

Attachment IV

2.4 Open-Access Same Time Information System (“OASIS”)

Terms and conditions regarding Open Access Same-Time Information System and Standards of Conduct are set forth in Part 37 of the Commission’s regulations (“Open Access Same-Time Information System and Standards of Conduct for Public Utilities”) and 18 C.F.R. § 38 of the Commission’s regulations (Business Practice Standards and Communication Protocols for Public Utilities). The ISO will maintain an OASIS, including a Bid/Post System, for purposes of scheduling Transmission Service.

The ISO shall post on OASIS and its public website an electronic link to all rules, standards and practices that (i) relate to the terms and conditions of Transmission Service, (ii) are not subject to a North American Energy Standards Board (NAESB) copyright restriction, and (iii) are not otherwise included in this Tariff. The ISO shall post on OASIS and on its public website an electronic link to the NAESB website where any rules, standards and practices that are protected by copyright may be obtained. The ISO shall also post on OASIS and its public website an electronic link to a statement of the process by which the ISO shall add, delete or otherwise modify the rules, standards and practices that are not included in this tariff. Such process shall set forth the means by which the ISO shall provide reasonable advance notice to Transmission Customers and Eligible Customers of any such additions, deletions or modifications, the associated effective date, and any additional implementation procedures that the ISO deems appropriate.

For the Champlain Hudson Power Express MTF, the MTF Provider (CHPE, LLC) will administer an OASIS to manage MTF Reservations. Transmission Customers that hold valid MTF Reservations will be eligible to submit Bids to schedule Energy Imports that the ISO will evaluate for possible scheduling. Import schedules will be posted on the ISO’s OASIS.

3 Point-To-Point Transmission Service

Preamble

The ISO will provide Firm Point-To-Point Transmission Service pursuant to the applicable terms and conditions of this Tariff over the NYS Transmission System.

Point-To-Point Transmission Service is for the receipt of Energy at designated Point(s) of Receipt and the transfer of such Energy to designated Point(s) of Delivery. Firm Point-To-Point Transmission Service is service for which the Transmission Customer has agreed to pay the Congestion Rent associated with its service. A Transmission Customer may fix the price of Day-Ahead Congestion Rent associated with its Firm Point-To-Point Transmission Service by acquiring sufficient TCCs with the same Points of Receipt and Delivery as its Transmission Service. Notwithstanding any provision in this Part to the contrary, External Transactions scheduled at the Proxy Generator Buses associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, or the HTP Scheduled Line shall be subject to the requirements of Attachment N to the ISO Services Tariff. Imports scheduled at the Proxy Generator Bus associated with the Champlain Hudson Power Express MTF shall be subject to the MTF Reservation and transaction scheduling requirements in Section 41 of the ISO OATT. Each Transmission Customer also utilizes Market Services and shall take service under the ISO Market Services Administration and Control Area Services Tariff.

3.1 Nature of Firm Point-To-Point Transmission Service

3.1.1 Term:

The minimum term of Firm Point-To-Point Transmission Service shall be provided in nominal one hour increments and the maximum term shall not exceed the maximum permissible term as specified in ISO Procedures.

3.1.2. Reservation Priority:

All requests for Firm Point-to-Point Transmission Service will be deemed to have the same reservation priority. Firm Point-to-Point Transmission Service will have the same priority as Network Service subject to Section 3.1.6.

3.1.3 Use of Firm Transmission Service by the Transmission Owner(s):

The Transmission Owner will be subject to the rates, terms and conditions of Part 3 of the Tariff when making Third-Party Sales under (i) agreements executed on or after the effective date of ISO, or (ii) agreements executed prior to the aforementioned date that the Commission requires to be unbundled, by the date specified by the Commission. The Transmission Owners will maintain separate accounting, pursuant to Section 2.8, for any use of the Point-To-Point Transmission Service to make Third-Party Sales.

3.1.4 Service Agreements:

The ISO shall offer a standard form Firm Point-To-Point Transmission Service Agreement (Attachment A) to an Eligible Customer when it submits a Completed Application for Firm Point-To-Point Transmission Service. Executed Service Agreements that contain the information required under this Tariff shall be filed with the Commission in compliance with applicable Commission regulations.

3.1.5 Transmission Customer Obligation for Facility Additions or Redispatch Cost:

The ISO continuously redispatches all resources subject to its control in order to meet Load and to accommodate requests for a Firm Transmission Service through the use of SCUC, RTC, and RTD. Firm Point-To-Point Transmission Customers are charged for these redispatch costs in accordance with Attachment J. Transmission Owner(s) will be obligated to expand or upgrade its Transmission System pursuant to the terms of Section 3.7. The Transmission Customer or Eligible Customer must agree to compensate the Transmission Owner(s) for any necessary transmission facility additions pursuant to Section 3.7.

3.1.6 Curtailment of Firm Transmission Service:

In the event that a Curtailment on the NYS Transmission System, or a portion thereof, is required to maintain reliable operation of such system, Curtailments will be made on a non-discriminatory basis to the Transaction(s) that effectively relieve the Constraint. When applicable, the ISO will follow the Lake Erie Emergency Redispatch (“LEER”) Procedure filed on February 26, 1999, in Docket No. EL99-52-000 which is incorporated by reference herein. The LEER Procedure is intended to prevent the necessity of implementing the Curtailment procedures contained in the Commission and NERC tariffs and policies. To the extent possible, Curtailments of External Transactions at the Proxy Generator Buses associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, or the HTP Scheduled Line shall be based on the transmission priority of the associated Advance Reservation for use of the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, or the HTP Scheduled Line (as appropriate). Curtailments of Energy schedules on the Champlain Hudson Power Express MTF will be determined consistent with Sections 41.3.1.8 and 16.3.4.4.2 of the ISO OATT. The ISO reserves the right to Curtail Firm

Transmission Service provided under this Tariff for reliability reasons, in whole or in part, when, in the ISO's sole discretion, an Emergency or other unforeseen condition threatens to or does impair or degrade the reliability of the NYS Power System. The ISO will notify all affected Transmission Customers in a timely manner of any scheduled Curtailments. If the ISO declares a Major Emergency State, Transmission Customers shall comply with all directions issued by the ISO concerning the avoidance, management, and alleviation of the Major Emergency and shall comply with all procedures concerning a Major Emergency set forth in the ISO Procedures and the Reliability Rules. If the ISO is required to Curtail Transmission Service as a result of a Transmission Loading Relief ("TLR") event, the ISO will perform such Curtailment in accordance with the NERC TLR Procedure.

3.1.7 Classification of Firm Transmission Service:

3.1.7.1 The Transmission Customer taking Firm Point-To-Point Transmission Service may request a modification of the Points of Receipt or Delivery pursuant to the terms of Section 3.15.

3.1.7.2 The ISO shall provide firm Transmission Service for the delivery of Energy from the Point(s) of Receipt to the Point(s) of Delivery. Each Point of Receipt shall be set forth in the Firm Point-To-Point Service schedule submitted by the Transmission Customer.

3.1.8 Scheduling of Firm Point-To-Point Transmission Service:

3.1.8.1 In the Day-Ahead Market: Schedules for the Transmission Customer's Firm Point-to-Point Transmission Service Day-Ahead must be submitted to the ISO no later than 5:00 a.m. of the day prior to commencement of the Dispatch Day or 4:50 a.m. for Transmission Service over the Cross-Sound Scheduled Line,

the Neptune Scheduled Line, the Linden VFT Scheduled Line, ~~or~~ the HTP Scheduled Line, or the Champlain Hudson Power Express MTF. Schedules involving the use of LIPA's facilities shall be treated in accordance with Section 2.5.7. Schedules submitted after 5:00 a.m., or 4:50 a.m. as appropriate, will not be accepted in the Day-Ahead schedule. Schedules of Energy to be delivered must be stated in increments of 1,000 kWh per hour between each Point of Receipt and corresponding Point of Delivery. For Firm Transmission Service requests between a Point of Receipt and Point of Delivery that are internal to the NYCA, and between a Point of Receipt at the Proxy Generator Bus designated for Imports and a Point of Delivery that is a Load Bus internal to the NYCA, the ISO will furnish to the Transmission Customer hour-to-hour schedules equal to those requested and shall deliver the Energy provided by such schedules. Energy shall be provided from the Point of Receipt if economic, and from the LBMP Market otherwise. For Firm Transmission Service requests between a Point of Delivery at the Proxy Generator Bus designated for Exports and a Point of Receipt that is a Generator Bus internal to the NYCA the ISO will furnish to the Transmission Customer, hour-to-hour schedules equal to the Export Transaction schedule and shall deliver the Energy provided by such schedules. For Firm Transmission Service requests between a Point of Receipt at the Proxy Generator Bus designated for Imports and a Point of Delivery at the Proxy Generator Bus designated for Exports, the ISO will furnish to the Transmission Customer hour-to-hour schedules equal to the Wheel-Through Transaction schedule and shall deliver the Energy provided by such schedules. Should the Transmission

Customer revise or terminate any schedule, such party shall notify the ISO prior to the close of the Real-Time Scheduling Window, and the ISO shall have the right to adjust accordingly the schedule for Energy to be received and to be delivered.

3.1.8.2 In the Real-Time Market: Schedules for the Transmission Customer's Firm Point-to-Point Transmission Service in Real-Time must be submitted to the ISO no later than the close of the Real-Time Scheduling Window.

Schedules involving the use of LIPA's facilities shall be treated in accordance with Section 2.5.7. Schedules submitted after the close of the Real-Time Scheduling Window shall not be accepted in the Real-Time schedule.

Schedules of any Energy that is to be delivered must be stated in increments of 1,000 kWh per hour between each Point of Receipt and corresponding Point of Delivery. For Firm Transmission Service requests between a Point of Receipt and Point of Delivery that are internal to the NYCA, or between a Point of Receipt at the Proxy Generator Bus designated for Imports and a Point of Delivery that is a Load Bus internal to the NYCA, the ISO will furnish to the Transmission Customer schedules equal to those requested and shall deliver the Energy provided by such schedules. Energy shall be provided from the Point of Receipt if economic, and from the LBMP Market otherwise. For Firm Transmission Service requests between a Point of Delivery at the Proxy Generator Bus designated for Exports and a Point of Receipt that is a Generator Bus internal to the NYCA, the ISO will furnish to the Transmission Customer schedules equal to the Export Transaction schedule and shall deliver the Energy provided by such schedules.

For Firm Transmission Service requests between a Point of Receipt at the Proxy Generator Bus designated for Imports and a Point of Delivery at the Proxy Generator Bus designated for Exports, the ISO will furnish to the Transmission Customer hour-to-hour schedules equal to the Wheel-Through Transaction schedule and shall deliver the Energy provided by such schedules. Should the Transmission Customer revise or terminate any schedule, such party shall notify the ISO prior to the close of the Real-Time Scheduling Window and the ISO shall have the right to adjust accordingly the schedule for Energy to be received and to be delivered.

9 Attachment C - Methodology to Assess Available Transfer Capability

The ISO shall calculate Available Transfer Capability ("ATC") according to the procedures set forth in this Attachment C which adopts the "Rated System Path Methodology" established by the North American ~~Electric~~ Energy Standards Board Wholesale Electric Quadrant (WEQ) Standard WEQ-023~~Reliability Corporation's Reliability Standard MOD-029-1a~~, or its successors. Additional information and detail shall be set forth in the ISO's ATC Implementation Document ("ATCID").

9.1 Overview

The ISO shall calculate and post ATC values for its Internal and External Interfaces and for Scheduled Lines. The ISO's Interfaces represent a defined set of transmission facilities that separate Locational Based Marginal Pricing (LBMP) Load Zones within the New York Control Area and that separate the New York Control Area from adjacent Control Areas. External Interfaces may be represented by one or more Proxy Generator Buses for scheduling and dispatching purposes. Each Proxy Generator Bus may be associated with distinct, posted ATC values. Scheduled Lines represent a transmission facility or set of transmission facilities that provide a separate scheduling path interconnecting the ISO to an adjacent Control Area. Each Scheduled Line is associated with a distinct Proxy Generator bus for which the ISO separately posts ATC.

Hourly ATCs for the current day and for the next six days, and daily and monthly ATCs shall be calculated for all External Interfaces and for Scheduled Lines. Specifically, for External Interfaces and for all Scheduled Lines, the ISO shall calculate: (i) hourly ATC values for at least the next forty eight hours; (ii) daily values for at least the next thirty one calendar days; and (iii) monthly values for at least the next twelve months (*i.e.*, months 2-13). For External Interfaces

and for all Scheduled Lines, the ISO shall recalculate ATC at a minimum on the following frequency, unless none of the calculated values identified in its ATC equation have changed: (i) for hourly values, once per hour (subject to the exception in MOD-001-1a which allows transmission service providers up to 175 hours per year during which calculations are not required); (ii) for daily values, once per day; and (iii) for monthly values, once per week. Hourly ATCs shall be calculated for all Internal Interfaces for the current day and for the next day. To the extent necessary for compliance with MOD-001-1a, the ISO: (i) accounts for the impacts of its internal congestion on its external interfaces as accurately as possible; and (ii) calculates internal flows in order to fulfill its obligation to calculate external flows. External ATC calculations shall be performed with models that depict system conditions consistent with the expected internal flows.

The ISO's calculation of ATC shall reflect its provision of transmission service under an LBMP system pursuant to the schedules produced by its Day-Ahead Market software (the "Security Constrained Unit Commitment" ("SCUC")) and Real-Time Market software (the "Real Time Commitment" ("RTC")) in the form of "Transmission Flow Utilization" information which is incorporated into the ISO's ATC equation as specified in sections 9.2 and 9.4, below.

The ISO continuously redispatches all resources subject to its control in order to meet Load and to accommodate requests for Firm Transmission Service through the use of SCUC, RTC, and its Real-Time Dispatch software. If the posted ATC value for an Interface is zero that is an indication that the Interface is congested. The ISO may, however, still be able to provide additional Firm Transmission Service over such Interfaces through redispatching and other schedule adjustments directed by the SCUC and RTC algorithms that will be incorporated into the Transmission Flow Utilization component of its ATC equation.

SCUC creates the ISO's Day-Ahead Market schedules and prices by performing a series of commitment and dispatch runs. The SCUC algorithm simultaneously minimizes the ISO's total Bid Production Cost of: (i) supplying power or demand reductions to satisfy accepted purchasers' Bids to buy Energy from the Day-Ahead Market; (ii) providing sufficient Ancillary Services to support Energy purchased from the Day-Ahead Market consistent with the Regulation Service Demand Curve and Operating Reserve Demand Curve; (iii) committing sufficient Capacity to meet the ISO's Load forecast and provide associated Ancillary Services; and (iv) meeting Bilateral Transaction schedules submitted Day-Ahead excluding schedules of Bilateral Transactions with Trading Hubs as their POWs. The power flow information produced by the SCUC algorithm is incorporated into the ISO's ATC calculations as Transmission Flow Utilization_{Firm} data pursuant to sections 9.2 and 9.4, below.

RTC is a multi-period security constrained unit commitment and dispatch model that cooptimizes to solve simultaneously for Load, Operating Reserves and Regulation Service on a least as-bid production cost basis over a two hour and fifteen minute optimization period. RTC makes binding unit commitment and de-commitment decisions for the periods beginning fifteen minutes (in the case of resources that can respond in ten minutes) and thirty minutes (in the case of resources that can respond in thirty minutes) after the scheduled posting time of each RTC run, provides advisory commitment information for the remainder of the two and a half hour optimization period, and will produce binding schedules for External Transactions to begin at the start of each quarter hour. RTC co-optimizes to solve simultaneously for all Load, Operating Reserves and Regulation Service requirements and to minimize the total as bid production costs over its optimization timeframe. RTC considers SCUC's resource commitment for the day, load forecasts that RTC itself will produce each quarter hour, binding transmission constraints, and all

Real-Time Bids and Bid parameters. The schedules produced by RTC are incorporated into the ISO's ATC calculation as Transmission Flow Utilization_{Firm} data pursuant to sections 9.2 and 9.4 below.

At the conclusion of the SCUC and RTC processes, the ISO's software performs the calculation for determining ATC values for the current day and the next day in accordance with section 9.2. Hourly or quarter-hourly ATC values are then posted to the ISO's OASIS. In addition, the ISO's long-term ATC calculator software runs twice a day and calculates daily and monthly ATC values, and hourly values further ahead than the next day, for the ISO's External Interfaces and all Scheduled Lines, which are in turn posted to the ISO's OASIS.

When calculating ATC the ISO shall use assumptions no more limiting than those used in the planning of operations, for the corresponding time period studied, provided that such planning of operations has been performed for that time period. When different inputs are used in ATC calculations because the calculations are performed at different times, such that the most recent information is used in any calculation, a difference in that input data shall be not be considered to be a difference in assumptions.

9.2 Methodology for Computing Firm ATC

The ISO calculates hourly Firm ATC based on the market schedules determined using its SCUC process for the Day-Ahead Market and its RTC processes for the Real-Time Market for the next day and current day time periods. These ATC values shall be posted for all Interfaces and Scheduled Lines in compliance with applicable North American Energy Standards Board requirements. The ISO also calculates and posts Firm ATC for External Interfaces for the additional hourly, as well as the daily and monthly periods specified in section 9.1, above. The ISO does not calculate Non-Firm ATC because Non-Firm Point-To-Point Transmission Service

is not available in the markets that the NYISO administers.

When calculating Firm ATC (“ATC_F”) for all Interfaces for each of the time periods specified in section 9.1 above, the ISO shall use the algorithm established under Requirement 7 of MOD-029-1a. Specifically:

$$ATC_F = TTC - ETC_F - CBM - TRM + Postbacks_F + counterflows_F$$

Where

ATC_F is the firm Available Transfer Capability for the Interface for that period.

TTC is the Total Transfer Capability of the Interface for that period.

ETC_F is the sum of existing firm commitments for the Interface during that period (including Firm Transmission Flow Utilization).

CBM is the Capacity Benefit Margin for the Interface during that period.

TRM is the Transmission Reliability Margin for the Interface during that period.

Postbacks_F are changes to firm Available Transfer Capability due to a change in the use of Transmission Service for that period, as defined in Business Practices.

counterflows_F are the adjustments to ATC_F as determined by the ISO and specified in its ATCID.

When calculating Non-Firm ATC (“ATC_{NF}”) for all Interfaces for each of the time periods specified in section 9.1 above, the ISO shall use the algorithm established under Requirement 8 of MOD-029-1a. Specifically:

$$ATC_{NF} = TTC - ETC_F - ETC_{NF} - CBM_S - TRM_U + Postbacks_{NF} + counterflows_{NF}$$

Where

ATC_{NF} is the non-firm Available Transfer Capability for the Interface for that period.

TTC is the Total Transfer Capability of the Interface for that period.

ETC_F is the sum of existing firm commitments for the Interface during that period (including Firm Transmission Flow Utilization).

ETC_{NF} is the sum of existing non-firm commitments for the Interface during that period.

CBM_s is the Capacity Benefit Margin for the Interface that has been scheduled during that period.

TRM_U is the Transmission Reliability Margin for the Interface that has not been released for sale (unreleased) as non-firm capacity by the ISO during that period.

Postbacks_{NF} are changes to non-firm Available Transfer Capability due to a change in the use of Transmission Service for that period, as defined in Business Practices

counterflows_{NF} are the adjustments to ATC_{NF} as determined by the ISO and specified in its ATCID.

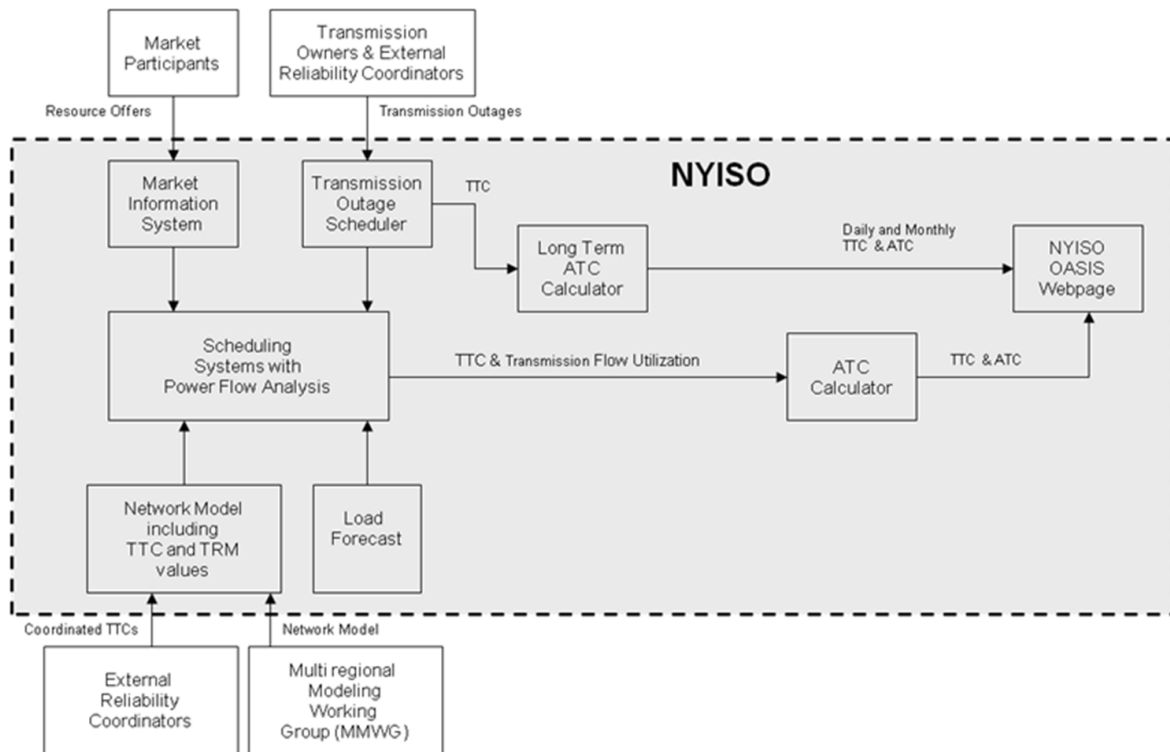
The ISO's ATC calculation algorithms are posted at the "ATC Detailed Algorithms" link at:http://www.nyiso.com/public/webdocs/market_data/power_grid_info/ATCDetailedAlgorithm.pdf

The MTF Provider will calculate ATC (but not TTC or CBM) for the Champlain Hudson Power Express MTF in accordance with Section 41.21 of the ISO OATT. The MTF Provider will use the ATC it calculates to determine available MTF Reservations. The ISO will calculate ATC for the Champlain Hudson Power Express MTF in accordance with Section 9 of its OATT. The ISO will use the ATC it calculates to determine the quantity of Energy it can schedule over the Champlain Hudson Power Express MTF.

9.3 Process Flow Diagram

The following diagram illustrates the process that the ISO follows when computing and posting ATC.

NYISO ATC Calculation Flow Diagram



9.4 Existing Transmission Commitments (“ETC”)

The ISO shall calculate ETC for firm Existing Transmission Commitments (ETCF) for a specified period for an Interface, using the formula established under Requirement 5 of MOD-029-1a. Specifically:

$$\text{ETCF} = \text{NLF} + \text{NITSF} + \text{GFF} + \text{PTPF} + \text{RORF} + \text{OSF}$$

Where:

NLF is the firm capacity set aside to serve peak Native Load forecast commitments for the time period being calculated, to include losses, and Native Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.

NITSF is the firm capacity reserved for Network Integration Transmission Service serving Load, to include losses, and Load growth, not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.

GFF is the firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."

PTPF is the firm capacity reserved for confirmed Point-to-Point Transmission Service.

RORF is the firm capacity reserved for Roll-over rights for contracts granting Transmission Customers the right of first refusal to take or continue to take Transmission Service when the Transmission Customer's Transmission Service contract expires or is eligible for renewal.

OSF is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using Firm Transmission Service as specified in the ATCID.

The ISO shall calculate ETC for non-firm Existing Transmission Commitments (ETCNF) for a specified period for an Interface, using the formula established under Requirement 6 of MOD-029-1a. Specifically:

$$\text{ETCNF} = \text{NITSNF} + \text{GFNF} + \text{PTPNF} + \text{OSNF}$$

Where:

NITSNF is the non-firm capacity set aside for Network Integration Transmission Service serving Load (i.e., secondary service), to include losses, and load growth not otherwise included in Transmission Reliability Margin or Capacity Benefit Margin.

GFNF is the non-firm capacity set aside for grandfathered Transmission Service and contracts for energy and/or Transmission Service, where executed prior to the effective date of a Transmission Service Provider's Open Access Transmission Tariff or "safe harbor tariff."

PTPNF is non-firm capacity reserved for confirmed Point-to-Point Transmission Service.

OSNF is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using non-firm transmission service as specified in the ATCID.

OS_F and OS_{NF} shall include a Transmission Flow Utilization value which shall be based on the market schedules determined using the SCUC and RTC market software for the current and next day time periods. The Day-Ahead Market and Real-Time Market schedules established by the market software are security constrained network powerflow solutions that are used to determine the Transmission Flow Utilization value for the ISO's Interfaces and Scheduled Lines.

Thus:

Transmission Flow Utilization_{Firm} for each Internal and External Interface is determined by the corresponding security constrained network powerflow solutions of SCUC or RTC, as applicable.

Transmission Flow Utilization_{Non-Firm} for each Internal and External Interface is the sum of Non-Firm Transactions scheduled.

Transmission Flow Utilization_{Firm} for Scheduled Lines is determined by the corresponding security constrained network powerflow solutions of SCUC or RTC, as applicable.

Transmission Flow Utilization_{Non-Firm} for Scheduled Lines is the sum of Non-Firm Transactions scheduled.

The Transmission Flow Utilization value for OS_F and OS_{NF} for time periods beyond the next day shall be zero because the ISO's Commission-approved market design does not permit transactions to be scheduled for such time periods.

9.5 Total Transfer Capability ("TTC")

The ISO shall develop TTC values for each Interface and Scheduled Line in conformance with all applicable requirements of MOD-001-1a and MOD-029-1a, or their successors.

External Interfaces may be represented by one or more Proxy Generator Buses for scheduling and dispatching purposes. Each Proxy Generator Bus associated with an External Interface may be associated with distinct, posted TTC values. Each Scheduled Line is associated with a distinct Proxy Bus for which the ISO separately posts a TTC value.

The TTC value for each Interface and Scheduled Line shall be the maximum amount of electric power that can be reliably transferred over the New York State Transmission System.

The ISO shall use studies that it performs, joint studies conducted with neighboring Control Areas, and real-time system monitoring to determine the appropriate TTC values. The TTC values are periodically reviewed and may be updated as warranted to ensure that accurate values are posted. When calculating TTC the ISO shall use assumptions no more limiting than those used in the planning of operations, for the corresponding time period studied, provided that such planning of operations has been performed for that time period. When different inputs are used in TTC calculations because the calculations are performed at different times, such that the most recent information is used in any calculation, a difference in that input data shall be not be considered to be a difference in assumptions.

Databases used in the determination of the TTC values include Eastern Interconnection Reliability Assessment system representations, and the ISO's Day-Ahead Market and Real-Time Market system representations.

The normal maximum Interface and Scheduled Line TTC values correspond to TTC assessments that assume: (1) all significant Bulk Power System transmission facilities are in service, (2) Capability Period forecast peak-load conditions, (3) no significant generation outages with generation output levels consistent with typical operation for Capability Period forecast peak-load conditions, and (4) coordination with neighboring Control Area transfer capability assessments.

Interface or Scheduled Line TTC values may be modified in response to identified transmission facility or generation outage conditions. TTC values may also be modified to account for neighboring Control Area transfer capability assessments for identified transmission facility or generation outage conditions, assuming the ISO receives timely notification of such conditions, or to account for operating conditions affecting the New York State Transmission

System.

9.6 Transmission Reliability Margin (“TRM”)

TRM is the amount of transmission transfer capability necessary to ensure that the interconnected transmission network remains secure under a reasonable range of system conditions. TRM accounts for the inherent uncertainty in system conditions and the need for operating flexibility to ensure reliable system operation as system conditions change.

The ISO shall maintain a TRM Implementation Document (“TRMID”) in compliance with the requirements of MOD-008-1, or its successors..

Databases used in the determination of the TRM values include the MultiRegional Modeling Working Group system representations and the ISO’s Day-Ahead Market and Real-Time Market system representations.

TRM equal to the sum of the following components shall be applied to calculations conducted up to eighteen months before the Dispatch Day to address unexpected system conditions including: (1) uncertainty in unscheduled loop or parallel flows ranging in value from zero (0) MW to five hundred (500) MW based on the greater of the average of the last three months of historical parallel flows observed for each External Interface or the average of the deviation in parallel flows observed over the last three months for each External Interface, (2) load forecast uncertainty (normally this value is set to zero (0) MW), (3) uncertainty in external system conditions (normally this value is set to zero (0) MW), and (4) External Interface transmission facility availability ranging in value from zero (0) MW to one thousand (1000) MW reflecting the uncertainty of transfer capability resulting from the most significant single transmission facility outage for each External Interface.

The TRM used for purposes of ATC calculations conducted for External Interfaces for

the Day-Ahead Market and the Real-Time Market shall be used to address unexpected system conditions equal to the sum of the following components: (1) uncertainty in unscheduled loop or parallel flows ranging in value from zero (0) to five hundred (500) MW based on the greater of the average of the last three months of historical parallel flows observed for each External Interface or the average of the deviation in parallel flows observed over the last three months for each External Interface, (2) load forecast uncertainty, normally of value zero (0) MW, and (3) uncertainty in external system conditions, normally of value zero (0) MW.

