or exceed all reliability principles and standards of the Applicable Regional Reliability Council.

1.7 Obligation to Build.

(a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. However, nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.

(b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.

(c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) all charges established under Schedule 12 of the PJM Tariff in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.

(d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under Sections 1.5.6(d) and 1.5.7 of this Schedule 6 that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

1.8 Interregional Expansions

(a) PJM shall collect from Midwest Independent System Operator, Inc., for distribution to the applicable Transmission Owners, in accordance with Schedule 12 of the PJM Tariff, revenues collected by the Midwest Independent System Operator, Inc. under the Open Access Transmission Tariff of the Midwest Independent System Owner, Inc. with respect to transmission enhancements or expansions for which the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility for transmission enhancements or expansions in the PJM Region to market participants in the region of the Midwest Independent System Operator, Inc.

(b) PJM shall disburse to the Midwest Independent System Operator, Inc., for distribution to applicable transmission owners of the Midwest Independent System Operator, Inc., revenues collected under Schedule 12 of the PJM Tariff which establishes a charge in connection with enhancements or expansions in the region of the Midwest Independent System Operator, Inc. the cost responsibility for which has been assigned to market participants in the PJM Region under the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.

(c) Nothing in this Section 1.8 shall affect or limit any Transmission Owners filing rights under Section 205 of the Federal Power Act as set forth in the PJM Tariff and applicable agreements.

1.9 Relationship to the PJM Open Access Transmission Tariff.

Nothing herein shall modify the rights and obligations of an Eligible Customer or a Transmission Customer, as those terms are defined in the PJM Tariff, with respect to required studies and completion of necessary enhancements or expansions. An Eligible Customer or Transmission Customer electing to follow the procedures in the PJM Tariff instead of the procedures provided herein, shall also be responsible for the related costs. The enhancement and expansion study process under this Protocol shall be funded as a part of the operating budget of the Office of the Interconnection.

SCHEDULE 7

UNDERFREQUENCY RELAY OBLIGATIONS AND CHARGES

1. UNDERFREQUENCY RELAY OBLIGATION

1.1 Application.

The obligations of this Schedule apply to each Member that is an Electric Distributor, whether or not that Member participates in the Electric Distributor sector on the Members Committee or meets the eligibility requirements for any other sector of the Members Committee.

1.2 Obligations.

(a) Each Electric Distributor in the MAAC Control Zone shall install or contractually arrange for underfrequency relays to interrupt at least 30 percent of its peak load with 10 percent of the load interrupted at each of three frequency levels: 59.3 Hz, 58.9 Hz and 58.5 Hz. Upon the request of the Members Committee, each Electric Distributor in the MAAC Control Zone shall document that it has complied with the requirement for underfrequency load shedding relays.

(b) Each Electric Distributor in the PJM West Region shall install or contractually arrange for underfrequency relays to interrupt at least 25 percent of its peak load with 5 percent of the load interrupted at each of five frequency levels: 59.5 Hz, 59.3 Hz, 59.1 Hz, 58.9 Hz, and 58.7 Hz; provided, however, that each Electric Distributor in the MAIN Control Zone shall install or contractually arrange for underfrequency relays to interrupt at least 30 percent of its peak load with 10 percent of the load interrupted at each of three frequency levels: 59.3 Hz, 59.0 Hz, and 58.7 Hz. Upon the request of the Reliability Committee established by the Reliability Assurance Agreement-West, each Electric Distributor in the PJM West Region shall document that it has complied with the requirement for underfrequency load shedding relays.

(c) Each Electric Distributor in the PJM South Region shall install or contractually arrange for underfrequency relays to interrupt at least 30 percent of its peak load with 10 percent of the load interrupted at each of 3 frequency levels: 59.3 Hz, 59.0 Hz, 58.5 Hz. Upon the request of the Reliability Committee established by the Reliability Assurance Agreement-South, each Electric Distributor in the PJM South Region shall document that it has complied with the requirement for underfrequency load shedding relays.

2. UNDERFREQUENCY RELAY CHARGES

If an Electric Distributor is determined to not have the required underfrequency relays, it shall pay an underfrequency relay charge of:

Charge = D x R x 365

where

D = the amount, in megawatts, the Electric Distributor is deficient; and

R = the daily rate per megawatt, which shall be based on the annual carrying charges for a new combustion turbine generator, installed and connected to the transmission system, which daily deficiency rate as of the Effective Date shall be $58.400/per kilowatt-year or $160 per megawatt-day.

3. DISTRIBUTION OF UNDERFREQUENCY RELAY CHARGES

3.1 Share of Charges.

Each Electric Distributor that has complied with the requirements for underfrequency relays imposed by this Agreement during a Planning Period, without incurring an underfrequency relay charge, shall share in any underfrequency relay charges paid by any other Electric Distributor that has failed to satisfy said obligation during such Planning Period. Such shares shall be in proportion to the number of megawatts of a Electric Distributor's load in the most recently completed month at the time of the peak for the PJM Region during that month rounded to the next higher whole megawatt, as established initially on the Effective Date and as updated at the beginning of each month thereafter.

3.2 Allocation by the Office of the Interconnection.

In the event all of the Electric Distributors have incurred underfrequency relay charges during a Planning Period, the underfrequency relay charges shall be distributed among the Electric Distributors on an equitable basis as determined by the Office of the Interconnection.

SCHEDULE 8

DELEGATION OF PJM REGION RELIABILITY RESPONSIBILITIES

1. DELEGATION

The following responsibilities shall be delegated to the Office of the Interconnection by the parties to the Reliability Assurance Agreement.

2. NEW PARTIES

With regard to the addition, withdrawal or removal of a party to the Reliability Assurance Agreement, the Office of the Interconnection shall:

(a) Receive and evaluate the information submitted by entities that plan to serve loads within the PJM Region, including entities whose participation in the Agreement will expand the boundaries of the PJM Region, such evaluation to be conducted in accordance with the requirements of the Reliability Assurance Agreement; and

(b) Evaluate the effects of the withdrawal or removal of a party from the Reliability Assurance Agreement.

3. IMPLEMENTATION OF RELIABILITY ASSURANCE AGREEMENT

With regard to the implementation of the provisions of the Reliability Assurance Agreement, the Office of the Interconnection shall:

(a) Receive all required data and forecasts from the parties to the Reliability Assurance Agreement and other owners or providers of Capacity Resources;

(b) Perform all calculations and analyses necessary to determine the Forecast Pool Requirement and the capacity obligations imposed under the Reliability Assurance Agreement, including periodic reviews of the capacity benefit margin for consistency with the Reliability Principles and Standards, as the foregoing terms are defined in the Reliability Assurance Agreement;

(c) Monitor the compliance of each party to the Reliability Assurance Agreement with its obligations under the Reliability Assurance Agreement;

(d) Keep cost records, and bill and collect any costs or charges due from the parties to the Reliability Assurance Agreement and distribute those charges in accordance with the terms of the Reliability Assurance Agreement;

(e) Assist with the development of rules and procedures for determining and demonstrating the capability of Capacity Resources;

(f) Establish the capability and deliverability of Capacity Resources consistent with the requirements of the Reliability Assurance Agreement;

(g) Collect and maintain generator availability data;

(h) Perform any other forecasts, studies or analyses required to administer the Reliability Assurance Agreement;

(i) Coordinate maintenance schedules for generation resources operated as part of the PJMRegion;

(j) Determine and declare that an Emergency exists or has ceased to exist in all or any part of the PJM Region or announce that an Emergency exists or ceases to exist in a Control Area interconnected with the PJM Region;

(k) Enter into agreements for (i) the transfer of energy in Emergencies in the PJM Region or in a Control Area interconnected with the PJM Region and (ii) mutual support in such Emergencies with other Control Areas interconnected with the PJM Region; and

(l) Coordinate the curtailment or shedding of load, or other measures appropriate to alleviate an Emergency, to preserve reliability in accordance with FERC, NERC or Applicable Regional Reliability Council principles, guidelines, standards and requirements and the PJM Manuals, and to ensure the operation of the PJM Region in accordance with Good Utility Practice.

