



December 15, 2023

Submitted Electronically

Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street N.E. Washington, D.C. 20426

Re: New York Independent System Operator, Inc. and PJM Interconnection, L.L.C., Docket No. ER24- - ;

Proposed Revisions to the Joint Operating Agreement Among and Between

NYISO and PJM

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act,¹ the New York Independent System Operator, Inc., ("NYISO") and PJM Interconnection, L.L.C. ("PJM") (collectively the "RTOs") submit, in electronic format, proposed revisions to the Joint Operating Agreement ("JOA" or "Agreement") between NYISO and PJM that is set forth in Attachment CC to the NYISO's Open Access Transmission Tariff ("NYISO OATT").²

The JOA covers many important operational areas, including the market-to-market coordination process, Interconnection Reliability Operating Limits, and interconnection facility descriptions.³ The JOA must maintain up-to-date, accurate information and establish clear expectations for both RTOs. To support the effective implementation of the JOA, the NYISO and PJM regularly review the terms of the Agreement to identify required updates or opportunities to improve the Agreement.

¹ 16 U.S.C. §824d.

² Order No. 714, *Electronic Tariff Filings*, ¶ 31,276 (2008), and Section 35.1 of the Commission's regulations, 18 C.F.R. § 35.1(a), allow multiple public utilities that are parties to the same tariff (*e.g.*, a joint tariff such as the JOA) to designate one of the public utilities as the designated filer of the joint tariff. The designated filer submits a single tariff filing for inclusion in its database that reflects the joint tariff, along with the requisite certificates of concurrence from the other parties to the joint tariff. NYISO is the designated filing party for the JOA. Therefore, NYISO is submitting the JOA modifications in the instant filing along with PJM's Certificate of Concurrence. The designation of the NYISO as the designated filer for the JOA is for administrative convenience and in no way shall limit PJM's filing rights under the Federal Power Act as they relate to the JOA.

³ Capitalized terms not otherwise defined herein have the meaning specified in Section 35.2.1 of the JOA.

The JOA revisions proposed in this filing clarify an existing definition, improve the description of Interconnection Reliability Operating Limits ("IROLs"), and streamline the process for updating the list of interconnection facilities. NYISO and PJM staff worked together to develop the revisions proposed herein and obtained approval of the revisions from their respective stakeholders.

I. Description and Justification of Proposed OATT Revisions

The NYISO and PJM propose the following amendments to their JOA. PJM's certificate of concurrence with the proposed changes is included as Attachment III to this filing.

Section 35.2 of the JOA

The RTOs' Market-to-Market ("M2M") coordination process focuses on real-time market coordination to manage transmission limitations that occur on certain Flowgates in a cost-effective manner. Flowgates represent a transmission constraint modeled in either RTO's system that, when binding, can be relieved through generator redispatch or the movement of phase angle regulators. The JOA defines and discusses several different types of Flowgates.

M2M Redispatch Flowgates and Other Coordinated Flowgates are relevant to this filing. M2M Redispatch Flowgates are eligible for generator redispatch coordination when specified resources have a significant impact on the Flowgate. Other Coordinated Flowgates are subject to redispatch coordination for reliability purposes; however, such Flowgates ordinarily lack impactful dispatchable generation on the other RTO's system.

Therefore, the NYISO and PJM propose a revision to Section 35.2 of the JOA to clarify the definition of "Other Coordinated Flowgate." The JOA currently uses the same definition for the term "M2M Redispatch Flowgate" and the term "Other Coordinated Flowgate." While the two flowgate types have similar characteristics, there are some functional differences specified in the JOA's M2M rules. To highlight the primary distinction in the "Other Coordinated Flowgate" definition, the RTOs propose to specify that an "Other Coordinated Flowgate" is exempt from M2M re-dispatch settlements.

The RTOs propose to revise the "Other Coordinated Flowgate" definition as follows, the new text is shown in blue, underlined font:

"Other Coordinated Flowgate" shall mean a Flowgate where constraints are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement. No re-dispatch settlement will occur on Other Coordinated Flowgates.

Section 35.5.9 of the JOA

The NYISO and PJM propose to revise Section 35.5.9 of the JOA, New York – PJM IROL Interface. Through recurring dialogue between NYISO and PJM staff, the RTOs identified an opportunity to enhance the description of Interconnection Reliability Operating Limits ("IROLs") within the JOA. IROLs are necessary to maintain acceptable steady-state and transient performance of the transmission system. The existing language did not explicitly recognize the expectation that NYISO and PJM respect their internal procedures when developing and monitoring IROLs.

In addition, this section used the term "violation" of the IROL when discussing operating beyond the IROL. However, the term "exceedance" is more appropriate when referencing an IROL, as "exceedance" is used in and is consistent with the North American Electric Reliability Corporation's ("NERC") Reliability Guideline, Methods for Establishing IROLs. The revisions proposed in this filing introduce references to each RTO's respective IROL procedures and align the JOA's IROL terminology with the terminology used in the NERC guidance.

Section 35.21 of the JOA

Schedule A of Section 35.21 of the JOA identifies the New York/PJM Interconnection Facilities and specifies the associated Interties and metering points that comprise each Interconnection. The PJM-NYISO interconnection contains twenty-five (25) alternating current ("AC") Interconnection Facilities. The Interconnection Facilities list identifies the 25 Interconnection Facilities and includes further details such as transmission substation names, locations, and common meter point(s). The substation names and locations change from time to time, as equipment is added to or removed from the transmission system at the border between the NYISO and PJM. Revising the list requires both RTOs to work with their respective stakeholders and to file these changes with the Commission pursuant to Section 205 of the Federal Power Act. Although the interties themselves are not added or removed frequently, information about them can change as system topology evolves. For example, a new substation or metering point near the border between the NYISO and PJM would require an update to the Interconnection Facilities list and a related Federal Power Act 205 filing by the RTOs. Making a joint Federal Power Act 205 filing to identify a new substation on an existing transmission line requires a significant amount of coordination and is a time-consuming process that can prevent the RTOs from updating public documents in a timely manner.

The proposed revisions in Schedule A of the JOA: (i) remove the descriptive list of facilities from the JOA, (ii) maintain the statement that the PJM-NYISO Interconnection contains twenty-five (25) alternating current ("AC") Interconnection Facilities, and (iii) obligate the NYISO and PJM to jointly develop and maintain the descriptive list of interconnection facilities on each of their respective public websites. The initial descriptive list of interconnection facilities that the RTOs will post on their websites will be the same as the list

⁴ *See* Reliability Guideline Methods for Establishing IROLs, North American Electric Reliability Corporation, September 2018, available at link.north.ncb/.

that is being removed from Schedule A of the JOA. In the future, the RTOs may jointly revise the list by mutual written agreement. After mutual written agreement is achieved, the RTOs will each post the updated list on their respective websites. Using a website posting for the descriptive list of Interconnection Facilities will allow the RTOs to maintain more accurate and up-to-date facility lists, and reduce the need to submit largely ministerial tariff updates for Commission review under Section 205 of the FPA. A more significant change to the NYISO-PJM interface, namely the addition or removal of an intertie, would still necessitate a revision to the JOA and a corresponding filing with the Commission. This proposal is consistent with how the NYISO-ISO-NE list of interconnection facilities is currently managed.⁵

II. Stakeholder Approval

The NYISO's Management Committee unanimously approved the proposed revisions to the JOA on October 25, 2023. The NYISO Board of Directors approved the proposed tariff revisions on November 14, 2023. During its stakeholder review process, the NYISO indicated that it will not agree to change the "PJM-NYISO Interconnection Facilities List" without the prior written consent of the New York Transmission Owner(s) that own a facility which is the subject of the change. The NYISO also committed to posting notice of any changes in advance of agreeing to a change and to consider comments from interested parties.

PJM's stakeholder engagement included an informational update during the October 5, 2023 Operating Committee meeting. Stakeholders were informed that the NYISO and PJM would jointly develop and maintain a 'PJM – NYISO Interconnection Facilities List' (including a description of the facilities and metering points) and post the most current mutually agreed upon list on their respective public websites. Additionally, stakeholders were informed that revisions to the list would require mutual written agreement and would only be updated on the respective websites after the Parties mutually agreed to the changes.

III. Effective Date

The RTOs respectfully request that the Commission permit the proposed JOA revisions to become effective on February 14, 2024 (*i.e.*, the business day following the end of the statutory 60-day notice period).

IV. List of Documents Submitted

The NYISO submits the following documents with this filing letter:

1. A clean version of the RTOs' proposed revisions to their JOA, which is on file with the Commission as Attachment CC to the NYISO's OATT (Attachment I);

⁵ See FERC Letter Order to NYISO, Docket No. ER21-1286-000, April 15, 2021.

⁶ PJM previously reviewed the proposed IROL changes during the January 12, 2023 Operating Committee meeting. After expanded changes and filing delays, PJM provided a second informational update during the October 5, 2023 Operating Committee meeting.

- 2. A blacklined version of the RTOs' proposed revisions to their JOA, which is on file with the Commission as Attachment CC to the NYISO's OATT (Attachment II); and
- 3. PJM's concurrence letter, concurring with the proposed revisions to the JOA (Attachment III).

V. Service

A. NYISO Service

The NYISO will send an electronic link to this filing to the official representative of each of its customers, each participant on its stakeholder committees, the New York State Public Service Commission, and the New Jersey Board of Public Utilities. The NYISO will also post the complete filing on its website at www.nyiso.com.

B. PJM Service

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,⁷ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region⁸ alerting them that this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: http://www.ferc.gov/docs-filing/elibrary.asp in accordance with the Commission's regulations and Order No. 714.

VI. Correspondence

All communications and correspondence concerning this filing should be directed to:

Robert E. Fernandez, Executive Vice President, General Counsel & Chief Compliance Officer

Karen G. Gach, Deputy General Counsel Raymond Stalter, Director, Regulatory Affairs *James H. Sweeney, Senior Attorney New York Independent System Operator, Inc.

⁷ See 18C.F.R §§ 35.2(e) and 385.2010(f)(3).

⁸ PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.

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VII. Conclusion

The RTOs respectfully request that the Commission accept the JOA revisions proposed in this filing without modification, with an effective date of February 14, 2024.