The TRM used for purposes of the ATC calculations conducted for Internal Interfaces for the Day-Ahead Market and the Real-Time Market shall normally be equal to the sum of the following components or a value of one hundred (100) MW, although the ISO may increase it above that level if necessary. TRM is applied to these ATC calculations to address unexpected system conditions including: (1) unscheduled loop or parallel flows normally of value zero (0) MW, (2) load forecast uncertainty normally of value zero (0) MW, (3) uncertainty in external and internal system conditions normally of value one hundred (100) MW, and (4) ISO Balancing Authority requirements normally of value zero (0) MW.

The TRM used for purposes of the ATC calculations conducted for Scheduled Lines for the Day-Ahead Market and the Real-Time Market shall normally be equal to the sum of the following components, which will ordinarily be expected to have a combined value of zero (0) MW, although the ISO may increase it above that level if necessary: (1) unscheduled loop or parallel flows ranging based on the average of the last three months of historical parallel flows observed for each associated External Proxy Generator Bus, normally of value zero (0) MW, (2) load forecast uncertainty, normally of value zero (0) MW, and (3) uncertainty in external system conditions, normally of value zero (0) MW.

TRM is used to decrement TTC from External and Internal Interfaces and from Scheduled Lines when calculating ATC. The ISO may, however, still be able to provide additional Firm Transmission Service over Internal Interfaces for Transmission Customers that are willing to pay congestion charges by redispatching the New York State Power System.

The specific values of TRM used on each Internal and External Interface and Scheduled Line are posted on the ISO's website. The TRM values are periodically reviewed by the ISO and may be updated as warranted. In compliance with Requirement 4 of MOD-008-1, or its successors, the ISO shall establish TRM values at least every thirteen months in accordance with its TRMID.

9.7 Capacity Benefit Margin

The ISO shall not set aside transmission capacity as CBM but shall maintain a CBM Implementation Document ("CBMID") in compliance with the requirements of MOD-004-1, or its successors, which shall include all of the information required by that Reliability Standard. In compliance with Requirements 5 and 6 of MOD-004-1, or its successors, the ISO shall establish CBM values at least every thirteen months in accordance with its CBMID.

9.8 Coordinated ATC Calculations

The ISO's seasonal operating studies are an input into its TTC calculations for External Interfaces that represent Control Area boundaries. The ISO coordinates those seasonal operating studies, and exchanges data necessary to support that coordination, with neighboring Control Areas.

The ISO also coordinates transmission outages and the TTCs associated with these system conditions, and exchanges related data, with neighboring Control Areas. The ISO's and neighboring Control Areas' practice is to provide relevant information to each other in sufficient

time for it to be incorporated into their own scheduling and ATC calculation processes. If a neighboring Control Area determines a more limiting TTC corresponding to a transmission outage, the ISO will use the other Control Area's TTC in its scheduling system (SCUC and RTC). These values are correspondingly used in the calculation of ATC consistent with the algorithms set forth in section 9.2 above.

12.4 Treatment of Confidential and Transmission System Information

This section deals with Confidential Information, including Transmission System Information. Confidential Information consists of: (1) data designated as such in NYPP Operating Policy OP-18 (or its successor); (2) any commercially sensitive information including, without limitation, trade secrets, equipment specific information (*e.g.*, Generator specific data such as heat rates, etc.), and business strategies, affirmatively designated as Confidential Information by its supplier or owner; and (3) Transmission System Information (“TSI”) that has not yet been posted on the OASIS or provided in some public forum such as a FERC filing. TSI is information: (1) that is commercially valuable and (2) access to which is necessary to buy, sell or schedule Energy, Capacity, Ancillary Services or Transmission Service. Examples of TSI include, but are not limited to, the following:

- Available Transfer Capability;
- Total Transfer Capability;
- Information regarding physical Curtailments and Interruptions;
- Information regarding Ancillary Services;
- Pricing for Transmission Service; and
- Discounts offered.

In the course of responding to requests for Energy, Capacity, Transmission Services or Ancillary Services, the ISO shall not disclose Confidential Information to any Market Participant. The ISO shall disclose data that is not Confidential Information, and information required to be disclosed by FERC, by posting the information on the OASIS. If an ISO Employee improperly discloses TSI to any Market Participant, the ISO shall immediately post the information on the OASIS and notify the Commission.

ISO Employees shall also report all improper disclosures of Confidential Information to the ISO compliance officer (as described in Section 12.11) or its designee immediately. In the case of an Emergency, the ISO may disclose such TSI, and then notify the Commission, posting the information on the OASIS as soon as practicable but no later than twenty-four (24) hours after the information is disclosed.

The procedures described in this section do not apply to the following:

- (1) communication of TSI between the ISO and the Transmission Owner's control centers, and other power pools or ISOs;
- (2) communication of non-public, operational information concerning natural gas-fueled generation from resources located within the New York Control Area between the ISO and the operating personnel of an interstate natural gas pipeline company for the purpose of promoting reliable service or operational planning;
- (3) communication of non-public, operational information concerning natural gas-fueled generation from resources located within the New York Control Area between the ISO and the operating personnel of natural gas local distribution companies ("LDCs") and/or intrastate natural gas pipeline companies for the purpose of promoting reliable service or operational planning, if such party has acknowledged, in writing, that it is prohibited from disclosing—or using anyone as a conduit for disclosure of—non-public, operational information received from the ISO to: (a) an employee other than operating personnel of that LDC and/or intrastate natural gas pipeline company, (b) a third party, or (c) any affiliate except for (i) the operating personnel of an affiliated interstate natural gas pipeline company, or (ii) the operating personnel of an intrastate pipeline which has a non-

disclosure agreement with the ISO. The operating personnel of an affiliated interstate natural gas pipeline company accepting non-public operational information pursuant to this section shall agree to comply with 18 CFR 284.12(b)(4)(ii). Unless otherwise authorized by the Commission, for purposes of this section LDC or intrastate pipeline “operating personnel” shall exclude employees engaged in marketing functions as defined by 18 CFR 358.3(c) or who make sales of natural gas;

- (4) communication of information from a Market Participant to the ISO;
- (5) information that is no longer Confidential Information because it was made public by posting it on the OASIS; or it was legally disclosed by a third party in good faith and without violating a trade secret, secrecy agreement or employment contract with a non-disclosure clause; or it was made public by a government agency, court or other process of law;
- (6) requests by a Market Participant for a report regarding the status of that Market Participant’s particular contracts or transactions. The ISO shall provide all Market Participants requesting a report the same type and level of detail of information;
- (7) information that is not listed in NYPP OP-18 and has not been designated by the supplier or owner as Confidential Information;
- (8) disclosures by the ISO that are authorized under ISO Services Tariff Attachment H Section 23.4.5.7 and its subsections (except as restricted in section 23.4.5.7.3.2) and Attachment K Section 26.1.6;

- (9) identification of a Generator first entering service, becoming Retired, or entering into or returning from a Mothball Outage or ICAP Ineligible Forced Outage, including dates thereof; and
- (10) New York State Transmission System reliability impacts that would occur if a Generator were unavailable due to events such as becoming Retired or entering a Mothball Outage or ICAP Ineligible Forced Outage.

If Confidential Information is required to be divulged in compliance with an order or a subpoena of a court or regulatory body other than FERC or the Commodity Futures Trading Commission (“CFTC”), the ISO will seek to obtain a protective order or other appropriate protective relief from the court or regulatory body, provided, however, that the ISO staff shall not be required to do any additional analysis to produce such information. With the exception of requests for Confidential Information submitted to the ISO from FERC or the CFTC, the ISO shall provide advance written or electronic notice to the parties providing the Confidential Information as soon as practicable upon receipt of such an order or a subpoena from a court or regulatory body, and the ISO shall not be held liable for any losses, consequential or otherwise, resulting from the ISO divulging such Confidential Information pursuant to a subpoena or an order of a court or regulatory body.

The ISO shall establish procedures for handling Confidential Information that minimize the possibility of intentional or accidental improper disclosure.

12.4.1 Information Provided to NYSERDA Consistent with Article 8, Title 9 of New York Public Authorities Law, Section 1854(19)

Article 8, Title 9 of New York Public Authorities Law, Section 1854(19) directs NYSERDA to, on its own or through a qualified entity, develop and administer a generation attribute tracking system. Consistent with Section 1854(19), the ISO will provide to NYSERDA

or its designee the following generation, delivery, and consumption data that is otherwise required to be maintained in confidence pursuant to this tariff: (i) generator output data; (ii) load consumption data; and (iii) import and export transaction data. The data provided will be summed to the monthly level, except where hourly data is required to support the generation attribute tracking system. The ISO shall provide this information pursuant to a confidentiality agreement with NYSERDA and/or its designee. The ISO shall, consistent with state rules or regulations that may provide for protected treatment of such information, request that Confidential Information be withheld from public disclosure by NYSERDA unless presented in masked or aggregated form. The ISO may also provide to NYSERDA and to sellers in NYSERDA programs revenue quality meter data that is not publicly available and that NYSERDA demonstrates it requires to administer such programs. The ISO shall not be held liable for any losses, consequential or otherwise, resulting from the ISO divulging such Confidential Information pursuant to the ongoing electronic delivery.

After Confidential Information has been provided to NYSERDA or its designee, the ISO shall immediately notify any affected Market Participant(s) when it becomes aware that a request for disclosure of such Confidential Information has been received by NYSERDA or its designee, or a decision to disclose such Confidential Information has been made by NYSERDA or its designee, at which time the ISO and the affected Market Participant(s) may respond before such information would be made public, pursuant to state rules or regulations that may provide for protected treatment of such information.

12.4.2 Information Provided to FERC Pursuant to FERC Order No. 760, or to the CFTC

The ISO is required to provide data and information to the FERC or its staff, pursuant to

FERC Order No. 760,¹ that is otherwise required to be maintained in confidence pursuant to this section. FERC Order No. 760 requires the ISO to engage in the ongoing electronic delivery of data related to physical and virtual offers and bids, market awards, resource outputs, marginal cost estimates, shift factors, TCCs, internal bilateral contracts, interchange pricing, capacity markets and uplift charges and credits. The ISO shall provide the data described in FERC Order No. 760 to the FERC or its staff on a continuous basis.

If the FERC or CFTC or their staff, during the course of an investigation or otherwise, requests information, in addition to the ongoing electronic delivery pursuant to FERC Order No. 760, from the ISO that is otherwise required to be maintained in confidence pursuant to this section, the ISO shall provide the requested information to the FERC or CFTC or their staff within the time provided for in the request for information. In providing the ongoing electronic delivery or additional requested information to the FERC or its staff or information requested by the CFTC, the ISO shall, consistent with any FERC or CFTC rules or regulations that may provide for privileged treatment of that information, request that the information be treated as confidential and non-public by the FERC or CFTC and their staff and that the information be withheld from public disclosure. The ISO shall not be held liable for any losses, consequential or otherwise, resulting from the ISO divulging such Confidential Information pursuant to the ongoing electronic delivery or an additional request under this paragraph.

After Confidential Information has been provided to the FERC or CFTC or their staff, the ISO shall immediately notify any affected Market Participant(s) when it becomes aware that a request for disclosure of such Confidential Information has been received by the FERC or CFTC

¹ *Enhancement of Electricity Market Surveillance and Analysis Through Ongoing Electronic Delivery of Data From Regional Transmission Organizations and Independent System Operators*, Order No. 760, 139 FERC ¶ 61,053 (2012) (“Order No. 760” or “the Order”).

or their staff, or a decision to disclose such Confidential Information has been made by the FERC or CFTC, at which time the ISO and the affected Market Participant(s) may respond before such information would be made public, pursuant to the FERC's and CFTC's rules and regulations that may provide for privileged treatment of information provided to the FERC or CFTC or their staff.

16.3 Transmission Service, Schedules and Curtailment

16.3.1 Requests for Bilateral Transaction Schedules

Firm Point-to-Point Transmission Service shall be available for internal Bilateral Transactions, CTS Interface Bids for Bilateral Transactions, Import and Export Bilateral Transactions, and Wheel-Through Transactions. Except as specified in Services Tariff section 4.4.1.2.2, External Transaction Bids may not vary over the course of an hour. Each such Bid must offer to import, export or wheel the same amount of Energy at the same price at each point in time within that hour. At Variably Scheduled Proxy Generator Buses that are not CTS Enabled Proxy Generator Buses, the ISO may vary External Transaction Schedules if the party submitting the Bid for such a Transaction indicates that the ISO may vary schedules associated with those Bids within the hour. The ISO will subject all CTS Interface Bids to variable scheduling in accordance with Services Tariff section 4.4.4. Transmission Customers may modify Bilateral Transactions that were scheduled Day-Ahead or propose new Bilateral Transactions, including External Bilateral Transactions, for economic evaluation within the Real-Time Market, provided however, that Bilateral Transactions with Trading Hubs as their POWs that were previously scheduled Day-Ahead may not be modified.

Transmission Customers scheduling Transmission Service to support a Bilateral Transaction with Energy supplied by an External Generator or Internal Generator shall submit the following information to the ISO:

- (1) Point of Injection location. For Transactions with Internal sources, the Point of Injection is the Generator's bus; for Transactions with Trading Hubs as their sources, the Point of Injection is the Trading Hub Generator bus; for Transactions

with External sources, the Point of Injection is the Proxy Generator Bus designated for Imports.

- (2) Point of Withdrawal location. For Transactions to serve Internal Load, the Point of Withdrawal is the Load bus; for Transactions to serve External load, the Point of Withdrawal is the Proxy Generator Bus designated for Exports; for Transactions with Trading Hubs as their sinks, the Point of Withdrawal is the Trading Hub Load bus; for Transactions to serve a Withdrawal-Eligible Generator, the Point of Withdrawal is the Generator bus;
- (3) Desired hourly MW schedules;
- (4) NERC Tag data;
- (5) A Sink Price Cap Bid for Export Transactions up to the MW level of the desired schedule, a Decremental Bid for Import and Wheel Through Transactions up to the MW level of the desired schedule; or a CTS Interface Bid for Transactions other than Wheels Through at CTS Enabled Proxy Generator Buses;
- (6) A direction for the desired flow for CTS Interface Bids submitted at the CTS Enabled Proxy Generator Buses; and
- (7) Other data required by the ISO.

16.3.2 ISO's General Responsibilities

The ISO shall evaluate requests for Bilateral Transactions, and associated Transmission Service, submitted in the Day-Ahead scheduling process using Security Constrained Unit Commitment ("SCUC"), and will subsequently establish a Day-Ahead schedule. During the Dispatch Day, the ISO shall use the Real-Time Market to establish schedules for each hour of dispatch in that day.

The ISO shall use the information provided by Real-Time Market when making Curtailment decisions pursuant to the Curtailment rules described in Section 16.3.4 of this Attachment J.

16.3.3 Scheduling of Bilateral Transactions in the Day-Ahead Market and Real-Time Market

16.3.3.1 ISO Responsibilities

The ISO shall model Bids for Import Bilateral Transactions and Bids for Export Bilateral Transactions as Bids to buy or sell a block of MW at a single price at their respective buses.

The ISO shall compute all NYCA Interface Transfer Capabilities and interface Ramp and NYCA Ramp capabilities prior to scheduling Transmission Service Day-Ahead and in real-time. The ISO shall evaluate (i) Decremental Bids from entities engaged in Bilateral Import Transactions and Wheels Through, (ii) Bids from entities engaged in Imports to the LBMP Market,; (iii) CTS Interface Bids from entities engaged in Imports and Exports at CTS Enabled Proxy Generator Buses; (iv) Energy Bids from internal Generators; (v) Sink Price Cap Bids from entities engaged in Bilateral Export Transactions; and (vi) Bids from entities engaged in Exports from the LBMP Market simultaneously when committing internal Generators and scheduling Import, Export and Wheel Through Transactions and Imports and Exports to and from the LBMP Market in the Day Ahead and Real-Time Markets, provided however, the ISO shall also evaluate Price Capped Load Bids simultaneously with (i) through (vi) in the Day Ahead Market.

16.3.3.2 Scheduling Internal Bilateral Transactions

The ISO shall schedule Firm Transmission Service between the Point of Injection, at the Generator bus, to the Point of Withdrawal, at the Load bus or the Generator bus for a Withdrawal-Eligible Generator, equal to the request for Transmission Service in both the Day-

Ahead and Real-Time Markets. The ISO shall use Energy Bids to determine commitment and dispatch schedules for internal Generators including those providing Energy for an Internal Bilateral Transaction.

16.3.3.2.1 Transition Requirement for Withdrawal Eligible Generators

This rule applies to Withdrawal-Eligible Generators that are changing status and will cease being withdrawal-eligible. The Market Participant that is responsible for a Withdrawal-Eligible Generator's participation in the Energy Market is also responsible for ensuring that it does not confirm any Bilateral Transactions that would result in a former Withdrawal-Eligible Generator being the sink of a Bilateral Transaction at a time when it will no longer be withdrawal-eligible.

16.3.3.3 Scheduling Export Bilateral Transactions and Firm Point-to-Point Transmission Service to Support Them

The ISO shall use Bids supplied by Transmission Customers proposing Export Bilateral Transactions in the Day Ahead and Real-Time Markets to determine the amount of Energy scheduled to be exported under those Transactions in the Day-Ahead and Real-Time Markets respectively. The ISO shall not schedule Energy to be exported in amounts that exceed the Transfer Capability of the Interface.

The ISO shall schedule in the Day-Ahead and Real-Time Markets Firm Transmission Service for Export Bilateral Transactions between the Point of Receipt at the internal Generator bus and the Point of Delivery at the Proxy Generator Bus in an amount equal to the amount of Energy scheduled to be exported under those Transactions Day-Ahead and in real-time respectively.

The ISO shall use Energy Bids supplied by internal Generators designated as supporting Export Bilateral Transactions scheduled with Firm Transmission Service in the Day Ahead and Real-Time Markets to determine the Generator's commitment and dispatch schedule.

16.3.3.4 Scheduling Import Bilateral Transactions and Firm Point-to-Point Transmission Service to Support Them

The ISO shall use Bids from Transmission Customers proposing Import Bilateral Transactions in the Day Ahead and Real-Time Markets to determine the amount of Energy scheduled to be imported under those Transactions in the Day-Ahead and Real-Time Markets respectively. The ISO shall not schedule Energy to be imported in amounts that exceed the Transfer Capability of the Interface. The ISO shall schedule Firm Transmission Service in the Day-Ahead and Real-Time Markets for Import Bilateral Transactions between the Point of Receipt at the Proxy Generator Bus and the Point of Delivery at the Load bus equal to the amount of Transmission Service requested to support those Transactions Day-Ahead and in real-time respectively. Import Bilateral Transactions are not permitted to sink at a Generator bus for a Withdrawal-Eligible Generator.

16.3.3.5 Scheduling Wheel Through Bilateral Transactions and Firm Point-to-Point Transmission Service to Support Them

The ISO shall use Decremental Bids supplied by Transmission Customers proposing Wheel-Through Transactions in the Day Ahead and Real-Time Markets to determine the amount of Energy scheduled to be wheeled under those Transactions Day-Ahead and in real-time respectively. The ISO shall schedule Firm Transmission Service in the Day-Ahead and Real-Time Markets between the Point of Receipt at a Proxy Generator Bus designated for Imports and the Point of Delivery at a Proxy Generator Bus designated for Exports equal to the amount of

Energy scheduled to be imported and Wheeled Through under those Transactions Day-Ahead and in real-time respectively.

16.3.3.6 Scheduling Non Firm Transmission Service

Non-Firm Point-To-Point Transmission Service is not available in the markets that the NYISO administers.

16.3.3.7 Scheduling External Transactions at the Proxy Generator Buses Associated with Scheduled Lines or the Champlain Hudson Power Express MTF

Scheduling External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, and the HTP Scheduled Line shall also be governed by Section 29, Attachment N to the ISO Services Tariff. Facility-specific rules addressing the Champlain Hudson Power Express MTF are set forth in Attachment II to (Section 41 of) this OATT.

16.3.3.8 Prohibited Transmission Paths

The ISO shall not permit Market Participants to schedule External Transactions over the following prohibited scheduling paths:

1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario (“IESO”), and to sink in the Control Area operated by PJM Interconnection, LLC (“PJM”);
2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA’s common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;

3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and
8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

The ISO may add additional prohibited scheduling paths to the above list when the ISO, acting in consultation with its Market Monitoring Unit, determines that one or more scheduling paths are being used to schedule External Transactions in a manner that is not consistent with the

manner in which power is actually expected to flow. The ISO shall inform its Market Participants of the additional prohibited scheduling path or paths by providing notice at least one week in advance of the implementation of any such prohibition. At the time the NYISO provides notice to its Market Participants the ISO shall submit a compliance filing in FERC Docket No. ER13-780 requesting authority to update the above list to reflect the additional prohibited scheduling path or paths. Any such compliance filing will include: (1) an explanation of the scheduling behavior the ISO has identified and why that behavior presents a concern to the ISO and its Market Monitoring Unit; and (2) an explanation of why the ISO believes that the problem it has identified can be remedied or mitigated by adding one or more new prohibited scheduling paths. The compliance filing will also include, or be accompanied by, a discussion of the Market Monitoring Unit's position regarding the ISO's proposal to add a new prohibited scheduling path or new prohibited scheduling paths. Unless FERC acts on the ISO's compliance filing, the ISO shall implement the new scheduling path prohibition(s) on the date proposed in its compliance filing.

The responsibilities of the Market Monitoring Unit that are addressed in this Section are also addressed in Section 30.4.6.8.1 of the Market Monitoring Plan, Attachment O to the ISO Services Tariff.

16.3.4 Bilateral Transaction Adjustments, Curtailments and Settlements

The DNI between the NYCA and adjoining Control Areas will be adjusted as necessary to reflect the effects of any Curtailments of Import or Export Transactions.

To the extent possible, Curtailments of External Transactions at the Proxy Generator Bus associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, and the HTP Scheduled Line (but not the Champlain Hudson Power Express

MTF) shall be based on the transmission priority of the associated Advance Reservation for use of the Cross-Sound Scheduled Line, the Neptune Scheduled Line, the Linden VFT Scheduled Line, and the HTP Scheduled Line (as appropriate).

If a Transmission Customer's Firm Point-to-Point Transmission Service or Network Integration Transmission Service is supporting an Internal Bilateral Transaction, or an Import Bilateral Transaction, the ISO shall not reduce the Transmission Service. If a Transmission Customer's Firm Point-to-Point Transmission Service or Network Integration Transmission Service is supporting an Export Bilateral Transaction or a Wheel Through, the ISO shall reduce Transmission Service to the extent the amount of Energy scheduled to be exported or wheeled is reduced.

16.3.4.1 Import Bilateral Transactions

If the amount of Energy scheduled to be imported in an Import Bilateral Transaction in the Day-Ahead Market is less than the amount of Transmission Service requested and scheduled Day-Ahead in association with that Import Bilateral Transaction, the Transmission Customer shall pay the Energy Imbalance Service Charge pursuant to Rate Schedule 4 of this OATT. The Transmission Customer shall continue to pay the Day-Ahead TUC for the amount of Transmission Service scheduled.

If the Import Bilateral Transaction was scheduled following the Day-Ahead Market, or the schedule for the Import Bilateral Transaction was revised following the Day-Ahead Market, and the amount of Energy scheduled to be imported in real-time (modified for within-hour changes in DNI, if any) is less than the amount of Transmission Service requested in real-time in association with that Transaction, then the Transmission Customer shall pay an Energy Imbalance Service Charge pursuant to Rate Schedule 4 of this OATT. If the Import Bilateral

Transaction was scheduled following the Day-Ahead Market, or the schedule for the Import Bilateral Transaction was revised following the Day-Ahead Market, the Transmission Customer shall pay or be paid the Real-Time TUC for the amount of Transmission Service requested in real-time in association with that Transaction minus the amount of Transmission Service requested Day-Ahead in association with that Transaction.

16.3.4.2 Export Bilateral Transactions, Internal Bilateral Transactions and Wheel Through Transactions

If the internal Generator designated to supply the Export Bilateral Transaction or internal Bilateral Transaction has been scheduled Day-Ahead to produce Energy in an amount that is less than the amount of Transmission Service scheduled Day-Ahead in association with that internal or Export Bilateral Transaction, the internal Generator shall pay an Energy Imbalance Service Charge pursuant to Rate Schedule 4 of this OATT.

If the internal Generator designated to supply the Export Bilateral Transaction or internal Bilateral Transaction has been dispatched in real-time to produce Energy in an amount that is less than the amount of Transmission Service scheduled in real-time in association with that internal or Export Bilateral Transaction, the internal Generator shall pay an Energy Imbalance Service Charge pursuant to Rate Schedule 4 of this OATT.

If the Export Bilateral Transaction or internal Bilateral Transaction was scheduled following the Day-Ahead Market, or the schedule for the Export Bilateral Transaction or internal Transaction was revised following the Day-Ahead Market, the Transmission Customer shall pay or be paid the Real-Time TUC for the amount of Transmission Service scheduled in real time in association with that Transaction minus the amount of Transmission Service scheduled Day-Ahead in association with that Transaction.

If a Wheel-Through Transaction was scheduled following the Day-Ahead Market, or the schedule for the Wheel-Through transaction was revised following the Day-Ahead Market, the Transmission Customer shall pay or be paid the Real-Time TUC for the amount of Transmission Service scheduled in real time in association with that Transaction minus the amount of Transmission Service scheduled Day-Ahead in association with that Transaction.

16.3.4.2.1 Generators

Notwithstanding the foregoing, the amount of Transmission Service scheduled in real-time for internal Bilateral Transactions supplied by one of the following Generators shall retroactively be set equal to that Generator's actual output in each RTD interval:

16.3.4.2.1.1 Generators providing Energy under contracts executed and effective on or before November 18, 1999 (including PURPA contracts) in which the power purchaser does not control the operation of the supply source but would be responsible for penalties for being off-schedule;

16.3.4.2.1.2 Existing topping turbine Generators and extraction turbine Generators producing electric Energy resulting from the supply of steam to the district steam system located in New York City (LBMP Zone J) in operation on or before November 18, 1999 and/or Generators utilized in replacing or repowering existing steam supplies from such units (in accordance with good engineering and economic design) that cannot follow schedules, up to a maximum total of 533 MW of such units; and

16.3.4.2.3 Intermittent Power Resources that depend on landfill gas or solar for their fuel, existing Intermittent Power Resources that depend on wind as their fuel, other than those for which the NYISO has imposed a Wind Output Limit, and

Limited Control Run of River Hydro Resources in operation on or before November 18, 1999 within the NYCA, plus up to an additional 3300 MW of such Generators.

This procedure shall not apply for those hours the Generator supplying that Transaction has bid in a manner that indicates it is available to provide Regulation Service or Operating Reserves.

16.3.4.3 Non-Firm Transmission

Non-Firm Point-To-Point Transmission Service is not available in the markets that the NYISO administers.

16.3.4.4 Procedure for Relieving Security Violations

If a security violation occurs or is anticipated to occur, the ISO shall attempt to relieve the violation using the following procedures:

16.3.4.4.1 Dispatch Internal Generators, based on Incremental Energy Bids , including committing additional resources, if necessary;

16.3.4.4.2 Adjust the DNI associated with External Transactions: Curtail External Firm Transactions until the Constraint is relieved by (1) Curtailing based on , CTS Interface Bids, Decremental Bids and Sink Price Cap Bids; and (2) except for External Transactions with minimum run times, prorating Curtailment of equal cost transactions;

16.3.4.4.3 Request Internal Generators to voluntarily operate in manual mode below minimum or above maximum dispatchable levels. When operating in manual mode, Generators will not be required to adhere to minimum ramp rates, nor will they be required to be respond to RTD Base Point Signals;

16.3.4.4.4 In over generation conditions, decommit Internal Generators based on
Minimum Generation Bid rate in descending order; and

16.3.4.4.5 Invoke other emergency procedures including involuntary load
Curtailement, if necessary.

19.2 Award of TCCs Other Than Through TCC Auctions: Fixed Price TCCs and Incremental TCCs

19.2.1 Converting Transmission Capacity Associated with Expired, Terminated, or Expiring ETAs Into Historic Fixed Price TCCs

As each ETA in effect on November 19, 1999 that was listed in Table 1A of Attachment L to this OATT (as it may be amended), and that conferred transmission rights on an LSE, expires or terminates, the transmission Capacity associated with it may be used to create Historic Fixed Price TCCs, pursuant to Section 19.2.1 of this Attachment M (including extensions of Historic Fixed Price TCCs awarded pursuant to Section 19.2.1.4 of this Attachment M). When any other ETA terminates, the Grandfathered Rights or Grandfathered TCCs associated with it shall be converted into Residual Transmission Capacity. The revenues associated with the sale or conversion of TCCs created from capacity associated with expired or terminated ETAs (including revenues from extensions of Historic Fixed Price TCCs awarded pursuant to Section 19.2.1.4 of this Attachment M) shall be allocated among the Transmission Owners as described in Attachment N. All references to “ETAs listed in Table 1A of Attachment L” in this Attachment M shall encompass both those agreements that were previously converted into Grandfathered TCCs and those that were not.

The ISO shall follow the procedures set forth in this Section 19.2.1 prior to the implementation of the End-State Auction process. For purposes of this Section 19.2.1, references to “expired” ETAs shall include ETAs that have been terminated. When determining the Points of Injection, Points of Withdrawal, and MW quantities associated with ETAs listed in Table 1A in effect on November 19, 1999, the ISO shall look to Attachment L of this OATT, as it may be amended, at the time of the conversion.

