

September 10, 2015

**By Electronic Delivery**

Honorable Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: New York Independent System Operator, Inc.'s Proposed Tariff  
Amendments to Implement External Coordinated Transaction Scheduling  
with ISO New England Inc.; Docket No. ER15-\_\_\_\_-\_\_\_\_**

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act,<sup>1</sup> the New York Independent System Operator, Inc. ("NYISO") hereby submits proposed amendments to its Market Administration and Control Area Services Tariff ("Services Tariff"), Open Access Transmission Tariff ("OATT"), and the Coordination Agreement between ISO New England, Inc. and NYISO ("Coordination Agreement"). The NYISO proposes to add the Coordination Agreement as Section 37 of (Attachment EE to) its OATT. The proposed Tariff revisions set forth additional Real-Time Market<sup>2</sup> External Transaction bidding and scheduling rules that are necessary to enable the NYISO and ISO New England Inc. ("ISO-NE") to implement Coordinated Transaction Scheduling ("CTS") at their common border. The NYISO and ISO-NE are collectively referred to herein as the "ISOs."

CTS is a set of Real-Time Market rules allowing Imports and Exports to be scheduled based on a bidder's willingness to purchase energy sourced from the New England Control Area ("NECA") or the New York Control Area ("NYCA") and to sell the energy at a sink in the other Control Area if the forecasted price at the sink minus the forecasted price at the corresponding source is greater than or equal to the dollar value specified in the CTS Interface Bid. The ISOs propose to implement CTS at the Sandy Pond Proxy Generator Buses (External Proxy Bus name in the New York markets) and the Roseton proxy bus (External Proxy Bus name in the New England Markets). At the same time the NYISO will also designate the ISO-NE Sandy Pond

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<sup>1</sup> 16 U.S.C. §824d (2010).

<sup>2</sup> Capitalized terms not otherwise defined herein shall have the meaning specified in Section 1 of the OATT and Section 2 of the Services Tariff.

Proxy Generator Buses as variably scheduled CTS Enabled External Proxy Buses.<sup>3</sup> The ISOs propose to implement CTS in December of 2015.<sup>4</sup>

The Commission accepted an initial set of scheduling rules for CTS with ISO-NE in 2012 and similar, but not identical, CTS scheduling rules for implementing CTS at the interfaces between NYISO and PJM Interconnection L.L.C. (“PJM”) in 2014.<sup>5</sup> The Tariff revisions the NYISO proposes in this filing build upon the Tariff amendments NYISO developed for CTS with ISO-NE in 2011 and the Tariff amendments developed in 2013 for CTS with PJM. Certain details of the NYISO’s implementation of CTS with ISO-NE differ from the NYISO’s implementation of CTS with PJM. The NYISO proposes additional revisions to its Services Tariff and OATT to account for the different CTS implementation at its ISO-NE and PJM borders. The NYISO worked with ISO-NE to develop additional Tariff rules captured in the ISO-NE and NYISO Coordination Agreement. The Tariff amendments proposed in this filing were approved by the NYISO’s Management Committee without dissent, and by its Board of Directors.

Dr. David Patton, President of Potomac Economics, Ltd. which is the NYISO’s external Market Monitoring Unit (“MMU”), has endorsed CTS as a method for improving the efficiency of Energy trading across the external Interfaces at which it is implemented.<sup>6</sup>

## **I. Documents Submitted**

1. This filing letter;
2. A clean version of the proposed revisions to the NYISO’s OATT (“Attachment I”);
3. A blacklined version of the proposed revisions to the NYISO’s OATT (“Attachment II”);
4. A clean version of the proposed revisions to the NYISO’s Services Tariff (“Attachment III”);
5. A blacklined version of the proposed revisions to the NYISO’s Services Tariff (“Attachment IV”); and

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<sup>3</sup> CTS Enabled External Proxy Bus is a new defined term proposed in the revisions to the Coordination Agreement between ISO-NE and NYISO included herewith. The NYISO and ISO-NE are not proposing to implement CTS at any other Proxy Generator Buses that represent the interconnections between the NECA and the NYCA at this time.