Respectfully submitted,

/s/ James H. Sweeney

James H. Sweeney, Senior Attorney New York Independent System Operator, Inc.

/s/ Erin Lai

Erin Lai, Senior Counsel PJM Interconnection, L.L.C.

cc: Janel Burdick Emily Chen
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^{*} Person designated for receipt of service



35.2 Abbreviations, Acronyms, Definitions and Rules of Construction

In this Agreement, the following words and terms shall have the meanings (such meanings to be equally applicable to both the singular and plural forms) ascribed to them in this Section 35.2. Any undefined, capitalized terms used in this Agreement shall have the meaning given under industry custom and, where applicable, in accordance with Good Utility Practices or the meaning given to those terms in the tariffs of PJM and NYISO on file at FERC.

35.2.1 Abbreviations, Acronyms and Definitions

- **"3500 PAR"** shall mean the 3500 phase angle regulator at the Ramapo station connected to the 5018 Hopatcong-Ramapo 500 kV line.
- **"4500 PAR"** shall mean the 4500 phase angle regulator at the Ramapo station connected to the 5018 Hopatcong-Ramapo 500 kV line.
- "A PAR" shall mean the phase angle regulator located a the Goethals station connected to the A2253 Linden-Goethals 230 kV line.
- "ABC Interface" shall mean the transfer path comprised of the A2253 Linden-Goethals, B3402 Hudson-Farragut and C3403 Marion-Farragut tie lines between PJM and NYISO.
- "ABC PARs" shall mean the A PAR, B PAR and C PAR that control flow on the ABC Interface.
- "AC" shall mean alternating current.
- "Affected Party" shall mean the electric system of the Party other than the Party to which a request for interconnection or long-term firm delivery service is made and that may be affected by the proposed service.
- "Agreement" shall mean this document, as amended from time to time, including all attachments, appendices, and schedules.
- "Area Control Error" or "ACE" shall mean the instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias and correction for meter error.

- "Available PAR" shall mean, for purposes of Section 8.3.1 of Schedule D to this Agreement, a NY-NJ PAR that is not subject to any of the following circumstances:
 - (1) a PAR that is not operational and is unable to be moved;
 - (2) a PAR that is technically "in-service" but is being operated in an outage configuration and is only capable of feeding radial load;
 - (3) a PAR that is tapped-out in a particular direction is not available in the tapped-out direction:
 - (4) if the maximum of 400 taps/PAR/month is exceeded at an ABC PAR, Ramapo PAR or a Waldwick PAR, and the relevant asset owner restricts the RTOs from taking further taps on the affected PAR, then the affected PAR shall not be available until NYISO and PJM agree to and implement an increased bandwidth in accordance with Section 7.2 of Schedule D to this Agreement;
 - (5) PJM is permitted to reserve up to three taps at each end of the PAR tap range of each Waldwick PAR to secure the facilities on a post contingency basis, a Waldwick PAR shall not be considered available if a tap move would require the use of a reserved PAR tap; or
 - (6) NYISO is permitted to reserve up to two taps at each end of the tap range of each ABC PAR and Ramapo PAR to secure the facilities on a post contingency basis, an ABC or Ramapo PAR shall not be considered available if a tap move would require the use of a reserved PAR tap.

PJM or NYISO may choose to use PAR taps they are permitted to reserve to perform M2M coordination, but they are not required to do so.

- "Available Flowgate Capability" or "AFC" shall mean the rating of the applicable Flowgate less the projected loading across the applicable Flowgate less TRM and CBM. The firm AFC is calculated with only the appropriate Firm Transmission Service reservations (or interchange schedules) in the model, including recognition of all roll-over Transmission Service rights. Non-firm AFC is determined with appropriate firm and non-firm reservations (or interchange schedules) modeled.
- "Available Transfer Capability" or "ATC" shall mean a measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses.
- **"B PAR"** shall mean the phase angle regulator located at the Farragut station connected to the B3402 Hudson-Farragut 345 kV line.
- **"Balancing Authority"** or **"BA"** shall mean the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports interconnection frequency in real-time.

- "Balancing Authority Area" or "BAA" shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.
- "Bulk Electric System" shall have the meaning provided for in the NERC Glossary of Terms used in Reliability Standards, as it may be amended, supplemented, or restated from time to time.
- "C PAR" shall mean the phase angle regulator located at the Farragut station connected to the C3403 Marion-Farragut 345 kV line.
- "Capacity Benefit Margin" or "CBM" shall mean the amount of firm transmission transfer capability preserved by the transmission provider for Load-Serving Entities ("LSEs"), whose loads are located on that Transmission Service Provider's system, to enable access by the LSEs to generation from interconnected systems to meet generation reliability requirements. Preservation of CBM for an LSE allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. The transmission transfer capability preserved as CBM is intended to be used by the LSE only in times of emergency generation deficiencies.
- "CIM" shall mean Common Infrastructure Model.
- "Coordination Event" shall mean the period when both Parties are operating under M2M as defined and set forth in Schedule D to this Agreement.
- "Confidential Information" shall have the meaning stated in Section 35.8.1.
- "Control Area(s)" shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied.
- "Control Performance Standard" or "CPS" shall mean the reliability standard that sets the limits of a Balancing Authority's Area Control Error over a specified time period.
- "Coordinated Transaction Scheduling" or "CTS" shall mean the market rules that allow transactions to be scheduled based on a bidder's willingness to purchase energy from a source in either the NYISO or PJM Control Area and sell it at a sink in the other Control Area if the forecasted price at the sink minus the forecasted price at the corresponding source is greater than or equal to the dollar value specified in the bid.
- "Coordination Committee" shall mean the jointly constituted PJM and NYISO committee established to administer the terms and provisions of this Agreement pursuant to Section 35.3.2.
- "CTS Interface Bid" shall mean: (1) in PJM, a unified real-time bid to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of

- Section 1.13 of Schedule 1 of the Amended and Restated Operating Agreement of PJM, L.L.C.; and (2) in NYISO, a real-time bid provided by an entity engaged in an external transaction at a CTS Enabled Interface, as more fully described in NYISO Services Tariff Section 2.3.
- "Delivery Point" shall mean each of the points of direct Interconnection between PJM and the NYISO Balancing Authority Areas. Such Delivery Point(s) shall include the Interconnection Facilities between the PJM and the New York Balancing Authority Areas.
- "DC" shall mean direct current.
- "Disclosing Party" shall have the meaning stated in Section 35.8.7.
- "Dispute" shall have the meaning stated in Section 35.15.
- "Disturbance Control Standard" or "DCS" shall mean the reliability standard that sets the time limit following a disturbance within which a balancing authority must return its Area Control Error to within a specified range.
- "E PAR" shall mean the phase angle regulator located at the Waldwick station on the E-2257 Waldwick-Hawthorne 230 kV line.
- **"Economic Dispatch"** shall mean the sending of dispatch instructions to generation units to minimize the cost of reliably meeting load demands.
- "Effective Date" shall have the meaning stated in Section 35.19.1.
- **"Emergency"** shall mean any abnormal system condition that requires remedial action to prevent or limit loss of transmission or generation facilities that could adversely affect the reliability of the electricity system.
- "Emergency Energy" shall mean energy supplied from Operating Reserve or electrical generation available for sale in New York or PJM or available from another Balancing Authority Area. Emergency Energy may be provided in cases of sudden and unforeseen outages of generating units, transmission lines or other equipment, or to meet other sudden and unforeseen circumstances such as forecast errors, or to provide sufficient Operating Reserve. Emergency Energy is provided pursuant to this Agreement and the Inter Control Area Transactions Agreement dated May 1, 2000 and priced according to Section 35.6.4 of this Agreement and said Inter Control Area Transactions Agreement.
- "EMS" shall mean the respective Energy Management Systems utilized by the Parties to manage the flow of energy within their Regions.
- **"External Capacity Resource"** shall mean: (1) for NYISO, (a) an entity (e.g., Supplier, Transmission Customer) or facility (e.g., Generator, Interface) located outside the NYCA with

the capability to generate or transmit electrical power, or the ability to control demand at the direction of the NYISO, measured in megawatts or (b) a set of Resources owned or controlled by an entity within a Control Area, not the NYCA, that also is the operator of such Control Area; and (2) for PJM, a generation resource located outside the metered boundaries of the PJM Region (as defined in the PJM Tariff) that meets the definition of Capacity Resource in the PJM Tariff or PJM's governing agreements filed with the Commission.

- "F PAR" shall mean the phase angle regulator located at the Waldwick station on the F-2258 Waldwick-Hillsdale 230 kV line.
- "FERC" or "Commission" shall mean the Federal Energy Regulatory Commission or any successor agency thereto.
- **"Flowgate"** shall mean a representative modeling of facilities or groups of facilities that may act as potential constraint points. When used herein, Flowgate shall mean M2M Redispatch Flowgate, NY-NJ PAR Coordinated Flowgate, and Other Coordinated Flowgate.
- "Force Majeure" shall mean an event of force majeure as described in Section 35. 20.1.
- "Generator to Load Distribution Factor" or "GLDF" shall mean a generator's impact on a Flowgate while serving load in that generator's Balancing Authority Area.
- "Good Utility Practice" shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the North American 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 consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted by NERC.
- "Governmental Authority" shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.
- "ICCP", "ISN" and "ICCP/ISN" shall mean those common communication protocols adopted to standardize information exchange.
- "IDC" shall mean the NERC Interchange Distribution Calculator used for identifying and requesting congestion management relief.