[Sheet Nos. 193 – 196 Reserved for Future Use]

SCHEDULE 10

FORM OF NON-DISCLOSURE AGREEMENT

THIS NON-DISCLOSURE AGREEMENT (the "Agreement") is made this ___ day of __________, 2007, by and between ____________________, an Authorized Person, as defined below, and PJM Interconnection, L.L.C., a Delaware limited liability company, with offices at 955 Jefferson Avenue, Valley Forge Corporate Center, Norristown, PA 10403 ("PJM"). The Authorized Person and PJM shall be referred to herein individually as a "Party," or collectively as the "Parties."

RECITALS

Whereas, PJM serves as the Regional Transmission Organization with reliability and/or functional control responsibilities over transmission systems involving fourteen states including the District of Columbia, and operates and oversees wholesale markets for electricity pursuant to the requirements of the PJM Tariff and the Operating Agreement, as defined below; and

Whereas, the PJM Market Monitor serves as the monitor for PJM's wholesale markets for electricity, and

Whereas, the Operating Agreement requires that PJM and the PJM Market Monitor maintain the confidentiality of Confidential Information; and

Whereas, the Operating Agreement requires PJM and the PJM Market Monitor to disclose Confidential Information to Authorized Persons upon satisfaction of conditions stated in the Operating Agreement, which may include, but are not limited to, the execution of this Agreement by the Authorized Person and the maintenance of the confidentiality of such information pursuant to the terms of this Agreement; and

Whereas, PJM desires to provide Authorized Persons with the broadest possible access to Confidential Information, consistent with PJM's and the PJM Market Monitor's obligations and duties under the PJM Operating Agreement, the PJM Tariff and other applicable FERC directives; and

Whereas, this Agreement is a statement of the conditions and requirements, consistent with the requirements of the Operating Agreement, whereby PJM or the PJM Market Monitor may provide Confidential Information to the Authorized Person.

NOW, THEREFORE, intending to be legally bound, the Parties hereby agree as follows:

1. DEFINITIONS.

1.1 **Affected Member.** A Member of PJM which as a result of its participation in PJM's markets or its membership in PJM provided Confidential Information to PJM, which Confidential Information is requested by, or is disclosed to an Authorized Person under this Agreement.

1.2 **Authorized Commission.** (i) A State (which shall include the District of Columbia) public utility commission within the geographic limits of the PJM Region (as that term in defined in the Operating Agreement) that regulates the distribution or supply of electricity to retail customers and is legally charged with monitoring the operation of wholesale or retail markets serving retail suppliers or customers within its State or (ii) an association or organization comprised exclusively of State public utility commissions described in the immediately preceding clause (i).

1.3 **Authorized Person.** A person, including the undersigned, which has executed this Agreement and is authorized in writing by an Authorized Commission to receive and discuss Confidential Information. Authorized Persons may include attorneys representing an Authorized Commission or consultants and/or contractors directly employed or retained by an Authorized Commission, provided however that consultants or contractors may not initiate requests for Confidential Information from PJM or the PJM Market Monitor.

1.4 **Confidential Information.** Any information that would be considered non-public or confidential under the Operating Agreement.

1.5 **FERC.** The Federal Energy Regulatory Commission.

1.6 **Information Request.** A written request, in accordance with the terms of this Agreement for disclosure of Confidential Information pursuant to Section 18.17.4 of the Operating Agreement.

1.7 **Operating Agreement.** The Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., as it may be further amended or restated from time to time.

1.8 **PJM Market Monitor.** The Market Monitoring Unit established under Attachment M to the PJM Tariff.

1.9 **PJM Tariff.** The PJM Open Access Transmission Tariff, as it may be amended from time to time.

1.10 **Third Party Request.** Any request or demand by any entity upon an Authorized Person or an Authorized Commission for release or disclosure of Confidential Information. A Third Party Request shall include, but shall not be limited to, any subpoena, discovery request, or other request for Confidential Information made by any: (i) federal, state, or local governmental subdivision, department, official, agency or court, or (ii) arbitration panel, business, company, entity or individual.

2. Protection of Confidentiality.

2.1 Duty to Not Disclose. The Authorized Person represents and warrants that he or she: (i) is presently an Authorized Person as defined herein; (ii) is duly authorized to enter into and perform this Agreement; (iii) has adequate procedures to protect against the release of Confidential Information, and (iv) is familiar with, and will comply with, all such applicable Authorized Commission procedures. The Authorized Person hereby covenants and agrees on behalf of himself or herself to deny any Third Party Request and defend against any legal process which seeks the release of Confidential Information in contravention of the terms of this Agreement.

2.2 Discussion of Confidential Information with Other Authorized Persons. The Authorized Person may discuss Confidential Information with employees of the Authorized Commission who have been designated Authorized Persons pursuant to the Operating Agreement and with such other third-party. Authorized Persons who have executed non-disclosure agreements with PJM containing the same terms and conditions as this Agreement.

2.3 **Defense Against Third Party Requests.** The Authorized Person shall defend against any disclosure of Confidential Information pursuant to any Third Party Request through all available legal process, including, but not limited to, seeking to obtain any necessary protective orders. The Authorized Person shall provide PJM, and PJM shall provide each Affected Member, with prompt notice of any such Third Party Request or legal proceedings, and shall consult with PJM and/or any Affected Member in its efforts to deny the request or defend against such legal process. In the event a protective order or other remedy is denied, the Authorized Person agrees to furnish only that portion of the Confidential Information which their legal counsel advises PJM (and of which PJM shall, in turn, advise any Affected Members) in writing is legally required to be furnished, and to exercise their best efforts to obtain assurance that confidential treatment will be accorded to such Confidential Information.

2.4 **Care and Use of Confidential Information.**

2.4.1 **Control of Confidential Information.** The Authorized Person(s) shall be the custodian(s) of any and all Confidential Information received pursuant to the terms of this Agreement from PJM or the PJM Market Monitor.

2.4.2 **Access to Confidential Information.** The Authorized Person shall ensure that Confidential Information received by that Authorized Person is disseminated only to those persons publicly identified as Authorized Persons on Exhibit "A" to the certification provided by the State Commission to PJM pursuant to the procedures contained in section 18.17.4 of the Operating Agreement.

2.4.3 **Schedule of Authorized Persons.**

(i) The Authorized Person shall promptly notify PJM and the PJM Market Monitor of any change that would affect the Authorized Person's status as an Authorized Person, and in such event shall request, in writing, deletion from the schedule referred to in section (ii), below.

(ii) PJM shall maintain a schedule of all Authorized Persons and the Authorized Commissions they represent, which shall be made publicly available on the PJM website and/or by written request. Such schedule shall be compiled by PJM, based on information provided by any Authorized Person and/or Authorized Commission. PJM shall update the schedule promptly upon receipt of information from an Authorized Person or Authorized Commission, but shall have no obligation to verify or corroborate any such information, and shall not be liable or otherwise responsible for any inaccuracies in the schedule due to incomplete or erroneous information conveyed to and relied upon by PJM in the compilation and/or maintenance of the schedule.