19.2.1.1 Conversion Rules

Any LSE that had transmission rights under an ETA in effect on November 19, 1999 that was listed in Table 1A of Attachment L to this OATT (as it may be amended), but has since expired, shall have a right to obtain Historic Fixed Price TCCs with the same Point of Injection and Point of Withdrawal associated with that ETA.

Any LSE that currently has transmission rights under an ETA in effect on November 19, 1999 that was listed on Table 1A of Attachment L of the OATT (as it may be amended) but has not yet expired, shall likewise have a right to obtain Historic Fixed Price TCCs with the same Point of Injection and Point of Withdrawal as that ETA after its expiration.

LSEs that are eligible to obtain Historic Fixed Price TCCs shall be able to obtain them for a total duration of up to ten years, except as provided in the following paragraph; provided, however that LSEs that obtain Historic Fixed Price TCCs may be eligible to purchase extensions of their Historic Fixed Price TCCs pursuant to Section 19.2.1.4 of this Attachment M. The ISO shall offer eligible LSEs Historic Fixed Price TCCs with the same Points of Injection and Points of Withdrawal as shown on Table 1A of Attachment L, as it may be amended, associated with their expired or expiring ETAs and a duration of five or ten years (at the LSE's option) at a price to be determined in accordance with Section 19.2.1.2 below. Prior to the expiration of Historic Fixed Price TCCs with a duration of five years that are created pursuant to the preceding sentence, the ISO shall offer those LSEs that hold such Historic Fixed Price TCCs an option to obtain new Historic Fixed Price TCCs with the same Points of Injection and Points of Withdrawal for one additional five-year term, effective upon the expiration of the original Historic Fixed Price TCCs' five year term, at a new price calculated in accordance with Section 19.2.1.2 below.

LSEs that certify to the ISO that they purchase Energy from the New York Power Authority (“NYPA”) under agreements that will expire in 2025 and that have ETAs listed on Table 1A to Attachment L, as it may be amended, that will expire in 2013, which they will use to hedge the congestion costs associated with deliveries under their NYPA agreements, shall have the right to obtain Historic Fixed Price TCCs with the same Points of Injection and Points of Withdrawal as shown on Table 1A of Attachment L to the OATT, as it may be amended, associated with the expiring ETA for a total duration of twelve years. The ISO shall offer Historic Fixed Price TCCs with a duration of five years to LSEs that make the required certification (provided for in this paragraph) at a price to be determined in accordance with Section 19.2.1.2 below. Prior to, but effective upon, the expiration of those Historic Fixed Price TCCs, the ISO shall offer the LSE an option to obtain new Historic Fixed Price TCCs with the same Points of Injection and Points of Withdrawal for one additional seven-year term, effective upon the expiration of the original Historic Fixed Price TCCs, at a new price calculated in accordance with Section 19.2.1.2 below.

To exercise this conversion right, an LSE must notify the ISO, and the Transmission Owner that was (or is) a party to the ETA, in writing, of its decision to obtain Historic Fixed Price TCCs under this provision. That notice must also specify the ETA’s expiration or termination date. The LSE must provide this notice prior to a deadline to be established by the ISO. In the case of an ETA that has already expired or been terminated as of the effective date of this Section 19.2.1, or that will expire or be terminated prior to the end of the Winter 2008 Capability Period, the ISO shall set the deadline on a date prior to the beginning of the Autumn 2008 Centralized TCC Auction. In the case of an ETA that will expire or terminate after the end of the 2008 Winter Capability Period, the ISO shall set the deadline on a date prior to the

beginning of the Centralized TCC Auction for the Capability Period in which the ETA expires or terminates. The specific deadlines shall be set forth in the ISO Procedures.

When an LSE elects to convert an ETA that: (i) has expired; (ii) is scheduled to expire, prior to November 1, 2008; or (iii) is scheduled to expire later but that is terminated before November 1, 2008, the term of the Historic Fixed Price TCCs that LSE obtains shall begin on November 1, 2008. When an LSE elects to convert any other ETA it may choose to have the term of the Historic Fixed Price TCCs that it obtains begin either on the day after the ETA's expiration or termination, or at the start of the Capability Period following its expiration or termination. If the LSE chooses the latter option, the ISO shall make the transmission Capacity associated with the expired ETA available to support the sale of TCCs in any Reconfiguration Auction(s) held for TCCs valid between the ETA's expiration and the start of the next Capability Period. Nothing in this Section 19.2.1 shall be construed as authorizing the early termination of ETAs before their scheduled expiration dates or as excusing the parties to ETAs of their obligations thereunder.

An LSE that exercises its conversion rights under this Section 19.2.1 may elect to receive a number of Historic Fixed Price TCCs up to one hundred percent of the MW quantity specified for the ETA in Table 1A of Attachment L as it may be amended. In the case of ETAs for which more than one MW quantity is listed in Attachment L, the LSE may elect to receive the higher quantity.

The LSE must submit a written certification to the ISO stating that it expects to: (i) be legally obligated to serve the Load that it historically served under the ETA (or a portion of that Load at least equal to the number of Historic Fixed Price TCCs that it plans to obtain under this Section 19.2.1); and (ii) need the transmission Capacity between the Point of Injection and Point

of Withdrawal specified in the ETA to serve that Load. The LSE will not be allowed to obtain Historic Fixed Price TCCs under this Section to the extent that it cannot satisfy either or both of these requirements. That is, the LSE's conversion rights may be wholly or partially terminated to the extent that it anticipates losing all or part of the historic Load, or no longer needing all or part of the transmission Capacity associated with the expired ETA to serve it. Additional information regarding the ISO's certification process shall be set forth in the ISO Procedures.

In addition, if the ISO concludes that an LSE's requested conversion would make existing and valid TCCs infeasible, it will reduce the number of Historic Fixed Price TCCs that the LSE may obtain to the extent necessary to avoid the infeasibility. The reduction procedure will use the same optimization model as the Centralized TCC Auctions, except that the expired or expiring transmission rights subject to conversion will not be represented as fixed injections and withdrawals but will be represented by a bid curve. Additional details shall be specified in the ISO Procedures.

19.2.1.1.1 Special Rules Applicable to LSEs That Were Eligible to Obtain Historic Fixed Price TCCs with a Duration Commencing on November 1, 2008

LSEs that obtained Historic Fixed Price TCCs with a duration of five years commencing on November 1, 2008 shall have a one-time opportunity to elect to replace those Historic Fixed Price TCCs, at no additional cost, with Historic Fixed Price TCCs with a duration of ten years. The ten year duration shall be deemed to have commenced on November 1, 2008. LSEs that elect to replace Historic Fixed Price TCCs under this paragraph shall not be eligible to obtain additional Historic Fixed Price TCCs for an additional five year term at the time that their replacement Historic Fixed Price TCCs expire.

LSEs that were eligible to obtain Historic Fixed Price TCCs with a duration of five years commencing on November 1, 2008, but that opted not to obtain them, shall have a one-time opportunity to obtain Historic Fixed Price TCCs with a duration of ten years. If an LSE makes this election the duration of the Historic Fixed Price TCCs that it obtains will commence at the beginning of a subsequent Capability Period, as specified in the ISO Procedures. An LSE that elects to obtain Historic Fixed Price TCCs under this paragraph shall pay the same price that the ISO originally offered for the same Historic Fixed Price TCCs with a duration of five years, *i.e.*, the price that the ISO calculated under Section 19.2.1.2 for Historic Fixed Price TCCs commencing on November 1, 2008 (including the original historic inflation adjustment) for the LSE in advance of the Autumn 2008 Centralized TCC Auction.

All elections under this Section 19.2.1.1.1 shall be made during an election period specified in the ISO Procedures and shall be subject to all of the notification, certification, feasibility and other requirements established under Section 19.2.1 and the ISO Procedures.

19.2.1.2 Calculating Prices for Historic Fixed Price TCCs

Except as is specifically noted in Section 19.2.1.2 (iii) and Section 19.2.1.4, if an LSE chooses to obtain Historic Fixed Price TCCs pursuant to this Section 19.2.1 it shall pay a base price per MW/year equal to the average of:

- (i) the average of the inflation-adjusted market-clearing prices calculated for TCCs with the POI and POW associated with the Historic Fixed Price TCC in the one-year Sub-Auction rounds of each of the four previous Centralized TCC Auctions. The average adjusted market-clearing price will be determined by first calculating the average market-clearing price in the one-year Sub-Auction rounds for each Centralized TCC Auction. Notwithstanding anything to the contrary herein, if a

Centralized TCC Auction includes a single round one-year Sub-Auction for TCCs with a start date that is after the first day of the Capability Period that commences immediately following the completion of such Centralized TCC Auction, the market-clearing prices from such single round one-year Sub-Auction shall not be considered for purposes of this Section 19.2.1.2. One-year Sub-Auction-round market-clearing prices from Centralized TCC Auctions conducted before May 1, 2010 are those from the Stage 1 one-year rounds of the Centralized TCC Auctions. The average market-clearing price for the first, second, and third of the four previous Centralized TCC Auctions will then be adjusted for inflation between: (a) the date that TCCs sold in them went into effect, and (b) the start of the Capability Period during which the TCCs sold in the fourth Centralized Auction went into effect; and

- (ii) the inflation-adjusted average annual difference between the Day-Ahead Market Congestion Component at the POW and the POI associated with the TCCs, summed over the hours of the four most recently concluded Capability Periods. The inflation-adjusted average annual difference for a given Historic Fixed Price TCC would be calculated by summing the Day-Ahead Market Congestion Component for the POW associated with that Historic Fixed Price TCC minus the Day-Ahead Market Congestion Component for the POI associated with that Historic Fixed Price TCC over the hours of each month of the four most recently concluded Capability Periods; adjusting each monthly total for inflation between the end of the month in question and the start of the most recently concluded

Capability Period; summing those inflation-adjusted monthly totals over those four Capability Periods; and dividing by two.

All inflation calculations referenced in this Section 19.2.1.2 shall be made using the most recently published inflation rates specified in the Personal Consumption Expenditures Implicit Price Deflator published by the Bureau of Economic Analysis of the United States Department of Commerce. A Historic Fixed Price TCC shall not have a price of less than zero. To the extent that the formula in this Section 19.2.1.2 produces a price for a Historic Fixed Price TCC of less than zero, the price shall be zero.

- (iii) If an LSE chooses to obtain a Historic Fixed Price TCC with a POW at or inside of Load Zone K (Long Island) pursuant to this Section 19.2.1 and bidding to or from Load Zone K was not permitted in any of the one-year Sub-Auctions of the four previous Centralized TCC Auctions at the time of the price calculation, it shall pay a base price per MW/year equal to the value calculated pursuant to Section 19.2.1.2 (ii).

19.2.1.3 Payment

An LSE that obtains Historic Fixed Price TCCs pursuant to Section 19.2.1 shall be required to pay the ISO the total amount specified in equal annual payments for each year of the Historic Fixed Price TCC's duration. Each annual payment shall entitle the LSE to extend the term of the Historic Fixed Price TCC for an additional year, subject to the provisions of Section 19.2.1.1. Billing for Historic Fixed Price TCCs shall be in accordance with ISO Procedures. To challenge settlement information contained in an invoice, a purchaser of Historic Fixed Price TCCs shall first make payment in full, including any amounts in dispute.

An LSE that fails to make any required annual payment for its Historic Fixed Price TCCs shall permanently surrender those Historic Fixed Price TCCs for that year and for all subsequent years (and shall not have a right to renew for additional term(s) or be eligible to purchase extensions of its Historic Fixed Price TCCs pursuant to Section 19.2.1.4 of this Attachment M), provided however that the ISO shall provide a one week cure period to an LSE that has failed to make the required annual payment for its Historic Fixed Price TCCs before the LSE has its Historic Fixed Price TCCs permanently surrendered, pursuant to ISO Procedures.

Notwithstanding anything to the contrary herein, this Section 19.2.1.3 shall not apply to extensions of Historic Fixed Price TCCs awarded pursuant to Section 19.2.1.4 of this Attachment M. The applicable billing and payment requirements for extensions of Historic Fixed Price TCCs are set forth in Section 19.2.1.4 of this Attachment M.

19.2.1.4 Extensions of Historic Fixed Price TCCs

LSEs that converted expired or terminated ETAs to Historic Fixed Price TCCs pursuant to Section 19.2.1 of this Attachment M and continued to purchase Historic Fixed Price TCCs throughout the entire full term for which the LSE initially had the right to purchase and renew Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) shall be eligible to purchase extensions of their Historic Fixed Price TCCs for one year at a time in accordance with the requirements of this Section 19.2.1.4. A qualifying LSE shall not be eligible to purchase extensions of Historic Fixed Price TCCs until the entire full term for which the LSE initially had the right to purchase and renew its Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) has expired. For a qualifying LSE that was awarded: (1) sets of Historic Fixed Price TCCs associated with more than one expired or terminated ETA; or (2) as a result of the requirements of Section 19.2.1.1.1 of this Attachment

M, two sets of Historic Fixed Price TCCs related to the same expired or terminated ETA with different initial start dates following the termination or expiration of such ETA, the LSE's eligibility to purchase extensions of Historic Fixed Price TCCs shall be determined, and the requirements related to purchasing extensions hereunder shall be applied, separately for each set of Historic Fixed Price TCCs held by the qualifying LSE. Notwithstanding the foregoing, LSEs that: (i) converted expired or terminated ETAs to Historic Fixed Price TCCs pursuant to Section 19.2.1 of this Attachment M and purchased Historic Fixed Price TCCs for a portion of the entire full term for which the LSE initially had the right to purchase and renew Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M); and (ii) elected to terminate their Historic Fixed Price TCCs early and such early termination occurred prior to June 1, 2018, shall be eligible to purchase extensions of their prior Historic Fixed Price TCCs for one year at a time in accordance with the requirements of this Section 19.2.1.4; provided, however, that such LSEs shall not be eligible to purchase extensions of Historic Fixed Price TCCs until the entire full term for which the LSE initially had the right to purchase and renew its prior Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) has expired.

For purposes of each one-year extension period, a qualifying LSE shall be eligible to purchase an extension of its Historic Fixed Price TCCs for any number of Historic Fixed Price TCCs equal to or lesser than the highest MW quantity specified in Table 1A of Attachment L of the ISO OATT for the expired or terminated ETA associated with the Historic Fixed Price TCCs that the LSE seeks to extend, subject to the requirements of this Section 19.2.1.4; provided, however, that for a qualifying LSE that, as a result of the requirements of Section 19.2.1.1.1 of this Attachment M, has two sets of Historic Fixed Price TCCs related to the same expired or

terminated ETA eligible for extension: (i) the total number of Historic Fixed Price TCCs the LSE may seek to extend for the set of Historic Fixed Price TCCs that first becomes eligible for the purchase of extensions pursuant to this Section 19.2.1.4 shall not exceed the highest number of Historic Fixed Price TCCs that the LSE purchased for such set of Historic Fixed Price TCCs during the entire full term for which the LSE initially had the right to purchase and renew such Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M); and (ii) the total aggregate number of Historic Fixed Price TCCs the qualifying LSE may seek to extend for all such eligible sets of Historic Fixed Price TCCs shall not exceed the highest MW quantity specified in Table 1A of Attachment L of the ISO OATT for the applicable expired or terminated ETA. Notwithstanding the foregoing, if the ISO concludes that the number of Historic Fixed Price TCCs a qualifying LSE seeks to extend for a given one-year extension period would make existing and valid TCCs infeasible, it will reduce the number of Historic Fixed Price TCCs that the LSE may extend for that one-year extension period to the extent necessary to avoid the infeasibility. The reduction procedure will be conducted in a manner consistent with the procedure described in Section 19.8.2 of this Attachment M, except that the Historic Fixed Price TCCs that the qualifying LSE seeks to extend will not be represented as fixed injections and withdrawals but will, instead, be represented by a bid curve. If the LSE declines to purchase an extension of its Historic Fixed Price TCCs for any given one-year period, it shall remain eligible to purchase extensions of its Historic Fixed Price TCCs for subsequent years, subject to the requirements of this Section 19.2.1.4.

The ISO shall offer each qualifying LSE the option to purchase an extension of its Historic Fixed Price TCCs only once per year at a price determined in accordance with this Section 19.2.1.4 for the applicable one-year extension period. Such offers by the ISO shall be

provided to each qualifying LSE during the Capability Period immediately prior to: (i) in the case of initial eligibility to purchase an extension of its Historic Fixed Price TCCs, the last Capability Period of the entire full term for which the LSE initially had the right to purchase and renew its Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) in which the LSE's Historic Fixed Price TCCs are (or, absent early termination by the qualifying LSE, would have been) valid; or (ii) in the case of all subsequent years for which the LSE is eligible to purchase an extension of its Historic Fixed Price TCCs, the last Capability Period in which the prior Historic Fixed Price TCC extension right is valid (regardless of whether the LSE purchased an extension of its Historic Fixed Price TCCs for such one-year period). A qualifying LSE must provide notice to the ISO, in accordance with ISO Procedures, of its decision to purchase or decline to purchase an extension of its Historic Fixed Price TCCs for the one-year period at issue by the deadline established by the ISO, as set forth in ISO Procedures. The deadline for qualifying LSEs to provide notice of such decision to the ISO shall be a date prior to the commencement of the Centralized TCC Auction in which the six-month Sub-Auction will make transmission capacity available to support the sale of TCCs for the first Capability Period in which the applicable Historic Fixed Price TCC extension would be valid. Notice by a qualifying LSE of a decision to purchase an extension of its Historic Fixed Price TCCs for a given one-year period shall also: (1) specify the number of Historic Fixed Price TCCs that the LSE seeks to extend; and (2) include the certification required by this Section 19.2.1.4. Notwithstanding anything to the contrary in this Section 19.2.1.4, if an otherwise qualifying LSE does not provide notice of a decision to purchase or decline to purchase an extension of its Historic Fixed Price TCCs for a given one-year period by the applicable deadline to provide notice of such decision to the ISO, the LSE shall become ineligible to purchase any

future extensions of its Historic Fixed Price TCCs and the ISO shall cease providing Historic Fixed Price TCC extension offers to such LSE.

The one-year term of each Historic Fixed Price TCC extension shall commence: (i) in the case of initial eligibility of a qualifying LSE to purchase an extension of its Historic Fixed Price TCCs, on the first day of the Capability Period following the last Capability Period of the entire full term for which the LSE initially had the right to purchase and renew its Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) in which the LSE's Historic Fixed Price TCCs are (or, absent early termination by the qualifying LSE, would have been) valid; or (ii) in the case of all subsequent years for which a qualifying LSE is eligible to purchase an extension of its Historic Fixed Price TCCs, on the first day of the Capability Period following the last Capability Period in which the prior Historic Fixed Price TCC extension right is valid (regardless of whether the LSE purchased an extension of its Historic Fixed Price TCCs for such one-year period). The term of each Historic Fixed Price TCC extension shall expire after the last day of the Capability Period immediately following the Capability Period in which the Historic Fixed Price TCC extension becomes effective. If the entire full term for which a qualifying LSE initially had the right to purchase and renew its Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) expires on a date other than following the last day of a Capability Period and the LSE elects to purchase an extension of its Historic Fixed Price TCCs for the first available one-year period, the ISO shall make the transmission capacity associated with the prior Historic Fixed Price TCCs available to support the sale of TCCs in any Reconfiguration Auction(s) held for TCCs valid between the expiration of the prior Historic Fixed Price TCCs and the start date of the extension of the Historic Fixed Price TCCs.

To purchase an extension of its Historic Fixed Price TCCs, a qualifying LSE must certify to the ISO that for the one-year term of the Historic Fixed Price TCC extension, the LSE expects to: (i) be legally obligated to serve the Load it historically served under the ETA associated with the Historic Fixed Price TCCs that the LSE seeks to extend (or a portion of that Load at least equal to the number of Historic Fixed Price TCCs that the LSE seeks to extend for the applicable one-year period); and (ii) need transmission capacity between the Point of Injection and Point of Withdrawal specified in such ETA to serve that Load. The ISO may request that a qualifying LSE submit additional information to verify the accuracy of any such certification its provides to the ISO, and the qualifying LSE shall provide any such additional information requested by the ISO. A qualifying LSE shall not be eligible to purchase an extension of its Historic Fixed Price TCCs for a given one-year period for any MW quantity that exceeds its ability to make these required certifications.

The purchase price (in \$/MW-year) for each one-year period of a Historic Fixed Price TCC extension shall be equal to the weighted average of the market-clearing prices from the most recently completed one-year Sub-Auction rounds of a Centralized TCC Auction at the time the Historic Fixed Price TCC extension offer is made by the ISO, for a TCC with the same Point of Injection and Point of Withdrawal as the Historic Fixed Price TCCs that the qualifying LSE seeks to extend. Notwithstanding anything to the contrary herein, if a Centralized TCC Auction includes a single round one-year Sub-Auction for TCCs with a start date that is after the first day of the Capability Period that commences immediately following the completion of such Centralized TCC Auction, such single round one-year Sub-Auction shall not be considered for purposes of this Section 19.2.1.4. The weighting assigned to the market-clearing prices from each applicable round shall be determined based on the ratio of (i) the percentage of transmission

capacity made available in the applicable round to support the sale of one-year TCCs; to (ii) the total percentage of transmission capacity made available to support the sale of one-year TCCs with the same start date as TCCs for the applicable round in the relevant Centralized TCC Auction. In no event shall the purchase price for an extension of Historic Fixed Price TCCs be less than zero. If the calculation described above produces a value less than zero for a particular extension of Historic Fixed Price TCCs, the purchase price for such Historic Fixed Price TCC extension shall be set to zero.

A qualifying LSE that seeks to purchase extensions of its Historic Fixed Price TCCs shall be required to pay the ISO the total amount specified for each one-year Historic Fixed Price TCC extension the LSE seeks to purchase. Billing for extensions of Historic Fixed Price TCCs shall be in accordance with ISO Procedures. To challenge settlement information contained in an invoice, the qualifying LSE shall first make payment in full, including any amounts in dispute. If a qualifying LSE fails to make any required payment for an extension of its Historic Fixed Price TCCs, the LSE shall surrender those Historic Fixed Price TCCs for the one-year period at issue; provided, however, that the ISO shall provide a one week cure period for the LSE to make the required payment before its Historic Fixed Price TCCs are surrendered for the one-year period at issue.

Notwithstanding the foregoing, with respect to qualifying LSEs with Historic Fixed Price TCCs for which the last Capability Period of the entire full term for which the LSE initially had the right to purchase and renew its Historic Fixed Price TCCs (*i.e.*, 10 or 12 years as set forth in Section 19.2.1.1 of this Attachment M) in which the LSE's Historic Fixed Price TCCs are (or, absent early termination by the qualifying LSE, would have been) valid is the 2018 Summer Capability Period: (i) the ISO shall offer each such LSE the right to purchase an extension of its

Historic Fixed Price TCCs promptly after the effective date of this Section 19.2.1.4; and (ii) each such LSE shall provide the required notice of its decision to purchase or decline to purchase an extension of its Historic Fixed Price TCCs for the one-year period commencing November 1, 2018 by a deadline to be established by the ISO. The purchase price for the initial one-year extension of such Historic Fixed Price TCCs shall be calculated in the manner described above, using the market-clearing prices from the one-year Sub-Auction rounds of the Centralized TCC Auction conducted prior to the 2018 Summer Capability Period (*i.e.*, the 2018 spring Centralized TCC Auction). If a qualifying LSE elects to purchase an extension of such Historic Fixed Price TCCs for the initial one-year period, the start date of such a Historic Fixed Price TCC extension shall be November 1, 2018.

19.2.2 Awards of Non-Historic Fixed Price TCCs

19.2.2.1 Initial Purchase of Non-Historic Fixed Price TCCs

LSEs may be eligible to purchase Non-Historic Fixed Price TCCs, at prices established pursuant to Section 19.2.2.3.1 below if, pursuant to ISO Procedures, they submit a completed Notice of Intent to Purchase specifying the quantity of Non-Historic Fixed Price TCCs they intend to obtain under this Section 19.2.2.1 by Load Zone Point of Withdrawal. The LSE shall also indicate for each Load Zone potential Points of Injection for their Non-Historic Fixed Price TCCs. The LSE must provide its completed Notice of Intent to Purchase prior to the deadline established by the ISO. The LSE's completed Notice of Intent to Purchase shall also include a written certification. The written certification shall state that the LSE: (i) expects to be legally obligated to serve Load in each identified Load Zone in an amount and for a term that equals or exceeds the sum of the number of Non-Historic Fixed Price TCCs that it intends to obtain under this Section 19.2.2.1 with a Point of Withdrawal in that Load Zone and the number of

Grandfathered TCCs, Grandfathered Rights and Historic Fixed Price TCCs, in effect for the same term, that are held by or on behalf of the LSE with Points of Withdrawal in that Load Zone; and (ii) has served Load in the identified Load Zone in the most recently concluded Capability Period. The LSE will not be allowed to obtain Non-Historic Fixed Price TCCs under this Section to the extent that it does not satisfy either or both of these requirements prior to the deadline established by the ISO for this submittal. Additional information regarding the Notice of Intent to Purchase, including the written certification included therein, shall be set forth in the ISO Procedures.

The NYISO shall notify each LSE requesting a Notice of Intent to Purchase of the number of Non-Historic Fixed Price TCCs which the LSE is eligible to purchase by Load Zone Point of Withdrawal.

19.2.2.1.1 Availability

A percentage of the transmission Capacity that is available, pursuant to Section 19.8.3 of this Attachment M, to support the purchase of TCCs in any Centralized TCC Auction during which Non-Historic Fixed Price TCCs may be obtained shall be available to support the purchase of Non-Historic Fixed Price TCCs. The final decision concerning the percentage of the transmission Capacity that will be available to support the purchase of Non-Historic Fixed Price TCCs will be made by the ISO and shall not exceed five percent. The scaling factor for the allocation of Non-Historic Fixed Price TCCs during the period of any Centralized TCC Auction shall equal the percentage of available transmission Capacity that has not yet been made available to support the sale of TCCs in previous rounds of that Centralized TCC Auction, divided by the percentage of available transmission Capacity that will be made available to

support Non-Historic Fixed Price TCCs that may be purchased during the period of the Centralized TCC Auction.

19.2.2.1.2 Limits on Availability

The ISO may limit the availability of Non-Historic Fixed Price TCCs for initial purchase, by Load Zone, based on each LSE's average hourly load in that Load Zone and number of Grandfathered Rights and TCCs, Historic Fixed Price TCCs and other Non-Historic Fixed Price TCCs with POWs in that Load Zone held by or on behalf of the LSE.

In no event shall an LSE be eligible to purchase new Non-Historic Fixed Price TCCs with a Point of Withdrawal in a Load Zone for which the number of Grandfathered TCCs, Grandfathered Rights, Non-Historic and Historic Fixed Price TCCs held by or on behalf of the LSE with a Point of Withdrawal in that Load Zone equals or exceeds the average hourly load of the LSE in that Load Zone. Additional details shall be specified in the ISO Procedures.

Non-Historic Fixed Price TCCs may be offered by the ISO periodically, but no less frequently than every other year. They will be offered, if at all, with an initial term of two years. Renewal terms for Non-Historic Fixed Price TCCs shall be one year.

19.2.2.2 Renewal

LSEs may be eligible to renew Non-Historic Fixed Price TCCs at a new price calculated in accordance with Section 19.2.2.3.1 below if, pursuant to ISO Procedures, they submit a completed Notice of Intent to Renew specifying the Non-Historic Fixed Price TCC they intend to renew (by Point of Injection, Point of Withdrawal and quantity). The LSE must provide this notice prior to a deadline to be established by the ISO. The LSE's Notice of Intent to Renew shall also include a written certification stating that the LSE: (i) expects to be legally obligated to serve Load in each identified Load Zone in an amount and for a term that equals or exceeds the

number of Non-Historic Fixed Price TCCs that it intends to renew under this Section 19.2.2.2 with a Point of Withdrawal in that Load Zone given the number of Grandfathered TCCs, Grandfathered Rights and Historic Fixed Price TCCs, in effect for the same term, that are held by or on behalf of the LSE with Points of Withdrawal in that Load Zone; and (ii) needs the transmission Capacity between the Point of Injection and Point of Withdrawal specified in the Non-Historic Fixed Price TCC to serve its Load. In no event shall an LSE be eligible to renew Non-Historic Fixed Price TCCs with a Point of Withdrawal in a Load Zone if the number of these Non-Historic Fixed Price TCCs when added to the number of Grandfathered TCCs, Grandfathered Rights, Historic Fixed Price TCCs and Non-Historic Fixed Price TCCs held by or on behalf of the LSE with a Point of Withdrawal in that Load Zone equals or exceeds the average hourly load of the LSE in that Load Zone.

In no event shall the ISO offer renewals that would extend a Non-Historic Fixed Price TCC for a total term of more than ten years.

19.2.2.3 Provisions affecting the Initial Purchase and the Renewal of Non-Historic Fixed Price TCCs

19.2.2.3.1 Pricing

Non-Historic Fixed Price TCCs intended to be purchased or renewed shall be priced for the initial or renewal term based on the market-clearing price calculated in the first round of the Sub-Auction of the Centralized TCC Auction conducted immediately subsequent to receipt of the completed Notice of Intent to Purchase or Notice of Intent to Renew in which TCCs with the same term as the Non-Historic Fixed Price TCCs being purchased or renewed were offered for sale, as established in ISO procedures. Such market-clearing prices shall have been calculated for a TCC with the same purchase or renewal term respectively (in years), and POI and POW, that is associated with the Non-Historic Fixed Price TCC. A Non-Historic Fixed Price TCC shall

not have a purchase or renewal price of less than zero. To the extent that the formula in this Section 19.2.2.3.1 produces a purchase or renewal price for a Non-Historic Fixed Price TCC of less than zero, the price shall be zero.