- "Indemnifying Party" shall have the meaning stated in Section 35.20.3.
- "Indemnitee" shall have the meaning stated in Section 35.20.3
- "Intellectual Property" shall mean (i) ideas, designs, concepts, techniques, inventions, discoveries, or improvements, regardless of patentability, but including without limitation patents, patent applications, mask works, trade secrets, and know-how; (ii) works of authorship, regardless of copyright ability, including copyrights and any moral rights recognized by law; and (iii) any other similar rights, in each case on a worldwide basis.
- "Intentional Wrongdoing" shall mean an act or omission taken or omitted by a Party with knowledge or intent that injury or damage could reasonably be expected to result.
- "Interconnected Reliability Operating Limit" or "IROL" shall mean the value (such as MW, MVAR, Amperes, Frequency, or Volts) derived from, or a subset of, the System Operating Limits, which if exceeded, could expose a widespread area of the bulk electrical system to instability, uncontrolled separation(s) or cascading outages.
- "Interconnection" shall mean a connection between two or more individual Transmission Systems that normally operate in synchronism and have interconnecting intertie(s).
- "Interconnection Facilities" shall mean the Interconnection facilities described in Schedule A.
- "Intermediate Term Security Constrained Economic Dispatch" shall mean PJM's algorithm that performs various functions, including but not limited to forecasting dispatch and LMP solutions based on current and projected system conditions for up to several hours into the future.
- "ISO" shall mean Independent System Operator.
- "JK Interface" shall mean the transfer path comprised of the JK Ramapo-South Mahwah-Waldwick tie lines between PJM and NYISO.
- "kV" shall mean kilovolt of electric potential.
- "LEC Adjusted Market Flow" shall mean the real-time Market Flow incorporating the observed operation of the PARs at the Michigan-Ontario border.
- "Locational Marginal Price" or "LMP" shall mean the market clearing price for energy at a given location in a Party's RC Area, and "Locational Marginal Pricing" shall mean the processes related to the determination of the LMP.
- "Losses" shall have the meaning stated in Section 35.20.3.

- "M2M" shall mean the market-to-market coordination process set forth in Schedule D to this Agreement.
- "M2M Entitlement" shall mean a Non-Monitoring RTO's share of a M2M Redispatch Flowgate's total capability to be used for settlement purposes that is calculated pursuant to Section 6 of Schedule D to this Agreement.
- "M2M Redispatch Flowgate" shall mean Flowgates where constraints are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement.
- "Market Flows" shall mean the calculated energy flows on a specified Flowgate as a result of dispatch of generating resources serving load within an RTO's market.
- "Market Participant" shall mean an entity that, for its own account, produces, transmits, sells, and/or purchases for its own consumption or resale capacity, energy, energy derivatives and ancillary services in the wholesale power markets. Market Participants include transmission service customers, power exchanges, Transmission Owners, load serving entities, loads, holders of energy derivatives, generators and other power suppliers and their designated agents.
- "Metered Quantity" shall mean apparent power, reactive power, active power, with associated time tagging and any other quantity that may be measured by a Party's Metering Equipment and that is reasonably required by either Party for Security reasons or revenue requirements.
- "Metering Equipment" shall mean the potential transformers, current transformers, meters, interconnecting wiring and recorders used to meter any Metered Quantity.
- "Monitoring RTO" shall mean the Party that has operational control of a Flowgate.
- "Multiregional Modeling Working Group" or "MMWG" shall mean the NERC working group that is charged with multi-regional modeling.
- "Mutual Benefits" shall mean the transient and steady-state support that the integrated generation and Transmission Systems in PJM and New York provide to each other inherently by virtue of being interconnected as described in Section 35.4 of this Agreement.
- "MVAR" shall mean megavolt ampere of reactive power.
- "MW" shall mean megawatt of capacity.
- "NAESB" shall mean North American Energy Standards Board or its successor organization.

- "NERC" shall mean the North American Electricity Reliability Corporation or its successor organization.
- "Network Resource" shall have the meaning as provided in the NYISO OATT, for such resources located in New York, and the meaning as provided in the PJM OATT, for such resources located in PJM.
- "New Year Market Flow" shall mean the Market Flow incorporating the transmission topology that includes all pre-existing Transmission Facilities and all new or upgraded Transmission Facilities whose impact on M2M Entitlements has been previously evaluated and incorporated, and all new or upgraded Transmission Facilities whose impact on M2M Entitlements is being evaluated in the current evaluation step.
- "Non-Monitoring RTO" shall mean the Party that does not have operational control of a Flowgate.
- "Notice" shall have the meaning stated in Section 35. 20.22.
- "NPCC" shall mean the Northeast Power Coordinating Council, Inc., including the NPCC Cross Border Regional Entity ("CBRE"), or their successor organizations.
- "NY-NJ PARs" shall mean, individually and/or collectively, the ABC PARs, the Ramapo PARs, and the Waldwick PARs, all of which are components of the NYISO PJM interface.
- "NY-NJ PAR Coordinated Flowgate" shall mean Flowgates where constraints, impacted by the NY-NJ PARs, are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement.
- "NYISO" shall have the meaning stated in the preamble of this Agreement.
- "NYISO Code of Conduct" shall mean the rules, procedures and restrictions concerning the conduct of the ISO directors and employees, contained in Attachment F to the NYISO OATT.
- "NYISO Market Monitoring Plan" shall refer to Attachment O to the NYISO Services Tariff.
- "NYISO Tariffs" shall mean the NYISO OATT and the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"), collectively.
- "NYSRC" shall mean the New York State Reliability Council.
- "NYSRC Reliability Rules" shall mean the rules applicable to the operation of the New York Transmission System. These rules are based on Reliability Standards adopted by NERC and NPCC, but also include more specific and more stringent rules to reflect the particular requirements of the New York Transmission System.

- **"O PAR"** shall mean the phase angle regulator located at the Waldwick station on the O-2267 Waldwick-Fairlawn 230kV line.
- "OASIS" shall mean the Open Access Same-Time Information System required by FERC for the posting of market and transmission data on the Internet websites of PJM and NYISO.
- "OATT" shall mean the applicable Open Access Transmission Tariffs on file with FERC for PJM and NYISO.
- "Operating Entity" shall mean an entity that operates and controls a portion of the bulk transmission system with the goal of ensuring reliable energy interchange between generators, loads, and other operating entities.
- "Operating Instructions" shall mean the operating procedures, steps, and instructions for the operation of the Interconnection Facilities established from time to time by the Coordination Committee or the PJM and NYISO individual procedures and processes and includes changes from time to time by the Coordination Committee to such established procedures, steps and instructions exclusive of the individual procedures.
- "Operational Base Flow" or "OBF" shall mean an equal and opposite MW offset of power flows over the Waldwick PARs and ABC PARs to account for natural system flows over the JK Interface and the ABC Interface in order to facilitate the reliable operation of the NYISO and/or PJM transmission systems. The OBF is not a firm transmission service on either the NYISO transmission system or on the PJM transmission system. The OBF shall not result in charges from one Party to the other Party, or from one Party to the other Party's Market Participants, except for the settlements described in the Real-Time Energy Market Coordination and Settlements provisions set forth in Sections 7 and 8 of Schedule D to this Agreement. In particular, the NYISO and its Market Participants shall not be subjected to PJM Regional Transmission Expansion Plan ("RTEP") cost allocations as a result of the OBF.
- "Operating Reserve" shall mean generation capacity or load reduction capacity which can be called upon on short notice by either Party to replace scheduled energy supply which is unavailable as a result of an unexpected outage or to augment scheduled energy as a result of unexpected demand or other contingencies.
- "Operational Control" shall mean Security monitoring, adjustment of generation and transmission resources, coordinating and approval of changes in transmission status for maintenance, determination of changes in transmission status for reliability, coordination with other Balancing Authority Areas and Reliability Coordinators, voltage reductions and load shedding, except that each legal owner of generation and transmission resources continues to physically operate and maintain its own facilities.

- "OTDF" shall mean the electric PTDF with one or more system facilities removed from service (*i.e.*, outaged) in the post-contingency configuration of a system under study.
- "Other Coordinated Flowgate" shall mean a Flowgate where constraints are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement. No re-dispatch settlement will occur on Other Coordinated Flowgates.
- "Outages" shall mean the planned unavailability of transmission and/or generation facilities dispatched by PJM or the NYISO, as described in Section 35.9 of this Agreement.
- "PAR" shall mean phase angle regulator.
- "PAR Shift Factor" or "PSF", shall mean the PAR's impact on a Flowgate measured as the ratio of Flowgate flow change in MW to PAR schedule change in MW.
- "Party" or "Parties" refers to each party to this Agreement or both, as applicable.
- "PJM" has the meaning stated in the preamble of this Agreement.
- **"PJM Code of Conduct"** shall mean the code of ethical standards, guidelines and expectations for PJM's employees, officers and Board Members in their transactions and business dealings on behalf of PJM as posted on the PJM website and as may be amended from time to time.
- **"PJM Tariffs"** shall mean the PJM OATT and the PJM Amended and Restated Operating Agreement, collectively.
- "Power Transfer Distribution Factor" or "PTDF" shall mean a measure of the responsiveness or change in electrical loadings on Transmission Facilities due to a change in electric power transfer from one area to another, expressed in percent (up to 100%) of the change in power transfer in the pre-contingency configuration of a system under study.
- "Qualified Resource" shall mean a generator that can be effectively committed, decommitted and/or redispatched to relieve a M2M Redispatch Flowgate or Other Coordinated Flowgate. Generators that cannot or do not follow commitment or dispatch instructions, including but not limited to generators with no difference between their historically offered minimum and maximum operating limits and generators with intermittent fuel sources, are not considered Qualified Resources.
- **"Ramapo Interface"** shall mean the transfer path comprised of the 5018 Hopatcong-Ramapo 500 kV tie line between PJM and NYISO.
- "Ramapo PARs" shall mean the 3500 PAR and 4500 PAR that control flow on the Ramapo Interface.

- "Real-Time Commitment" shall mean NYISO's multi-period security constrained unit commitment and dispatch model, as defined in the NYISO Tariffs.
- "Reference Year Market Flow" shall mean the Market Flow based on a transmission topology that includes all pre-existing Transmission Facilities and all new or upgraded Transmission Facilities whose impact on M2M Entitlements has been previously evaluated and incorporated.
- "Region" shall mean the Control Areas and Transmission Facilities with respect to which a Party serves as RTO or Reliability Coordinator under NERC policies and procedures.
- "Regulatory Body" shall have the meaning stated in Section 35.20.21.
- "Reliability Coordinator" or "RC" shall mean the entity that is the highest level of authority who is responsible for the reliable operation of the Bulk Electric System, has the wide area view of the Bulk Electric System, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next day analysis and real-time operations. The Reliability Coordinator has the purview that is broad enough to enable the calculation of Interconnection Reliability Operating Limits, which may be based on the operating parameters of transmission systems beyond any Transmission Operator's vision.
- "Reliability Coordinator Area" shall mean that portion of the Bulk Electric System under the purview of the Reliability Coordinator.
- "Reliability Standards" shall mean the criteria, standards, rules and requirements relating to reliability established by a Standards Authority.
- "RFC" shall mean ReliabilityFirst Corporation.
- "RTO" shall mean Regional Transmission Organization. For ease of reference, the New York Independent System Operator, Inc., may be referred to as an RTO in this Agreement and the NYISO and PJM may be referred to collectively as the "RTOs" or the "participating RTOs."
- "Schedule" shall mean a schedule attached to this Agreement and all amendments, supplements, replacements and additions hereto.
- "SDX System" shall mean the system used by NERC to exchange system data.
- "Security" shall mean the ability of the electric system to withstand sudden disturbances including, without limitation, electric short circuits or unanticipated loss of system elements.
- "Security Limits" shall mean operating electricity system voltage limits, stability limits and thermal ratings.
- "SERC" shall mean SERC Reliability Corporation or its successor organization.