2.4.4 **Use of Confidential Information.** The Authorized Person shall use the Confidential Information solely for the purpose of assisting the Authorized Commission in discharging its legal responsibility to monitor the wholesale and retail electricity markets, operations, transmission planning and siting and generation planning and siting materially affecting retail customers within the State, and for no other purpose.

2.4.5 **Return of Confidential Information.** Upon completion of the inquiry or investigation referred to in the Information Request, or for any reason the Authorized Person is, or will no longer be an Authorized Person, the Authorized Person shall (a) return the Confidential Information and all copies thereof to PJM and/or the PJM Market Monitor, or (b) provide a certification that the Authorized Person has destroyed all paper copies and deleted all electronic copies of the Confidential Information. PJM and/or the PJM Market Monitor, as applicable, may waive this condition in writing if such Confidential Information has become publicly available or non-confidential in the course of business or pursuant to the PJM Tariff, PJM rule or order of the FERC.

2.4.6 **Notice of Disclosures.** The Authorized Person, directly or through the Authorized Commission, shall promptly notify PJM and/or the PJM Market Monitor, and PJM and/or the PJM Market Monitor shall promptly notify any Affected Member, of any inadvertent or intentional release or possible release of the Confidential Information provided pursuant to this Agreement. The Authorized Person shall take all steps to minimize any further release of Confidential Information, and shall take reasonable steps to attempt to retrieve any Confidential Information that may have been released.

2.5 **Ownership and Privilege.** Nothing in this Agreement, or incident to the provision of Confidential Information to the Authorized Person pursuant to any Information Request, is intended, nor shall it be deemed, to be a waiver or abandonment of any legal privilege that may be asserted against subsequent disclosure or discovery in any formal proceeding or investigation. Moreover, no transfer or creation of ownership rights in any intellectual property comprising Confidential Information is intended or shall be inferred by the disclosure of Confidential Information by PJM and/or the PJM Market Monitor, and any and all intellectual property comprising Confidential Information disclosed and any derivations thereof shall continue to be the exclusive intellectual property of PJM, the PJM Market Monitor (to the extent that it owns any intellectual property), and/or the Affected Member.

[Reserved for Future Use]

[Reserved for Future Use]

3. Remedies.

3.1 Material Breach. The Authorized Person agrees that release of Confidential Information to persons not authorized to receive it constitutes a breach of this Agreement and may cause irreparable harm to PJM and/or the Affected Member. In the event of a breach of this Agreement by the Authorized Person, PJM shall terminate this Agreement upon written notice to the Authorized Person and his or her Authorized Commission, and all rights of the Authorized Person hereunder shall thereupon terminate; provided, however, that PJM may restore an individual's status as an Authorized Person after consulting with the Affected Member and to the extent that: (i) PJM determines that the disclosure was not due to the intentional, reckless or negligent action or omission of the Authorized Person; (ii) there were no harm or damages suffered by the Affected Member; or (iii) similar good cause shown. Any appeal of PJM's actions under this section shall be to FERC.

3.2 Judicial Recourse. In the event of any breach of this Agreement, PJM and/or the Affected Member shall have the right to seek and obtain at least the following types of relief: (a) an order from FERC requiring any breach to cease and preventing any future breaches; (b) temporary, preliminary, and/or permanent injunctive relief with respect to any breach; and (c) the immediate return of all Confidential Information to PJM. The Authorized Person expressly agrees that in the event of a breach of this Agreement, any relief sought properly includes, but shall not be limited to, the immediate return of all Confidential Information to PJM.

3.3 Waiver of Monetary Damages. No Authorized Person shall have responsibility or liability whatsoever under this Agreement for any and all liabilities, losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of, or in connection with, the release of Confidential Information to persons not authorized to receive it. Nothing in this Section 3.3 is intended to limit the liability of any person who is not under contract to provide services to an Authorized Commission at the time of such unauthorized release for any and all economic losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with such unauthorized release.

4. Jurisdiction. The Parties agree that (i) any dispute or conflict requesting the relief in sections 3.1, and 3.2(a) above shall be submitted to FERC for hearing and resolution; (ii) any dispute or conflict requesting the relief in section 3.2(c) above may be submitted to FERC or any court of competent jurisdiction for hearing and resolution; and (iii) jurisdiction over all other actions and requested relief shall lie in any court of competent jurisdiction.

5. **Notices.** All notices required pursuant to the terms of this Agreement shall be in writing, and served upon the following individuals in person, or at the following addresses or email addresses:

If to the Authorized Person:

____
____
____
____
(email address)

with a copy to

____
____
____
____
(email address)

If to PJM:

General Counsel
955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403
duanev@pjm.com

If to the PJM Market Monitor:

Monitoring Analytics, LLC
[address and contact information]

6. **Severability and Survival.** In the event any provision of this Agreement is determined to be unenforceable as a matter of law, the Parties intend that all other provisions of this Agreement remain in full force and effect in accordance with their terms. In the event of conflicts between the terms of this Agreement and the Operating Agreement, the terms of the Operating Agreement shall in all events be controlling. The Authorized Person acknowledges that any and all obligations of the Authorized Person hereunder shall survive the severance or termination of any employment or retention relationship between the Authorized Person and their respective Authorized Commission.

7. **Representations.** The undersigned represent and warrant that they are vested with all necessary corporate, statutory and/or regulatory authority to execute and deliver this Agreement, and to perform all of the obligations and duties contained herein.

8. **Third Party Beneficiaries.** The Parties specifically agree and acknowledge that each Member as defined in the Operating Agreement is an intended third party beneficiary of this Agreement entitled to enforce its provisions.

9. **Counterparts.** This Agreement may be executed in counterparts and all such counterparts together shall be deemed to constitute a single executed original.

10. **Amendment.** This Agreement may not be amended except by written agreement executed by authorized representatives of the Parties.

PJM INTERCONNECTION, L.L.C.	**AUTHORIZED PERSON**
By:	By:
______________________	______________________
Name:	Name:
Title:	Title:

SCHEDULE 10A

FORM OF CERTIFICATION

This Certification (the "Certification") is given this ___day of ___________, 200_, by ______________________________, a ______________________ (the "Authorized Commission"), to and for the benefit of PJM Interconnection, LLC ("PJM") and its Members. The Authorized Commission and PJM shall be referred to herein collectively as the "Parties".

Whereas, the Authorized Commission has designated the individuals on attached Exhibit "A" (the "Authorized Persons") to receive Confidential Information from PJM and/or the PJM Market Monitor, such Exhibit A to be updated from time to time, and

Whereas, as a condition precedent to the provision of Confidential Information to the Authorized Persons, the Authorized Commission is required to make certain representations and warranties to PJM, and

Whereas, PJM and/or the PJM Market Monitor will provide Confidential Information to the Authorized Commission subject to the terms of this Certification; and

Whereas, the Parties desire to set forth those representations and warranties herein.

Now, therefore, the Authorized Commission hereby makes the following representations and warranties, all of which shall be true and correct as of the date of execution of this Certification, and at all times thereafter, and with the express understanding that PJM, the PJM Market Monitor, and any Affected Member shall rely on each representation and/or warranty:

1. **Definitions.** Terms contained, but not defined, herein shall have the definitions or meanings ascribed to such terms in the Operating Agreement.