<sup>4</sup> As explained in Section V of this filing, the NYISO is requesting a flexible effective date for the Tariff revisions proposed in this filing. The NYISO proposes to set an effective date and time for the CTS-related tariff amendments by submitting an eTariff filing at least two weeks in advance of the proposed effective date. The NYISO will coordinate with ISO-NE to determine the implementation date and time.

<sup>5</sup> *New York Independent System Operator, Inc.*, 139 FERC ¶ 61,048 (2012); *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,097 (2014).

<sup>6</sup> See Potomac Economics Ltd.’s *2010 State of the Market Report for the New York Market* (“2010 SOM”), at p. x. Link: [http://www.nyiso.com/public/markets\\_operations/documents/studies\\_reports/index.jsp](http://www.nyiso.com/public/markets_operations/documents/studies_reports/index.jsp).

6. A blacklined version of the proposed revisions to the Coordination Agreement (“Attachment V”). The blackline compares the revisions to the Coordination Agreement to the currently effective Coordination Agreement for the Commission’s convenience.<sup>7</sup>

## **II. Overview of CTS with ISO-NE**

Under the ISOs’ proposal, once the Sandy Pond Proxy Generator Buses at the NYISO/ISO-NE border becomes CTS enabled, Transmission Customers will begin submitting CTS Interface Bids<sup>8</sup> to schedule real-time Imports and Exports at these buses in 15-minute intervals.<sup>9</sup> CTS Interface Bids will be evaluated using the CTS bidding and scheduling rules that were initially submitted for CTS with ISO-NE in December 2011, as further developed to implement CTS with PJM in December 2013, and as supplemented by the proposed Tariff revisions that accompany this filing letter.

In the Real-Time Market, Market Participants will submit a single CTS Interface Bid to the NYISO indicating their desire to simultaneously buy Energy in one Control Area and sell Energy into the other Control Area. The NYISO will host the common bidding platform that both NYISO Market Participants and ISO-NE Market Participants will use to submit CTS Interface Bids. Each CTS Interface Bid must specify both a NYISO Market Participant and an ISO-NE Market Participant. CTS Interface Bids allow schedules to be based on the price difference projected by the ISO-NE and NYISO. Every 15 minutes the NYISO will incorporate ISO-NE Supply Price Points into the NYISO’s Real-Time Commitment (“RTC”) optimization and will use its economic evaluation of CTS Interface Bids to determine Real-Time Market cross-border Transaction schedules.

“ISO-NE Supply Price Points” are MW-price pairs representing a net interchange level and ISO-NE’s forecasted real-time Locational Marginal Price (“LMP”) for that net interchange level for use in the CTS economic evaluation process. The ISO-NE Supply Price Points will be produced by ISO-NE using a forward-looking, security-constrained economic dispatch system that co-optimizes energy and reserve requirements. ISO-NE Supply Price Points will be calculated using the current production data for load forecasts, active transmission constraints, state estimator data, Market Participant energy re-offers, wind forecasts, forecasted net interchange on all Interconnections (including forward looking RTC interchange schedules provided by NYISO), and operator updates to resource limits. NYISO will share its forward looking, expected RTC interchange schedules with ISO-NE and ISO-NE will use the RTC

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<sup>7</sup> See *New York Independent System Operator, Inc.*, Docket No. ER09-298 (unpublished letter order issued December 18, 2008); *New York Independent System Operator, Inc.*, Docket No. ER09-298 (unpublished letter order issued February 20, 2009).

<sup>8</sup> CTS Interface Bids can be used to schedule both transactions to buy and sell Energy from the ISOs’ LMP Markets and Bilateral Transactions to schedule Transmission Service for a private Energy sale. Wheels Through the NYCA will continue to use Decremental Bids, as they do currently, and wheels through the NECA will use hourly CTS Interface Bids. CTS Interface Bids cannot be used to schedule Wheels Through the NYCA.