- "Shadow Price" shall mean the marginal value of relieving a particular constraint which is determined by the reduction in system cost that would result from an incremental relaxation of that constraint.
- "Standards Authority" shall mean NERC, and the NERC regional entities with governance over PJM and NYISO, any successor thereof, or any other agency with authority over the Parties regarding standards or criteria to either Party relating to the reliability of Transmission Systems.
- "Standards Authority Standards" shall have the meaning stated in Section 35.5.2.
- "State Estimator" shall mean a computer model that computes the state (voltage magnitudes and angles) of the Transmission System using the network model and real-time measurements. Line flows, transformer flows, and injections at the busses are calculated from the known state and the transmission line parameters. The State Estimator has the capability to detect and identify bad measurements.
- "Storm Watch" shall mean actual or anticipated severe weather conditions under which regionspecific portions of the New York State Transmission System are operated in a more conservative manner by reducing transmission transfer limits.
- "Supplying Party" shall have the meaning stated in Section 35.8.2.
- "System Operating Limit" or "SOL" shall mean the value (such as MW, MVAR, Amperes, Frequency, or Volts) that satisfies the most limiting of the prescribed operating criteria for a specified system configuration to ensure operation within acceptable reliability criteria.
- "Target Value" shall have the meaning stated in Section 7.2 of Schedule D to this Agreement.
- "Third Party" refers to any entity other than a Party to this Agreement.
- "TLR" shall mean the NERC Transmission Loading Relief Procedures used in the Eastern Interconnection as specified in NERC Operating Policies.
- "Transmission Adjusted Market Flow" shall mean the result of applying the M2M Entitlement Transmission Adjusted Market Flow Calculation to the New Year Market Flow. The resulting Transmission Adjusted Market Flow is then used as the Reference Year Market Flow in all subsequent, iterative, evaluations.
- **"Transmission Operator"** shall mean the entity responsible for the reliability of its "local" Transmission System, and that operates or directs the operations of the Transmission Facilities.
- "Transmission Owner" shall mean an entity that owns Transmission Facilities.

- "Transmission System" shall mean the facilities controlled or operated by PJM or NYISO as designated by each in their respective OATTs.
- "Transmission Facility" shall mean a facility for transmitting electricity, and includes any structures, equipment or other facilities used for that purpose as defined in the Parties respective OATTs.
- "Transmission Reliability Margin" or "TRM" shall mean the amount of transmission transfer capability necessary to provide reasonable assurance that the interconnected transmission network will be secure. TRM accounts for the inherent uncertainty in system conditions and the need for operating flexibility to ensure reliable system operation as system conditions change.
- "Total Transfer Capability" or "TTC" shall mean the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected Transmission Systems by way of all transmission lines (or paths) between those areas under specified system conditions.
- "Voltage and Reactive Power Coordination Procedures" are the procedures under Section 35.11 for coordination of voltage control and reactive power requirements.
- "Waldwick PARs" shall mean the E PAR, F PAR and O PAR that control flow on the JK Interface.

35.2. 2 Rules of Construction.

35.2. 2.1 No Interpretation Against Drafter.

In addition to their roles as RTOs/ISOs and Reliability Coordinators, and the functions and responsibilities associated therewith, the Parties agree that each Party participated in the drafting of this Agreement and was represented therein by competent legal counsel. No rule of construction or interpretation against the drafter shall be applied to the construction or in the interpretation of this Agreement.

35.2. 2.2 Incorporation of Preamble and Recitals.

The Preamble and Recitals of this Agreement are incorporated into the terms and conditions of this Agreement and made a part thereof.

35.2. 2.3 Meanings of Certain Common Words.

The word "including" shall be understood to mean "including, but not limited to." The word "Section" refers to the applicable section of this Agreement and, unless otherwise stated, includes all subsections thereof. The word "Article" refers to articles of this Agreement.

35.2. 2.4 Standards Authority Standards, Policies, and Procedures.

All activities under this Agreement will meet or exceed the applicable Standards

Authority standards, policies, or procedures as revised from time to time.

35.2. 2.5 Scope of Application.

Each Party will perform this Agreement in accordance with its terms and conditions with respect to each Control Area for which it serves as ISO or RTO and, in addition, each Control Area for which it serves as Reliability Coordinator.

35.5 Interconnected Operation

35.5.1 Obligation to Remain Interconnected

The Parties shall at all times during the term of this Agreement operate or direct the operation of their respective Transmission Systems so that they remain interconnected except:

- 35.5.1.1 During the occurrence of an event of Force Majeure which renders a Party unable to remain interconnected:
- 35.5.1.2 When an Interconnection is opened in accordance with the terms of an Operating Instruction or, if the Operating Instruction does not anticipate a particular circumstance where there is an imminent risk of equipment failure, or of danger to personnel or the public, or a risk to the environment, or a risk to system Security or reliability of a Transmission System, which cannot be avoided through Good Utility Practice; or
- During planned maintenance where notice has been given in accordance with outage procedures as implemented by the Coordination Committee.

35.5.2 Adherence to Standards Authority Standards, Policies and Procedures

The Parties are participants in multiple Standards Authorities and are required to comply with specified standards, criteria, guides and procedures ("Standards Authority Standards").

Such Standards Authority Standards detail the many coordinating functions carried out by the parties, and this Agreement is intended to enhance those arrangements. Such Standards Authority Standards include, and the Parties agree to, the provision of "maximum reasonable assistance" to a neighboring Balancing Authority Area. Such maximum reasonable assistance will not normally require the shedding of firm load.

35.5.3 Notification of Circumstances

In the event that an Interconnection Facility is opened or if the Interconnection Facility transfer capability is changed, or if a Party plans to initiate the opening of an Interconnection Facility, or to change the transfer capability of the Interconnection Facilities, such Party shall immediately provide the other Party with notification indicating the circumstances of the opening or transfer capability change and expected restoration time, in accordance with procedures implemented by the Coordination Committee.

35.5.4 Compliance with Decisions of the Coordination Committee Direction

PJM shall direct the operation of the PJM Transmission System and the NYISO shall direct the operation of the NYISO Transmission System in accordance with the obligations of their respective tariffs, rules and standards and applicable directions of the Coordination Committee that conform with their respective tariffs, rules and standards, except where prevented by Force Majeure. The Coordination Committee's scope includes making decisions and jointly developing and approving Operating Instructions for many expected circumstances within the provisions of the Parties' respective tariffs, rules and standards. If decisions of the Coordination Committee do not anticipate a particular circumstance, the Parties shall act in accordance with Good Utility Practice.

35.5.5 Control and Monitoring

Each Party shall provide or arrange for 24-hour control and monitoring of their portion of the Interconnection Facilities.

35.5.6 Reactive Transfer and Voltage Control

The Parties agree to determine reactive transfers and control voltages in accordance with the provisions of their respective Standards Authority Standards. Real and reactive power will be transferred over the Interconnection Facilities as described in Section 35.11.

35.5.7 Inadvertent Exchanges

Inadvertent power transfers on all Interconnection Facilities shall be controlled and accounted for in accordance with the standards and procedures developed by the Standards Authorities and the system operators of each Party to this Agreement.

35.5.8 Adoption of Standards

The Parties hereby agree to adopt, enforce and comply with all applicable requirements and standards that will safeguard the reliability of the interconnected Transmission Systems.

Such reliability requirements and Reliability Standards shall be:

- 35.5.8.1 Adopted and enforced for the purpose of providing reliable service;
- 35.5.8.2 Not unduly discriminatory in substance or application;
- 35.5.8.3 Applied consistently to both Parties with the exception of subsection 35.5.8.5 below;
- 35.5.8.4 Consistent with the Parties' respective obligations to applicable Standards
 Authorities including, without limitation, any relevant requirements or
 guidelines from each of NERC, or its Regional Councils' or any other
 Standards Authority or regional transmission group to which either of the
 Parties is required to adhere; and
- 35.5.8.5 With respect to the NYISO, consistent with the NYSRC Reliability Rules.

35.5.9 New York - PJM IROL Interface (s)

The Parties will adhere to IROLs that each Party develops in accordance with its respective procedures. ¹ IROLs will be determined as needed to maintain acceptable steadystate and transient performance of the NYISO and PJM Transmission Systems. Each Party will specify in its procedures the list of interfaces to which IROLs apply. ² Each Party will monitor these limits for their respective IROLs in accordance with this Agreement and independently determine the applicable import and export transfer limits. Each Party agrees to operate the NYISO – PJM interface to the most conservative limits developed in real-time and the day-ahead planning process. These operating limits shall be determined in accordance with Standards Authority Standards. Both Parties will take coordinated corrective actions, when requested by either Party, to avoid an exceedance of any IROL identified. If an exceedance occurs, actions will be taken to clear the exceedance as soon as possible, and in accordance with Standards Authority Standards.

35.5.10 Coordination and Exchange of Information Regarding System Planning

The Parties shall exchange information and coordinate regarding system planning and inter-regional planning activities in a manner consistent with Standards Authority Standards and consistent with the requirements of confidentiality agreements or rules binding upon either of the Parties.