19.2.2.3.2 Purchase or Renewal

The ISO shall provide to each LSE, that submitted a completed Notice of Intent to Purchase or a Notice of Intent to Renew, the purchase or renewal price of the Non-Historic Fixed Price TCCs identified in the LSE's completed Notice of Intent or Purchase or completed Notice of Intent to Renew, as appropriate. Within a period to be established by the ISO, following this notification, the purchasing or renewing LSE shall nominate the Non-Historic Fixed Price TCCs by Point of Injection and Point of Withdrawal that it has chosen to purchase or renew, provided that the availability of Non-Historic Fixed Price TCCs with a Point of Withdrawal in a Load Zone shall be limited by the lesser of the number of Non-Historic Fixed Price TCCs indicated as available by the ISO for that LSE with a Point of Withdrawal in that Load Zone or the number of Non-Historic Fixed Price TCCs identified in the LSE's completed Notice of Intent to Purchase or Notice of Intent to Renew with a Point of Withdrawal in that Load Zone. The ISO may establish a deadline by which the ISO must receive the LSE's nominations of which Non-Historic Fixed Price TCCs it wishes to purchase or renew. An LSE that chooses not to renew its Non-Historic Fixed Price TCCs forfeits its entitlement to further renewals of that Non-Historic Fixed Price TCC.

If the ISO concludes that awarding the Non-Historic Fixed Price TCCs nominated by LSEs for purchase would make existing and valid TCCs infeasible, it will reduce the number of Non-Historic Fixed Price TCCs that an LSE can purchase to the extent necessary to avoid infeasibility. Such reduction shall use the same optimization model as the Centralized TCC

Auctions, except that the nominated TCCs will not be represented as fixed injections and withdrawals but will be represented by a bid curve, pursuant to ISO Procedures.

Non-Historic Fixed Price TCCs shall become effective with the first day of the Capability Period immediately following their purchase or renewal.

19.2.2.3.3 Payment

An LSE that obtains Non-Historic Fixed Price TCCs pursuant to Section 19.2.2 shall be required to pay the ISO the total amount specified in annual payments for each year of the initial term of the Non-Historic Fixed Price TCC's and for each year of the renewal term of the Non-Historic Fixed Price TCC. Billing for Non-Historic Fixed Price TCCs shall be in accordance with ISO Procedures. To challenge settlement information contained in an invoice, a purchaser of Non-Historic Fixed Price TCCs shall first make payment in full, including any amounts in dispute.

An LSE that fails to make the required annual payment for the initial or any renewal term of its Non-Historic Fixed Price TCC shall, notwithstanding any provision in this OATT to the contrary, permanently surrender its right to future renewals of those Non-Historic Fixed Price TCCs and shall not have a right to renew for additional term(s), pursuant to ISO Procedures.

19.2.3 Miscellaneous Provisions Affecting Historic and Non-Historic Fixed Price TCCs

The ISO shall post the following information promptly after awarding Fixed Price TCCs: (i) the quantity of TCCs awarded (in MW); (ii) the Point of Injection and Point of Withdrawal for each Fixed Price TCC awarded; and (iii) the price paid for each Fixed Price TCC.

If an LSE acquires Load from another LSE that holds Fixed Price TCCs, it may request that the Fixed Price TCCs be reassigned to follow the transferred Load. In such case, the

quantity of the Fixed Price TCCs that transfers to the assignee shall be equal to: (i) the amount of transferred Load divided by total Load associated with those Fixed Price TCCs, (ii) multiplied by the quantity of the Fixed Price TCCs held by the LSE losing Load between the same Point of Injection and Point of Withdrawal; provided however, that no Fixed Price TCC will transfer under this paragraph if the calculation above indicates that less than one Fixed Price TCC will transfer. If at least one Fixed Price TCC would transfer pursuant to this paragraph, the quantity of reassigned Fixed Price TCCs shall be rounded down to the nearest whole number of Fixed Price TCCs. An LSE that is reassigned Fixed Price TCCs under this paragraph shall hold such Fixed Price TCCs for the remainder of their term, and have rights of renewal as provided in Section 19.2.1 (including Section 19.2.1.4) and Section 19.2.2, provided it makes all required payments.

An LSE that has met all required payment and collateral obligations for its Fixed Price TCC, including LSEs that have transferred Load to a new LSE, may reassign, reconfigure, or sell its Fixed Price TCCs for any period of time for which its Fixed Price TCC is valid. Such assignment, reconfiguration, or sale shall not include renewal rights otherwise associated with the Fixed Price TCC, which renewal rights will remain with the LSE to which the Fixed Price TCCs were originally awarded, provided however that renewal rights associated with Fixed Price TCCs that are reassigned to follow the transferred Load shall be reassigned to follow the transferred Load. To the extent that Fixed Price TCCs are created pursuant to Section 19.2.1 (including Section 19.2.1.4) or Section 19.2.2, the transmission Capacity that supports them shall not be available for sale in the Centralized TCC Auctions until those Fixed Price TCCs expire.

All rights and obligations that apply to an LSE in connection with obtaining and holding Fixed Price TCCs as provided for in Section 19.2.1 (including Section 19.2.1.4), Section 19.2.2

and Section 19.2.3, shall also be applicable to an ETA Agent, except as the context otherwise requires (for example, an ETA Agent cannot obtain Fixed Price TCCs on its own behalf).

The ISO shall establish a dispute period following the conclusion of the Centralized TCC Auction during the conduct of which Fixed Price TCCs are awarded, challenges to awards of Fixed Price TCCs may be made and mistakes in the calculation of Fixed Price TCC prices may be corrected. Notice of the dispute period established by the ISO and of procedures to be employed in bringing a dispute or correcting a Fixed Price TCC price shall be provided by the ISO on its OASIS.

Following the resolution of challenges, if any, to the award of Fixed Price TCCs, or mistakes in the calculation of Fixed Price TCC prices, raised during the dispute period, charges and payments for Fixed Price TCCs awarded shall be final as provided in the award notices provided by the ISO and shall not be subject to revision.

19.2.3.1 Responsibilities of LSEs that Obtain Fixed Price TCCs

To obtain a Fixed Price TCC under Section 19.2.1 (including Section 19.2.1.4) or Section 19.2.2 of this Attachment M an LSE must submit such information to the ISO regarding its creditworthiness as the ISO may require. Each such LSE must also: (i) comply with the applicable deadlines established by the ISO under Sections 19.2.1, 19.2.2 and 19.2.3; (ii) satisfy all ISO credit requirements; and (iii) pay the price determined pursuant to Section 19.2.1.2, Section 19.2.1.4 or Section 19.2.2.3.1, as appropriate.

19.2.4 Awards of Incremental TCCs

19.2.4.1 Overview

The ISO shall follow the procedures set forth in this Section 19.2.4 to determine awards of Incremental TCCs to any person or entity that requests them in connection with the funding or

construction of new transmission facilities or transmission facility improvements that increase the Transfer Capability of the New York State Transmission System.

These procedures shall only apply to requests for awards that are submitted on or after November 1, 2008 and not to: (i) requests for awards that are pending as of that date; (ii) or to Incremental TCC award determinations that were made by the ISO on or prior to that date; neither shall these procedures interfere with the completion of requests for awards that are pending as of that date or require that award determinations made by the ISO prior to that date be reopened. Award determinations that were made prior to November 1, 2008 or that were pending as of that date shall remain effective as described in the ISO's Automated Market System.

Throughout this Section 19.2.4: (i) any change to, reconfiguration of, and/or construction of new transmission facilities or other transmission facility improvements that are potentially eligible for an award of Incremental TCCs shall be referred to as an "Expansion;" and (ii) a person or entity that is pursuing an Expansion and requesting Incremental TCCs shall be referred to as an "Expander."

The ISO shall not award Incremental TCCs: (i) when the ISO cannot calculate the effect on Transfer Capability associated with an Expansion in the Day-Ahead Market with reasonable certainty; (ii) for Expansions that involve controllable transmission facilities that are : (a) under the operational control of a Control Area operator other than the ISO; or (b) the CHPE MTF; or (iii) to the extent that an Expansion's impact on Transfer Capability is solely dependent on a Generator's operating state. Additional information concerning eligibility for Incremental TCC awards shall be set forth in the ISO Procedures. The ISO shall not award Incremental TCCs before the provisions of Section 19.2.4.5.2 have all been fulfilled.

The ISO shall also follow the procedures in this Section 19.2.4 to determine whether “Partial Outage Incremental TCCs” should be created in connection with final awards of Incremental TCCs.

19.2.4.2 Requests for Incremental TCC Awards

An Expander pursuing an Expansion and seeking an Incremental TCC award shall submit a request for an award to the ISO. A request for an Incremental TCC award must be submitted prior to the associated Expansion’s expected commercial operation date. A request for an Incremental TCC award shall not be deemed to be complete, and shall not be considered by the ISO, unless it includes all of the information and satisfies all of the technical requirements required by this Section 19.2.4 and by the ISO Procedures. Prior to submitting its request for a non-binding estimate, an Expander must have: (i) completed all of the engineering studies that are required under the ISO OATT, including Attachments X, S, Z or HH; and (ii) obtained all permits and regulatory approvals necessary to commence construction. If an Expansion is subject to the Class Year Study or Cluster Study requirements under Attachment S or Attachment HH of the ISO OATT, then the Expander must have accepted its cost allocation and posted the security required in the Class Year Study or Cluster Study under Attachment S or Attachment HH to the ISO OATT.

As part of its request for an award, an Expander shall request that the ISO prepare one or more non-binding estimates of an Expansion’s impact on Transfer Capability between one or more POI/POW combinations. The ISO shall be required to prepare up to three non-binding estimates with respect to an Expansion. Additional rules governing requests for non-binding estimates shall be set forth in the ISO Procedures.

An Expander that is not subject to Section 20.2.5 of Attachment N to the ISO OATT that requests an Incremental TCC award associated with an Expansion that will consist of multiple transmission facilities that might separately be taken out of service or derated in connection with the outage of an External transmission facility must provide additional information regarding partial outage states, as specified in the ISO Procedures, as part of its request. The ISO will use this information to analyze the creation of Partial Outage Incremental TCCs.

19.2.4.3 Non-Binding Estimates

The ISO shall provide non-binding estimates of Incremental TCCs that might be awarded between different POI/POW combinations that are identified in a complete request for a non-binding estimate. The ISO shall only prepare non-binding estimates if the associated Expansion is expected to enter commercial operation within the current or next like Capability Period.

The ISO shall estimate whether, and to what extent, Incremental TCCs may be created by analyzing whether an Expansion will actually increase Transfer Capability with respect to the entire set of POI/POW combinations included in a request for a non-binding estimate.

Incremental TCCs shall not be created for Transfer Capability that the ISO determines would exist on the system even in the absence of an Expansion. The ISO shall make these determinations using an Optimal Power Flow model that is updated and modified as necessary to represent the state of the New York State Transmission system both with and without the Expansion associated with the request for a non-binding estimate. If an Expansion is intended to increase voltage or transient stability limits the ISO shall conduct transfer limit studies as necessary to confirm the Expansion's impact on interface limits as specified in the ISO Procedures. Additional detail concerning the Optimal Power Flow model to be used by the ISO shall be set forth in the ISO Procedures. The ISO shall not be bound by the findings of previous

engineering studies, conducted under the ISO OATT or otherwise, regarding the impact of an Expansion on Transfer Capability when preparing non-binding estimates (or when determining awards under Section 19.2.4.5).

If the ISO estimates that Incremental TCCs would be created by an Expansion it shall separately estimate the quantity of Incremental TCCs that would be created for both the Summer and Winter Capability Periods.

19.2.4.4 Partial Outage Incremental TCCs

The ISO shall use the additional information submitted by certain Expanders regarding partial outage states pursuant to Section 19.2.4 to determine whether Partial Outage Incremental TCCs shall be created. Partial Outage Incremental TCCs shall not be awarded. They shall only be used to determine day-ahead outage charges, implemented through settlements for Day-Ahead Market Congestion Rents associated with Expansions that are partially out of service, or that are derated due to the outage of an External transmission facility, in connection with the calculation of outage charges under Section 19.2.4.9.

Partial Outage Incremental TCCs shall be created to the extent that the ISO finds, as part of its determination of final Incremental TCC awards pursuant to Section 19.2.4.5, that a revised set of Incremental TCCs would exist between a given POI/POW combination regardless of whether a portion of the associated Expansion is out of service or derated as a result of the outage of an External transmission facility. Partial Outage Incremental TCCs may be created between POI/POW combinations that differ from those for which the ISO may determine that Incremental TCCs would be available in a non-binding estimate or in any award of Incremental TCCs.

If the ISO determines that Partial Outage Incremental TCCs may be created as the result of an Expansion it shall separately calculate the number that would be created for the Summer and Winter Capability Periods.

19.2.4.5 Incremental TCC Awards

The ISO shall respond to complete requests for Incremental TCC awards by determining: (i) whether, and to what extent, Incremental TCCs should be awarded for the POI/POW combinations selected by the Expander; and (ii) whether, and to what extent, Partial Outage Incremental TCCs should be created. An Expander may select all of the POI/POW combinations that were analyzed in any one of the non-binding estimates prepared by the ISO under Section 19.2.4.3 to be included in the award determination. It may not select the POI/POW combinations from more than one non-binding estimate or select fewer than all of the POI/POW combinations that were analyzed in any one non-binding estimate.

The ISO shall determine both temporary and final awards using an Optimal Power Flow model that is updated and modified as necessary to represent the state of the New York State Transmission system both with and without the Expansion, and to represent any of the Expansion's partial outage states, at the time that an award is determined. The ISO shall determine whether, and to what extent, Incremental TCCs shall be awarded by analyzing whether an Expansion will actually increase Transfer Capability with respect to the entire set of POI/POW combinations included in a request for an award. Incremental TCCs shall not be awarded for Transfer Capability that the ISO determines would exist on the system even in the absence of an Expansion. If an Expansion is intended to increase voltage or transient stability limits the ISO shall conduct transfer limit studies as necessary to confirm the Expansion's impact

on interface limits as specified in the ISO Procedures. The ISO shall make separate determinations for temporary and final awards of Incremental TCCs.

The ISO shall only determine or make an Incremental TCC award if the associated Expansion is expected to enter commercial operation within the current or next like Capability Period.

The ISO shall only determine, award, or create Incremental TCCs (including, for purposes of this paragraph, Partial Outage Incremental TCCs) in whole number MW quantities. If the ISO determines that an Expansion will create one or more non-whole number quantity Incremental TCCs, the ISO shall round each non-whole number Incremental TCC to a whole number in a manner that minimizes the risk of infeasibility caused by rounding with respect to the entire Incremental TCC award.

If the ISO determines that Incremental TCCs should be awarded, it shall make separate awards for the Summer and Winter Capability Periods.

19.2.4.5.1 Temporary Awards

If the ISO determines that Incremental TCCs should be awarded in connection with an Expansion and the Expansion goes into commercial operation during a Capability Period, the ISO shall make a temporary award of Incremental TCCs as soon as reasonably possible after notice that the Expansion has entered commercial operation has been provided in writing to the ISO pursuant to the ISO Procedures. Temporary awards of Incremental TCCs shall terminate at the end of the last day before a final award of Incremental TCCs becomes effective. In the case of an Expansion that enters commercial operation less than 90 days before the beginning of a Capability Period, the temporary award that is effective during the Summer Capability Period (or any portion thereof) may differ from the temporary award that is effective during the Winter

Capability Period (or any portion thereof). The quantity of Incremental TCCs included in a temporary award may differ from the quantity included in any of the non-binding estimate(s) associated with the Expansion and/or in the final award.

19.2.4.5.2 Final Awards

Awards of Incremental TCCs shall be final on the date by which the following are fulfilled: (i) an Expansion has actually entered commercial operation; (ii) written notice has been provided to the ISO pursuant to the ISO Procedures; and (iii) the ISO has determined the final award using an Optimal Power Flow analysis that reflects the results of the most recently completed Centralized TCC Auction. The quantity of Incremental TCCs included in a final award may differ from the quantity included in the temporary award, or in the non-binding estimate(s), associated with the Expansion.

Incremental TCCs included in final awards shall become effective on the first day of the first Capability Period following the date that the award became final. If, however: (i) the associated Expansion enters commercial operation fewer than ninety days before the end of a Capability Period then the Incremental TCCs included in a final award shall become effective on the first day of the next like Capability Period after the associated Expansion enters commercial operation; or (ii) the associated Expansion results in an increase to a limit that must be approved by the Operating Committee, and the Operating Committee's approval is granted fewer than ninety days before the end of a Capability Period, then the final award shall become effective on the first day of the next like Capability Period following the Operating Committee's approval.

If more than one Expansion enters commercial operation in the same Capability Period, the ISO shall make its final award determinations, and shall make final Incremental TCC awards, in the same order as the Expansions actually enter commercial operation.

19.2.4.6 Acceptance of Incremental TCC Awards

An Expander may elect to accept or reject a temporary or final award of Incremental TCCs in its entirety. Partial acceptances shall not be permitted. Deadlines for confirming the acceptance or rejection of an award shall be specified in the ISO Procedures.

An Expander that elects to accept a final award of Incremental TCCs shall inform the ISO, no later than the time that it accepts its final award, of the awarded Incremental TCCs' duration. Incremental TCCs shall have a duration of no less than twenty and no more than fifty years, starting on the date that the final award becomes effective, provided that their duration may not exceed the expected operating life of the associated Expansion. The ISO shall record the existence and duration of the Incremental TCCs in the Automated Market System.

If an Expander fails to accept a final award of Incremental TCCs and to specify the award's duration by the deadline established in the ISO Procedures it will forfeit its right to collect Day-Ahead Market Congestion Rent payments in connection with the Incremental TCCs until it confirms its acceptance in the manner specified in the ISO Procedures.

19.2.4.7 Attributes of Incremental TCCs

Incremental TCCs, but not partial outage Incremental TCCs, shall have the same attributes as other TCCs and shall be subject to the same rules under the ISO Tariffs, except as specifically provided in this Section 19.2.4.

19.2.4.8 Restrictions on Transfers of Incremental TCCs

19.2.4.8.1 Secondary Market transfers of fewer than all of the Incremental TCCs

associated with a given Expansion that were included in a final award shall not be allowed with the exception of allowable Secondary Market transfers as provided in Section 19.2.4.8.2; an Expander may only make Secondary Market transfers of

all of the Incremental TCCs for all of the POI/POW combinations that were included in a final award for a given Expansion. This restriction shall not prohibit the sale of fewer than all of the Incremental TCCs included in a final award through a Centralized TCC Auction or a Reconfiguration Auction. Secondary Market transfers of Incremental TCCs shall be made pursuant to the provisions of OATT Section 19.6.2. Transferees of Incremental TCCs that choose to become Primary Holders shall be subject to all existing ISO credit requirements and may be subject to any future credit requirements that may be applied to TCCs with a duration longer than one year.

19.2.4.8.2 An Expander may make a Secondary Market transfer pursuant to OATT Section 19.6.2 of fewer TCCs than all of the Incremental TCCs finally awarded for a given Expansion for which it is the Primary Holder provided that the Expander received a single final award of Incremental TCCs for the Expansion which award specified the same POI and the same POW combination. To comply with the requirement of a single final award with the same POI and POW, POIs or POWs that represent individual units of a Generator comprised of a group of generating units shall be deemed the same POI or POW.

A Secondary Market transfer by an Expander of all or a portion of its Incremental TCCs awarded for a given Expansion, pursuant to Sections 19.2.4.8.2 and 19.6.2, that is an assignment of the Incremental TCCs shall also operate as an assignment of the annual option to terminate the assigned Incremental TCCs, available pursuant to Section 19.2.4.9.

Incremental TCCs that are awarded pursuant to a temporary award may not be sold or transferred through a Secondary Market transfer, through a Centralized TCC Auction, through a Reconfiguration Auction, or otherwise.

19.2.4.9 Early Termination of Incremental TCCs

An Expander or its assignee shall have an annual option to terminate Incremental TCCs for which it is the Primary Holder and which were finally awarded to the Expander for a given Expansion. This annual option extends only to the entire portfolio of Incremental TCCs held by the Expander or its assignee for a given Expansion; early termination of a partial award of Incremental TCCs for a given Expansion held by a Expander or its assignee shall not be permitted. The annual option to terminate Incremental TCCs shall expire: i) with the early termination of those Incremental TCCs pursuant to this paragraph; ii) with the Expander's assignment of those Incremental TCCs; or iii) with a Secondary Market transfer of all or a portion of those Incremental TCCs, which expiration would apply only to the transferred portion of the Incremental TCCs and only for the duration of the Secondary market transfer.

To terminate its Incremental TCCs, the Expander, or the Expander's assignee, shall provide a notice of early termination and a proposed expiration date by Certified, Return-Receipt U.S. Mail, or by a reputable commercial courier service employing a parcel tracking system to the ISO at least one year in advance of the proposed early termination date which notice shall be irrevocable. The termination date for Incremental TCCs that were subject to a notice of early termination shall be the last day of a Capability Period which date occurs no earlier than one year after the notice of proposed early termination has been received by the ISO.

19.2.4.9.1 Upon receiving the notice of an early termination, the ISO shall promptly notice the market of the effective date of the early termination. To ensure that

Centralized TCC Auctions following a notice of early termination start with a simultaneously feasible security constrained Power Flow, the ISO may: i) update its ISO Procedures to include prohibited bid points or combinations of prohibited bid points at which TCCs with durations of longer than one year may not be available in a future Centralized TCC Auction or Reconfiguration Auction, as a result of the notice of early termination; and / or ii) rather than effectuate the termination date, require that the Incremental TCC award proposed for early termination be apportioned such that the Incremental TCCs terminate in portions over as many as 12 months, beginning with the initial termination date. To terminate Incremental TCCs in portions over as many as 12 months, the ISO shall establish up to two additional termination dates following the initial termination date, and assign Incremental TCCs to each termination date, which additional termination dates shall fall at the end of the Capability Period(s) that follow the initial termination date.

Any prohibition on bid points resulting from a notice of early termination of Incremental TCCs in order to avoid infeasibility shall expire as of the first Capability Period following the last termination date of the Incremental TCCs.

19.2.4.10 Outage Charges

Any person or entity that is not subject to Section 20.2.5 of Attachment N to the ISO OATT and that owns an Expansion (or a portion of an Expansion) associated with a temporary or final award of Incremental TCCs, or has been assigned Incremental TCCs by an Expander, shall pay an outage charge to the ISO for any hour in the Day-Ahead Market during which the Expansion associated with the Incremental TCCs is modeled to be wholly or partially out of

service. All outage charges shall be implemented through the billing of Day-Ahead Market Congestion Rents to the person or entity responsible for paying the outage charge and, as such, will be credits to Day-Ahead Market Congestion Rents in the ISO settlement system.

Outage charges shall be determined as follows:

- If the entire Expansion is modeled as out of service in the Day-Ahead Market; the outage charge shall be equal to the Day-Ahead Market Congestion Rent payment for all of the Incremental TCCs associated with the entire Expansion.
- If one or more portions of an Expansion are modeled as out of service in the Day-Ahead Market, or derated by the outage of an External Transmission facility, and Partial Outage Incremental TCCs have not been created, the outage charge shall be equal to the Day-Ahead Market Congestion Rent payment for all of the Incremental TCCs associated with the entire Expansion.
- If one or more portions of an Expansion are modeled as out of service in the Day-Ahead Market or are caused to be out of service or derated by the outage of an External transmission facility, and Partial Outage Incremental TCCs have been created for such an out-of-service state or derating, the outage charge shall be calculated as follows:

$$\text{Outage charge} = A - B$$

where:

- “A” is the sum, over all different POI and POW combinations associated with the Incremental TCCs for an Expansion, of the product of (i) the Congestion Component at the POW minus the Congestion Component at the POI; and (ii) the number of Incremental TCCs between that POI and POW associated with the Expansion, and

- “B” is the sum, over all different POI and POW combinations associated with the Partial Outage Incremental TCCs for that out-of-service state or derating of the Expansion, of the product of: (i) the Congestion Component at the POW minus the Congestion Component at the POI; and (ii) the number of Partial Outage Incremental TCCs between that POI and POW associated with that out-of-service state or derating of the Expansion.

19.2.4.11 Incremental TCCs for System Deliverability Upgrades

In accordance with, as applicable, Section 25.7.2 of Attachment S or Section 40.13.2 of Attachment HH to the ISO OATT, the Transmission Owner(s) responsible for constructing a System Deliverability Upgrade shall be the entity(ies) to submit requests for awards of Incremental TCCs pursuant to this Section 19.2.4 for each System Deliverability Upgrade, which will constitute the Expansion for purposes of each such request. The ISO shall evaluate each such request in accordance with the requirements of this Section 19.2.4 to determine any applicable temporary and/or final Incremental TCC awards for each System Deliverability Upgrade, including any Partial Outage Incremental TCCs relating thereto. Unless otherwise specified herein, Incremental TCCs resulting from System Deliverability Upgrades will be subject to the same requirements as Incremental TCCs awarded to any other Expansion pursuant to this Section 19.2.4, including the payment of any outage charges pursuant to Section 19.2.4.10 of this Attachment M.

If the ISO determines that a System Deliverability Upgrade is eligible to receive an award of Incremental TCCs, including any Partial Outage Incremental TCCs relating thereto, the ISO will allocate the determined award among the applicable Developers or Interconnection Customers eligible to receive Incremental TCCs related to the System Deliverability Upgrade and/or the Transmission Owner(s) responsible for constructing the System Deliverability

Upgrade in accordance with the requirements of, as applicable, Section 25.7.2 of Attachment S or Section 40.13.2 of Attachment HH to the ISO OATT. Each Developer or Interconnection Customer eligible to receive Incremental TCCs related to the System Deliverability Upgrade shall be provided the right to elect to receive its respective portion of such Incremental TCCs pursuant to Section 19.2.4.6 of this Attachment M. To the extent necessary to facilitate the potential for transfers to subsequent Developers or Interconnection Customers that pay for the use of Headroom pursuant to, as applicable, Attachment S or HH of the ISO OATT on a System Deliverability Upgrade that has been awarded Incremental TCCs, Incremental TCCs that are declined by a Developer or an Interconnection Customer will be deemed reserved. Incremental TCCs that are declined by a Developer or an Interconnection Customer and not otherwise deemed reserved will be deemed permanently terminated.

If subsequent Developer or Interconnection Customers pay for the use of Headroom pursuant to Attachment HH of the ISO OATT on a System Deliverability Upgrade that has been awarded Incremental TCCs, such subsequent Developers or Interconnection Customers will be provided a right to elect to receive any applicable Incremental TCCs to which they may be eligible to receive in accordance with, as applicable, Sections 25.7.2 and 25.7.12 of Attachment S or Sections 40.13.2 and 40.13.12 of Attachment HH to the ISO OATT. Incremental TCCs to be made available to subsequent Developers or Interconnection Customers will, as applicable, be obtained by the ISO by reducing the Incremental TCCs related to the System Deliverability Upgrade that were previously: (i) awarded to the Developers or Interconnection Customers that initially paid for the System Deliverability Upgrade; (ii) awarded to the Transmission Owner(s) responsible for constructing the System Deliverability Upgrade; and/or (iii) deemed reserved as a result of prior declination and/or termination, in accordance with the requirements of, as

applicable, Section 25.7.2 of Attachment S or Section 40.13.2 of Attachment HH to the ISO OATT. Incremental TCCs that were previously deemed reserved and are transferred to a subsequent Developer or Interconnection Customer will become effective on the first day of the Capability Period that commences following the next Centralized TCC Auction conducted after the subsequent Developer or Interconnection Customer makes the necessary Headroom payment and elects to receive its proportionate share of Incremental TCCs. Incremental TCCs that are declined by a subsequent Developer or Interconnection Customer will be deemed permanently terminated.

Any Developer or Interconnection Customer that elects to receive Incremental TCCs related to a System Deliverability Upgrade shall have the right to terminate its Incremental TCCs in accordance with Section 19.2.4.9 of this Attachment M. Incremental TCCs terminated by a Developer or an Interconnection Customer that initially paid for a System Deliverability Upgrade will, to the extent necessary to facilitate the potential for transfers to subsequent Developers or Interconnection Customers that pay for the use of Headroom pursuant to Attachment S or HH of the ISO OATT on a System Deliverability Upgrade that has been awarded Incremental TCCs, be deemed reserved. Incremental TCCs that are terminated by a Developer or an Interconnection Customer that initially paid for a System Deliverability Upgrade and not otherwise deemed reserved will be deemed permanently terminated. Incremental TCCs terminated by a subsequent Developer or Interconnection Customer that paid for the use of Headroom on a System Deliverability Upgrade will be deemed permanently terminated.

Notwithstanding anything to the contrary in this Section 19.2.4, Incremental TCCs awarded as a result of System Deliverability Upgrades may not be sold or transferred through a Centralized TCC Auction, Reconfiguration Auction or the Secondary Market. Incremental

TCCs related to a System Deliverability Upgrade that are deemed reserved as a result of prior declination or termination will not be considered as active or valid for the period during which they remain deemed reserved. Incremental TCCs related to a System Deliverability Upgrade that were previously deemed reserved as a result of prior declination or termination will be deemed permanently terminated when the Headroom on the System Deliverability Upgrade ceases to exist or is otherwise reduced to zero in accordance with, as applicable, Section 25.8.7.4 of Attachment S or Section 40.17.1.4 of Attachment HH to the ISO OATT.