2. **Requisite Authority.**

    a. The Authorized Commission hereby certifies that it has all necessary legal authority to execute, deliver, and perform the obligations in this Certification.

b. The Authorized Persons have, through all necessary action of the Authorized Commission, been appointed and directed by the Authorized Commission to receive Confidential Information on the Authorized Commission's behalf and for its benefit.

c. The Authorized Commission will, at all times after the provision of Confidential Information to the Authorized Persons, provide PJM with: (i) written notice of any changes in any Authorized Person's qualification as an Authorized Person within two (2) business days of such change; (ii) written confirmation to any inquiry by PJM regarding the status or identification of any specific Authorized Person within two (2) business days of such request, and (iii) periodic written updates, no less often than semi-annually, containing the names of all Authorized Persons appointed by the Authorized Commission.

3. Protection of Confidential Information.

a. The Authorized Commission has adequate internal procedures, to protect against the release of any Confidential Information by the Authorized Persons or other employee or agent of the Authorized Commission, and the Authorized Commission and the Authorized Persons will strictly enforce and periodically review all such procedures.

b. The Authorized Commission has legal authority to protect the confidentiality of Confidential Information from public release or disclosure and/or from release or disclosure to any other person or entity, either by the Authorized Commission or the Authorized Persons, as agents of the Authorized Commission.

c. The Authorized Commission shall ensure that Confidential Information shall be maintained by, and accessible only to, the Authorized Persons.

4. Defense Against Requests for Disclosure. The Authorized Commission shall, unless precluded from doing so by law, use reasonable efforts to defend against, and direct Authorized Persons to defend against, disclosure of any Confidential Information pursuant to any Third Party Request through all available legal process, including, but not limited to, obtaining any necessary protective orders. The Authorized Commission shall provide PJM and/or the PJM Market Monitor with prompt notice of any such Third Party Request or legal proceedings, and shall consult with PJM, the PJM Market Monitor, and/or any Affected Member in its efforts to deny the request or defend against such legal process. In the event a protective order or other remedy is denied, the Authorized Commission agrees to furnish only that portion of the Confidential Information which their legal counsel advises PJM and/or the PJM Market Monitor (and of which PJM and/or the PJM Market Monitor shall, in turn, advise any Affected Member) in writing is legally required to be furnished, and to exercise their best efforts to obtain assurance that confidential treatment will be accorded to such Confidential Information.

5. Use and Destruction of Confidential Information.

a. The Authorized Commission shall use, and allow the use of, the Confidential Information solely for the purpose of discharging its legal responsibility to examine and evaluate wholesale and retail electricity markets, operations, transmission planning and siting and generation planning and siting materially affecting retail customers within their respective State, and for no other purpose.

b. Upon completion of the inquiry or investigation referred to in any Information Request initiated by or on behalf of the Authorized Commission, or for any reason any Authorized Person is, or will no longer be an Authorized Person, the Authorized Commission will ensure that such Authorized Person either (a) returns the Confidential Information and all copies thereof to PJM and/or the PJM Market Monitor, or (b) provides a certification that the Authorized Person and/or the Authorized Commission (i) has destroyed all paper copies and deleted all electronic copies of the Confidential Information or (ii) that any information required by any provision of state law to be retained will continue to be protected from disclosure.

6. Notice of Disclosure of Confidential Information. The State Commission shall promptly notify PJM and/or the PJM Market Monitor of any inadvertent or intentional release or possible release of the Confidential Information provided to any Authorized Person, and shall take all available steps to minimize any further release of Confidential Information and/or retrieve any Confidential Information that may have been released.

7. **Release of Claims.** PJM and the PJM Market Monitor shall be expressly entitled to rely upon any Authorized Commission Certification, in providing Confidential Information to the Authorized Commission, and shall in no event be liable, or subject to damages or claims of any kind or nature due to the ineffectiveness or inaccuracies of such orders, or the inaccuracy of such certification of counsel, or PJM or the PJM Market Monitor's reliance on such orders, and the Authorized Commission hereby waives any such claim, now or in the future, whether known or unknown.

8. **Ownership and Privilege.** Nothing in this Certification, or incident to the provision of Confidential Information to the Authorized Commission pursuant to any Information Request, is intended, nor shall it be deemed, to be a waiver or abandonment of any legal privilege that may be asserted against subsequent disclosure or discovery in any formal proceeding or investigation. Moreover, no transfer or creation of ownership rights in any intellectual property comprising Confidential Information is intended or shall be inferred by the disclosure of Confidential Information by PJM and/or the PJM Market Monitor, and any and all intellectual property comprising Confidential Information disclosed and any derivations thereof shall continue to be the exclusive intellectual property of PJM, the PJM Market Monitor, and/or the Affected Member.

Executed, as of the date first set out above.

[Commission]

By:________________________
Its:________________________

SEE NEXT PAGE

EXHIBIT A
CERTIFICATION
LIST OF AUTHORIZED PERSONS

Name	Mailing Address	Email	Tel #	Scope and Duration of Authority

SCHEDULE 11

ALLOCATION OF COSTS ASSOCIATED WITH NERC PENALTY ASSESSMENTS

1.1 Purpose and Objectives.

Under the NERC Functional Model and the NERC Rules of Procedure, Registered Entities within a specific function may be assessed penalties by NERC for violations of NERC Reliability Standards. Pursuant to the terms and conditions of the PJM Governing Agreements, certain tasks associated with Reliability Standards compliance may be performed either by PJM Interconnection, L.L.C. ("PJM") and/or the Members even when they are not the Registered Entity. This Schedule furnishes a mechanism by which either PJM or a Member may directly allocate monetary penalties imposed by NERC on the Registered Entity to the entity or entities whose conduct is determined by NERC to have lead to a Reliability Standards violation. The purpose of this schedule is to allow for cost allocation; nothing in this schedule is intended to affect the obligations of the Registered Entity for compliance with NERC Reliability Standards.

1.2 Definitions:

All defined terms in this Schedule shall have the meaning given to them in the Operating Agreement unless otherwise stated below.

Compliance Monitoring and Enforcement Program – The program to be used by the NERC and the Regional Entities to monitor, assess and enforce compliance with the NERC Reliability Standards. As part of a Compliance Monitoring and Enforcement Program, NERC and the Regional Entities may, among other things, conduct investigations, determine fault and assess monetary penalties.

NERC Functional Model – Defines the set of functions that must be performed to ensure the reliability of the electric bulk power system. The NERC Reliability Standards establish the requirements of the responsible entities that perform the functions defined in the Functional Model.

NERC Reliability Standards – Those standards that have been developed by NERC and approved by FERC to ensure the reliability of the electric bulk power system.

NERC Rules of Procedure – The rules and procedures developed by NERC and approved by the FERC. These rules include the process by which a responsible entity, who is to perform a set of functions to ensure the reliability of the electric bulk power system, must register as the Registered Entity.

PJM Governing Agreements – The PJM Open Access Transmission Tariff, the Operating Agreement, the Consolidated Transmission Owners Agreement, the Reliability Assurance Agreement, or any other applicable agreement approved by the FERC and intended to govern the relationship by and among PJM and any of its Members.

Registered Entity – The entity registered under the NERC Functional Model and NERC Rules of Procedures for the purpose of compliance with NERC Reliability Standards and responsible for carrying out the tasks within a NERC function without regard to whether a task or tasks are performed by another entity pursuant to the terms of the PJM Governing Agreements.