¹ NYISO procedures are defined as ISO Procedures in the NYISO OATT. *See*, NYISO Emergency Operations Manual, available at https://www.nyiso.com/documents/20142/2923301/em_op_mnl.pdf/99ef389d-4bca-fc0e-f12e-d91c0763cdca. PJM's procedures are set forth in PJM Manual 37, section 3, SOL and IROL Limits available at: https://www.pim.com/-/media/documents/manuals/m37.ashx

² *See*, NYISO Emergency Operations Manual Table A-6 and PJM Manual 37, section 3, SOL and IROL Limits available at: https://www.pjm.com/-/media/documents/manuals/m37.ashx.

35.21 Schedules A and B

Schedule A - Description Of Interconnection Facilities

The NYISO – PJM Joint Operating Agreement covers the PJM – NYISO *Interconnection Facilities* under the *Operational Control* of the NYISO and PJM.

NYISO and PJM shall jointly develop and maintain a 'PJM – NYISO Interconnection Facilities List' (including a description of the facilities and metering points) and post the most current mutually agreed upon list on their respective public websites. The Parties may jointly revise the list by mutual written agreement. After the Parties mutually agree to changes, NYISO and PJM shall post an updated list on their respective websites. Neither Party shall knowingly post a list that includes changes that are not the product of mutual agreement.

The PJM-NYISO *Interconnection* contains twenty-five (25) alternating current ("AC") *Interconnection Facilities*, seven (7) of which form one (1) AC pseudo-tie¹; and further contains two (2) HVDC *Interconnection Facilities* as well as one (1) *Variable Frequency Transformer* (*VFT*).

For *Operational Control* purposes, the point of demarcation for each of the *Interconnection Facilities* is the point at which the *Interconnection Facility* crosses the PJM-New York State boundary, except as otherwise noted in the PJM – NYISO Interconnection Facilities List posting.

The following table identifies NY/PJM Interfaces at which NYISO and PJM are Authorized to Consider CTS Interface Bids:

PJM Interface Name	PNODE ID	Corresponding NYISO Proxy Generator Buses ²	PTID
NYIS	5413134	PJM_GEN_KEYSTONE	24065
NYIS	5413134	PJM_LOAD_KEYSTONE	55857
LindenVFT	81436855	PJM_GEN_VFT_PROXY	323633
LindenVFT	81436855	PJM_LOAD_VFT_PROXY	355723
Neptune	56958967	PJM_GEN_NEPTUNE_PROXY	323594
Neptune	56958967	PJM_LOAD_NEPTUNE_PROXY	355615

¹ WEQ-007 "Inadvertent Interchange Payback Standards," North American Energy Standards Board (NAESB), online at www.naesb.org.

² See NYISO Market Administration and Control Area Services Tariff Section 4.4.4 for additional information.

HudsonTP	1124361945	PJM_HTP_GEN	323702
HudsonTP	1124361945	HUDSONTP_345KV_HTP_LOAD	355839

Schedule B - Other Existing Agreements:

- 1.0 Lake Erie Emergency Redispatch (LEER)
- 2.0 RAMAPO PHASE ANGLE REGULATOR OPERATING PROCEDURE prepared by the NYPP/PJM Circulation Study Operating Committee.
- 3.0 Northeastern ISO/RTO Coordination of Planning Protocol
- 4.0 Inter Control Area Transaction Agreement.
- 5.0 Procedures to Protect for Loss of Phase II Imports (effective January 16, 2007, pursuant to Order issued January 12, 2007, in FERC Docket No. ER07-231-000).
- Joint Emergency Operating Protocol dated September 10, 2009, among PJM Interconnection, L.L.C., New York Independent System Operator, Inc., and Linden VFT, LLC (Filed by PJM on October 1, 2009, in FERC Docket No. ER09-996-000).



35.2 Abbreviations, Acronyms, Definitions and Rules of Construction

In this Agreement, the following words and terms shall have the meanings (such meanings to be equally applicable to both the singular and plural forms) ascribed to them in this Section 35.2. Any undefined, capitalized terms used in this Agreement shall have the meaning given under industry custom and, where applicable, in accordance with Good Utility Practices or the meaning given to those terms in the tariffs of PJM and NYISO on file at FERC.

35.2.1 Abbreviations, Acronyms and Definitions

- **"3500 PAR"** shall mean the 3500 phase angle regulator at the Ramapo station connected to the 5018 Hopatcong-Ramapo 500 kV line.
- **"4500 PAR"** shall mean the 4500 phase angle regulator at the Ramapo station connected to the 5018 Hopatcong-Ramapo 500 kV line.
- "A PAR" shall mean the phase angle regulator located a the Goethals station connected to the A2253 Linden-Goethals 230 kV line.
- "ABC Interface" shall mean the transfer path comprised of the A2253 Linden-Goethals, B3402 Hudson-Farragut and C3403 Marion-Farragut tie lines between PJM and NYISO.
- "ABC PARs" shall mean the A PAR, B PAR and C PAR that control flow on the ABC Interface.
- "AC" shall mean alternating current.
- "Affected Party" shall mean the electric system of the Party other than the Party to which a request for interconnection or long-term firm delivery service is made and that may be affected by the proposed service.
- "Agreement" shall mean this document, as amended from time to time, including all attachments, appendices, and schedules.
- "Area Control Error" or "ACE" shall mean the instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias and correction for meter error.

- "Available PAR" shall mean, for purposes of Section 8.3.1 of Schedule D to this Agreement, a NY-NJ PAR that is not subject to any of the following circumstances:
 - (1) a PAR that is not operational and is unable to be moved;
 - (2) a PAR that is technically "in-service" but is being operated in an outage configuration and is only capable of feeding radial load;
 - (3) a PAR that is tapped-out in a particular direction is not available in the tapped-out direction:
 - (4) if the maximum of 400 taps/PAR/month is exceeded at an ABC PAR, Ramapo PAR or a Waldwick PAR, and the relevant asset owner restricts the RTOs from taking further taps on the affected PAR, then the affected PAR shall not be available until NYISO and PJM agree to and implement an increased bandwidth in accordance with Section 7.2 of Schedule D to this Agreement;
 - (5) PJM is permitted to reserve up to three taps at each end of the PAR tap range of each Waldwick PAR to secure the facilities on a post contingency basis, a Waldwick PAR shall not be considered available if a tap move would require the use of a reserved PAR tap; or
 - (6) NYISO is permitted to reserve up to two taps at each end of the tap range of each ABC PAR and Ramapo PAR to secure the facilities on a post contingency basis, an ABC or Ramapo PAR shall not be considered available if a tap move would require the use of a reserved PAR tap.

PJM or NYISO may choose to use PAR taps they are permitted to reserve to perform M2M coordination, but they are not required to do so.

- "Available Flowgate Capability" or "AFC" shall mean the rating of the applicable Flowgate less the projected loading across the applicable Flowgate less TRM and CBM. The firm AFC is calculated with only the appropriate Firm Transmission Service reservations (or interchange schedules) in the model, including recognition of all roll-over Transmission Service rights. Non-firm AFC is determined with appropriate firm and non-firm reservations (or interchange schedules) modeled.
- "Available Transfer Capability" or "ATC" shall mean a measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses.
- **"B PAR"** shall mean the phase angle regulator located at the Farragut station connected to the B3402 Hudson-Farragut 345 kV line.
- **"Balancing Authority"** or **"BA"** shall mean the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports interconnection frequency in real-time.

- "Balancing Authority Area" or "BAA" shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.
- "Bulk Electric System" shall have the meaning provided for in the NERC Glossary of Terms used in Reliability Standards, as it may be amended, supplemented, or restated from time to time.
- "C PAR" shall mean the phase angle regulator located at the Farragut station connected to the C3403 Marion-Farragut 345 kV line.
- "Capacity Benefit Margin" or "CBM" shall mean the amount of firm transmission transfer capability preserved by the transmission provider for Load-Serving Entities ("LSEs"), whose loads are located on that Transmission Service Provider's system, to enable access by the LSEs to generation from interconnected systems to meet generation reliability requirements. Preservation of CBM for an LSE allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. The transmission transfer capability preserved as CBM is intended to be used by the LSE only in times of emergency generation deficiencies.
- "CIM" shall mean Common Infrastructure Model.
- "Coordination Event" shall mean the period when both Parties are operating under M2M as defined and set forth in Schedule D to this Agreement.
- "Confidential Information" shall have the meaning stated in Section 35.8.1.
- "Control Area(s)" shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied.
- "Control Performance Standard" or "CPS" shall mean the reliability standard that sets the limits of a Balancing Authority's Area Control Error over a specified time period.
- "Coordinated Transaction Scheduling" or "CTS" shall mean the market rules that allow transactions to be scheduled based on a bidder's willingness to purchase energy from a source in either the NYISO or PJM Control Area and sell it at a sink in the other Control Area if the forecasted price at the sink minus the forecasted price at the corresponding source is greater than or equal to the dollar value specified in the bid.
- "Coordination Committee" shall mean the jointly constituted PJM and NYISO committee established to administer the terms and provisions of this Agreement pursuant to Section 35.3.2.
- "CTS Interface Bid" shall mean: (1) in PJM, a unified real-time bid to simultaneously purchase and sell energy on either side of a CTS Enabled Interface in accordance with the procedures of

- Section 1.13 of Schedule 1 of the Amended and Restated Operating Agreement of PJM, L.L.C.; and (2) in NYISO, a real-time bid provided by an entity engaged in an external transaction at a CTS Enabled Interface, as more fully described in NYISO Services Tariff Section 2.3.
- "Delivery Point" shall mean each of the points of direct Interconnection between PJM and the NYISO Balancing Authority Areas. Such Delivery Point(s) shall include the Interconnection Facilities between the PJM and the New York Balancing Authority Areas.
- "DC" shall mean direct current.
- "Disclosing Party" shall have the meaning stated in Section 35.8.7.
- "Dispute" shall have the meaning stated in Section 35.15.
- "Disturbance Control Standard" or "DCS" shall mean the reliability standard that sets the time limit following a disturbance within which a balancing authority must return its Area Control Error to within a specified range.
- "E PAR" shall mean the phase angle regulator located at the Waldwick station on the E-2257 Waldwick-Hawthorne 230 kV line.
- **"Economic Dispatch"** shall mean the sending of dispatch instructions to generation units to minimize the cost of reliably meeting load demands.
- "Effective Date" shall have the meaning stated in Section 35.19.1.
- **"Emergency"** shall mean any abnormal system condition that requires remedial action to prevent or limit loss of transmission or generation facilities that could adversely affect the reliability of the electricity system.
- "Emergency Energy" shall mean energy supplied from Operating Reserve or electrical generation available for sale in New York or PJM or available from another Balancing Authority Area. Emergency Energy may be provided in cases of sudden and unforeseen outages of generating units, transmission lines or other equipment, or to meet other sudden and unforeseen circumstances such as forecast errors, or to provide sufficient Operating Reserve. Emergency Energy is provided pursuant to this Agreement and the Inter Control Area Transactions Agreement dated May 1, 2000 and priced according to Section 35.6.4 of this Agreement and said Inter Control Area Transactions Agreement.
- "EMS" shall mean the respective Energy Management Systems utilized by the Parties to manage the flow of energy within their Regions.
- **"External Capacity Resource"** shall mean: (1) for NYISO, (a) an entity (e.g., Supplier, Transmission Customer) or facility (e.g., Generator, Interface) located outside the NYCA with

the capability to generate or transmit electrical power, or the ability to control demand at the direction of the NYISO, measured in megawatts or (b) a set of Resources owned or controlled by an entity within a Control Area, not the NYCA, that also is the operator of such Control Area; and (2) for PJM, a generation resource located outside the metered boundaries of the PJM Region (as defined in the PJM Tariff) that meets the definition of Capacity Resource in the PJM Tariff or PJM's governing agreements filed with the Commission.