19.8 Auctions for TCCs

19.8.1 Overview

The ISO will conduct Centralized TCC Auctions before each Capability Period. Winning bidders in each such auction will purchase TCCs that will be valid for one or more Capability Periods, beginning with the first Capability Period that begins after the conclusion of the auction. The ISO will also conduct Reconfiguration Auctions each month. Winning bidders in each such auction will purchase TCCs valid for one or more calendar months within the same Capability Period, beginning with the calendar month that begins after the conclusion of the auction.

19.8.2 Description of the Reduction Process For Reducible ETCNL/GFTCCs

Before each Centralized TCC Auction, the ISO shall ensure that all of the following correspond to a simultaneously feasible security constrained Power Flow: (i) existing TCCs and Grandfathered Rights that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction, including but not limited to Fixed Price TCCs that were created pursuant to Section 19.2.1 (including Section 19.2.1.4) or Section 19.2.2. of this Attachment M and Incremental TCCs awarded pursuant to Section 19.2.4 of this Attachment M; Grandfathered TCCs not subject to reduction and Original Residual TCCs to the extent not previously used to support the purchase of TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction (henceforth “TCCs and Grandfathered Rights listed in Section 19.8.2 (i)”); and (ii) ETCNL (to the extent not previously used to support the purchase of TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction) and Grandfathered TCCs subject to reduction as listed in Table 1 of this Attachment M (henceforth “Table 1 ETCNL/TCCs”). In some cases, the total set of all the TCCs, Grandfathered Rights, and Table 1 ETCNL/TCCs listed in (i) through (ii) above may not

correspond to a simultaneously feasible Power Flow in some period of time. In such cases, Table 1 ETCNL/TCCs, will be reduced for that period in order to make the total set of TCCs and Grandfathered Rights listed in Section 19.8.2 (i), and Table 1 ETCNL/TCCs remaining after reduction correspond to a simultaneously feasible Power Flow.

This reduction procedure will use the same optimization model that will be used in the Centralized TCC Auction to determine the amount by which Table 1 ETCNL/TCCs will be reduced. Each of the TCCs and Grandfathered Rights listed in Section 19.8.2 (i) above will be represented in the Centralized TCC Auction model by a fixed injection of 1 MW at its Point of Injection, and a fixed withdrawal of 1 MW at its Point of Withdrawal. In addition, Table 1 ETCNL/TCCs will be represented in the model, but they will be represented in such a way as to allow their reduction. To do so, bids for each Table 1 ETCNL/TCC will consist of a line which intersects the y-axis at \$1/TCC (or any other value selected by the ISO, so long as that value is constant for each bid curve for all of these Table 1 ETCNL/TCCs) and which intersects the x-axis at 1 MW. An example of the bid curve B_j for a representative Table 1 ETCNL/TCC is illustrated in the diagram below.

The TCC auction software will determine the amount of each Table 1 ETCNL/TCC that will remain after reduction, which is designated as A_j in the diagram. The objective function that the TCC auction software will use to determine these coefficients A_j will be to maximize:

$$\sum_{j \in N} \int_0^{A_j} B_j$$

Where:

N = The set of Table 1 ETCNL/TCCs

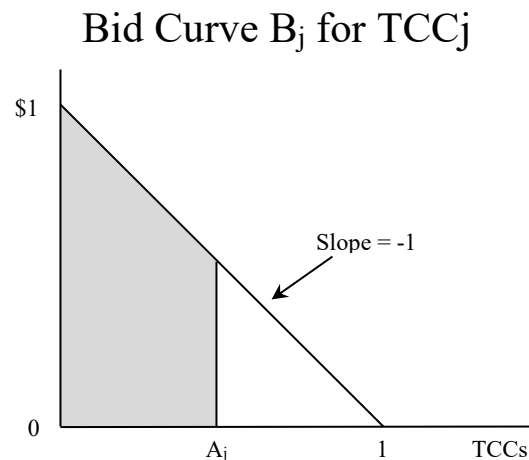
j = Any individual Table 1 ETCNL/TCC

A_j = Any amount of each Table 1 ETCNL/TCC(j) remaining

B_j = As defined by the diagram

subject to the constraint that injections and withdrawals corresponding to the TCCs and Grandfathered Rights listed in Section 19.8.2(i) and Table 1 ETCNL/TCCs remaining after reduction must be simultaneously feasible in a Power Flow.

As a result, the objective function will maximize the area under the bid curve for each Table 1 ETCNL/TCC that remains after reduction, summed over all Table 1 ETCNL/TCCs, subject to the simultaneous feasibility constraint. This area for one Table 1 ETCNL/TCC is illustrated in the following diagram:



The ISO shall apply this methodology as follows:

19.8.2.1 first, on the Table 1 ETCNL/TCCs (prior to the conversion of any ETCNL to ETCNL TCCs), and

19.8.2.2 second, on the Table 1 ETCNL/TCCs remaining after conversion into ETCNL TCCs of ETCNL included in such Table 1 ETCNL/TCCs.

For purpose of the second reduction, a holder of ETCNL may elect to disaggregate the ETCNL in accordance with ISO Procedures prior to conducting the reduction process. If a

Transmission Owner elects to have its ETCNL disaggregated, the number of MW of ETCNL allocated to that Transmission Owner specifying each Load Zone as its POW shall be replaced by the same number of MW of ETCNL, specifying the same POI as the original ETCNL, but specifying various buses within that Load Zone as the POWs, as determined in accordance with ISO Procedures.

To the extent more than one model is used in a given Centralized TCC Auction (*e.g.*, to reflect different summer / winter ratings), the ISO shall retest the Table 1 ETCNL/TCCs remaining after reduction so as to avoid reducing the Table 1 ETCNL/TCCs more than is necessary to prevent infeasibility in a given Sub-Auction. However, any Table 1 ETCNL/TCC that is deemed infeasible in one Centralized TCC Auction may be deemed reduced and not eligible for retesting in a subsequent Centralized TCC Auction.

19.8.3 Transmission Capacity Sold in Centralized Auctions for TCCs

Transmission Owners with ETCNL will release that transmission Capacity to support the sale of TCCs in each Centralized TCC Auction, unless the Transmission Owner has converted the ETCNL into ETCNL TCCs pursuant to Section 19.4 of this Attachment M. Transmission Owners which have not sold their Original Residual TCCs through a Direct Sale on the OASIS prior to the Centralized TCC Auction, shall sell them through the Centralized TCC Auction. Transmission Owners may retain their Grandfathered TCCs. If it sells Grandfathered TCCs, a Transmission Owner shall do so either through Direct Sales or through Centralized TCC Auctions or Reconfiguration Auctions.

Capacity associated with the termination of ETAs in effect on November 19, 1999, listed in Table 1A of Attachment L to this OATT (as it may be amended), that conferred transmission rights on an LSE and is not used to create Historic Fixed Price TCCs, pursuant to Section 19.2.1

of this Attachment M (including extensions of Historic Fixed Price TCCs awarded pursuant to Section 19.2.1.4 of this Attachment M) shall be converted into Residual Transmission Capacity.

In each Centralized TCC Auction, the following transmission Capacity not required to support already-outstanding TCCs or Grandfathered Rights and not withheld pursuant to Section 19.1.1 of this Attachment M shall be available to support TCCs that can be purchased in that Centralized TCC Auction:

19.8.3.1 following any reduction pursuant to Section 19.8.2 of this Attachment M, all of the transmission Capacity associated with ETCNL (a) that the Transmission Owners do not sell through a Direct Sale in advance of the Centralized TCC Auction, (b) that the Transmission Owners do not convert to ETCNL TCCs, and (c) that has not been used to support the sale of existing TCCs that are valid for any part of the duration of any TCCs sold in the Centralized TCC Auction;

19.8.3.2 all of the transmission Capacity associated with Original Residual TCCs, that the Transmission Owners do not sell through a Direct Sale in advance of the Centralized TCC Auction and that has not been used to support the sale of existing TCCs that are valid for any part of the duration of any TCCs sold in the Centralized TCC Auction;

19.8.3.3 all of the transmission Capacity associated with TCCs offered for sale by TCC Primary Holders; and

19.8.3.4 any Residual Transmission Capacity; provided, however, that, in determining Residual Transmission Capacity for the Centralized TCC Auction, the ISO shall exclude consideration of transmission Capacity associated with the CHPE MTF.

19.8.4 Centralized TCC Auctions

TCCs with durations of 6 months and 1 year shall be available in each Centralized TCC Auction. TCCs with durations of 2 years, 3 years, 4 years, or 5 years may also be available in the Centralized TCC Auction, at the ISO's discretion.

The final decision concerning the percentage of the transmission Capacity that will be available in the Centralized TCC Auction to support TCCs of different durations will be made by the ISO. The ISO will conduct a polling process to assess the market demand for TCCs with different durations, which it will take into consideration when making this determination. The ISO may elect not to sell any TCCs with one or more of the above durations. However, all transmission Capacity not associated with [the CHPE MTF](#), ETAs or outstanding TCCs or not reserved through conversion of ETCNL to ETCNL TCCs or RCRRs to RCRR TCCs must be available to support TCCs of some duration sold in the Centralized TCC Auction that have a start date of the first day of the Capability Period that commences immediately following the completion of such Centralized TCC Auction.

The Centralized TCC Auction will consist of a series of Sub-Auctions. For TCCs with the same start date, such Sub-Auctions will be conducted consecutively. In each Sub-Auction, TCCs of a single duration will be available (e.g., only TCCs with a five-year duration might be available in one Sub-Auction). Sub-Auctions for TCCs with the same start date will be conducted in decreasing order of the length of the period for which TCCs sold in the Sub-Auction are valid. Therefore, if the ISO were to determine that five years would be the maximum length of TCCs available in the Centralized TCC Auction for TCCs with a particular start date, then the Sub-Auction for TCCs with a duration of five years would be held first. All TCCs sold in the 5-year TCC Sub-Auction (other than those offered for sale in the next Sub-Auction, as described in Section 19.9.1) would then be modeled as fixed injections and withdrawals in the next Sub-

Auction, in which TCCs with the same start date of the next longest duration, as determined by the ISO (*e.g.*, four years), would be available for purchase. Following that Sub-Auction, TCCs with the same start date sold in either of the first two Sub-Auction (other than those offered for sale in the next Sub-Auction) would then be modeled as fixed injections and withdrawals in the third Sub-Auction for TCCs with the same start date (*e.g.*, a Sub-Auction for three-year TCCs with the same start date), etc.

Each Sub-Auction shall normally consist of at least four rounds unless the Transmission Owners that are subject to Attachment N of this Tariff unanimously consent to fewer rounds. The ISO shall have the authority to determine the percentage of the available transmission Capacity that will be available to support TCCs sold in each round of each Sub-Auction such that all of the transmission Capacity offered for sale in that Sub-Auction shall be offered by the last round of that Sub-Auction. The ISO shall announce these percentages before the Sub-Auctions. The “scaling factor” for each round shall equal the percentage of available transmission Capacity that has not yet been made available to support the sale of TCCs in previous rounds, divided by the percentage of available transmission Capacity that will be made available to support the sale of TCCs in that round.

The ISO shall also determine the maximum duration of TCCs sold in the Centralized TCC Auction, and whether the TCCs sold in the Centralized TCC Auction shall be separately available for purchase as on-peak and off-peak TCCs. (For purposes of this Attachment, the on-peak period will include the hours from 7 a.m. to 11 p.m. Prevailing Eastern Time Monday through Friday. The remaining hours in each week will be included in the off-peak period.)

Notwithstanding anything to the contrary herein, for the Centralized TCC Auction that immediately follows a Centralized TCC Auction in which the ISO has sold two-year TCCs, the

ISO may conduct a single round one-year Sub-Auction for TCCs with a start date that is the same as the second year of the previously sold two-year TCCs; provided, however, that the amount of transmission Capacity made available to support the sale of one-year TCCs in such single round one-year Sub-Auction shall not exceed the lesser of: (a) five percent of the transmission Capacity not otherwise required to support already-outstanding Grandfathered Rights, Grandfathered TCCs, Fixed Price TCCs, Incremental TCCs, ETCNL TCCs, and RCRR TCCs; and (b) the amount of transmission Capacity that the ISO made available to support the sale of two-year TCCs in the prior Centralized TCC Auction. The remaining transmission Capacity to be made available by the ISO to support the sale of one-year TCCs with a start date that is the same as the one-year TCCs offered for sale during such single round one-year Sub-Auction shall be made available to support the sale of one-year TCCs in the next Centralized TCC Auction conducted after the Centralized TCC Auction including such single round one-year Sub-Auction.

19.8.5 Reconfiguration Auctions

A Reconfiguration Auction is an auction in which TCCs with a duration of one or more months within the same Capability Period may be offered and purchased. This will allow Market Participants to purchase and sell short-term TCCs. Reconfiguration Auctions will also capture short-term changes in transmission Capacity. The ISO will conduct Reconfiguration Auctions monthly and TCCs purchased in Reconfiguration Auctions will be valid for the applicable month or months following the Reconfiguration Auction. A Reconfiguration Auction will consist of a single round. Any Primary Holder of a TCC that is valid for a month in which TCCs are being sold in the Reconfiguration Auction, including a purchaser of a TCC in a Centralized TCC Auction that has not sold that TCC and a Transmission Owner that is the

Primary Holder of an ETCNL TCC or a Member System that is the Primary Holder of a RCRR TCC, may offer that TCC for sale in a Reconfiguration Auction; provided however that the sale of TCCs in a Reconfiguration Auction shall be subject to the limitations and prohibitions set forth in this ISO OATT including the limitation on the sale or transfer of Fixed Price TCCs and the limitation on the sale or other transfer of Incremental TCCs. The transmission Capacity used to support these TCCs, as well as any other transmission Capacity not associated with the CHPE MTF or not required to support already-outstanding TCCs or Grandfathered Rights, will be available to support TCCs purchased in the Reconfiguration Auction.

Transmission Capacity made available for transmission rights in durations of no more than one month pursuant to Section 19.1.1 shall be released in Reconfiguration Auctions.

19.9 Procedures for Sales of TCCs in Each Auction

19.9.1 Auction Structure

TCCs may be offered for sale in each Sub-Auction round of the Centralized TCC Auction.

TCCs purchased in any round of any Sub-Auction may be resold in a subsequent round of that Centralized TCC Auction for TCCs with the same start date. For example, the purchaser of a 5-year TCC purchased in the 5 year Sub-Auction may release a 4-year TCC with the same Point of Injection and Point of Withdrawal for sale in the 4-year Sub-Auction for TCCs with the same start date. Similarly, that purchaser could instead release a corresponding 3-year TCC for sale in the 3-year Sub-Auction for TCCs with the same start date.

The following holders of TCCs may offer to sell TCCs in any round of a Sub-Auction appropriate to their duration: (i) Primary Holders who did not sell those TCCs in a Direct Sale or in a previous round of the Centralized TCC Auction; (ii) purchasers of TCCs in previous rounds of that Centralized TCC Auction or in previous auctions who have not subsequently sold those TCCs through an auction; and (iii) purchasers of TCCs through a Direct Sale who qualify to become Primary Holders and have not already sold those TCCs through an auction or through a Direct Sale, provided however that the sale of TCCs shall be subject to the limitations and prohibitions set forth in this ISO OATT including the limitation on the sale or transfer of Fixed Price TCCs and the limitation on the sale or other transfer of Incremental TCCs.

19.9.1.1 Bid Requirements

Bidders shall submit Bids into the Centralized TCC Auction in accordance with this Attachment M and ISO Procedures. Bidders shall submit Bids such that the sum of the value of its Bids shall not exceed that bidder's ability to pay for TCCs, as determined by ISO Procedures.

19.9.1.2 Bidding Rounds

Bidders shall be awarded TCCs in each round of the Centralized TCC Auction and shall be charged the market-clearing price for that round, as determined by the ISO in accordance with Section 19.9.5 of this Attachment M, for all TCCs they purchase.

19.9.1.3 Reconfiguration Auctions

All rules stated in this Section 19.9 for the auction rounds of a Centralized TCC Auction shall also apply to Reconfiguration Auctions unless otherwise stated or the context otherwise requires it. The scaling factor for the single round of a Reconfiguration Auction shall be one.

19.9.2 Responsibilities of the ISO

The ISO shall establish the auction rules and procedures consistent with this Tariff. The ISO shall conduct the Optimal Power Flows in each round of the Centralized TCC Auction. The ISO will verify that the Optimal Power Flows calculated in each round of the Centralized TCC Auction corresponds to a simultaneously feasible Power Flow as described in Section 19.9.7 of this Attachment M. The ISO shall notify the Transmission Owners if: (1) the Optimal Power Flow results calculated are inaccurate; or (2) the Optimal Power Flow is not calculated in accordance with the correct procedure.

Additionally, the ISO will determine the information pertaining to the auction to be made available to Centralized TCC Auction participants over the OASIS and publish information on its OASIS accordingly. The ISO may develop a list of POIs and POWs between which TCCs may not be purchased and shall post such list on its OASIS. The ISO will identify the details to be included in development of the auction software and arrange for development of the software.

The ISO will apply the credit requirements established in this ISO OATT and Attachment K of the NYISO Services Tariff to Primary Holders of TCCs and to bidders in the Centralized TCC Auctions and Reconfiguration Auctions.

The ISO shall not reveal the Bid Prices submitted by any bidder in the Centralized TCC Auction until three months after the Bids were submitted. When these Bid Prices are posted, the names of the bidders shall not be publicly revealed, but the data shall be posted in a way that permits third parties to track each individual bidder's Bids over time.

The ISO will settle all Centralized TCC Auctions and Reconfiguration Auctions, and will settle all Congestion settlements related to the Day-Ahead Market, pursuant to Attachment N.

19.9.3 Additional Responsibilities of the ISO

The ISO shall be capable of completing the Centralized TCC Auction within the time frame specified in this Attachment M.

The ISO will establish an auditable information system to facilitate analysis and acceptance or rejection of Bids, and to provide a record of all Bids and the award of Fixed Price TCCs. The ISO shall also provide all necessary assistance in the resolution of disputes that arise from questions regarding the acceptance, rejection, award and recording of Bids, or the award of Fixed Price TCCs, pursuant to Section 19.2.1 (including Section 19.2.1.4) or Section 19.2.2.above. The ISO will establish a system to communicate auction-related information to all auction participants between rounds of the Centralized TCC Auction. (This last requirement will not apply to single-round auctions.)

The ISO will receive Bids to buy TCCs from any entity that meets the eligibility criteria established in this ISO OATT and will implement the auction bidding rules previously established by the ISO. In accordance with ISO Procedures, the ISO shall unbundle TCCs in

accordance with a request made by a Transmission Customer awarded a TCC. Unbundling TCCs shall consist of replacing that TCC with an equivalent set of TCCs. In all cases, the amount payable to (or by) the Primary Holder of such a set of TCCs will be equal to the amount payable to (or by) the Primary Holder of the original TCC.

The ISO will be required to solve Optimum Power Flows for the NYS Transmission System; properly utilize an Optimum Power Flow program to determine the set of winning Bids for each round of the Centralized TCC Auction; and calculate the market-clearing price of all TCCs at the conclusion of each round of the Centralized TCC Auction, in the manner described in this Attachment M.

19.9.4 Responsibilities of each Bidder

To qualify to submit Bids and offers in a Centralized TCC Auction, a party shall register as a Customer or Transmission Customer and shall otherwise comply with all applicable registration requirements established in ISO Procedures. All Customers and Transmission Customers seeking to submit Bids and offers in a Centralized TCC Auction shall comply with all applicable credit requirements as set forth in Attachment K of the NYISO Services Tariff.

Each bidder shall submit Bids to purchase and sell TCCs into the Centralized TCC Auction in accordance with this Attachment M and ISO Procedures. Each bidder shall submit the following information with its Bids to purchase TCCs: (i) the number of TCCs for which an offer to purchase is made, (ii) the Bid Price (in \$/TCC) which represents the maximum amount the bidder is willing to pay for the TCC (Bid Prices may be negative, indicating that a bidder would have to be paid in order to accept a TCC); (iii) the location of the Point of Injection and the Point of Withdrawal for the TCC to which the Bid applies (these locations may be any locations for which the ISO calculates an LBMP and which is otherwise available as a TCC POI

or POW); and (iv) if the auction is a Balance-of-Period, the month(s) for which the bidder is bidding. Additionally, if the ISO offers TCCs for sale that are valid in sub-periods (e.g., on-peak or off-peak TCCs), this information must also be provided by the Bidder.

Each bidder must submit such information to the ISO regarding the bidder's or LSE's creditworthiness as the ISO may require, along with a statement signed by the bidder, or LSE representing that the bidder or LSE is financially able and willing to pay for the TCCs for which it is bidding. The aggregate value of the Bids submitted by any bidder into the Centralized TCC Auction shall not exceed that bidder's ability to pay or the maximum value of Bids that bidder is permitted to place, as determined by the ISO (based on an analysis of that bidder's creditworthiness).

19.9.5 Selection of Winning Bids and Determination of the Market-Clearing Price

The ISO shall determine the winning set of Bids in each round of the Centralized TCC Auction as follows: (i) the ISO shall use an Optimal Power Flow program with the initial assumptions identified by the ISO; (ii) the Optimal Power Flow shall use the same Reference Bus and system security constraints assumptions as used by the ISO subject to ISO Procedures; provided, however, that the ISO shall exclude consideration of the CHPE MTF; (iii) the ISO shall select the set of Bids that maximizes the value of the TCCs awarded to the winning bidders; (iv) the aggregate market value of the TCCs awarded to each bidder shall not exceed that bidder's ability to pay, since each bidder is not allowed to Bid more than its ability to pay as determined by the ISO; and (v) the selected set of Bids must be simultaneously feasible as described in this Attachment M.

In the Centralized TCC Auction, if the ISO elects to perform separate auctions for on-peak and off-peak TCCs, the procedure used to select winning Bids in an on-peak auction will

not depend on winning Bids selected in an off-peak auction; nor shall the procedure used to select winning Bids in an off-peak auction depend on winning Bids selected in an on-peak auction.

The market-clearing price for each TCC in each round of a Centralized TCC Auction shall be determined using a similar algorithm to that used to determine LBMPs (refer to Attachment J and ISO Procedures). For a Balance-of-Period Auction, if an awarded TCC has a duration of more than one month, the market-clearing price for such multi-month TCC will equal the sum of the market-clearing prices for one-month TCCs with the same Point of Injection and Point of Withdrawal, which in aggregate cover the same period for which the multi-month TCC is valid.

19.9.6 Settlements, Billing, Payment, and Disputes

Each bidder must pay the market-clearing price for each TCC it is awarded in the Centralized TCC Auction.

Charges for TCCs awarded in an auction, shall be billed upon completion of the Centralized TCC Auction or Reconfiguration Auction process through the delivery of an award notice by the ISO. The ISO shall establish a dispute period which follows the conclusion of the Centralized TCC Auction or Reconfiguration Auction during which challenges to awards may be made and mistakes in the calculation of market-clearing prices may be corrected. Notice of the dispute period established by the ISO and of procedures to be employed in bringing a dispute or correcting a market-clearing price shall be provided by the ISO on its OASIS.

Following the resolution of challenges, if any, to Centralized TCC Auction or Reconfiguration Auction awards, or mistakes in the calculation of market-clearing prices, raised during the dispute period, charges and payments for TCCs awarded or sold in the Centralized

TCC Auction and Reconfiguration Auction shall be final as provided in the award notices provided by the ISO and shall not be subject to revision.

19.9.7 Simultaneous Feasibility

The set of winning Bids selected in each round of a Sub-Auction shall correspond to a simultaneously feasible Power Flow.

The Power Flow must be able to accommodate in each round injections and withdrawals corresponding to each of the following TCCs and Grandfathered Rights: (i) TCCs not offered for sale in that round, including Grandfathered TCCs, Original Residual TCCs, or any other existing TCCs whether purchased in a previous auction, an earlier round of the current Centralized TCC Auction or otherwise acquired that are valid for any part of the duration of any TCCs to be sold in that round (or in the case of a Balance-of-Period Auction are valid for the relevant month at issue), as well as TCCs offered for sale in that round but not awarded that are valid for any part of the duration of any TCCs to be sold in that round (or in the case of a Balance-of-Period Auction are valid for the relevant month at issue); (ii) Grandfathered Rights; and (iii) TCCs awarded in the current round. Each injection and withdrawal associated with Bids for TCCs will be multiplied by a scaling factor which apportions the transmission Capacity available among each of the rounds.

A set of injections and withdrawals shall be judged simultaneously feasible if it would not cause any thermal, voltage, or stability violations within the NYCA for base case conditions or any monitored contingencies excluding consideration of the CHPE MTF.

When performing Power Flows for the purpose of determining simultaneous feasibility, injections for TCCs that specify a Load Zone as the Point of Injection will be modeled as a set of injections at each Load bus in the Load Zone containing the Point of Injection equal to the

product of the number of TCCs and the ratio of Load served at each bus to Load served in the Load Zone, based on the bus Loads used in calculating zonal LBMPs.

When performing the above Power Flows, withdrawals for TCCs that specify a Load Zone as the Point of Withdrawal will be modeled as a set of withdrawals at each Load bus in the Load Zone containing the Point of Withdrawal equal to the product of the number of TCCs and the ratio of the Load served at each bus to the total Load served in the Load Zone based on the ISO's estimate of the bus Loads used in calculating the Zonal LBMPs.

The Power Flow simulations shall take into consideration the effects of parallel flows on the transmission Capacity of the NYS Transmission System when determining which sets of injections and withdrawals are simultaneously feasible but will exclude consideration of the CHPE MTF.

19.9.8 Information to be Made Available to Bidders

The ISO shall provide over the ISO's OASIS the expected non-simultaneous Total Transfer Capability for each Interface (as displayed on the OASIS). Notwithstanding anything to the contrary herein, in conducting Centralized TCC Auctions and Reconfiguration Auctions, the ISO shall exclude consideration of Designated Scheduled Lines and the CHPE MTF. The PTIDs associated with the "Designated Scheduled Lines" identified in Section 4.4.4 of the NYISO Services Tariff, and with the CHPE MTF, shall not be available as Points of Injection or Points of Withdrawal in any Centralized TCC Auction or Reconfiguration Auction.

The ISO shall make the following information available before each Centralized TCC Auction or Reconfiguration Auction:

- 19.9.8.1 for each Generator bus, external bus and Load Zone for the previous ten (10) Capability Periods, if available, (a) the monthly average Congestion

Component of the Day-Ahead LBMP, relative to the Reference Bus, and (b) the monthly average Marginal Losses Component of the Day-Ahead LBMP, relative to the Reference Bus;

19.9.8.2 for the previous two Capability Periods, data from which the following can be determined: (a) the flow for each of the closed Interfaces in the Day-Ahead Market, and (b) the number of hours that the most limiting facilities were physically constrained in the Day-Ahead;

19.9.8.3 subject to a Transmission Customer's completion of a non-disclosure agreement in the form required by ISO procedures: (a) Power Flow data to be used as the starting point for the Centralized TCC Auction or Reconfiguration Auction, including all assumptions, (b) all limits associated with transmission facilities, contingencies, thermal, voltage and stability to be monitored as constraints in the Optimum Power Flow determination;

19.9.8.4 (a) assumptions made by the ISO relating to transmission maintenance outage schedules, and (b) the ISO summer and winter operating study results (non-simultaneous Interface Transfer Capabilities); and

19.9.8.5 on its website no fewer than five (5) business days prior to the date on which a Centralized TCC Auction will begin, the number of megawatts of each set of ETCNL that each Transmission Owner has elected to convert to ETCNL TCCs for the Centralized TCC Auction and the RCRRs that each Member System has elected to convert to RCRR TCCs for the Centralized TCC Auction.

The ISO shall make the following information available with respect to each Centralized TCC Auction or Reconfiguration Auction:

19.9.8.6 between each round of bidding during the Centralized TCC Auction, for all bidders bidding in subsequent rounds, the market-clearing price, stated relative to the Reference Bus for each Generator bus, External bus and Load Zone; and

19.9.8.7 for each TCC awarded in each round: (a) the number of TCCs awarded, (b) the Point of Injection and Point of Withdrawal for that TCC, (c) the market-clearing price for the TCC, (d) the auction participant awarded the TCC, and (e) if the auction is a Balance-of-Period Auction, the month(s) for which the awarded TCCs are valid.

Items 19.9.8.1, 19.9.8.2, 19.9.8.3, 19.9.8.4(b), and 19.9.8.6 above shall be made available separately for on-peak and off-peak periods, if on-peak and off-peak TCCs will be separately available for purchase in the upcoming auction.

If the auction is a Balance-of-Period Auction, items 19.9.8.4(a) and 19.9.8.6 above shall be made available separately for each month covered by the auction.

The ISO will make available information about Secondary Market transactions, and all sales of TCCs by Direct Sale, to the extent received by the ISO.

35.23 Schedule D – Market-to-Market Coordination Process – Version 1.0

NYISO & PJM
Market-to-Market Coordination Schedule
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1 Overview of the Market-to-Market Coordination Processes

The purpose of the M2M coordination processes are to set forth the rules that apply to M2M coordination between PJM and NYISO and the associated settlements processes.

The fundamental philosophy of the PJM/NYISO M2M coordination processes are to set up procedures to allow any transmission constraints that are significantly impacted by generation dispatch changes and/or Phase Angle Regulator (“PAR”) control actions in both markets to be jointly managed in the security-constrained economic dispatch models of both RTOs. This joint management of transmission constraints near the market borders will provide the more efficient and lower cost transmission congestion management solution, while providing coordinated pricing at the market boundaries.