Regional Entity – An entity to whom NERC has delegated Electric Reliability Organization (ERO) functions in a particular geographic region. Within PJM the applicable Regional Entities are Reliability*First* Corporation or SERC Reliability Corporation.

1.3 Allocation of Costs When PJM is the Registered Entity

(a) If NERC assesses a monetary penalty against PJM as the Registered Entity for a violation of a NERC Reliability Standard(s), and the conduct of a Member or Members contributed to the Reliability Standard violation(s) at issue, then PJM may directly allocate such penalty costs or a portion thereof to the Member or Members whose conduct contributed to the Reliability Standards violation(s), provided that all of the following conditions have been satisfied:

(1) The Member or Members received notice and an opportunity to fully participate in the underlying Compliance Monitoring and Enforcement Program proceeding;

(2) This Compliance Monitoring and Enforcement Program proceeding produced a finding, subsequently filed with FERC, that the Member contributed, either in whole or in part, to the NERC Reliability Standards violation(s); and

(3) A root cause finding by NERC filed with the FERC identifying the Member's or Members' conduct as causing or contributing to the Reliability Standards violation charged against PJM as the Registered Entity.

(b) PJM will notify the Member or Members found to have contributed to a violation, either in whole or in part, in the Compliance Monitoring and Enforcement Program. Such notification shall set forth in writing PJM's intent to invoke this Section 1.3 and directly assign the costs associated with a monetary penalty to the Member or Members and the underlying factual basis supporting a penalty cost assignment including the conduct contributing to the violation and the violations of the PJM Governing Agreement assigned tasks leading to the issuance of a penalty against the Registered Entity.

(c) A failure by a Member or Members to participate in the Compliance Monitoring and Enforcement Program proceedings will not prevent PJM from directly assigning the costs associated with a monetary penalty to the responsible Member or Members provided all other conditions set forth herein have been satisfied.

(d) PJM shall notify the Members or Members that PJM believes the criteria for direct assignment and allocation of costs under this Schedule have been satisfied.

(e) Where the Regional Entity's and/or NERC's root cause finds that more than one party's conduct contributed to the Reliability Standards violation(s), PJM shall inform all involved Members and shall make an initial apportionment for purposes of the cost allocation on a basis reasonably proportional to the parties' relative fault consistent with such NERC's root cause analysis.

(f) Should Member or Members disagree with PJM regarding PJM's initial apportionment of the fault, the Dispute Resolution Procedures in Section 5 of the Operating Agreement shall not apply, but the parties' senior management shall first meet in an attempt to informally resolve the issue. If the disagreement cannot be resolved informally within ten (10) business days (or such other deadline as mutually agreed) then the following provisions shall apply:

(i) If an involved Member so elects, an informal non-binding proceeding shall be conducted within 30 days before a dispute resolution board consisting of officers of two (2) PJM Members who are not parties to the dispute and who are selected by a random drawing of names from the pool of available PJM Members and one (1) member of the PJM Board of Managers. Such dispute resolution board shall decide on the procedures to be used for the proceeding. The final recommendation of the dispute resolution board shall be made in private session within three (3) business days of the termination of the proceeding. The recommendation of the dispute resolution board shall be made by simple majority vote. The dispute resolution board may, but shall not be required to, provide a written basis for its recommendation; or

(ii) If an involved Member selects not to participate in the informal non-binding proceeding, then the matter shall be submitted to the FERC pursuant to Section 205 of the Federal Power Act. In the FERC proceeding, the involved Member shall request that FERC determine how the costs associated with the monetary penalty should be allocated. However, if there are multiple involved Members, and if any one of them desires a proceeding described in Section 1.3(f)(i) above, such proceeding shall first be conducted with respect to the Member(s) desiring such a proceeding.

(g) If PJM and the involved Member(s) agree on a proportion of penalty cost allocation, such agreement shall be submitted to the FERC pursuant to Section 205 of the Federal Power Act.

(h) Notwithstanding anything to the contrary contained herein, if the Member or Members fail to pay their share of the Reliability Standard violation costs within 30 days of receipt of the notice required in paragraph 1.3 (b) above, and the FERC issues a final order or orders which supports the NERC's root cause findings regarding the Member's or Members' conduct causing or contributing to the violation and PJM's initial determinations in paragraph 1.3 (f) above, such payment shall be due with interest calculated at the FERC authorized rate from the date of payment of the penalty by the Registered Entity. Provided, however, if the Member or Members pays their share of the Reliability Standard violation costs within 30 days of receipt of the notice required in paragraph 1.3 (b) above, and the FERC issues a final order or orders which does not support the NERC's root cause findings regarding the Member's or Members' conduct causing or contributing to the violation and PJM's initial determinations in paragraph 1.3 (f) above, such payment shall be refunded in full with interest calculated at the FERC authorized rate from the date of payment of the penalty by the Member or Members.

1.4 *Allocation of Costs When a PJM Member is the Registered Entity*

(a) If NERC assesses a monetary penalty against a Member as the Registered Entity for a violation of a NERC Reliability Standard(s), and the conduct of PJM contributed to the Reliability Standard violation(s) at issue, then such Member may directly allocate such penalty costs or portion thereof to PJM to the extent PJM's conduct contributed to the Reliability Standards violation(s), provided that the following conditions have been satisfied:

(1) PJM received notice and an opportunity to fully participate in the underlying Compliance Monitoring and Enforcement Program proceeding;

(2) This Compliance Monitoring and Enforcement Program proceeding produced a finding, subsequently filed with FERC, that PJM contributed, either in whole or in part, to the NERC Reliability Standards violation(s); and

(3) A root cause finding by NERC has been filed at the FERC identifying PJM's conduct as causing or contributing to the Reliability Standards violation charged against the Member as the Registered Entity.

(b) The Member shall notify PJM if PJM is found to have contributed to a violation, either in whole or in part in the Compliance Monitoring and Enforcement Program. Such notification shall set forth in writing the Member's intent to invoke this Section 1.4 and directly assign the costs associated with a monetary penalty to PJM and the underlying factual basis supporting a penalty cost assignment including the conduct contributing to the violation and the violations of the PJM Governing Agreement assigned tasks leading to the issuance of a penalty against the Registered Entity.

(c) A failure by PJM to participate in the Compliance Monitoring and Enforcement Program proceedings will not prevent the Member from directly assigning the costs associated with a monetary penalty to PJM provided all other conditions set forth herein have been satisfied.

(d) The Member shall notify PJM that the Member believes the criteria for direct assignment and allocation of costs under this Schedule have been satisfied.

(e) Where the Regional Entity's and/or NERC's root cause analysis finds more than one party's conduct contributed to the Reliability Standards violation(s), the Member shall inform PJM and make an initial apportionment for purposes of the cost allocation on a basis reasonably proportional to PJM's relative fault consistent with such root cause analysis.

(f) Should PJM disagree with the Member regarding the Member's initial apportionment of the fault, the Dispute Resolution Procedures in Schedule 5 of the Operating Agreement shall not apply, but the parties' senior management shall first meet in an attempt to informally resolve the issue. If the disagreement cannot be resolved informally within ten (10) business days (or other such deadline as mutually agreed) then the following provisions shall apply:

i. If PJM so elects, an informal non-binding proceeding shall be conducted within 30 days before a dispute resolution board consisting of officers of two (2) PJM Members who are not parties to the dispute and who are selected by a random drawing of names from the pool of available PJM Members and one (1) member of the PJM Board of Managers. Such dispute resolution board shall decide on the procedures to be used for the proceeding. The final recommendation of the dispute resolution board shall be made in private session within three (3) business days of the termination of the proceeding. The recommendation of the dispute resolution board shall be made by simple majority vote. The dispute resolution board may, but shall not be required to, provide a written basis for its recommendation; or

ii. If PJM selects not to participate in the informal non-binding proceeding, the matter shall be submitted to the FERC pursuant to Section 205 of the Federal Power Act. In the FERC proceeding, PJM shall request that the FERC determine how the costs associated with the monetary penalty should be assigned.