- "F PAR" shall mean the phase angle regulator located at the Waldwick station on the F-2258 Waldwick-Hillsdale 230 kV line.
- "FERC" or "Commission" shall mean the Federal Energy Regulatory Commission or any successor agency thereto.
- **"Flowgate"** shall mean a representative modeling of facilities or groups of facilities that may act as potential constraint points. When used herein, Flowgate shall mean M2M Redispatch Flowgate, NY-NJ PAR Coordinated Flowgate, and Other Coordinated Flowgate.
- "Force Majeure" shall mean an event of force majeure as described in Section 35. 20.1.
- "Generator to Load Distribution Factor" or "GLDF" shall mean a generator's impact on a Flowgate while serving load in that generator's Balancing Authority Area.
- "Good Utility Practice" shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the North American 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 consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted by NERC.
- "Governmental Authority" shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.
- "ICCP", "ISN" and "ICCP/ISN" shall mean those common communication protocols adopted to standardize information exchange.
- "IDC" shall mean the NERC Interchange Distribution Calculator used for identifying and requesting congestion management relief.

- "Indemnifying Party" shall have the meaning stated in Section 35.20.3.
- "Indemnitee" shall have the meaning stated in Section 35.20.3
- "Intellectual Property" shall mean (i) ideas, designs, concepts, techniques, inventions, discoveries, or improvements, regardless of patentability, but including without limitation patents, patent applications, mask works, trade secrets, and know-how; (ii) works of authorship, regardless of copyright ability, including copyrights and any moral rights recognized by law; and (iii) any other similar rights, in each case on a worldwide basis.
- "Intentional Wrongdoing" shall mean an act or omission taken or omitted by a Party with knowledge or intent that injury or damage could reasonably be expected to result.
- "Interconnected Reliability Operating Limit" or "IROL" shall mean the value (such as MW, MVAR, Amperes, Frequency, or Volts) derived from, or a subset of, the System Operating Limits, which if exceeded, could expose a widespread area of the bulk electrical system to instability, uncontrolled separation(s) or cascading outages.
- "Interconnection" shall mean a connection between two or more individual Transmission Systems that normally operate in synchronism and have interconnecting intertie(s).
- "Interconnection Facilities" shall mean the Interconnection facilities described in Schedule A.
- "Intermediate Term Security Constrained Economic Dispatch" shall mean PJM's algorithm that performs various functions, including but not limited to forecasting dispatch and LMP solutions based on current and projected system conditions for up to several hours into the future.
- "ISO" shall mean Independent System Operator.
- "JK Interface" shall mean the transfer path comprised of the JK Ramapo-South Mahwah-Waldwick tie lines between PJM and NYISO.
- "kV" shall mean kilovolt of electric potential.
- "LEC Adjusted Market Flow" shall mean the real-time Market Flow incorporating the observed operation of the PARs at the Michigan-Ontario border.
- "Locational Marginal Price" or "LMP" shall mean the market clearing price for energy at a given location in a Party's RC Area, and "Locational Marginal Pricing" shall mean the processes related to the determination of the LMP.
- "Losses" shall have the meaning stated in Section 35.20.3.

- "M2M" shall mean the market-to-market coordination process set forth in Schedule D to this Agreement.
- "M2M Entitlement" shall mean a Non-Monitoring RTO's share of a M2M Redispatch Flowgate's total capability to be used for settlement purposes that is calculated pursuant to Section 6 of Schedule D to this Agreement.
- "M2M Redispatch Flowgate" shall mean Flowgates where constraints are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement.
- "Market Flows" shall mean the calculated energy flows on a specified Flowgate as a result of dispatch of generating resources serving load within an RTO's market.
- "Market Participant" shall mean an entity that, for its own account, produces, transmits, sells, and/or purchases for its own consumption or resale capacity, energy, energy derivatives and ancillary services in the wholesale power markets. Market Participants include transmission service customers, power exchanges, Transmission Owners, load serving entities, loads, holders of energy derivatives, generators and other power suppliers and their designated agents.
- "Metered Quantity" shall mean apparent power, reactive power, active power, with associated time tagging and any other quantity that may be measured by a Party's Metering Equipment and that is reasonably required by either Party for Security reasons or revenue requirements.
- "Metering Equipment" shall mean the potential transformers, current transformers, meters, interconnecting wiring and recorders used to meter any Metered Quantity.
- "Monitoring RTO" shall mean the Party that has operational control of a Flowgate.
- "Multiregional Modeling Working Group" or "MMWG" shall mean the NERC working group that is charged with multi-regional modeling.
- "Mutual Benefits" shall mean the transient and steady-state support that the integrated generation and Transmission Systems in PJM and New York provide to each other inherently by virtue of being interconnected as described in Section 35.4 of this Agreement.
- "MVAR" shall mean megavolt ampere of reactive power.
- "MW" shall mean megawatt of capacity.
- "NAESB" shall mean North American Energy Standards Board or its successor organization.

- "NERC" shall mean the North American Electricity Reliability Corporation or its successor organization.
- "Network Resource" shall have the meaning as provided in the NYISO OATT, for such resources located in New York, and the meaning as provided in the PJM OATT, for such resources located in PJM.
- "New Year Market Flow" shall mean the Market Flow incorporating the transmission topology that includes all pre-existing Transmission Facilities and all new or upgraded Transmission Facilities whose impact on M2M Entitlements has been previously evaluated and incorporated, and all new or upgraded Transmission Facilities whose impact on M2M Entitlements is being evaluated in the current evaluation step.
- "Non-Monitoring RTO" shall mean the Party that does not have operational control of a Flowgate.
- "Notice" shall have the meaning stated in Section 35. 20.22.
- "NPCC" shall mean the Northeast Power Coordinating Council, Inc., including the NPCC Cross Border Regional Entity ("CBRE"), or their successor organizations.
- "NY-NJ PARs" shall mean, individually and/or collectively, the ABC PARs, the Ramapo PARs, and the Waldwick PARs, all of which are components of the NYISO PJM interface.
- "NY-NJ PAR Coordinated Flowgate" shall mean Flowgates where constraints, impacted by the NY-NJ PARs, are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement.
- "NYISO" shall have the meaning stated in the preamble of this Agreement.
- "NYISO Code of Conduct" shall mean the rules, procedures and restrictions concerning the conduct of the ISO directors and employees, contained in Attachment F to the NYISO OATT.
- "NYISO Market Monitoring Plan" shall refer to Attachment O to the NYISO Services Tariff.
- "NYISO Tariffs" shall mean the NYISO OATT and the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"), collectively.
- "NYSRC" shall mean the New York State Reliability Council.
- "NYSRC Reliability Rules" shall mean the rules applicable to the operation of the New York Transmission System. These rules are based on Reliability Standards adopted by NERC and NPCC, but also include more specific and more stringent rules to reflect the particular requirements of the New York Transmission System.

- **"O PAR"** shall mean the phase angle regulator located at the Waldwick station on the O-2267 Waldwick-Fairlawn 230kV line.
- "OASIS" shall mean the Open Access Same-Time Information System required by FERC for the posting of market and transmission data on the Internet websites of PJM and NYISO.
- "OATT" shall mean the applicable Open Access Transmission Tariffs on file with FERC for PJM and NYISO.
- "Operating Entity" shall mean an entity that operates and controls a portion of the bulk transmission system with the goal of ensuring reliable energy interchange between generators, loads, and other operating entities.
- "Operating Instructions" shall mean the operating procedures, steps, and instructions for the operation of the Interconnection Facilities established from time to time by the Coordination Committee or the PJM and NYISO individual procedures and processes and includes changes from time to time by the Coordination Committee to such established procedures, steps and instructions exclusive of the individual procedures.
- "Operational Base Flow" or "OBF" shall mean an equal and opposite MW offset of power flows over the Waldwick PARs and ABC PARs to account for natural system flows over the JK Interface and the ABC Interface in order to facilitate the reliable operation of the NYISO and/or PJM transmission systems. The OBF is not a firm transmission service on either the NYISO transmission system or on the PJM transmission system. The OBF shall not result in charges from one Party to the other Party, or from one Party to the other Party's Market Participants, except for the settlements described in the Real-Time Energy Market Coordination and Settlements provisions set forth in Sections 7 and 8 of Schedule D to this Agreement. In particular, the NYISO and its Market Participants shall not be subjected to PJM Regional Transmission Expansion Plan ("RTEP") cost allocations as a result of the OBF.
- "Operating Reserve" shall mean generation capacity or load reduction capacity which can be called upon on short notice by either Party to replace scheduled energy supply which is unavailable as a result of an unexpected outage or to augment scheduled energy as a result of unexpected demand or other contingencies.
- "Operational Control" shall mean Security monitoring, adjustment of generation and transmission resources, coordinating and approval of changes in transmission status for maintenance, determination of changes in transmission status for reliability, coordination with other Balancing Authority Areas and Reliability Coordinators, voltage reductions and load shedding, except that each legal owner of generation and transmission resources continues to physically operate and maintain its own facilities.