The M2M coordination processes focuses on real-time market coordination to manage transmission limitations that occur on the Flowgates in a more cost effective manner. Coordination between NYISO and PJM will include not only joint redispatch, but will also incorporate coordinated operation of the NY-NJ PARs that are located at the NYISO – PJM interface. This real-time coordination will result in a more efficient economic dispatch solution across both markets to manage the real-time transmission constraints that impact both markets, focusing on the actual flows in real-time to manage constraints. Under this approach, the flow entitlements on the M2M Redispatch Flowgates do not impact the physical dispatch; the flow entitlements are used in market settlements to ensure appropriate compensation based on comparison of the actual Market Flows to the flow entitlements.

2 Flowgates

Only a subset of all transmission constraints that exist in either market will require coordinated congestion management. This subset of transmission constraints will be identified as Flowgates. For the purposes of the M2M coordination process (in addition to the studies described in Section 3 of this Schedule D) the following will be used in determining Flowgates.

- 2.1 NYISO and PJM will only be performing redispatch or NY-NJ PAR coordination on Flowgates that are under the operational control of NYISO or PJM. NYISO and PJM will not be performing redispatch or NY-NJ PAR coordination on Flowgates that are owned and controlled by third party entities.
- 2.2 The Parties will make reasonable efforts to lower their generator binding threshold to match the lower generator binding threshold utilized by the other Party. The generator and NY-NJ PAR binding thresholds (the shift factor thresholds used to identify the resource(s) available to relieve a transmission constraint), will not be set below 3%, except by mutual consent. This requirement is not an additional criterion for determination of Flowgates.
- 2.3 For the purpose of determining whether a monitored element Flowgate is eligible for redispatch or NY-NJ PAR coordination, a threshold for determining a significant GLDF or NY-NJ PARs PSF will take into account the number of

monitored elements. Implementation of Flowgates will ordinarily occur through mutual agreement.

- 2.4 M2M Redispatch Flowgates and Other Coordinated Flowgates that are eligible for redispatch coordination are also eligible for coordinated operation of the NY-NJ PARs. Flowgates that are eligible for coordinated operation of the NY-NJ PARs are not necessarily also eligible for redispatch coordination.
- 2.5 The NYISO shall post a list of all of the Flowgates located in the New York Control Area ("NYCA") on its web site. PJM shall post a list of all of the Flowgates located in its Control Area on its web site.

3 Flowgate Studies

To identify Flowgates the Parties will perform an off-line study to determine if there is a significant GLDF for at least one generator within the Non-Monitoring RTO, or significant PSF for at least one NY-NJ PAR, on a potential Flowgate within the Monitoring RTO that is greater than or equal to the thresholds as described below. The study shall be based on an up-to-date power flow model representation of the Eastern Interconnection, with all normally closed Transmission Facilities in-service. The transmission modeling assumptions used in the Flowgate studies will be based on the same assumptions used for determining M2M Entitlements in Section 6 of this Schedule D.

- 3.1 Either Party may propose that a new Flowgate be added at any time. The Parties will work together to perform the necessary studies within a reasonable timeframe.
- 3.2 The GLDF thresholds for a Other Coordinated Flowgate with one or more monitored elements are defined as:
 - i. Single monitored element, 5% GLDF on any resource;
 - ii. Two monitored elements, 7.5% GLDF on any resource; and
 - iii. Three or more monitored elements, 10% GLDF on any resource.

For potential Other Coordinated Flowgates that pass the above GLDF criteria, the Parties must still mutually agree to add each Flowgate for NY-NJ PAR and redispatch coordination.

- 3.3 The GLDF thresholds for a M2M Redispatch Flowgate with one or more monitored elements are defined as:
 - i. Single monitored element, 5% GLDF on any Qualified Resource;
 - ii. Two monitored elements, 7.5% GLDF on any Qualified Resource; and

- iii. Three or more monitored elements, 10% GLDF on any Qualified Resource.

For potential M2M Redispatch Flowgates that pass the above GLDF criteria, the Parties must still mutually agree to add each Flowgate for NY-NJ PAR and redispatch coordination.

3.4 The NY-NJ PARs PSF thresholds for NY-NJ PAR Coordinated Flowgates with one or more monitored elements are defined as:

1. Single monitored element, 5% NY-NJ PARs PSF;
2. Two monitored elements, 7.5% NY-NJ PARs PSF; and
3. Three or more monitored elements, 10% NY-NJ PARs PSF.

For potential Flowgates that pass the above NY-NJ PARs PSF criteria, the Parties must still mutually agree to add each Flowgate for coordinated operation of the NY-NJ PARs.

3.5 The Parties can also mutually agree to add a Flowgate that does not satisfy the above GLDF or PSF criteria.

4 Removal of Flowgates from M2M Coordination Processes

Removal of Flowgates from the systems may be necessary under certain conditions including the following:

- 4.1 A Flowgate is no longer valid when (a) a change is implemented that affects either Party's generation impacts causing the Flowgate to no longer pass the Flowgate Studies, or (b) a change is implemented that affects the impacts from coordinated operation of the NY-NJ PARs causing the Flowgate to no longer pass the Flowgate Studies. The Parties must still mutually agree to remove a Flowgate, such agreement not to be unreasonably withheld. Once a Flowgate has been removed, it will no longer be eligible for M2M settlement.
- 4.2 A M2M Redispatch Flowgate that does not satisfy the criteria set forth in Section 3.3 above, but that is created based on the mutual agreement of the Parties pursuant to Section 3.5 above, shall be removed two weeks after either Party provides a Notice to the other Party that it withdraws its agreement to the M2M Redispatch Flowgate, or at a later or earlier date that the Parties mutually agree upon. The Notice must include an explanation of the reason(s) why the agreement to the M2M Redispatch Flowgate was withdrawn.
- 4.3 A Other Coordinated Flowgate shall be removed two weeks after either Party provides a Notice to the other party that it withdraws its agreement to the Other Coordinated Flowgate, or at a later or earlier date that the Parties mutually agree

upon. The Notice must include an explanation of the reason(s) why the agreement to the Other Coordinated Flowgate was withdrawn.

- 4.4 The Parties can mutually agree to remove a Flowgate whether or not it passes the coordination tests. A Flowgate should be removed when the Parties agree that the relevant coordination processes are not, or will not be, an effective mechanism to manage congestion on that Flowgate.

5 Market Flow Determination

Each RTO will independently calculate its Market Flow for all M2M Redispatch Flowgates and Other Coordinated Flowgates using the equations set forth in this Section. The Market Flow calculation is broken down into the following steps:

- Determine Shift Factors for M2M Redispatch Flowgates and Other Coordinated Flowgates
- Compute RTO Load and Losses (less imports)
- Compute RTO Generation (less exports)
- Compute RTO Generation to Load impacts on the Market Flow
- Compute RTO interchange scheduling impacts on the Market Flow
- Compute PAR impacts on the Market Flow
- Compute Market Flow

5.1 Determine Shift Factors for M2M Redispatch Flowgates and Other Coordinated Flowgates

The first step to determining the Market Flow on a Flowgate is to calculate generator, load and PAR shift factors for the each of the Flowgates. For real-time coordination, the shift factors will be based on the real-time transmission system topology.

5.2 Compute RTO Load Served by RTO Generation

Using area load and losses for each load zone, compute the RTO Load, in MWs, by summing the load and losses for each load zone to determine the total zonal load for each RTO load zone. Twenty percent of RECo load shall be included in the Market Flow calculation as PJM load. See Section 6.2, of this Schedule D.

$$Zonal_Total_Load_{zone} = Load_{zone} + Losses_{zone}, \text{ for each RTO load zone}$$

Where:

$zone =$ the relevant RTO load zone;
 $Zonal_Total_Load_{zone} =$ the sum of the RTO's load and transmission losses for the zone;
 $Load_{zone} =$ the load within the zone; and
 $Losses_{zone} =$ the transmission losses for transfers through the zone.

Next, reduce the Zonal Loads by the scheduled line real-time import transaction schedules that sink in that particular load zone:

$$Zonal_Reduced_Load_{zone} = Zonal_Total_Load_{zone} - \sum_{scheduled_lines=1}^{all} Import_Schedules_{scheduled_line,zone}$$

Where:

$zone =$ the relevant RTO load zone;
 $scheduled_line =$ each of the Transmission Facilities identified in Table 1 below;
 $Zonal_Reduced_Load_{zone} =$ the sum of the RTO's load and transmission losses in a zone reduced by the sum of import schedules over scheduled lines to the zone;
 $Zonal_Total_Load_{zone} =$ the sum of the RTO's load and transmission losses for the zone; and
 $Import_Schedules_{scheduled_line,zone} =$ import schedules over a scheduled line to a zone.

The real-time import schedules over scheduled lines will only reduce the load in the sink load zones identified in Table 1 below:

Table 1. List of Scheduled Lines Including the Champlain Hudson Power Express MTF

Scheduled Line	NYISO Load Zone	PJM Load Zone
Dennison Scheduled Line	North	Not Applicable
Cross-Sound Scheduled Line	Long Island	Not Applicable

HTP Scheduled Line	New York City	Mid-Atlantic Control Zone
Linden VFT Scheduled Line	New York City	Mid-Atlantic Control Zone
<u>Champlain Hudson Power Express MTF</u>	<u>New York City</u>	<u>Not Applicable</u>
Neptune Scheduled Line	Long Island	Mid-Atlantic Control Zone
Northport – Norwalk Scheduled Line	Long Island	Not Applicable

The Champlain Hudson Power Express MTF is a controllable, direct current transmission facility that extends from Quebec, Canada to New York City. For purposes of this M2M coordination process it is treated the same as a scheduled line. Once import schedules over scheduled lines have been accounted for, it is then appropriate to reduce the net RTO Load by the remaining real-time import schedules at the proxies identified in Table 2 below:

Table 2. List of Proxies*

Proxy	Balancing Authorities Responsible
PJM shall post and maintain a list of its proxies on its OASIS website. PJM shall provide to NYISO notice of any new or deleted proxies prior to implementing such changes in its M2M software.	PJM
NYISO proxies are the Proxy Generator Buses that are not identified as Scheduled Lines in the table that is set forth in Section 4.4.4 of the NYISO's Market Services Tariff. The NYISO shall provide to PJM notice of any new or deleted proxies prior to implementing such changes in its M2M software.	NYISO

*Scheduled lines and proxies are mutually exclusive. Transmission Facilities that are components of a scheduled line are not also components of a proxy (and vice-versa).

$$RTO_Net_Load = \sum_{zone=1}^{all} Zonal_Reduced_Load_{zone}$$

Where:

zone = the relevant RTO load zone;

RTO_Net_Load = the sum of load and transmission losses for the entire RTO footprint reduced by the sum of import schedules over all scheduled lines; and

Zonal_Reduced_Load_{zone} = the sum of the RTO's load and transmission losses in a zone reduced by the sum of import schedules over scheduled lines to the zone.

$$RTO_Final_Load = RTO_Net_Load - \sum_{proxy=1}^{all} Import_Schedules_{proxy}$$

Where:

proxy = representations of defined sets of Transmission Facilities that (i) interconnect neighboring Balancing Authorities, (ii) are collectively scheduled, and (iii) are identified in Table 2 above;

RTO_Final_Load = the sum of the RTO's load and transmission losses for the entire RTO footprint, sequentially reduced by (i) the sum of import schedules over all scheduled lines, and (ii) the sum of all proxy import schedules;

RTO_Net_Load = the sum of load and transmission losses for the entire RTO footprint reduced by the sum of import schedules over all scheduled lines; and

Import_Schedules_{proxy} = the sum of import schedules at a given proxy.

Next, calculate the Zonal Load weighting factor for each RTO load zone:

$$Zonal_Weighting_{zone} = \left(\frac{Zonal_Reduced_Load_{zone}}{RTO_Net_Load} \right)$$

Where:

zone = the relevant RTO load zone;

Zonal_Weighting_{zone} = the percentage of the RTO's load contained within the zone;

RTO_Net_Load = the sum of load and transmission losses for the entire RTO footprint reduced by the sum of import schedules over all scheduled lines; and

$Zonal_Reduced_Load_{zone} =$ the sum of the RTO's load and transmission losses in a zone reduced by the sum of import schedules over scheduled lines to the zone.

Using the Zonal Weighting Factor compute the zonal load reduced by RTO imports for each load zone:

$$Zonal_Final_Load_{zone} = Zonal_Weighting_{zone} \times RTO_Final_Load$$

Where:

$zone =$ the relevant RTO load zone;

$Zonal_Final_Load_{zone} =$ the final RTO load served by internal RTO generation in the zone;

$Zonal_Weighting_{zone} =$ the percentage of the RTO's load contained within the zone; and

$RTO_Final_Load =$ the sum of the RTO's load and transmission losses for the entire RTO footprint, sequentially reduced by (i) the sum of import schedules over all scheduled lines, and (ii) the sum of all proxy import schedules.

Using the Load Shift Factors ("LSFs") calculated above, compute the weighted RTOLSF for each Flowgate as:

$$RTO_LSF_{Flowgate-m} = \sum_{zone=1}^{all} \left(LSF_{(zone,Flowgate-m)} \times \left(\frac{Zonal_Final_Load_{zone}}{RTO_Final_Load} \right) \right)$$

Where:

$Flowgate-m =$ the relevant flowgate;

$zone =$ the relevant RTO load zone;

$RTO_LSF_{Flowgate-m} =$ the load shift factor for the entire RTO footprint on Flowgate m;

$LSF_{(zone,Flowgate-m)} =$ the load shift factor for the RTO zone on Flowgate m;

$Zonal_Final_Load_{zone} =$ the final RTO load served by internal RTO generation in the zone; and

$RTO_Final_Load =$ the sum of the RTO's load and transmission losses for the entire RTO footprint, sequentially reduced by (i) the sum of

import schedules over all scheduled lines, and (ii) the sum of all proxy import schedules.

5.3 Compute RTO Generation Serving RTO Load

Using the real-time generation output in MWs, compute the Generation serving RTO Load. Sum the output of RTO generation within each load zone:

$$RTO_Gen_{zone} = \sum_{unit=1}^{all} Gen_{unit,zone}, \text{ for each RTO load zone}$$

Where:

zone = the relevant RTO load zone;

unit = the relevant generator;

RTO_Gen_{zone} = the sum of the RTO's generation in a zone; and

Gen_{unit,zone} = the real-time output of the unit in a given zone.

Next, reduce the RTO generation located within a load zone by the scheduled line real-time export transaction schedules that source from that particular load zone:

$$RTO_Reduced_Gen_{zone} = RTO_Gen_{zone} - \sum_{scheduled_line=1}^{all} Export_Schedules_{scheduled_line,zone}$$

Where:

zone = the relevant RTO load zone;

scheduled_line = each of the Transmission Facilities identified in Table 1 above;

RTO_Reduced_Gen_{zone} = the sum of the RTO's generation in a zone reduced by the sum of export schedules over scheduled lines from the zone;

RTO_Gen_{zone} = the sum of the RTO's generation in a zone; and

Export_Schedules_{scheduled_line,zone} = export schedules from a zone over a scheduled line.

The real-time export schedules over scheduled lines will only reduce the generation in the source zones identified in Table 1 above. The resulting generator output based on this reduction is defined below.

$$Reduced\ Gen_{unit} = Gen_{unit,zone} \left(\frac{RTO_Reduced_Gen_{zone}}{RTO_Gen_{zone}} \right)$$

Where:

unit =	the relevant generator;
zone =	the relevant RTO load zone;
$Gen_{unit,zone}$ =	the real-time output of the unit in a given zone;
$Reduced\ Gen_{unit}$ =	each unit's real-time output after reducing the RTO_Net_Gen by the real-time export schedules over scheduled lines;
$RTO_Reduced_Gen_{zone}$ =	the sum of the RTO's generation in a zone reduced by the sum of export schedules over scheduled lines from the zone; and
RTO_Gen_{zone} =	the sum of the RTO's generation in a zone.

Once export schedules over scheduled lines are accounted for, it is then appropriate to reduce the net RTO generation by the remaining real-time export schedules at the proxies identified in Table 2 above.

$$RTO_Net_Gen = \sum_{zone=1}^{all} RTO_Reduced_Gen_{zone}$$

Where:

zone =	the relevant RTO load zone;
RTO_Net_Gen =	the sum of the RTO's generation reduced by the sum of export schedules over all scheduled lines; and
$RTO_Reduced_Gen_{zone}$ =	the sum of the RTO's generation in a zone reduced by the sum of export schedules over scheduled lines from the zone.

$$RTO_Final_Gen = RTO_Net_Gen - \sum_{proxy=1}^{all} Export_Schedules_{proxy}$$

Where:

proxy = representation of defined sets of Transmission Facilities that (i) interconnect neighboring Balancing Authorities, (ii) are collectively scheduled, and (iii) are identified in Table 2 above;

RTO_Final_Gen = the sum of the RTO's generation output for the entire RTO footprint, sequentially reduced by (i) the sum of export schedules over all scheduled lines, and (ii) the sum of all proxy export schedules;

RTO_Net_Gen = the sum of the RTO's generation reduced by the sum of export schedules over all scheduled lines; and

Export_Schedules_{proxy} = the sum of export schedules at a given proxy.

Finally, weight each generator's output by the reduced RTO generation:

$$Gen_Final_{unit} = Reduced\ Gen_{unit} \times \frac{RTO_Final_Gen}{RTO_Net_Gen}$$

Where:

unit = the relevant generator;

Gen_Final_{unit} = the portion of each unit's output that is serving the RTO Net Load;

Reduced Gen_{unit} = each unit's real-time output after reducing the RTO_Net_Gen by the real-time export schedules over scheduled lines;

RTO_Final_Gen = the sum of the RTO's generation output for the entire RTO footprint, sequentially reduced by (i) the sum of export schedules over all scheduled lines, and (ii) the sum of all proxy export schedules; and

RTO_Net_Gen = the sum of the RTO's generation reduced by the sum of export schedules over all scheduled lines.

5.4 Compute the RTO GTL for all Flowgates

The generation-to-load flow for a particular Flowgate, in MWs, will be determined as:

$$RTO_GTL_{Flowgate-m} = \sum_{unit=1}^{all} (GSF_{(unit,Flowgate-m)} - RTO_LSF_{Flowgate-m}) \times Gen_Final_{unit}$$

Where:

Flowgate-m = the relevant flowgate;

unit = the relevant generator;

RTO_GTL_{Flowgate-m} = the generation to load flow for the entire RTO footprint on Flowgate m;

Gen_Final_{unit} = the portion of each unit's output that is serving RTO Net Load;

GSF_(unit,Flowgate-m) = the generator shift factor for each unit on Flowgate m; and

RTO_LSF_{Flowgate-m} = the load shift factor for the entire RTO footprint on Flowgate m.

5.5 Compute the RTO Interchange Scheduling Impacts for all Flowgates

For each scheduling point that the participating RTO is responsible for, determine the net interchange schedule in MWs. Table 3 below identifies both the participating RTO that is responsible for each listed scheduling point, and the “type” assigned to each listed scheduling point.

Table 3. List of Scheduling Points

Scheduling Point	Scheduling Point Type	Participating RTO(s) Responsible
NYISO-PJM	common	NYISO and PJM
HTP Scheduled Line	common	NYISO and PJM
Linden VFT Scheduled Line	common	NYISO and PJM
Neptune Scheduled Line	common	NYISO and PJM
PJM shall post and maintain a list of its non-common scheduling points on its OASIS website. PJM shall provide to NYISO notice of any new or deleted non-common scheduling points prior to implementing such changes in its M2M software.	non-common	PJM
NYISO non-common scheduling points include all Proxy Generator Buses and Scheduled Lines listed in the table that is	non-common	NYISO

set forth in Section 4.4.4 of the NYISO's Market Services Tariff that are not identified in this Table 3 as common scheduling points. The NYISO shall provide to PJM notice of any new or deleted non-common scheduling points prior to implementing such changes in its M2M software.		
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$$RTO_Transfers_{sched_pt} = Imports_{sched_pt} + WheelsIn_{sched_pt} - Exports_{sched_pt} - WheelsOut_{sched_pt}$$

Where:

$sched_pt$ = the relevant scheduling point. A scheduling point can be either a proxy or a scheduled line;

$RTO_Transfers_{sched_pt}$ = the net interchange schedule at a scheduling point;

$Imports_{sched_pt}$ = the import component of the interchange schedule at a scheduling point;

$WheelsIn_{sched_pt}$ = the injection of wheels-through component of the interchange schedule at a scheduling point;

$Exports_{sched_pt}$ = the export component of the interchange schedule at a scheduling point; and

$WheelsOut_{sched_pt}$ = the withdrawal of wheels-through component of the interchange schedule at a scheduling point.

The equation below applies to all non-common scheduling points that only one of the participating RTOs is responsible for. *Parallel_Transfers* are applied to the Market Flow of the responsible participating RTO. For example, the *Parallel_Transfers* computed for the IESO-NYISO non-common scheduling point are applied to the NYISO Market Flow.

$$Parallel_Transfers_{Flowgate-m} = \sum_{nc_sched_pt=1}^{all} RTO_Transfers_{nc_sched_pt} \times PTDF_{(nc_sched_pt, Flowgate-m)}$$

Where:

$Flowgate-m$ = the relevant flowgate;

$nc_sched_pt =$	the relevant non-common scheduling point. A non-common scheduling point can be either a proxy or a scheduled line. Non-common scheduling points are identified in Table 3, above;
$Parallel_Transfers_{Flowgate-m} =$	the flow on Flowgate m due to the net interchange schedule at the non-common scheduling point;
$RTO_Transfers_{nc_sched_pt} =$	the net interchange schedule at the non-common scheduling point, where a positive number indicates the import direction; and
$PTDF_{(nc_sched_pt, Flowgate-m)} =$	the power transfer distribution factor of the non-common scheduling point on Flowgate m. For NYISO, the PTDF will equal the generator shift factor of the non-common scheduling point.

The equation below applies to common scheduling points that directly interconnect the participating RTOs. *Shared Transfers* are applied to the Monitoring RTO's Market Flow only. NYISO to PJM transfers would be considered part of NYISO's Market Flow for NYISO-monitored Flowgates and part of PJM's Market Flow for PJM-monitored Flowgates.

$$Shared_Transfers_{Flowgate-m} = \sum_{cmn_sched_pt=1}^{all} RTO_Transfers_{cmn_sched_pt} \times PTDF_{(cmn_sched_pt, Flowgate-m)}$$

Where:

$Flowgate-m =$	the relevant flowgate;
$cmn_sched_pt =$	the relevant common scheduling point. A common scheduling point can be either a proxy or a scheduled line. Common scheduling points are identified in Table 3, above;
$Shared_Transfers_{Flowgate-m} =$	the flow on Flowgate m due to interchange schedules on the common scheduling point;
$RTO_Transfers_{cmn_sched_pt} =$	the net interchange schedule at a common scheduling point, where a positive number indicates the import direction; and
$PTDF_{(cmn_sched_pt, Flowgate-m)} =$	the generation shift factor of the common scheduling point on Flowgate m. For NYISO, the PTDF will equal the generator shift factor of the common scheduling point.

5.6 Compute the PAR Effects for all Flowgates

For the PARs listed in Table 4 below, the RTOs will determine the generation-to-load flows and interchange schedules, in MWs, that each PAR is impacting.

Table 4. List of Phase Angle Regulators

PAR	Description	PAR Type	Actual Schedule	Target Schedule	Responsible Participating RTO(s)
1	RAMAPO PAR3500	common	From telemetry	From telemetry*	NYISO and PJM
2	RAMAPO PAR4500	common	From telemetry	From telemetry*	NYISO and PJM
3	FARRAGUT TR11	common	From telemetry	From telemetry*	NYISO and PJM
4	FARRAGUT TR12	common	From telemetry	From telemetry*	NYISO and PJM
5	GOETHSLN BK_1N	common	From telemetry	From telemetry*	NYISO and PJM
6	WALDWICK O2267	common	From telemetry	From telemetry*	NYISO and PJM
7	WALDWICK F2258	common	From telemetry	From telemetry*	NYISO and PJM
8	WALDWICK E2257	common	From telemetry	From telemetry*	NYISO and PJM
9	STLAWRNC PS_33	non-common	From telemetry	0	NYISO
10	STLAWRNC PS_34	non-common	From telemetry	0	NYISO
11	DOVER T398-A	non-common	From telemetry	From telemetry	NYISO
12	DOVER T398-B	non-common	From telemetry	From telemetry	NYISO

*Pursuant to the rules for implementing the M2M coordination process over the NY-NJ PARs that are set forth in this M2M Schedule.

Compute the PAR control as the actual flow less the target flow across each PAR:

$$PAR_Control_{par} = Actual_MW_{par} - Target_MW_{par}$$

Where:

par = each of the phase angle regulators listed in Table 4, above;

$PAR_Control_{par} =$	the flow deviation on each of the PARs;
$Actual_MW_{par} =$	the actual flow on each of the PARs, determined consistent with Table 4 above; and
$Target_MW_{par} =$	the target flow that each of the PARs should be achieving, determined in accordance with Table 4 above.

When the $Actual_MW$ and $Target_MW$ are both set to “From telemetry” in Table 4 above, the $PAR_Control$ will equal zero.

Common PARs

In the equations below, the Non-Monitoring RTO is credited for or responsible for PAR_Impact resulting from the common PAR effect on the Monitoring RTO’s Flowgates. The common PAR impact calculation only applies to the common PARs identified in Table 4 above.

Compute control deviation for all common PARs on Flowgate m based on the $PAR_Control_{par}$ MWs calculated above:

$$Cmn_PAR_Control_{Flowgate-m} = \sum_{cmn_par=1}^{all} (PSF_{(cmn_par,Flowgate-m)} \times PAR_Control_{cmn_par})$$

Where:

$Flowgate-m =$	the relevant flowgate;
$cmn_par =$	each of the common phase angle regulators, modeled as Flowgates, identified in Table 4, above;
$Cmn_PAR_Control_{Flowgate-m} =$	the sum of flow on Flowgate m after accounting for the operation of common PARs;
$PSF_{(cmn_par,Flowgate-m)} =$	the PSF of each of the common PARs on Flowgate m; and
$PAR_Control_{cmn_par} =$	the flow deviation on each of the common PARs.

Compute the impact of generation-to-load and interchange schedules across all common PARs on Flowgate m as the Market Flow across each common PAR multiplied by that PAR’s shift factor on Flowgate m:

$$Cmn_PAR_MF_{Flowgate-m} = \sum_{cmn_par=1}^{all} \left((PSF_{(cmn_par,Flowgate-m)}) \times (RTO_GTL_{cmn_par} + Parallel_Transfers_{cmn_par}) \right)$$

Where:

Flowgate-m	=	the relevant flowgate;
cmn_par	=	the set of common phase angle regulators, modeled as Flowgates, identified in Table 4 above;
Cmn_PAR_MF _{Flowgate-m}	=	the sum of flow on Flowgate m due to the generation to load flows and interchange schedules on the common PARs;
PSF _(cmn_par,Flowgate-m)	=	the PSF of each of the common PARs on Flowgate m;
RTO_GTL _{cmn_par}	=	the generation to load flow for each common par, computed in the same manner as the generation to load flow is computed for Flowgates in Section 5.4 above; and
Parallel_Transfers _{cmn_par}	=	the flow on each of the common PARs caused by interchange schedules at non-common scheduling points.

Next, compute the impact of the common PAR effect for Flowgate m as:

$$Cmn_PAR_Impact_{Flowgate-m} = Cmn_PAR_MF_{Flowgate-m} - Cmn_PAR_Control_{Flowgate-m}$$

Where:

Flowgate-m	=	the relevant flowgate;
Cmn_PAR_Impact _{Flowgate-m}	=	potential flow on Flowgate m that is affected by the operation of the common PARs;
Cmn_PAR_MF _{Flowgate-m}	=	the sum of flow on Flowgate m due to the generation to load and interchange schedules on the common PARs; and
Cmn_PAR_Control _{Flowgate-m}	=	the flow deviation on each of the common PARs.

Non-Common PARs

For the equations below, the NYISO will be credited or responsible for *PAR_Impact* on all Flowgates because the NYISO is the participating RTO that has input into the operation of these devices. The non-common PAR impact calculation only applies to the non-common PARs identified in Table 4 above.

Compute control deviation for all non-common PARs on Flowgate m based on the PAR control MW above:

$$NC_PAR_Control_{Flowgate-m} = \sum_{nc_par=1}^{all} PSF_{(nc_par,Flowgate-m)} \times PAR_Control_{nc_par}$$

Where:

Flowgate-m = the relevant flowgate;

nc_par = each of the non-common phase angle regulators, modeled as Flowgates, identified in Table 4 above;

NC_PAR_Control_{Flowgate-m} = the sum of flow on Flowgate m after accounting for the operation of non-common PARs;

PSF_(nc_par,Flowgate-m) = the PSF of each of the non-common PARs on Flowgate m; and

PAR_Control_{nc_par} = the flow deviation on each of the non-common PARs.

Compute the impact of generation-to-load and interchange schedules across all non-common PARs on Flowgate m as the Market Flow across each PAR multiplied by that PAR's shift factor on Flowgate m:

$$NC_PAR_MF_{Flowgate-m} = \sum_{nc_par=1}^{all} \left((PSF_{nc_par,Flowgate-m}) \times (RTO_GTL_{nc_par} + Parallel_Transfers_{nc_par}) \right)$$

Where:

Flowgate-m = the relevant flowgate;

nc_par = the set of non-common phase angle regulators, modeled as Flowgates, identified in Table 4 above;

NC_PAR_MF_{Flowgate-m} = the sum of flow on Flowgate m due to the generation to load flows and interchange schedules on the non-common PARs;

PSF_(nc_par,Flowgate-m) = the outage transfer distribution factor of each of the non-common PARs on Flowgate m;

RTO_GTL_{nc_par} = the generation to load flow for each non-common par, computed in the same manner as the generation to load flow is computed for Flowgates in Section 5.4 above; and

Parallel_Transfers_{nc_par} = the flow, as computed above where the Flowgate m is one of the non-common PARs, on each of the non-common

PARs caused by interchange schedules at non-common scheduling points.