(g) If the PJM and the involved Member(s) agree on a proportion of penalty cost allocation, such agreement shall be submitted to the FERC pursuant to Section 205 of the Federal Power Act.

(h) Notwithstanding anything to the contrary contained herein, if PJM fails to pay its share of the Reliability Standard violation costs within 30 days of receipt of the notice required in paragraph 1.4 (b) above, and the FERC issues a final order or orders which supports the NERC's root cause findings regarding PJM's conduct causing or contributing to the violation and the Member's initial determinations in paragraph 1.4 (f) above, such payment shall be due with interest calculated at the FERC authorized rate from the date of payment of the penalty by the Registered Entity. Provided, however, if PJM pays its share of the Reliability Standard violation costs within 30 days of receipt of the notice required in paragraph 1.4 (b) above, and the FERC issues a final order or orders which does not support the NERC's root cause findings regarding PJM's conduct causing or contributing to the violation and the Member's initial determinations in paragraph 1.4 (f) above, such payment shall be refunded in full with interest calculated at the FERC authorized rate from the date of payment of the penalty by PJM.

1.5 Any and all costs associated with the imposition of NERC Reliability Standards penalties that may be assessed against PJM either directly by NERC or allocated by a Member or Members under this Schedule shall be (i) paid by PJM notwithstanding the limitation of liability provisions in schedule 16 of the Operating Agreement; and (ii) recovered as set forth in Schedule 9 of the PJM Tariff, or as otherwise approved by the FERC.

[Sheet Nos. 201 – 205 Reserved for Future Use]

[Sheet Nos. 206 through 214 are reserved]

SCHEDULE 12
PJM MEMBER LIST

330 Fund I, L.P.
Acciona Energy North America Corporation (AENAC)
Accord Energy LLC
A&C Management Group LLC
AES Beaver Valley LLC
AES Energy Storage, LLC
AES Ironwood, LLC
AES Red Oak, LLC
Air Liquide Industrial US, LP
Air Products & Chemicals, Inc.
Akula Energy, LLC
Alabama Power Company
ALEA POWER LLC
Allegheny Electric Cooperative, Inc.
Allegheny Energy Supply Company, LLC
ALLETE, Inc. d/b/a Minnesota Power
Alliant Energy Corporate Services, Inc.
Alpha Domestic Power Trading, LLC
Altius Power Fund, LP
Ameren Energy Marketing Company
American Cooperative Services, Inc.
American Municipal Power-Ohio, Inc.
American PowerNet Management, L.P.
American Transmission Systems Inc.
Amerinco, LLC
Appalachian Power Company
Aquenergy Systems Inc.
Aquila, Inc. d/b/a Aquila Networks
ArcelorMittal USA Inc.
ArcLight Energy Marketing, L.L.C.
Argo Navis Fundamental Power Fund, LP
Armstrong Energy Limited Partnership, LLLP
Associated Electric Cooperative, Inc.
Atlantic City Electric Company
Baltimore Gas and Electric Company
Bank of America N.A.
Barclays Bank PLCBE Red Oak LLC
Beacon Power Corporation
Beech Ridge Energy LLC

Benton Foundry, Inc.
BG Energy Merchants, LLC
Big Rivers Electric Corporation
Big Sandy Peaker Plant, LLC
Big TreeSoft Inc.
BJ Energy, LLC
Black Gemini Group, LLC
Black Oak Capital, LLC
Black Oak Energy, LLC
Black River Commodity Energy Fund LLC
Black River Commodity Fund, Ltd.
Blue Ridge Power Agency, Inc.
Blue Star Energy Services, Inc.
BM2, LLC
Borough of Chambersburg
Borough of Ephrata
Borough of Lavallette, New Jersey
Borough of Mont Alto
Borough of Park Ridge, New Jersey
Borough of Pitcairn, Pennsylvania
Borough of Seaside Heights
Borough of South River, New Jersey
Borough of Tarentum
BP Energy Company
Bridge Energy Traders
Brookfield Energy Marketing Inc.
Brookfield Power Piney & Deep Creek LLC
Brookfield Renewable Energy Marketing US LLC
Buckeye Power, Inc.
Calpine Energy Management, L.P.
Calpine Energy Services, L.P.
Calumet Energy Team, LLC
Calvert Cliffs Nuclear Power Plant, Inc.
CAM Energy Trading LLC
Cambria Cogen Company
Camp Grove Wind Farm, LLC
Cargill Power Markets, LLC
Carolina Power & Light Company
Carpenter Technology Corporation
Castlebridge Energy Group, LLC
CBK Group, LTD
Celeren Corporation

Centaurus Energy Master Fund, LP
Central Virginia Electric Cooperative
Ceruleus Energy LLC
Champion Energy, LLC
Champion Energy Marketing LLC
Chapeau, Inc. dba BluePoint Energy
Cinergy Retail Sales, LLC
Citadel Energy Investments Ltd.
Citadel Energy Products LLC
Citigroup Energy Inc.
Citizen's Electric Company of Lewisburg, PA
City of Batavia, Illinois
City of Cleveland, Department of Public Utilities, Division of Cleveland Public Power
City of Dover, Delaware
City of Dowagiac
City of Geneva (The)
City of New Martinsville – WV
City of Naperville
City of Philippi – West VA
City of Rochelle
City Power Marketing, LLC
CMS Energy Resource Management Company
Cogentrix Virginia Leasing Corporation
Columbus Southern Power Company
Commercial Utility Consultants, Inc.
Commerce Energy Inc.
Commonwealth Chesapeake Company, LLC
Commonwealth Edison Company
Community Energy, Inc.
Comperio Energy LLC dba ClearChoice Energy
Conectiv Bethlehem, LLC
Conectiv Energy Supply, Inc.
Con Edison Energy, Inc.
ConocoPhillips Company
Consolidated Edison Company of New York, Inc.
Consolidated Edison Solutions, Inc.
Constellation Energy Commodities Group, Inc.
Constellation Energy Control and Dispatch, LLC
Constellation Energy Projects & Services Group, Inc.
Constellation NewEnergy, Inc.
Constellation Power Source Generation, Inc.
Consumers Energy Company
Continental Cooperative Services

Coral Power, L.L.C.
Cordova Energy Company LLC
Corona Power LLC
Covanta Delaware Valley, L.P.
Covanta Energy Group, Inc.
Covanta Essex Company
Covanta Union, Inc.
CPV MARYLAND, LLC
Crafton LLC
Credit Suisse Energy LLC
Credit Suisse (USA), Inc.
Crescent Ridge LLC
Crete Energy Venture, LLC
Customized Energy Solutions, Ltd.
Cygnus Energy Futures, LLC
Dayton Power & Light Company (The)
DB Energy Trading LLC
DC Energy LLC
DC Energy Mid-Atlantic, LLC
DEL LIGHT INC.
Delaware Municipal Electric Corporation
Delmarva Power & Light Company
D.E. Shaw Plasma Power, L.L.C.
Demand Response Partners, Inc.
Detroit Edison Company
Direct Energy Services, LLC
Division of the Public Advocate of State of Delaware
Dominion Energy Marketing, Inc.
Dominion Retail, Inc.
Domtar Paper Company, LLC
Downes Associates, Inc.
DPL Energy, LLC
DPL Energy Resources, LLC
DTE Energy Trading, Inc.
Duke Energy Carolinas, LLC
Duke Energy Indiana, Inc.
Duke Energy Ohio, Inc.
Duke Energy Shared Services, Inc.
Duke Energy Trading and Marketing, L.L.C.
Duquesne Conemaugh LLC
Duquesne Keystone LLC