- "OTDF" shall mean the electric PTDF with one or more system facilities removed from service (*i.e.*, outaged) in the post-contingency configuration of a system under study.
- "Other Coordinated Flowgate" shall mean a Flowgate where constraints are jointly monitored and coordinated as defined and set forth in Schedule D to this Agreement. No re-dispatch settlement will occur on Other Coordinated Flowgates.
- "Outages" shall mean the planned unavailability of transmission and/or generation facilities dispatched by PJM or the NYISO, as described in Section 35.9 of this Agreement.
- "PAR" shall mean phase angle regulator.
- "PAR Shift Factor" or "PSF", shall mean the PAR's impact on a Flowgate measured as the ratio of Flowgate flow change in MW to PAR schedule change in MW.
- "Party" or "Parties" refers to each party to this Agreement or both, as applicable.
- "PJM" has the meaning stated in the preamble of this Agreement.
- **"PJM Code of Conduct"** shall mean the code of ethical standards, guidelines and expectations for PJM's employees, officers and Board Members in their transactions and business dealings on behalf of PJM as posted on the PJM website and as may be amended from time to time.
- **"PJM Tariffs"** shall mean the PJM OATT and the PJM Amended and Restated Operating Agreement, collectively.
- "Power Transfer Distribution Factor" or "PTDF" shall mean a measure of the responsiveness or change in electrical loadings on Transmission Facilities due to a change in electric power transfer from one area to another, expressed in percent (up to 100%) of the change in power transfer in the pre-contingency configuration of a system under study.
- "Qualified Resource" shall mean a generator that can be effectively committed, decommitted and/or redispatched to relieve a M2M Redispatch Flowgate or Other Coordinated Flowgate. Generators that cannot or do not follow commitment or dispatch instructions, including but not limited to generators with no difference between their historically offered minimum and maximum operating limits and generators with intermittent fuel sources, are not considered Qualified Resources.
- "Ramapo Interface" shall mean the transfer path comprised of the 5018 Hopatcong-Ramapo 500 kV tie line between PJM and NYISO.
- "Ramapo PARs" shall mean the 3500 PAR and 4500 PAR that control flow on the Ramapo Interface.

- "Real-Time Commitment" shall mean NYISO's multi-period security constrained unit commitment and dispatch model, as defined in the NYISO Tariffs.
- "Reference Year Market Flow" shall mean the Market Flow based on a transmission topology that includes all pre-existing Transmission Facilities and all new or upgraded Transmission Facilities whose impact on M2M Entitlements has been previously evaluated and incorporated.
- "Region" shall mean the Control Areas and Transmission Facilities with respect to which a Party serves as RTO or Reliability Coordinator under NERC policies and procedures.
- "Regulatory Body" shall have the meaning stated in Section 35.20.21.
- "Reliability Coordinator" or "RC" shall mean the entity that is the highest level of authority who is responsible for the reliable operation of the Bulk Electric System, has the wide area view of the Bulk Electric System, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next day analysis and real-time operations. The Reliability Coordinator has the purview that is broad enough to enable the calculation of Interconnection Reliability Operating Limits, which may be based on the operating parameters of transmission systems beyond any Transmission Operator's vision.
- "Reliability Coordinator Area" shall mean that portion of the Bulk Electric System under the purview of the Reliability Coordinator.
- "Reliability Standards" shall mean the criteria, standards, rules and requirements relating to reliability established by a Standards Authority.
- "RFC" shall mean ReliabilityFirst Corporation.
- "RTO" shall mean Regional Transmission Organization. For ease of reference, the New York Independent System Operator, Inc., may be referred to as an RTO in this Agreement and the NYISO and PJM may be referred to collectively as the "RTOs" or the "participating RTOs."
- "Schedule" shall mean a schedule attached to this Agreement and all amendments, supplements, replacements and additions hereto.
- "SDX System" shall mean the system used by NERC to exchange system data.
- "Security" shall mean the ability of the electric system to withstand sudden disturbances including, without limitation, electric short circuits or unanticipated loss of system elements.
- "Security Limits" shall mean operating electricity system voltage limits, stability limits and thermal ratings.
- "SERC" shall mean SERC Reliability Corporation or its successor organization.

- "Shadow Price" shall mean the marginal value of relieving a particular constraint which is determined by the reduction in system cost that would result from an incremental relaxation of that constraint.
- "Standards Authority" shall mean NERC, and the NERC regional entities with governance over PJM and NYISO, any successor thereof, or any other agency with authority over the Parties regarding standards or criteria to either Party relating to the reliability of Transmission Systems.
- "Standards Authority Standards" shall have the meaning stated in Section 35.5.2.
- "State Estimator" shall mean a computer model that computes the state (voltage magnitudes and angles) of the Transmission System using the network model and real-time measurements. Line flows, transformer flows, and injections at the busses are calculated from the known state and the transmission line parameters. The State Estimator has the capability to detect and identify bad measurements.
- "Storm Watch" shall mean actual or anticipated severe weather conditions under which regionspecific portions of the New York State Transmission System are operated in a more conservative manner by reducing transmission transfer limits.
- "Supplying Party" shall have the meaning stated in Section 35.8.2.
- "System Operating Limit" or "SOL" shall mean the value (such as MW, MVAR, Amperes, Frequency, or Volts) that satisfies the most limiting of the prescribed operating criteria for a specified system configuration to ensure operation within acceptable reliability criteria.
- "Target Value" shall have the meaning stated in Section 7.2 of Schedule D to this Agreement.
- "Third Party" refers to any entity other than a Party to this Agreement.
- "TLR" shall mean the NERC Transmission Loading Relief Procedures used in the Eastern Interconnection as specified in NERC Operating Policies.
- "Transmission Adjusted Market Flow" shall mean the result of applying the M2M Entitlement Transmission Adjusted Market Flow Calculation to the New Year Market Flow. The resulting Transmission Adjusted Market Flow is then used as the Reference Year Market Flow in all subsequent, iterative, evaluations.
- **"Transmission Operator"** shall mean the entity responsible for the reliability of its "local" Transmission System, and that operates or directs the operations of the Transmission Facilities.
- "Transmission Owner" shall mean an entity that owns Transmission Facilities.

- "Transmission System" shall mean the facilities controlled or operated by PJM or NYISO as designated by each in their respective OATTs.
- "Transmission Facility" shall mean a facility for transmitting electricity, and includes any structures, equipment or other facilities used for that purpose as defined in the Parties respective OATTs.
- "Transmission Reliability Margin" or "TRM" shall mean the amount of transmission transfer capability necessary to provide reasonable assurance that the interconnected transmission network will be secure. TRM accounts for the inherent uncertainty in system conditions and the need for operating flexibility to ensure reliable system operation as system conditions change.
- "Total Transfer Capability" or "TTC" shall mean the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected Transmission Systems by way of all transmission lines (or paths) between those areas under specified system conditions.
- "Voltage and Reactive Power Coordination Procedures" are the procedures under Section 35.11 for coordination of voltage control and reactive power requirements.
- "Waldwick PARs" shall mean the E PAR, F PAR and O PAR that control flow on the JK Interface.

35.2. 2 Rules of Construction.

35.2. 2.1 No Interpretation Against Drafter.

In addition to their roles as RTOs/ISOs and Reliability Coordinators, and the functions and responsibilities associated therewith, the Parties agree that each Party participated in the drafting of this Agreement and was represented therein by competent legal counsel. No rule of construction or interpretation against the drafter shall be applied to the construction or in the interpretation of this Agreement.

35.2. 2.2 Incorporation of Preamble and Recitals.

The Preamble and Recitals of this Agreement are incorporated into the terms and conditions of this Agreement and made a part thereof.

35.2. 2.3 Meanings of Certain Common Words.

The word "including" shall be understood to mean "including, but not limited to." The word "Section" refers to the applicable section of this Agreement and, unless otherwise stated, includes all subsections thereof. The word "Article" refers to articles of this Agreement.

35.2. 2.4 Standards Authority Standards, Policies, and Procedures.

All activities under this Agreement will meet or exceed the applicable Standards

Authority standards, policies, or procedures as revised from time to time.

35.2. 2.5 Scope of Application.

Each Party will perform this Agreement in accordance with its terms and conditions with respect to each Control Area for which it serves as ISO or RTO and, in addition, each Control Area for which it serves as Reliability Coordinator.

35.5 Interconnected Operation

35.5.1 Obligation to Remain Interconnected

The Parties shall at all times during the term of this Agreement operate or direct the operation of their respective Transmission Systems so that they remain interconnected except:

- 35.5.1.1 During the occurrence of an event of Force Majeure which renders a Party unable to remain interconnected:
- 35.5.1.2 When an Interconnection is opened in accordance with the terms of an Operating Instruction or, if the Operating Instruction does not anticipate a particular circumstance where there is an imminent risk of equipment failure, or of danger to personnel or the public, or a risk to the environment, or a risk to system Security or reliability of a Transmission System, which cannot be avoided through Good Utility Practice; or
- During planned maintenance where notice has been given in accordance with outage procedures as implemented by the Coordination Committee.

35.5.2 Adherence to Standards Authority Standards, Policies and Procedures

The Parties are participants in multiple Standards Authorities and are required to comply with specified standards, criteria, guides and procedures ("Standards Authority Standards").

Such Standards Authority Standards detail the many coordinating functions carried out by the parties, and this Agreement is intended to enhance those arrangements. Such Standards Authority Standards include, and the Parties agree to, the provision of "maximum reasonable assistance" to a neighboring Balancing Authority Area. Such maximum reasonable assistance will not normally require the shedding of firm load.

35.5.3 Notification of Circumstances

In the event that an Interconnection Facility is opened or if the Interconnection Facility transfer capability is changed, or if a Party plans to initiate the opening of an Interconnection Facility, or to change the transfer capability of the Interconnection Facilities, such Party shall immediately provide the other Party with notification indicating the circumstances of the opening or transfer capability change and expected restoration time, in accordance with procedures implemented by the Coordination Committee.