Next, compute the non-common PAR impact for Flowgate m as:

$$NC_PAR_Impact_{Flowgate-m} = NC_PAR_MF_{Flowgate-m} - NC_PAR_Control_{Flowgate-m}$$

Where:

Flowgate-m = the relevant flowgate;

$NC_PAR_Impact_{Flowgate-m}$ = the potential flow on Flowgate m that is affected by the operation of non-common PARs;

$NC_PAR_MF_{Flowgate-m}$ = the sum of flow on Flowgate m due to the generation to load and interchange schedules on the non-common PARs; and

$NC_PAR_Control_{Flowgate-m}$ = the sum of flow on Flowgate m after accounting for the operation of non-common PARs.

Aggregate all PAR Effects for Each Flowgate

The total impacts from the PAR effects for Flowgate m is:

$$PAR_Impact_{Flowgate-m} = Cmn_PAR_Impact_{Flowgate-m} + NC_PAR_Impact_{Flowgate-m}$$

Where:

Flowgate-m = the relevant flowgate;

$PAR_Impact_{Flowgate-m}$ = the flow on Flowgate m that is affected after accounting for the operation of both common and non-common PARs;

$Cmn_PAR_Impact_{Flowgate-m}$ = potential flow on Flowgate m that is affected by the operation of the common PARs; and

$NC_PAR_Impact_{Flowgate-m}$ = the potential flow on Flowgate m that is affected by the operation of non-common PARs.

5.7 Compute the RTO Aggregate Market Flow for all Flowgates

With the RTO_GTL and PAR_IMPACT known, we can now compute the RTO_MF for all Flowgates as:

$$RTO_MF_{Flowgate-m} = RTO_GTL_{Flowgate-m} + Parallel_Transfers_{Flowgate-m} + Shared_Transfers_{Flowgate-m} - PAR_Impact_{Flowgate-m}$$

Where:

Flowgate-m = the relevant flowgate;

$RTO_MF_{Flowgate-m}$ = the Market Flow caused by RTO generation dispatch and transaction scheduling on Flowgate m after accounting for the operation of both the common and non-common PARs;

$RTO_GTL_{Flowgate-m}$ = the generation to load flow for the entire RTO footprint on Flowgate m;

$Parallel_Transfers_{Flowgate-m}$ = the flow on Flowgate m caused by interchange schedules that are not jointly scheduled by the participating RTOs;

$Shared_Transfers_{Flowgate-m}$ = the flow on Flowgate m caused by interchange schedules that are jointly scheduled by the participating RTOs; and

$PAR_Impact_{Flowgate-m}$ = the flow on Flowgate m that is affected after accounting for the operation of both the common and non-common PARs.

6 M2M Entitlement Determination Method

M2M Entitlements are the equivalent of financial rights for the Non-Monitoring RTO to use the Monitoring RTO's transmission system within the confines of the M2M redispatch process. The Parties worked together to develop the M2M Entitlement determination method set forth below.

Each Party shall calculate a M2M Entitlement on each M2M Redispatch Flowgate and compare the results at least once a year on a mutually agreed upon schedule. This frequency ensures that the impact of upgrades on both parties systems are incorporated into the M2M Entitlement calculation. The parties may mutually agree to not recalculate M2M Entitlements in a given year.

6.1 M2M Entitlement Topology Model and Impact Calculation

The M2M Entitlement calculation shall use both RTOs' static topological models to determine the Non-Monitoring RTO's mutually agreed upon share of a M2M Redispatch Flowgate's total capacity based on historic dispatch patterns. Both RTOs' models must include the following items:

1. a static transmission and generation model;

2. generator, load, and PAR shift factors;
3. generator output, load, and interchange schedules from the most recently completed three calendar years;
4. a PAR impact assumption that the PAR control is perfect for all PARs within the transmission models except the PARs at the Michigan-Ontario border;
5. new or upgraded Transmission Facilities; and
6. Transmission Facility retirements.

Each Party shall calculate the GLDFs using a transmission model that contains a mutually agreed upon set of: (1) transmission lines that are modeled as in-service; (2) generators; and (3) loads. Using these GLDFs, generator output data from the three year period agreed to by the Parties, and load data from the three year period agreed to by the Parties, the Parties shall calculate each Party's MW impact on each M2M Redispatch Flowgate for each hour in the three year period agreed to by the Parties.

Using these impacts, the Parties shall create a reference year consisting of twelve periods ("M2M Entitlement Periods") for each M2M Redispatch Flowgate. The M2M Entitlement Periods are as follows:

1. M2M Entitlement Period 1: January;
2. M2M Entitlement Period 2: February;
3. M2M Entitlement Period 3: March;
4. M2M Entitlement Period 4: April;
5. M2M Entitlement Period 5: May;
6. M2M Entitlement Period 6: June;
7. M2M Entitlement Period 7: July;
8. M2M Entitlement Period 8: August;
9. M2M Entitlement Period 9: September;
10. M2M Entitlement Period 10: October;
11. M2M Entitlement Period 11: November;
12. M2M Entitlement Period 12: December;

For each of the M2M Entitlement Periods listed above the Non-Monitoring RTO will calculate its M2M Entitlement on each M2M Redispatch Flowgate for four groups of hours, the grouping is described below.

1. M2M Entitlement Group 1: Hour beginning 0 through hour beginning 5;
2. M2M Entitlement Group 2: Hour beginning 9 through hour beginning 14;

3. M2M Entitlement Group 3: Hour beginning 15 through hour beginning 20 and;
4. M2M Entitlement Group 4: Hour beginning 6 through hour beginning 8 and hour beginning 21 through hour beginning 23.

The M2M Entitlement for each period/group, for each M2M Redispatch Flowgate will be calculated by averaging the Non-Monitoring RTO's Market Flow on an M2M Redispatch Flowgate for each particular period/group. The Non-Monitoring RTO shall use the Market Flow data for all of the like period/groups, in each year contained within the three year period to calculate the Non-Monitoring RTO's average Market Flow on each M2M Redispatch Flowgate. The data within the three year period will be weighted as follows: most recent year 20%, middle year 30%, and oldest year 50%. In addition, the M2M Entitlement values should never extend beyond a facility's rating. If the calculation derives an entitlement that is above the facility's rating the parties will cap the entitlement value to remain within the facility's rating.

If either of the below upgrade scenarios occur the Parties may mutually agree to adjust the M2M Entitlement calculation method to account for the impacts of the upgrade(s):

1. If the Non-Monitoring RTO upgrades the Monitoring RTO's system resulting in a rating increase; or
2. If the Non-Monitoring RTO's market flow on the Monitoring RTO's system decreases due to a Non-Monitoring RTO upgrade on the Non-Monitoring RTO's system.

6.2 M2M Entitlement Calculation

Each Party shall independently calculate the Non-Monitoring RTO's M2M Entitlement for all M2M Redispatch Flowgates using the equations set forth in this Section. The Parties shall mutually agree upon M2M Entitlement calculations. Any disputes that arise in the M2M Entitlement calculations will be resolved in accordance with the dispute resolution procedures set forth in Section 35.15 of this Agreement.

Eighty percent of the RECo load shall be excluded from the calculation of Market Flows and M2M Entitlements, and shall instead be reflected as a PJM obligation over the Ramapo PARs in accordance with Sections 7.2.1 and 8.3 of this Schedule D. The remaining twenty percent of RECo load shall be included in the M2M Entitlement and Market Flow calculations as PJM load.

The following assumptions apply to the M2M Entitlement calculation:

1. the Parties shall calculate the values in this Section using the M2M Entitlement Topology Model discussed in Section 6.1 above, unless otherwise stated;
2. the impacts from the *Parallel_Transfers* and *Shared_Transfers* terms of the Market Flow calculation (see Section 5.5) are excluded from the Market Flow that is used to calculate M2M Entitlements;

3. perfect PAR Control exists for all PARs within the transmission models except the PARs at the Ontario/Michigan border; and
4. External Capacity Resources may be included in the calculation of M2M Entitlements consistent with Section 6.2.1.1 of this Schedule D.

Once the Reference Year Market Flows have been calculated for each interval to determine the integrated hourly Market Flow for each hour of the relevant three year period agreed to by the Parties, the new M2M Entitlement will be determined for all M2M Entitlement Groups in each M2M Entitlement Period using the method established in Section 6.1 above.

6.2.1 Treatment of Out-of-Area Capacity Resources and Representation of Ontario/Michigan PARs in the M2M Entitlement Calculation Process

6.2.1.1 Modeling of External Capacity Resources

External Capacity Resources may be included in the M2M Entitlement calculation to the extent the Parties mutually agree to their inclusion.

For the initial implementation of this M2M coordination process that will use 2009 through 2011 data to develop M2M Entitlements, PJM will be permitted to include its External Capacity Resources in the M2M Entitlement calculation. NYISO has not requested inclusion of any External Capacity Resources in the M2M Entitlement calculation for the initial implementation of M2M. When the Parties decide to update the data used to determine M2M Entitlements:

- a. PJM will be permitted to include External Capacity Resources that have an equivalent net M2M Entitlement impact to the net M2M Entitlement impact of the PJM External Capacity Resources that were used for the initial implementation of the M2M coordination process. Inclusion of PJM External Capacity Resources that exceed the net M2M Entitlement impact of the PJM External Capacity Resources that were used for the initial implementation of the M2M coordination process must be mutually agreed to by the Parties.
- b. The Parties may mutually agree to permit the NYISO to include External Capacity Resources in the M2M Entitlement calculation.

6.2.1.2 Modeling of the Ontario/Michigan PARs

The Ontario/Michigan PARs will be modeled as not controlling power flows in the M2M Entitlement calculation process. The Parties agree that this modeling treatment is only appropriate when it is paired with the rules for calculating Market Flows and M2M settlements that are set forth in Sections 5 and 8 of this Agreement. Section 7.1 specifies how the RTOs will adjust Market Flows to account for the impact of the operation of the Ontario/Michigan PARs when the PARs are in service. The referenced Market Flow and M2M settlement rules are necessary because they are designed to ensure that M2M settlement obligations based on M2M

Entitlements and Market Flows will not result in compensation for M2M redispatch when no actual M2M redispatch occurs.

7 Real-Time Energy Market Coordination

Operation of the NY-NJ PARs and redispatch are used by the Parties in real-time operations to effectuate this M2M coordination process. Operation of the NY-NJ PARs will permit the Parties to redirect energy to reduce the overall cost of managing transmission congestion and to converge the participating RTOs' cost of managing transmission congestion. Operation of the NY-NJ PARs to manage transmission congestion requires cooperation between the NYISO and PJM. Operation of the NY-NJ PARs shall be coordinated by the RTOs.

When a M2M Redispatch Flowgate or Other Coordinated Flowgate begins binding in the Monitoring RTOs real-time security constrained economic dispatch, the Monitoring RTO will notify the Non-Monitoring RTO of the transmission constraint and will identify the appropriate Flowgate that requires redispatch assistance. The Monitoring and Non-Monitoring RTOs will provide the economic value of the Flowgate constraint (i.e., the Shadow Price) as calculated by their respective dispatch models. Using this information, the security-constrained economic dispatch of the Non-Monitoring RTO will include the Flowgate constraint; the Monitoring RTO will evaluate the actual loading of the Flowgate constraint and request that the Non-Monitoring RTO modify its Market Flow via redispatch if it can do so more efficiently than the Monitoring RTO (i.e., if the Non-Monitoring RTO has a lower Shadow Price for that Flowgate than the Monitoring RTO).

An iterative coordination process will be supported by automated data exchanges in order to ensure the process is manageable in a real-time environment. The process of evaluating the Shadow Prices between the RTOs will continue until the Shadow Prices converge and an efficient redispatch solution is achieved. The continual interactive process over the following dispatch cycles will allow the transmission congestion to be managed in a coordinated, cost-effective manner by the RTOs. A more detailed description of this iterative procedure is discussed in Section 7.1 and the appropriate use of this iterative procedure is described in Section 10.

7.1 Real-Time Redispatch Coordination Procedures

The following procedure will apply for managing redispatch for M2M Redispatch Flowgates and Other Coordinated Flowgates in the real-time Energy market:

7.1.1 Flowgates shall be monitored per each RTO's internal procedures.

- a. When (i) a Flowgate is constrained to a defined limit (actual or contingency flow) by a non-transient constraint, and (ii) Market Flows are such that the Non-Monitoring RTO may be able to provide an appreciable amount of redispatch relief to the Monitoring RTO for a M2M Redispatch Flowgate, or (iii) the Non-

Monitoring RTO agrees to initiate and to continue coordination for a M2M Redispatch Flowgate or Other Coordinated Flowgate, then the Monitoring RTO shall reflect the monitored Flowgate as constrained.

- b. Flowgate limits shall be periodically verified and updated.

7.1.2 **Testing for an Appreciable Amount of Redispatch Relief and Determining the Settlement Market Flow for M2M Redispatch Flowgates:**

When the PARs at the Michigan-Ontario border are not in-service, the ability of the Non-Monitoring RTO to provide an appreciable amount of redispatch relief will be determined by comparing the Non-Monitoring RTO's Market Flow to the Non-Monitoring RTO M2M Entitlement for the constrained M2M Redispatch Flowgate. When the Non-Monitoring RTO Market Flow (also the Market Flow used for settlement) is greater than the Non-Monitoring RTO M2M Entitlement for the constrained M2M Redispatch Flowgate, the Monitoring RTO will assume that an appreciable amount of redispatch relief is available from the Non-Monitoring RTO and will engage the redispatch coordination process for the constrained M2M Redispatch Flowgate.

When any of the PARs at the Michigan-Ontario border are in-service, the ability of the Non-Monitoring RTO to provide an appreciable amount of redispatch relief will be determined by comparing either (i) the Non-Monitoring RTO's unadjusted Market Flow, or (ii) the Non-Monitoring RTO Market Flow adjusted to reflect the expected impact of the PARs at the Michigan-Ontario border ("LEC Adjusted Market Flow"), to the Non-Monitoring RTO M2M Entitlement for the constrained M2M Redispatch Flowgate. The rules for determining which Market Flow (unadjusted or adjusted) to compare to the Non-Monitoring RTO M2M Entitlement when any of the PARs at the Michigan-Ontario border are in-service are set forth below.

a. Calculating the Expected Impact of the PARs at the Michigan-Ontario Border on Market Flows

The Non-Monitoring RTO's unadjusted Market Flow is determined as RTO_MF in accordance with the calculation set forth in Section 5 above. The expected impact of the PARs at the Michigan-Ontario border is determined as follows:

$$MICH - OH_PAR_Impact_{Flowgate-m} = \sum_{MICH-OH\ Path=1}^4 \left(\frac{(PSF_{(MICH-OH\ Path, Flowgate-m)}) \times (RTO_MF_{MICH-OH\ Path} - LEC/4)}{(RTO_MF_{MICH-OH\ Path} - LEC/4)} \right)$$

Where:

Flowgate-m = the relevant Flowgate;

MICH-OH Path = each of the four PAR paths connecting Michigan to Ontario, Canada;

MICH-OH_PAR_Impact_{Flowgate-m} = the expected impact of the operation of the PARs at the Michigan-Ontario border on the flow on Flowgate m;

PSF_(MICH-OH Path,Flowgate-m) = the PSF of each of the four Michigan-Ontario PAR paths on Flowgate m;

RTO_MF_{MICH-OH Path} = the Market Flow for each of the four Michigan-Ontario PAR paths, computed in the same manner as the Market Flow is computed for Flowgates in Section 5 above; and

LEC = Actual circulation around Lake Erie as measured by each RTO.

The Non-Monitoring RTO's LEC Adjusted Market Flow, reflecting the expected impact of the PARs on the Michigan-Ontario border, can be determined by adjusting the *RTO_MF* from Section 5 to incorporate the *MICH-OH_PAR_Impact* calculated above.

$$\begin{aligned} \text{LEC Adjusted Market Flow}_{\text{Flowgate-m}} \\ = \text{RTO_MF}_{\text{Flowgate-m}} - \text{MICH-OH_PAR_Impact}_{\text{Flowgate-m}} \end{aligned}$$

Where:

Flowgate-m = the relevant flowgate;

MICH-OH Path = each of the four PAR paths connecting Michigan to Ontario, Canada;

MICH-OH_PAR_Impact_{Flowgate-m} = the expected impact of the operation of the PARs at the Michigan-Ontario border on the flow on Flowgate m;

RTO_MF_{Flowgate-m} = the Market Flow caused by RTO generation dispatch and transaction scheduling on Flowgate m after accounting for the operation of both the common and non-common PARs; and

LEC Adjusted Market Flow_{Flowgate-m} = the Market Flow caused by RTO generation dispatch and transaction scheduling on Flowgate m after accounting for the operation of the common PARs, the non-common PARs, and the PARs at the Michigan-Ontario border.

b. Determining Whether to Use Unadjusted Market Flow or LEC Adjusted Market Flow; Determining if Appreciable Redispatch Relief is Available

- 1) When the Non-Monitoring RTO's LEC Adjusted Market Flow equals the Non-Monitoring RTO's unadjusted Market Flow and the Non-Monitoring RTO's Market Flow (also the Market Flow used for settlement) is greater than the Non-Monitoring RTO M2M Entitlement for the constrained M2M Redispatch Flowgate, the Monitoring RTO will assume that an appreciable amount of redispatch relief is available from the Non-Monitoring RTO and will engage the M2M coordination process for the constrained M2M Flowgate.
- 2) When the Non-Monitoring RTO's unadjusted Market Flow is greater than the Non-Monitoring RTO's LEC Adjusted Market Flow, then the following calculation shall be performed to determine if an appreciable amount of redispatch relief is expected to be available:
 - A. Determine the minimum of (a) the Non-Monitoring RTO's unadjusted Market Flow, and (b) the Non-Monitoring RTO's M2M Entitlement, for the constrained M2M Redispatch Flowgate; and
 - B. Determine the maximum of (x) the value from step A above, and (y) the Non-Monitoring RTO's LEC Adjusted Market Flow

When the value from B above (the Market Flow used for settlement), is greater than the Non-Monitoring RTO's M2M Entitlement for the constrained M2M Redispatch Flowgate, the Monitoring RTO will assume that an appreciable amount of redispatch relief is available from the Non-Monitoring RTO and will engage the coordination process for the constrained M2M Redispatch Flowgate.
- 3) When the Non-Monitoring RTO's unadjusted Market Flow is less than the Non-Monitoring RTO LEC Adjusted Market Flow, the following calculation shall be performed to determine if an appreciable amount of redispatch relief is expected to be available:

- A. Determine the maximum of (a) the Non-Monitoring RTO's unadjusted Market Flow, and (b) the Non-Monitoring RTO M2M Entitlement, for the constrained M2M Redispatch Flowgate; and
- B. Determine the minimum of (x) the value from A above, and (y) the Non-Monitoring RTO's LEC Adjusted Market Flow

When the value from B above (the Market Flow used for settlement), is greater than the Non-Monitoring RTO's M2M Entitlement for the constrained M2M Redispatch Flowgate, the Monitoring RTO will assume that an appreciable amount of redispatch relief is available from the Non-Monitoring RTO and will engage the coordination process for the constrained M2M Redispatch Flowgate.

- 7.1.3 The Monitoring RTO initiates redispatch coordination, notifies the Non-Monitoring RTO of the M2M Redispatch Flowgates or Other Coordinated Flowgates that are subject to coordination and updates required information.
- 7.1.4 The Non-Monitoring RTO shall acknowledge receipt of the notification and one of the following shall occur:
 - a. The Non-Monitoring RTO refuses to activate redispatch coordination:
 - i. The Non-Monitoring RTO notifies the Monitoring RTO of the reason for refusal; and
 - ii. The M2M State is set to "Refused"; or
 - b. The Non-Monitoring RTO agrees to activate redispatch coordination:
 - i. Such an agreement shall be considered an initiation of the redispatch process; and
 - ii. The M2M State is set to "Activated".
 - iii. If the Non-Monitoring RTO later withdraws its agreement to activate redispatch coordination at a Flowgate, then the Non-Monitoring RTO notifies the Monitoring RTO of the reason for its decision and the Monitoring RTO shall terminate the redispatch coordination process and set the M2M State to "Refused".
- 7.1.5 The Parties have agreed to transmit information required for the administration of this procedure, as per Section 35.7.1 of this Agreement.
- 7.1.6 As Shadow Prices converge and approach zero or the Non-Monitoring RTO's Market Flows and Shadow Prices are such that an appreciable amount of redispatch relief can no longer be provided to the Monitoring RTO, the

Monitoring RTO shall be responsible for the continuation or termination of the redispatch process. Current and forecasted future system conditions shall be considered. Termination of redispatch coordination may be requested by either RTO in the event of a system emergency.

When the Monitoring RTO's Shadow Price is not approaching zero the Monitoring RTO can (1) use the procedure called *Testing for an Appreciable Amount of Relief and Determining the Settlement Market Flow* from step 2b above, and (2) compare the Non-Monitoring RTO's Shadow Price to the Monitoring RTO's Shadow Price, to determine whether there is an appreciable amount of market flow relief being provided.

When the *Testing for an Appreciable Amount of Relief and Determining the Settlement Market Flow* procedure indicates there is not an appreciable amount of relief being provided, and the Non-Monitoring RTO Shadow Price is not less than the Monitoring RTO Shadow Price, then the Monitoring RTO may terminate the M2M coordination process.

- 7.1.7 Upon termination of redispatch coordination, the Monitoring RTO shall
- a. Notify the Non-Monitoring RTO; and
 - b. Transmit data to the Non-Monitoring RTO with the M2M State set to "Closed". The timestamp with this transmission shall be considered termination of the redispatch process for operational and, where applicable, settlement purposes.

7.2 Real-Time NY-NJ PAR Coordination

The NY-NJ PARs will be operated to facilitate interchange schedules while minimizing regional congestion costs. When congestion is not present, the NY-NJ PARs will be operated to achieve the target flows as established below in Section 7.2.1.

PJM and the NYISO have operational control of the NY-NJ PARs and direct the operation of the NY-NJ PARs, while Public Service Electric and Gas Company ("PSE&G") and Consolidated Edison Company of New York ("Con Edison") have physical control of the NY-NJ PARs. The Con Edison dispatcher sets the PAR taps for the ABC PARs and Ramapo PARs at the direction of the NYISO. The PSE&G dispatchers set the PAR taps for the Waldwick PARs at the direction of PJM.

PJM and the NYISO have the responsibility to direct the operation of the NY-NJ PARs to maintain compliance with the requirements of this Agreement. PJM and the NYISO shall make reasonable efforts to minimize movement of the NY-NJ PARs while implementing the NY-NJ

PAR target flows and the NY-NJ PAR coordination process. PJM and the NYISO will employ a +/- 50 MW operational bandwidth around each NY-NJ PAR's target flow to limit tap movements and to maintain actual flows at acceptable levels. This operational bandwidth shall not impact or change the NY-NJ PAR Settlement rules in Section 8.3 of this Agreement. The operational bandwidth provides a guideline to assist the RTOs' efforts to avoid unnecessary NY-NJ PAR tap movements.

In order to preserve the long-term availability of the NY-NJ PARs, a maximum number of 20 PAR tap changes per NY-NJ PAR per day, and a maximum number of 400 PAR tap changes per NY-NJ PAR per calendar month will normally be observed. If the number of PAR tap changes exceed these limits, then the operational bandwidth shall be increased in 50 MW increments until the total number of PAR tap changes no longer exceed 400 PAR tap changes per NY-NJ PAR per month, unless PJM and the NYISO mutually agree otherwise.

In order to implement the NY-NJ PAR coordination process, including the establishment and continuation of the initial and any future OBF as defined in this Section and Section 35.2 of this Agreement, on the ABC PARs and the Waldwick PARs, the facilities comprising the ABC Interface and JK Interface shall be functional and operational at all times, consistent with Good Utility Practice, except when they are taken out-of-service to perform maintenance or are subject to a forced outage.

7.2.1 NY-NJ PAR Target Values

A Target Value for flow between the NYISO and PJM shall be determined for each NY-NJ PAR based on the net interchange schedule between the Parties. These Target Values shall be used for settlement purposes as:

$$Target_{PARx} = (InterchangeFactor_{PARx}) + (Operational\ Base\ Flow_{PARx}) + (RECo_Load_{PARx})$$

Where:

$Target_{PARx}$ = Calculated Target Value for the flow on each NY-NJ PAR For purposes of this equation, a positive value* indicates a flow from PJM to the NYISO.

* The sign conventions apply to the formulas used in this Agreement. The Parties may utilize different sign conventions in their market software so long as the software produces results that are consistent with the rules set forth in this Agreement.

$InterchangeFactor_{PARx}$ = The MW value of the net interchange schedule between PJM and NYISO over the AC tie lines distributed across each in-service NY-NJ PAR calculated as net interchange schedule times the interchange percentage. The interchange percentage for each NY-NJ PAR is listed in Table 5.

If a NY-NJ PAR is out-of-service or is bypassed, or if the RTOs mutually agree that a NY-NJ PAR is incapable of facilitating interchange, the percentage of net interchange normally assigned to that NY-NJ PAR will be transferred over the western AC tie lines between the NYISO and PJM. The remaining in-service NY-NJ PARs will continue to be assigned the interchange percentages specified in Table 5.

OperationalBaseFlow_{PARx} =

The MW value of OBF distributed across each of the in-service ABC PARs and Waldwick PARs.

Either Party may establish a temporary OBF to address a reliability issue until a long-term solution to the identified reliability issue can be implemented. Any temporary OBF that is established shall be at a level that both Parties can reliably support. The Party that establishes the OBF shall: (1) explain the reliability need to the other Party; (2) describe how the OBF addresses the identified reliability need; and (3) identify the expected long-term solution to address the reliability need.

The initial 400 MW OBF, effective on May 1, 2017, is expected to be reduced to zero MW by June 1, 2021.

The Parties may mutually agree to modify an established OBF value that normally applies when all of the ABC PARs and Waldwick PARs are in service. Modification of the normally applied OBF value will be implemented no sooner than two years after mutual agreement on such modification has been reached, unless NYISO and PJM mutually agree to an earlier implementation date.

The NYISO and PJM shall post the OBF values, in MW, normally applied to each ABC PAR and Waldwick PAR when all of the ABC PARs and Waldwick PARs are in service, on their respective websites. The NYISO and PJM shall also post the methodology used to reduce the OBF under certain outage conditions on their respective websites. The NYISO and PJM shall review the OBF MW value at least annually.

$RECo_Load_{PARx} =$

The MW value of the telemetered real-time Rockland Electric Company Load to be delivered over a NY-NJ PAR shall be calculated as real-time RECo Load times the RECo Load percentage listed in Table 5. RECo Load is the portion of Orange and Rockland load that is part of PJM. The primary objective of the NY-NJ PARs is the delivery of scheduled interchange. Deliveries to serve RECo Load over the Ramapo PARs will only be permitted to the extent there is unused transfer capability on the Ramapo PARs after accounting for interchange. Subject to the foregoing limitation, when one of the Ramapo PARs is out of service the full RECo Load percentage (80%) will be applied to the in-service Ramapo PAR. The RECo Load percentage ordinarily used for each NY-NJ PAR is listed in Table 5:

Table 5

PAR Name	Description	Interchange Percentage	RECo Load Percentage
3500	RAMAPO PAR3500	16%	40%^
4500	RAMAPO PAR4500	16%	40%^
E	WALDWICK E2257	5%	0%
F	WALDWICK F2258	5%	0%
O	WALDWICK O2267	5%	0%
A	GOETHSLN BK_1N	7%	0%
B	FARRAGUT TR11	7%	0%
C	FARRAGUT TR12	7%	0%

^ Subject to the foregoing limitation, when one of the Ramapo PARs is out of service the full RECo Load Percentage (80%) will be applied to the in-service Ramapo PAR.

7.2.2 Determination of the Cost of Congestion at each NY-NJ PAR

The incremental cost of congestion relief provided by each NY-NJ PAR shall be determined by each of the Parties. These costs shall be determined by multiplying each Party's Shadow Price on each of its NY-NJ PAR Coordinated Flowgates by the PSF for each NY-NJ PAR for the relevant NY-NJ PAR Coordinated Flowgates.

The incremental cost of congestion relief provided by each NY-NJ PAR shall be determined by the following formula:

$$Congestion\$_{(PARx,RTO)} = \sum_{\substack{NY-NJ \text{ PAR Coordinated Flowgate}-m \in NY-NJ \text{ PAR Coordinated Flowgates}_{RTO} \\ \times Shadow\$_{NY-NJ \text{ PAR Coordinated Flowgate}-m}}} (PSF_{(NY-NJ \text{ PAR Coordinated Flowgate}-m,PARx)})$$

Where:

$Congestion\$_{(PARx,RTO)} =$	Cost of congestion at each NY-NJ PAR for the relevant participating RTO, where a negative cost of congestion indicates taps in the direction of the relevant participating RTO would alleviate that RTO's congestion;
$NY - NJ \text{ PAR Coordinated Flowgates}_{RTO} =$	Set of NY-NJ PAR Coordinated Flowgates for the relevant participating RTO;
$PSF_{(NY-NJ \text{ PAR Coordinated Flowgate}-m,PARx)} =$	The PSF for each NY-NJ PAR on NY-NJ PAR Coordinated Flowgate-m; and
$Shadow\$_{NY-NJ \text{ PAR Coordinated Flowgate}-m} =$	The Shadow Price on the relevant participating RTO's NY-NJ PAR Coordinated Flowgate m.