Duquesne Light Company
Duquesne Light Energy, LLC
Duquesne Power LLC
Dynegy Energy Services, Inc.
Dynegy Power Marketing, Inc.
Dyon, LLC
E.ON Climate & Renwables North America Inc.
Eagle Energy Partners I, L.P.
East Coast Power Linden Holdings, L.L.C.
East Kentucky Power Cooperative
Easton Utilities Commission
EcoGrove Wind, LLC
Edison Mission Marketing & Trading, Inc.
E.F. Kenilworth, Inc.
EFS Parlin Holdings, LLC
E Minus LLC
El Cap II, LLC
Elkem Metals Company-Alloy LP
El Paso Marketing, L.P.
Elwood Energy LLC
EME Homer City Generation, L.P.
Emera Energy Services, Inc.
Empire Distric Electric Company
Emporia Hydropower Limited Partnership
Endure Energy, LLC
Energy America, LLC
Energy Algorithms LLC
Energy Analytics
Energy Analytics, Inc.
Energy Authority, Inc. (The)
EnergyConnect, Inc.
Energy Cooperative Association of Pennsylvania
Energy Curtailment Specialists, Inc. (ECS)
Energy Endeavors, LLC
Energy Exchange Direct, LLC
Energy International Power Marketing Corporation
Energy Investments, LLC
Energy Spectrum Inc.
EnergyUSA – TPC Corp.
EnerNOC, Inc.
Enerwise Global Technologies, Inc.
Engage Energy America LLC
EPCOR Energy Marketing (US) Inc.
EPEX, Inc.
EPIC NJ/PA, L.P.
EverPower Wind Holdings Inc.
Exel Power Sources, LLC

Exelon Energy Company (The)
Exelon Generation Company, LLC
Fairless Energy, LLC
Fairway Dairy and Ingredients LLC dba Twin Cities Power Generation
FirstEnergy Solutions Corp.
Florida Power Corporation dba Progress Energy Florida, Inc.
FMF Energy, Inc.
Forest Investment Group, LLC
Fortis Energy Marketing & Trading GP
FPL Energy Marcus Hook LP
FPL Energy Power Marketing, Inc.
Franklin Power LLC
Fulcrum Energy Limited
Fulcrum Power Marketing L.L.C.
Galt Power, Inc.
Gelber Energy LLC
Geneva Energy, LLC
Geneva Roth Holding LLC
Georgia Power Company
Gerdau Ameristeel Energy, Inc
Gexa Energy Illinois, LLC
Gexa Energy New Jersey, LLC
Glacial Energy of New Jersey, Inc.
GLE Trading LLC
Grand Ridge Energy LLC
Grand Ridge Energy II LLC
Grand Ridge Energy III LLC
Grant Energy, Inc.
Great Bear Hydropower, Inc.
Green Light Energy LLC
Green Mountain Energy Company
Gulf Power Company
G&G Energy, Inc.
Hagerstown Light Department
Handsome Lake Energy, LLC
Harrison REA, Inc. – Clarkesburg, WV
Hazleton Generation LLC
HEEP Fund Inc.
Hess Corporation
Highlands Energy Group, LLC (The)
Hoosier Energy REC, Inc.
Horizon Power and Light, LLC
Horizon Wind Energy LLC
H-P Energy Resources, LLC
H.Q. Energy Services (U.S.), Inc.

Hudson Energy Services, LLC
Huntrise Energy Fund LLC
IBERDROLA RENEWABLES, Inc.
Icetec.com, Inc.
IDT Energy, Inc.
Illinois Citizens Utility Board
Illinois Municipal Electric Agency
Indiana Michigan Power Company
Indiana Municipal Power Agency
Indiana Office of Utility Consumer Counselor (IN OUCC)
Industrial Metal Treating Corp.
Ingenco Wholesale Power, LLC
Innoventive Power LLC
Invenergy LLC
Invenergy Nelson LLC
IPA Trading, LLC
Integrys Energy Services, Inc.
J. Aron & Company
J3 Energy Group (The)
Jack Rich, Inc. d/b/a Anthracite Power & Light Company
James River Cogeneration Company
Jersey-Atlantic Wind, LLC
Jersey Central Power & Light Company
JJR Power LLC
JP Morgan Ventures Energy Corporation
JPTC, LLC
Jump Power, LLC
Kansas City Power & Light
Kasia C LLC
Katmai Energy, LLC
KD Power Marketing Services, LLC
Kentucky Power Company
Keystone Energy Partners, LP
KeyTex Energy LLC
Kimberly-Clark Corporation
Knedergy, LLC
Kuehne Chemical Company, Inc.
Kingsport Power Company
Koch Supply & Trading, LP
Krayn Wind LLC
L&P Electric Inc., dba Leggett & Platt Electric Inc.
LCG Consulting
LDH Energy Funds Trading, Ltd.
Legacy Energy Group, LLC (The)
Lehigh Capital, LLC
Lehigh Portland Cement Company
Lehman Brothers Commodity Services, Inc.
Letterkenny Industrial Development Authority – PA

Liberty Electric Power, LLC
Liberty Power Corp., L.L.C.
Liberty Power Delaware, LLC
Liberty Power District of Columbia LLC
Liberty Power Holdings LLC
Liberty Power Maryland, LLC
Lighthouse Energy Trading Co., Inc.
Lincoln Generating Facility, LLC
Linde, Inc.
Linde Energy Services, Inc.
Long Island Lighting Company d/b/a LIPA
Longview Power, LLC
Louis Dreyfus Energy Services L.P.
Louisville Gas and Electric Company/Kentucky Utilities Company
Lower Electric, LLC
Lower Mount Bethel Energy, LLC
LSP-Kendall Energy, LLC
Luminant Energy Company LLC (d/b/a Luminant Energy)
Luminary Consulting LLC
Mac Trading, Inc.
Macquarie Cook Power Inc.
Madison Gas and Electric Co.
Madison Windpower LLC
MAG Energy Solution, Inc.
Major Lending, LLC
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Marquette Energy, LLC
Maryland Office of People's Counsel
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MeadWestvaco Corporation
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Metropolitan Edison Company
Metropolitan Energy, L.L.C.
Miami Valley Lighting, LLC
MidAmerican Energy Company
MidAtlantic Power Partners
Middlesex Generating Co., L.L.C.
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Midwest Generation, LLC
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Mirant Potomac River, LLC
Mississippi Power Company
Monmouth Energy, Inc.
Monongahela Power Company d/b/a/ Allegheny Power