35.5.4 Compliance with Decisions of the Coordination Committee Direction

PJM shall direct the operation of the PJM Transmission System and the NYISO shall direct the operation of the NYISO Transmission System in accordance with the obligations of their respective tariffs, rules and standards and applicable directions of the Coordination Committee that conform with their respective tariffs, rules and standards, except where prevented by Force Majeure. The Coordination Committee's scope includes making decisions and jointly developing and approving Operating Instructions for many expected circumstances within the provisions of the Parties' respective tariffs, rules and standards. If decisions of the Coordination Committee do not anticipate a particular circumstance, the Parties shall act in accordance with Good Utility Practice.

35.5.5 Control and Monitoring

Each Party shall provide or arrange for 24-hour control and monitoring of their portion of the Interconnection Facilities.

35.5.6 Reactive Transfer and Voltage Control

The Parties agree to determine reactive transfers and control voltages in accordance with the provisions of their respective Standards Authority Standards. Real and reactive power will be transferred over the Interconnection Facilities as described in Section 35.11.

35.5.7 Inadvertent Exchanges

Inadvertent power transfers on all Interconnection Facilities shall be controlled and accounted for in accordance with the standards and procedures developed by the Standards Authorities and the system operators of each Party to this Agreement.

35.5.8 Adoption of Standards

The Parties hereby agree to adopt, enforce and comply with all applicable requirements and standards that will safeguard the reliability of the interconnected Transmission Systems.

Such reliability requirements and Reliability Standards shall be:

- 35.5.8.1 Adopted and enforced for the purpose of providing reliable service;
- 35.5.8.2 Not unduly discriminatory in substance or application;
- 35.5.8.3 Applied consistently to both Parties with the exception of subsection 35.5.8.5 below;
- 35.5.8.4 Consistent with the Parties' respective obligations to applicable Standards
 Authorities including, without limitation, any relevant requirements or
 guidelines from each of NERC, or its Regional Councils' or any other
 Standards Authority or regional transmission group to which either of the
 Parties is required to adhere; and
- 35.5.8.5 With respect to the NYISO, consistent with the NYSRC Reliability Rules.

35.5.9 New York - PJM IROL Interface (s)

The Parties will adhere to IROLs that each Party develops in accordance with its respective procedures. Share a joint IROL related to transfers related to the interconnecting transmission lines between their respective Reliability Coordinator Areas and Balancing Authority Areas. IROLs will be determined as needed This IROL is adhered to in order to maintain acceptable steady-state and transient performance of the NYISO and PJM Transmission Systems. Each Party will specify in its procedures the list of interfaces to which IROLs apply. EachBoth Partyies will monitor these limits for their respective IROLs this limit in accordance with this Agreement and independently determine the applicable import and export transfer limits. EachBoth Partyies agrees to operate the NYISO – PJM interface to the most conservative limits developed in real-time and the day-ahead planning process. These operating limits shall be determined in accordance with Standards Authority Standards. Both Parties will take coordinated corrective actions, when requested by either Party, to avoid an exceedance violation of anythe IROL identified. If an exceedance violation occurs, actions will be taken to clear the exceedance-violation as soon as possible, and in accordance with Standards Authority Standards.

35.5.10 Coordination and Exchange of Information Regarding System Planning

The Parties shall exchange information and coordinate regarding system planning and inter-regional planning activities in a manner consistent with Standards Authority Standards and

1 NYISO procedures are defined as ISO Procedures in the NYISO OATT. *See*, NYISO Emergency Operations Manual, available at https://www.nyiso.com/documents/20142/2923301/em_op_mnl.pdf/99ef389d-4bca-fc0e-f12e-d91c0763cdca. PJM's procedures are set forth in PJM Manual 37, section 3, SOL and IROL Limits available at: https://www.pjm.com/-/media/documents/manuals/m37.ashx

<u>2 See</u>, NYISO Emergency Operations Manual Table A-6 and PJM Manual 37, section 3, SOL and IROL Limits available at: https://www.pjm.com/-/media/documents/manuals/m37.ashx.

consistent with the requirements of confidentiality agreements or rules binding upon either of the				
Parties.				

35.21 Schedules A and B

Schedule A - Description Of Interconnection Facilities

The NYISO – PJM Joint Operating Agreement covers the PJM – NYISO *Interconnection Facilities* under the *Operational Control* of the NYISO and PJM.

NYISO and PJM shall jointly develop and maintain a 'PJM – NYISO Interconnection Facilities List' (including a description of the facilities and metering points) and post the most current mutually agreed upon list on their respective public websites. The Parties may jointly revise the list by mutual written agreement. After the Parties mutually agree to changes, NYISO and PJM shall post an updated list on their respective websites. Neither Party shall knowingly post a list that includes changes that are not the product of mutual agreement.

The PJM-NYISO *Interconnection* contains twenty-five (25) alternating current ("AC") *Interconnection Facilities*, seven (7) of which form one (1) AC pseudo-tie¹; and further contains two (2) HVDC *Interconnection Facilities* as well as one (1) *Variable Frequency Transformer* (VFT).

For *Operational Control* purposes, the point of demarcation for each of the *Interconnection Facilities* listed below is the point at which each the *Interconnection Facility* crosses the PJM-New York State boundary, except as otherwise noted in the PJM – NYISO Interconnection Facilities List posting below.

The PJM-NYISO Interconnection contains twenty-five (25) alternating current ("AC") Interconnection Facilities, seven (7) of which form one (1) AC pseudo-tie2; and further contains two (2) HVDC Interconnection Facilities as well as one (1) Variable Frequency Transformer (VFT). These are tabulated below:

NY/PJM Interconnection Facilities:

PJM NYISO Designated (kV) Common Meter Point(s) Hopatcong Ramapo 5018 500 Ramapo Cresskill Sparkill 751 69 Cresskill N. Waverly 956 115 E. Sayre E. Savre 70 E. Towanda Hillside 230 **Hillside** Erie East South Ripley 69 230 South Ripley 703 138 Harings Harings Corners Corporate Drive Harings Corners Pearl River 45 34 Harings Harings Corners W. Nyack 701 69 Mainesburg Watercure 30 345 **Mainesburg** Homer City Mainesburg 47 345 Homer & Mainesburg

¹ WEQ-007 "Inadvertent Interchange Payback Standards," North American Energy Standards Board (NAESB), online at www.naesb.org.

²WEQ-007 "Inadvertent Interchange Payback Standards," North American Energy Standards Board (NAESB), online at www.naesb.org.

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Pierce Brook Five Mile Rd. 37 345 Pierce Brook
Homer City Pierce Brook 48
                          345
                               Homer & Pierce Brook
Marion Farragut
             C3403 345 Farragut
                    B3402 345
Hudson
          Farragut
                               -Farragut
          Goethals
                     A2253 230
                                Goethals
Linden VFT Linden Cogen VFT 345
                               Linden VFT
                     491
                          69
Montvale
         Pearl River
                               - Montvale
Montvale
         Blue Hill
                     44
                          69
                               - Montvale
Montvale
         Blue Hill
                     43
                          69
                               Montvale
S. Mahwah Hilburn
                     65 69
                               S. Mahwah
S. Mahwah BK 258
                               138/345
                                          S. Mahwah
S. Mahwah Ramapo 51 138 S. Mahwah
Waldwick S. Mahwah J3410 345 Waldwick
Waldwick S. Mahwah K3411 345 Waldwick
Tiffany
         Goudey
                    952 115 Goudey
         <del>Falconer</del>
Warren
                    <del>171 115 Warren</del>
RECO NYISO AC Pseudo-Tie Various
Sayerville Newbridge HVDC-Tie 500 Newbridge
Bergen West 49th HVDC-Tie Y56 345 Bergen
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The following table identifies NY/PJM Interfaces at which NYISO and PJM are Authorized to Consider CTS Interface Bids:

PJM Interface Name	PNODE ID	Corresponding NYISO Proxy Generator Buses ³	PTID
NYIS	5413134	PJM_GEN_KEYSTONE	24065
NYIS	5413134	PJM_LOAD_KEYSTONE	55857
LindenVFT	81436855	PJM_GEN_VFT_PROXY	323633
LindenVFT	81436855	PJM_LOAD_VFT_PROXY	355723
Neptune	56958967	PJM_GEN_NEPTUNE_PROXY	323594
Neptune	56958967	PJM_LOAD_NEPTUNE_PROXY	355615
HudsonTP	1124361945	PJM_HTP_GEN	323702
HudsonTP	1124361945	HUDSONTP_345KV_HTP_LOAD	355839

³ See NYISO Market Administration and Control Area Services Tariff Section 4.4.4 for additional information.

Schedule B - Other Existing Agreements:

- 1.0 Lake Erie Emergency Redispatch (LEER)
- 2.0 RAMAPO PHASE ANGLE REGULATOR OPERATING PROCEDURE prepared by the NYPP/PJM Circulation Study Operating Committee.
- 3.0 Northeastern ISO/RTO Coordination of Planning Protocol
- 4.0 Inter Control Area Transaction Agreement.
- 5.0 Procedures to Protect for Loss of Phase II Imports (effective January 16, 2007, pursuant to Order issued January 12, 2007, in FERC Docket No. ER07-231-000).
- Joint Emergency Operating Protocol dated September 10, 2009, among PJM Interconnection, L.L.C., New York Independent System Operator, Inc., and Linden VFT, LLC (Filed by PJM on October 1, 2009, in FERC Docket No. ER09-996-000).



NYISO-PJM JOINT OPERATING AGREEMENT CERTIFICATE OF CONCURRENCE

This is to certify that PJM Interconnection, L.L.C. ("PJM") assents to and concurs with the revisions to the Joint Operating Agreement Among and Between New York Independent System Operator, Inc. and PJM Interconnection, L.L.C. ("JOA") described below, which the New York Independent System Operator, Inc. ("NYISO") filed on December 15, 2023 ("December 15 JOA Filing"). NYISO is the designated filing party for the JOA. PJM hereby files this certificate of concurrence in lieu of filing the rate schedule specified below.

Tariff Designations:

New York Independent System Operator Inc. NYISO OATT 35 Attachment CC

PJM Interconnection, L.L.C. FERC Electric Tariff, Second Revised Rate Schedule FERC No. 45

Respectfully submitted, PJM Interconnection, L.L.C. By: /s/ Erin Lai

Erin Lai Senior Counsel PJM Interconnection, L.L.C.

Dated: December 15, 2023