7.2.3 Desired PAR Changes

Consistent with the congestion cost calculation established in Section 7.2.2 above, if the NYISO congestion costs associated with a NY-NJ PAR are less than the PJM congestion costs associated with the same NY-NJ PAR, then hold or take taps into NYISO.

Similarly, if the PJM congestion costs associated with a NY-NJ PAR are less than NYISO congestion costs associated with the same NY-NJ PAR, then hold or take taps into PJM.

Any action on the NY-NJ PARs will be coordinated between the Parties and taken into consideration other PAR actions.

8 Real-Time Energy Market Settlements

8.1 Information Used to Calculate M2M Settlements

For each Flowgate there are two components of the M2M settlement, a redispatch component and a NY-NJ PAR coordination component. Both M2M settlement components are defined below.

For the redispatch component, market settlements under this M2M Schedule will be calculated based on the following:

1. the Non-Monitoring RTO's real-time Market Flow, determined in accordance with Section 7.1 above, on each M2M Redispatch Flowgate compared to its M2M Entitlement for M2M Redispatch Flowgates eligible for redispatch on each M2M Redispatch Flowgate; and
2. the *ex-ante* Shadow Price at each M2M Redispatch Flowgate.

When determining M2M settlements for a M2M Redispatch Flowgate, each Party will use the M2M Entitlement that corresponds to the period/group for which the real-time Market Flow is being calculated except for the following scenarios:

1. When the Non-Monitoring RTO's M2M Entitlement is negative and the net market flow of the Non-Monitoring RTO is greater than or equal to zero the M2M Entitlement will be set to zero.
2. When the Non-Monitoring RTO's M2M Entitlement is negative and the net market flow of the Non-Monitoring RTO is also negative, but exceeds the M2M Entitlement, both the M2M Entitlement and market flow will be set to zero.

Redispatch coordination for Other Coordinated Flowgates is not subject to redispatch settlement under Section 8.2 of this Schedule D. NY-NJ PAR coordination for Other Coordinated Flowgates is subject to NY-NJ PAR coordination settlement under Section 8.3 of this Schedule D .

For the NY-NJ PARs coordination component, Market settlements under this M2M Schedule will be calculated based on the following:

1. actual real-time flow on each of the NY-NJ PARs compared to its target flow ($Target_{PARx}$);
2. PSF for each NY-NJ PAR onto each M2M Flowgate; and
3. the *ex-ante* Shadow Price at each M2M Flowgate.

Either or both of the Parties shall be excused from paying an *M2MPARSettlement* (described in Section 8.3 of this Schedule D) to the other Party at times when a Storm Watch is in effect in New York and the operating requirements and other criteria set forth in Section 8.3.1 below are satisfied.

8.2 Real-Time Redispatch Settlement

For each M2M Redispatch Flowgate compute the real-time redispatch settlement for each interval as specified below.

When $RT_MktFlow_{M2M\ Redispatch\ Flowgate-m_i} > M2M_Ent_{M2M\ Redispatch\ Flowgate-m_i}$,

$$\begin{aligned}
MonRTO_Payment_{M2M\ Redispatch\ Flowgate-m_i} &= Mon_Shadow\$_{M2M\ Redispatch\ Flowgate-m_i} \\
&\times (RT_MktFlow_{M2M\ Redispatch\ Flowgate-m_i} - M2M_Ent_{M2M\ Redispatch\ Flowgate-m_i}) \\
&\times S_i / 3600sec
\end{aligned}$$

When $RT_MktFlow_{M2M\ Redispatch\ Flowgate-m_i} < M2M_Ent_{M2M\ Redispatch\ Flowgate-m_i}$,

$$\begin{aligned}
Non_MonRTO_Payment_{M2M\ Redispatch\ Flowgate-m_i} &= Non_Mon_Shadow\$_{M2M\ Redispatch\ Flowgate-m_i} \\
&\times (M2M_Ent_{M2M\ Redispatch\ Flowgate-m_i} - RT_MktFlow_{M2M\ Redispatch\ Flowgate-m_i}) \\
&\times S_i / 3600sec
\end{aligned}$$

Where:

$Non_MonRTO_Payment_{M2M\ Redispatch\ Flowgate-m_i}$ = M2M redispatch settlement, in the form of a payment to the Non-Monitoring RTO from the Monitoring RTO, for M2M Redispatch Flowgate m and interval i;

$MonRTO_Payment_{M2M\ Redispatch\ Flowgate-m_i}$ = M2M redispatch settlement, in the form of a payment to the Monitoring RTO from the Non-Monitoring RTO, for M2M Redispatch Flowgate m and interval i;

$RT_MktFlow_{M2M\ Redispatch\ Flowgate-m_i}$ = real-time RTO_MF, determined for settlement in accordance with Section 7.1 above, for M2M Redispatch Flowgate m and interval i;

$M2M_Ent_{M2M\ Redispatch\ Flowgate-m_i}$ = Non-Monitoring RTO M2M Entitlement for M2M Redispatch Flowgate m and interval i;

$Mon_Shadow\$_{M2M\ Redispatch\ Flowgate-m_i}$ = Monitoring RTO's Shadow Price for M2M Redispatch Flowgate m and interval i;

$Non_Mon_Shadow\$_{M2M\ Redispatch\ Flowgate-m_i}$ = Non-Monitoring RTO's Shadow Price for M2M Redispatch Flowgate m and interval i; and

S_i = number of seconds in interval i.

8.3 NY-NJ PARs Settlements

Compute the real-time NY-NJ PARs settlement for each interval as specified below.

When

$$Actual_{PARx_i} > Target_{PARx_i},$$

$$NYImpact_{PARx_i}$$

$$= Max\left(\left(Congestion\$_{(PARx,NY)_i} \times \left(Target_{PARx_i} - Actual_{PARx_i}\right)\right), 0\right) \times S_i/3600sec$$

$$PJMImpact_{PARx_i}$$

$$= \left(Congestion\$_{(PARx,PJM)_i} \times \left(Actual_{PARx_i} - Target_{PARx_i}\right)\right) \times S_i/3600sec$$

When

$$Actual_{PARx_i} < Target_{PARx_i},$$

$$NYImpact_{PARx_i}$$

$$= \left(Congestion\$_{(PARx,NY)_i} \times \left(Target_{PARx_i} - Actual_{PARx_i}\right)\right) \times S_i/3600sec$$

$$PJMImpact_{PARx_i}$$

$$= Max\left(\left(Congestion\$_{(PARx,PJM)_i} \times \left(Actual_{PARx_i} - Target_{PARx_i}\right)\right), 0\right) \times S_i/3600sec$$

$$M2MPARSettlement_i$$

$$= \left(Min\left(\sum^{All\ NY-NJ\ PARs} NYImpact_{PARx_i}, 0\right) - Min\left(\sum^{All\ NY-NJ\ PARs} PJMImpact_{PARx_i}, 0\right) \right)$$

Where:

$$Actual_{PARx_i} =$$

Measured real-time actual flow on each of the NY-NJ PARs for interval i . For purposes of this equation, a positive value indicates a flow from PJM to the NYISO;

$$Target_{PARx_i} =$$

Calculated Target Value for the flow on each NY-NJ PAR as described in Section 7.2.1 above for interval i . For purposes of this

equation, a positive value indicates a flow from PJM to the NYISO;

$PJMImpact_{PARx_i} =$ PJM Impact, defined as the impact that the current NY-NJ PAR flow relative to target flow is having on PJM's system congestion for interval i . For purposes of this equation, a positive value indicates that the PAR flow relative to target flow is reducing PJM's system congestion, whereas a negative value indicates that the PAR flow relative to target flow is increasing PJM's system congestion.

$NYImpact_{PARx_i} =$ NYISO Impact, defined as the impact that the current NY-NJ PAR flow relative to target flow is having on NYISO's system congestion for interval i . For purposes of this equation, a positive value indicates that the PAR flow relative to target flow is reducing NYISO's system congestion, whereas a negative value indicates that the PAR flow relative to the target flow is increasing NYISO's system congestion system.

$Congestion\$_{(PARx,PJM)_i} =$ Cost of congestion at each NY-NJ PAR for PJM, calculated in accordance with Section 7.2.2 above for interval i ;

$Congestion\$_{(PARx,NY)_i} =$ Cost of congestion at each NY-NJ PAR for NYISO, calculated in accordance with Section 7.2.2 above for interval i , and

$M2MPARSettlement_i =$ M2M PAR Settlement across all NY-NJ PARs, defined as a payment from NYISO to PJM when the value is positive, and a payment from PJM to NYISO when the value is negative for interval i .

$s_i =$ number of seconds in interval i .

8.3.1 NY-NJ PAR Settlements During Storm Watch Events

PJM shall not be required to pay a M2MPARSettlement (calculated in accordance with Section 8.3 of this Schedule D) to NYISO when a Storm Watch is in effect and PJM has taken the actions required below to assist the NYISO, or when NYISO has not taken the actions required below to address power flows resulting from the redispatch of generation to address the Storm Watch.

NYISO shall not be required to pay a M2MPARSettlement to PJM when a Storm Watch is in effect and NYISO has taken the actions required of it below to address power flows resulting from the redispatch of generation to address the Storm Watch.

When a Storm Watch is in effect, the RTOs will determine whether PJM and/or NYISO are required to pay a M2MPARSettlement to the other RTO based on three Storm Watch compliance requirements that address the operation of (a) the JK transmission lines and associated Waldwick PARs, (b) the ABC transmission lines and associated ABC PARs, and (c) the 5018 transmission line and associated Ramapo PARs. Compliance shall be determined as follows:

- a. *JK Storm Watch compliance*: Subject to the exceptions that follow, PJM will be “Compliant” at the JK interface when either of the following two conditions are satisfied, otherwise it will be “Non-compliant”:
 - i. Flow on the JK interface was at or above the sum of the Target flows for each Available Waldwick PAR at any point in the trailing (rolling) 15-minutes¹; or
 - ii. PJM took at least two taps on each Available Waldwick PAR in the direction to reduce flow into PJM at any point in the trailing (rolling) 15-minutes.

If NYISO denies PJM’s request to take one or more taps at a Waldwick PAR to reduce flow into PJM and achieve compliance at the JK interface, then PJM shall be considered “Compliant” at the JK interface.

If PJM cannot take a required tap at a Waldwick PAR because the change will result in an overload on PJM’s system unless NYISO first takes a tap at an ABC PAR increasing flow into New York, and flow on the ABC interface is not at or above the sum of the Target flows for each Available ABC PAR, then PJM may request that NYISO take a tap at an ABC PAR increasing flow into New York. PJM will be “Compliant” at the JK interface if NYISO does not take the requested tap within five minutes of receiving PJM’s request. “Compliant” status achieved pursuant to this paragraph shall continue until NYISO takes the requested PAR tap, or the Parties agree that NYISO not taking the requested PAR tap is no longer preventing PJM from taking the PAR tap(s) (if any) PJM needs to achieve compliance at the JK interface.

If PJM cannot take a required tap at a Waldwick PAR because the change will result in an overload on PJM’s system unless NYISO first takes a tap at a Ramapo PAR increasing flow into New York, and flow on the 5018 interface is not at or above the sum of the Target flows for each Available Ramapo PAR, then PJM may request that NYISO take a tap at a Ramapo PAR increasing flow into New York. PJM will be “Compliant” at the JK interface if NYISO does not either (i) take the requested tap within five minutes of receiving PJM’s request, or (ii) inform PJM that NYISO is unable to take the

¹ For example, if the sum of the Target flows for Available Waldwick PARs is +200 MW, then PJM will be “Compliant” if flow into PJM on JK was at or above +200 MW during any six second measurement interval over the trailing (rolling) 15 minutes.

requested tap at Ramapo because the change would result in an actual or post-contingency overload on the 5018 lines, or on either of the Ramapo PARs (NYISO will be responsible for demonstrating both the occurrence and duration of the condition). “Compliant” status achieved pursuant to this paragraph shall continue until NYISO takes the requested PAR tap, or the Parties agree that NYISO not taking the requested PAR tap is no longer preventing PJM from taking the PAR tap(s) (if any) PJM needs to achieve compliance at the JK interface.

If PJM cannot take a required tap at a Waldwick PAR because the change would result in an actual or post-contingency overload on either or both of the JK lines, or on any of the Waldwick PARs, and the overload cannot be addressed through NYISO taking taps at ABC or Ramapo, then PJM will be considered “Compliant” at the JK interface until the condition is resolved. PJM will be responsible for demonstrating both the occurrence and duration of the condition.

- b. ABC Storm Watch compliance: Subject to the exceptions that follow, NYISO will be “Compliant” at the ABC interface when either of the following two conditions are satisfied, otherwise it will be “Non-compliant”:
- i. Flow on the ABC interface was at or above the sum of the Target values for each Available ABC PAR at any point in the trailing (rolling) 15-minutes²; or
 - ii. NYISO took at least two taps on each Available ABC PAR in the direction to increase flow into New York at any point in the trailing (rolling) 15-minutes.

If PJM denies NYISO’s request to take one or more taps at an ABC PAR to increase flow into New York and achieve compliance at the ABC interface, then NYISO shall be considered “Compliant” at the ABC interface.

If NYISO cannot take a required tap at an ABC PAR because the change will result in an overload on NYISO’s system unless PJM first takes a tap at a Waldwick PAR reducing flow into PJM, and flow on the JK interface is not at or below the sum of the Target values for each Available Waldwick PAR, then NYISO may request that PJM take a tap at a Waldwick PAR reducing flow into PJM. NYISO will be “Compliant” at the ABC interface if PJM does not take the requested tap within five minutes of receiving NYISO’s request. “Compliant” status achieved pursuant to this paragraph shall continue until PJM takes the requested PAR tap, or the Parties agree that PJM not taking the

² For example, if the sum of the Target values for each Available ABC PAR is +200 MW, then NYISO will be “Compliant” if flow into New York on ABC was at or above +200 MW during any six second measurement interval over the trailing (rolling) 15 minutes.

requested PAR tap is no longer preventing NYISO from taking the PAR tap(s) (if any) NYISO needs to achieve compliance at the ABC interface.

If NYISO cannot take a required tap at an ABC PAR because the change would result in an actual or post-contingency overload on one or more of the ABC lines, or on any of the ABC PARs, and the overload cannot be addressed through NYISO taking taps at Ramapo or PJM taking taps at Waldwick, then NYISO will be considered “Compliant” at the ABC interface until the condition is resolved. NYISO will be responsible for demonstrating both the occurrence and duration of the condition.

- c. 5018 Storm Watch compliance: Subject to the exceptions that follow, NYISO will be “Compliant” at the 5018 interface when either of the following two conditions are satisfied, otherwise it will be “Non-compliant”:

- i. Flow on the 5018 interface was at or above the sum of the Target values for each Available Ramapo PAR described in Section 7.2.1 of this Schedule D at any point in the trailing (rolling) 15-minutes; or
- ii. NYISO took at least two taps on each Available Ramapo PAR in the direction to increase flow into New York at any point in the trailing (rolling) 15-minutes.

If PJM denies NYISO’s request to take one or more taps at a Ramapo PAR to increase flow into New York and achieve compliance at the 5018 interface, then NYISO shall be considered “Compliant” at the 5018 interface.

If NYISO cannot take a required tap at a Ramapo PAR because it will result in an overload on NYISO’s system unless PJM first takes a tap at a Waldwick PAR reducing flow into PJM, and flow on the JK interface is not at or below the sum of the Target values for each Available Waldwick PAR, then NYISO may request that PJM take a tap at a Waldwick PAR reducing flow into PJM. NYISO will be “Compliant” at the 5018 interface if PJM does not take the requested tap within five minutes of receiving NYISO’s request. “Compliant” status achieved pursuant to this paragraph shall continue until PJM takes the requested PAR tap, or the Parties agree that PJM not taking the requested PAR tap is no longer preventing NYISO from taking the PAR tap(s) (if any) NYISO needs to achieve compliance at the Ramapo interface.

If NYISO cannot take a required tap at a Ramapo PAR because the change would result in an actual or post-contingency overload on the 5018 line, or on either of the Ramapo PARs, and the overload cannot be addressed through NYISO taking taps at ABC or PJM taking taps at Waldwick, then NYISO will be considered “Compliant” at the 5018 interface until the condition is resolved. NYISO will be responsible for demonstrating both the occurrence and duration of the condition.

When a Storm Watch is in effect in New York, PJM shall only be required to pay a M2MPARSettlement to NYISO when PJM is “Non-compliant” at the JK interface, while NYISO is “Compliant” at both the ABC and 5018 interfaces. Otherwise, PJM shall not be required to pay a M2MPARSettlement to NYISO at times when a Storm Watch is in effect in New York.

When a Storm Watch is in effect in New York, NYISO shall only be required to pay a M2MPARSettlement to PJM when NYISO is “Non-compliant” at the ABC interface or the 5018 interface, or both of those interfaces. When NYISO is “Compliant” at both the ABC and 5018 interfaces, NYISO shall not be required to pay a M2MPARSettlement to PJM at times when a Storm Watch is in effect in New York.

When all three interfaces (JK, ABC, 5018) are “Compliant,” or during the first 15-minutes in which a Storm Watch is in effect, this Section 8.3.1 excuses the Parties from paying a M2MPARSettlement to each other at times when a Storm Watch is in effect in New York.

Compliance and Non-compliance shall be determined for each interval of the NYISO settlement cycle (normally, every 5-minutes) that a Storm Watch is in effect.

8.4 Calculating a Combined M2M Settlement

The M2M settlement shall be the sum of the real-time redispatch settlement for each M2M Flowgate and M2MPARSettlement for each interval

$$\begin{aligned} \text{Redispatch NY Settlement}_i &= \left(\sum_{\text{all NY M2M Redispatch Flowgates}} \left(\text{MonRTO Payment}_{\text{M2M Redispatch Flowgate } m_i} \right. \right. \\ &\quad \left. \left. - \text{Non MonRTO Payment}_{\text{M2M Redispatch Flowgate } m_i} \right) \right) \end{aligned}$$

$$\begin{aligned} \text{Redispatch PJM Settlement} &= \left(\sum_{\text{all PJM M2M Redispatch Flowgates}} \left(\text{MonRTO Payment}_{\text{M2M Redispatch Flowgate } m_i} \right. \right. \\ &\quad \left. \left. - \text{Non MonRTO Payment}_{\text{M2M Redispatch Flowgate } m_i} \right) \right) \end{aligned}$$

Where:

$\text{Redispatch NY Settlement}_i =$ M2M NYISO settlement, defined as a payment from PJM to NYISO when the value is positive, and a payment from the NYISO to PJM when the value is negative for interval i ;

$Redispatch\ PJM\ Settlement_i =$ M2M PJM settlement, defined as a payment from NYISO to PJM when the value is positive, and a payment from the PJM to NYISO when the value is negative for interval i ;

$Non\ MonRTO\ Payment_{M2M\ Redispatch\ Flowgate\ m_i} =$ Monitoring RTO payment to Non-Monitoring RTO for congestion on M2M Redispatch Flowgate m for interval i ; and

$MonRTO\ Payment_{M2M\ Redispatch\ Flowgate\ m_i} =$ Non-Monitoring RTO payment to Monitoring RTO for congestion on M2M Redispatch Flowgate m for interval i .

$$M2M\ Settlement_i = Redispatch\ PJM\ Settlement_i - Redispatch\ NY\ Settlement_i + M2MPARSettlement_i$$

Where:

$M2M\ Settlement_i =$ M2M settlement, defined as a payment from the NYISO to PJM when the value is positive, and a payment from PJM to the NYISO when the value is negative for interval i ;

$Redispatch\ NY\ Settlement_i =$ M2M NYISO settlement, defined as a payment from PJM to NYISO when the value is positive, and a payment from the NYISO to PJM when the value is negative for interval i ;

$Redispatch\ PJM\ Settlement_i =$ M2M PJM settlement, defined as a payment from NYISO to PJM when the value is positive, and a payment from the PJM to NYISO when the value is negative for interval i ;

$M2MPARSettlement_i =$ M2M PAR Settlement across all NY-NJ PARs, defined as a payment from NYISO to PJM when the value is positive, and a payment from PJM to NYISO when the value is negative for interval i .

For the purpose of settlements calculations, each interval will be calculated separately and then integrated to an hourly value:

$$M2M_Settlement_h = \sum_{i=1}^n M2M_Settlement_i$$

Where:

$M2M_Settlement_h$ = M2M settlement for hour h ; and

n = Number of intervals in hour h .

Section 10.1 of this Schedule D sets forth circumstances under which the M2M coordination process and M2M settlements may be temporarily suspended.

9 When One of the RTOs Does Not Have Sufficient Redispatch

It is possible that sufficient redispatch for a M2M Redispatch Flowgate or Other Coordinated Flowgate may not be available to the Monitoring RTO. In these scenarios, the Monitoring RTO will price the flowgate using rules specific to that RTO's Tariff language.

However, subject to Section 10.1.2 of this Schedule D, if the Non-Monitoring RTO cannot provide sufficient relief to reach the shadow price of the Monitoring RTO, any constraint relaxation logic will be deactivated. The Non-Monitoring RTO will then be able to use the Monitoring RTO's shadow price without limiting the shadow price to the maximum shadow price associated with a physical control action inside the Non-Monitoring RTO. With the M2M Redispatch Flowgate shadow prices being the same in both RTOs, their resulting bus LMPs will converge in a consistent price profile.

10 Appropriate Use of the M2M Coordination Process

Under normal operating conditions, the Parties will model all M2M Flowgates in their respective real-time EMSs. M2M Flowgates will be controlled using M2M tools for coordinated redispatch and coordinated operation of the NY-NJ PARs, and will be eligible for M2M settlements.

10.1 Qualifying Conditions for M2M Settlement

10.1.1 Purpose of M2M. M2M was established to address regional, not local issues. The intent is to implement the M2M coordination process and settle on such coordination where both Parties have significant impact.

10.1.2 Minimizing Less than Optimal Dispatch. The Parties agree that, as a general matter, they should minimize financial harm to one RTO that results from the M2M coordination process initiated by the other RTO that produces less than optimal dispatch.

10.1.3 Use M2M Whenever Binding a M2M Flowgate. During normal operating conditions, the M2M redispatch process will be initiated by the Monitoring RTO whenever an M2M Flowgate that is eligible for redispatch is constrained and therefore binding in its dispatch. Coordinated operation of the NY-NJ PARs is the default condition and does not require initiation by either Party to occur.

10.1.4 Most Limiting Flowgate. Generally, controlling to the most limiting Flowgate provides the preferable operational and financial outcome. In principle and as much as practicable, the M2M coordination process will take place on the most limiting Flowgate, and to that Flowgate's actual limit (thermal, reactive, stability).

10.1.5 Abnormal Operating Conditions.

- a. A Party that is experiencing system conditions that require the system operators' immediate attention may temporarily delay implementation of the M2M redispatch process or cease an active M2M redispatch event until a reasonable time after the system condition that required the system operators' immediate attention is resolved.
- b. Either Party may temporarily suspend an active M2M coordination process or delay implementation of the M2M coordination process if a Party is experiencing, or acting in good faith suspects it may be experiencing, (1) a failure or outage of the data link between the Parties prevents the exchange of accurate or timely real-time data necessary to implement the M2M coordination process; or (2) a failure or outage of any computational or data systems preventing the actual or accurate calculation of data necessary to implement the M2M coordination process. The Parties shall resolve the issue causing the failure or outage of the data link, computational systems, or data systems as soon as possible in accordance with Good Utility Practice. The Parties shall resume implementation of the M2M coordination process following the successful testing of the data link or relevant system(s) after the failure or outage condition is resolved.

10.1.6 Transient System Conditions. A Party that is experiencing intermittent congestion due to transient system conditions including, but not limited to, interchange ramping or transmission switching, is not required to implement the M2M redispatch process unless the congestion continues after the transient condition(s) have concluded.

10.1.7 Temporary Cessation of M2M Coordination Process Pending Review.

If the net charges to a Party resulting from implementation of the M2M coordination process for a market-day exceed five hundred thousand dollars, then the Party that is responsible for paying the charges may (but is not required to) suspend implementation of this M2M coordination process (for a particular M2M Flowgate, or of the entire M2M coordination process) until the Parties are able to complete a review to ensure that both the process and the calculation of settlements resulting from the M2M coordination process are occurring in a manner that is both (a) consistent with this M2M Coordination Schedule, and (b) producing a just and reasonable result. The Party requesting suspension must identify specific concerns that require investigation within one business day of

requesting suspension of the M2M coordination process. If, following their investigation, the Parties mutually agree that the M2M coordination process is (i) being implemented in a manner that is consistent with this M2M Coordination Schedule and (ii) producing a just and reasonable result, then the M2M coordination process shall be re-initiated as quickly as practicable. If the Parties are unable to mutually agree that the M2M coordination process was being implemented appropriately, or of the Parties are unable to mutually agree that the M2M coordination process was producing a just and reasonable result, the suspension (for a particular M2M Flowgate, or of the entire M2M coordination process) shall continue while the Parties engage in dispute resolution in accordance with Section 35.15 of this Agreement.

10.1.8 Suspension of M2M Settlement when a Request for Taps on NY-NJ PARs to Prevent Overuse is Refused. If a Party requests that taps be taken on any NY-NJ PAR to reduce the requesting Party's overuse of the other Party's transmission system, refusal by the other Party or its Transmission Owner(s) to permit taps to be taken to reduce overuse shall result in the NY-NJ PAR settlement component of M2M (*see* Section 8.3 above) being suspended until the tap request is granted.

10.1.9 Suspension of NY-NJ PAR Settlement due to Transmission Facility Outage(s). The Parties shall suspend PAR settlements for a NY-NJ PAR when that NY-NJ PAR is out of service, is bypassed, or the RTOs mutually agree that a NY-NJ PAR is incapable of facilitating interchange.

No other Transmission Facility outage(s) will trigger suspension of NY-NJ PAR settlements under this Section 10.1.9.

10.1.10 Suspension of NY-NJ PAR Settlement due to a Stuck PAR
The Parties shall suspend PAR settlements for a NY-NJ PAR when the NY-NJ PAR cannot be adjusted due to physical or SCADA failure and either of the following two conditions occur:

1. The failure is on one of the A, B, C, 3500, or 4500 PARs, the flow on the PAR is below the Target flow for that PAR, or
2. The failure is on one of the E, F or O PARs, the flow on the PAR is above the Target flow for that PAR.

10.2 After-the-Fact Review to Determine M2M Settlement

Based on the communication and data exchange that has occurred in real-time between the Parties, there will be an opportunity to review the use of the M2M coordination process to verify it was an appropriate use of the M2M coordination process and subject to M2M settlement. The Parties will initiate the review as necessary to apply these conditions and settlements adjustments. The Parties will cooperate to review the data exchanged and used to determine M2M settlements and will mutually identify and resolve errors and anomalies in the calculations that determine the M2M settlements.

If the data exchanged for the M2M redispatch process was relied on by the Non-Monitoring RTO's dispatch to determine the shadow cost the Non-Monitoring RTO was dispatching to when providing relief at an M2M Flowgate, the data transmitted by the Monitoring RTO that was used to determine the Non-Monitoring RTO's shadow cost shall not be modified except by mutual agreement prior to calculating M2M settlements. Any necessary corrections to the data exchange shall be made for future M2M coordination.

10.3 Access to Data to Verify Market Flow Calculations

Each Party shall provide the other Party with data to enable the other Party independently to verify the results of the calculations that determine the M2M settlements under this M2M Coordination Schedule. A Party supplying data shall retain that data for two years from the date of the settlement invoice to which the data relates, unless there is a legal or regulatory requirement for a longer retention period. The method of exchange and the type of information to be exchanged pursuant to Section 35.7.1 of this Agreement shall be specified in writing. The Parties will cooperate to review the data and mutually identify or resolve errors and anomalies in the calculations that determine the M2M settlements. If one Party determines that it is required to self report a potential violation to the Commission's Office of Enforcement regarding its compliance with this M2M Coordination Schedule, the reporting Party shall inform, and provide a copy of the self report to, the other Party. Any such report provided by one Party to the other shall be Confidential Information.

11 M2M Change Management Process

11.1 Notice

Prior to changing any process that implements this M2M Schedule, the Party desiring the change shall notify the other Party in writing or via email of the proposed change. The notice shall include a complete and detailed description of the proposed change, the reason for the proposed change, and the impacts the proposed change is expected to have on the implementation of the M2M coordination process, including M2M settlements under this M2M Schedule.

11.2 Opportunity to Request Additional Information

Following receipt of the Notice described in Section 11.1, the receiving Party may make reasonable requests for additional information/documentation from the other Party. Absent mutual agreement of the Parties, the submission of a request for additional information under this Section shall not delay the obligation to timely note any objection pursuant to Section 11.3, below.

11.3 Objection to Change

Within ten business days after receipt of the Notice described in Section 11.1 (or within such longer period of time as the Parties mutually agree), the receiving Party may notify in writing or via email the other Party of its disagreement with the proposed change. Any such notice must specifically identify and describe the concern(s) that required the receiving Party to object to the described change.

11.4 Implementation of Change

The Party proposing a change to its implementation of the M2M coordination process shall not implement such change until (a) it receives written or email notification from the other Party that the other Party concurs with the change, or (b) the ten business day notice period specified in Section 11.3 expires, or (c) completion of any dispute resolution process initiated pursuant to this Agreement.