Morgan Stanley Capital Group, Inc.
Morris Cogeneration, L.L.C Mt. Carmel Cogeneration Inc.
MXEnergy Electric, Inc.
NAEA Ocean Peaking Power, LLC
NAEA Rock Springs, LLC
National Railroad Passenger Corp. - AMTRAK
NCSU Energy, Inc.
NedPower Mount Storm, LLC
Neptune Regional Transmission System, LLC
New Covert Generating Company, LLC
New Jersey Division of the Ratepayer Advocate
Newmarket Power Company, LLC
New York Power Authority
New York State Electric & Gas Corporation
Nordic Energy Services LLC
North America Power Partners LLC
North American Energy Credit and Clearing-Delivery LLC
Northeast Maryland Waste Disposal Authority
North Carolina Electric Membership Corporation
North Carolina Municipal Power Agency Number 1
Northeast Utilities Service Company
Northern Indiana Public Service Company
Northern States Power Company
Northern Virginia Electric Cooperative - NOVEC
NorthPoint Energy Solutions, Inc.NRG Power Marketing, LLC
NYSEG Solutions, Inc.
Occidental Power Services, Inc.
Ocean Power LLC
Office of the People's Counsel for the District of Columbia
Ohio Consumer's Counsel
Ohio Power Company
Ohms Energy Company, LLC
Old Dominion Electric Cooperative
Olympus Power, LLC
Ontario Power Generation Inc.
Ontelaunee Power Operating Company, LLC
Orion Power Midwest, L.P.
Otter Tail Corporation d/b/a Otter Tail Power Company
Palama, LLC
Panda Power Corporation
Parma Energy LLC

PATH Allegheny Transmission Company, LLC
PATH West Virginia Transmission Company, LLC
Pattern Recognition Technologies, Inc.
PECO Energy Company
Pedricktown Plant Holdings, LLC
PEI Power Corporation
PEI Power II, LLC
Penncat Corporation
Pennsylvania Electric Company
Pennsylvania Office of Consumer Advocate
Pennsylvania Renewable Resources, Associates
Peoples Energy Services Corporation
Pepco Energy Services, Inc.
PG Energy Services Inc. d/b/a/ PG Energy Power Plus
Pillar Fund LLC
Pioneer Prairie Wind Farm, LLC
Pirin Solutions, Inc.
PJS Capital, LLC
Pleasants Energy, LLC
Potomac Edison Company (The) d/b/a/ Allegheny Power
Potomac Electric Power Company
Potomac Power Resources, Inc.
Power Edge LLC
Powerex Corporation
PPL Brunner Island, LLC
PPL Electric Utilities Corporation dba PPL Utilities
PPL EnergyPlus, LLC
PPL Holtwood, LLC
PPL Martins Creek, LLC
PPL Montour, LLC
PPL Susquehanna, LLC
PPL University Park, LLC
Praxair, Inc.
Premcor Refining Group, Inc. (The)
Procter & Gamble Paper Products Company (The)
Providence Heights Wind, LLC
PSEG Energy Resources & Trade LLC
Public Service Electric and Gas Company
Pure Energy, Inc.
Quiet Light Trading, LLC
QVINTA, Incorporated
Rainbow Energy Marketing Corporation
RBC Energy Services LP
RC Cape May Holdings, LLC
Red Wolf Energy Trading, LLC

Reliant Energy Electric Solutions, LLC
Reliant Energy Hunterstown, LLC
Reliant Energy Power Supply, LLC
Reliant Energy Services, Inc.
Reliant Energy Solutions East, LLC
Richards' Energy Group (The)
Riverside Generating Company, L.L.C.
Rochester Gas and Electric Corporation
Rockland Electric Company
Rolling Hills Generating, L.L.C.
Round Rock Energy, LLC
Round Rock Energy, LP
RPL Holdings, Inc.
RTP Controls, Inc.
R&R Energy, Inc.
Royal Bank of Scotland, plc (The)
Safe Harbor Water Power Corporation
Safeway Inc.
Saracen Energy LP
Saracen Merchant Energy, LP
Schuylkill Energy Resources, Inc.
Select Energy, Inc.
Select Energy New York, Inc.
Sempra Energy Solutions
Sempra Energy Trading LLC
Sempra Generation
SESCO ENTERPRISES LLC
Severstal Sparrows Point, LLC
Sheetz, Inc.
Shoreline Capital Markets, LLC
Sierra Power Asset Marketing, LLC
SIG Energy, LLLP
Silverhill, Ltd.
Site Controls, Inc.
Sithe Power Marketing, L.P.
Societe Generale Energie (USA) Corp
Solios Power LLC
South Carolina Electric & Gas Company
Southeastern Chester County Refuse Authority
Southeastern Power Administration
Southeastern Public Service Authority (SPSA)
Southern Power Company
Southern Maryland Electric Cooperative, Inc.

South Jersey Energy Company
South Jersey Energy Solutions, L.L.C.
Spark Energy, L.P.
Split Rock Energy LLC
SRM Investment LLC
STATARB INVESTMENTS LLC
State Line Energy, LLC
Strategic Energy L.L.C.
SUEZ Energy Marketing NA, Inc.
SUEZ Energy Resources NA, Inc.
Sugar Creek Power Company, LLC
Sunbury Generation, L.L.C.
SunCoke Energy, Inc
Sunoco, Inc. (R&M)
Sunoco Power Marketing, L.L.C.
Target Corporation
TEC Trading, Inc.
Telemagine, Inc.
Tenaska Power Services Co.
Tenaska Virginia Parners, L.P.
Tennessee Valley Authority (The)
Thurmont Municipal Light Company
Town of Front Royal, Virginia
Town of Williamsport
Trans-Allegheny Interstate Line Company
TransAlta Energy Marketing (US) Inc.
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TransMarket Group LLCUBS AG, acting through its London Branch
UGI Development Company
UGI Energy Services, Inc.
UGI Utilities, Inc.
Union Electric Company d/b/a AmerenUE
Union Power Partners, L.P.
University Park Energy, LLC
Upper Peninsula Power Company
USEG, LLP
Upstate Energy Trading
UtiliTech, Inc.
Utility Advantage, LLC
Valero Power Marketing, LLC
Velocity American Energy Master I, LP
Velocity Futures, LP
Verisae, Inc.
Vineland Municipal Electric Utility

Virginia Division of Consumer Counsel
Virginia Electric and Power Company
Virginia State Corporation Commission
VMAC LLC
Wabash Valley Power Association, Inc.
Washington Gas Energy Services, Inc.
Webenergy.net, Inc. d/b/a Consumer Powerline
Wellsboro Electric Company
Westar Energy, Inc.
West Penn Power Company d/b/a/ Allegheny Power
Wheelabrator Frackville Energy Co Inc.
Wheeling Power Company
Windy Bay Power LLCWisconsin Electric Power Company
Wisconsin Public Power, Inc.
Wisconsin Public Service Corporation
Wolf Hills Energy, LLC
Wolverine Power Supply Cooperative, Inc.
Wolverine Trading, LLC
WPS Westwood Generation, LLC
Xtend Energy, Inc.
York Generation Company LLC
Yuma Power Limited Liability Company

RESOLUTION TO AMEND THE PROCEDURES REQUIRING THE RETENTION OF AN INDEPENDENT CONSULTANT TO PROPOSE A LIST OF CANDIDATES FOR THE BOARD OF MANAGERS ELECTION FOR 2001

1. For the election of Board Members at the Annual Meeting in 2001, an independent consultant to prepare a list of persons qualified and willing to serve on the PJM Board in accordance with Section 7.1 of the Operating Agreement shall not be required.
2. Section 7.1 of the Operating Agreement shall be deemed to be amended by the foregoing for the election at the Annual Meeting in 2001.
3. PJM shall make the necessary regulatory filings with the Federal Energy Regulatory Commission to implement the foregoing.

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