<sup>9</sup> The ISOs are not implementing CTS at the Northport-Norwalk location at this time due to the complexity involved with clearing two interfaces under this ISO-NE Supply Price Points CTS model.

schedules as an input to develop a set of forecasted prices, which ISO-NE will then provide back to NYISO for use in the next RTC optimization. Rules specifying how ISO-NE's Supply Price Points will be developed are included in the proposed revisions to the Coordination Agreement.

In addition to providing ISO-NE Supply Price Points, ISO-NE will have the ability to provide Transfer Limits to the NYISO's RTC optimization and the ISOs will mutually agree on the Ramp Limits used in this optimization. The rules set forth in proposed Schedule D to the Coordination Agreement explain how RTC will incorporate ISO-NE's Transfer Limits when RTC evaluates CTS Interface Bids for scheduling and how the ISOs will establish Ramp Limits.

CTS Interface Bids will ordinarily be evaluated on a 15-minute basis. The evaluation utilizes forecasted real-time prices and forecasted system information from both NYISO and ISO-NE. Each CTS Interface Bid submitted at NYISO's Sandy Pond Proxy Generator Buses (which represents the NYISO's primary A/C interface with ISO-NE) may include a different bid for each quarter hour in real time, with one single MW-price pair for each 15-minute interval. This bidding and scheduling flexibility will permit the submission of offers to import or bids to export Energy that vary the amount of Energy that is offered, and vary the price, for each quarter hour evaluation period.

Each CTS Interface Bid, or bid to schedule a wheel through the NYCA, at a CTS Enabled External Proxy Bus must be submitted by a representative belonging to an authorized NYISO or ISO-NE Market Participant. The bid submittal must identify, and must be confirmed by, a specified Market Participant counter-party in the other area for the bid to be valid.<sup>10</sup> Market Participants may establish "Confirmed Trust Relationships" with one another to allow the required confirmation to automatically occur for a bid submitted by a "trusted" Market Participant. A CTS Interface Bid, or a bid to wheel through the NYCA, can be withdrawn by either Market Participant, with no confirmation required.

CTS with ISO-NE will accommodate both purchases and sales of Energy and the scheduling of Transmission Service in real-time at the CTS Enabled Interface. No changes to the scheduling of External Transactions in the Day-Ahead Market are proposed. Transmission Customers will be able to transfer Day-Ahead Imports and Exports that were scheduled in both ISOs' Day-Ahead Markets into the NYISO's Real-Time Market using a CTS Interface Bid. The NYISO's RTC optimization will evaluate CTS Interface Bids consistent with the rules specified in the NYISO Services Tariff and in proposed Schedule D to the Coordination Agreement. The economic scheduling of the CTS Interface Bids and wheels through the NYCA will be performed simultaneously with the scheduling of internal NYCA resources and External Transactions at the other NYCA Interconnections.

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<sup>10</sup> NYISO and ISO-NE Market Participants that are authorized to submit and confirm CTS Interface Bids are referred to as "Responsible Settlement Parties" or "RSPs" in the Coordination Agreement.

### **III. Description and Justification of Proposed Revisions to the Services Tariff**

The NYISO developed these supplemental CTS with ISO-NE tariff revisions by building on the tariff revisions that the Commission accepted for CTS with ISO-NE in its “CTS with ISONE Order” in 2011 and for CTS with PJM in its “CTS with PJM Order” in 2014.<sup>11</sup>

In addition to the revisions described below, the NYISO proposes some ministerial and grammatical corrections, and some re-numbering of sections and cross-references that it does not describe.

#### **Section 4.4: Real-Time Markets and Schedules**

The NYISO proposes the following revisions to the table in Section 4.4.4 of its Services Tariff:

- First, the NYISO proposes to specify that CTS Bids are required for the Sandy Pond Proxy Generator Buses at the ISO-NE border, meaning a CTS Interface Bid will be the only option for submitting intra-hour Import offers and Export bids.
- Second, the NYISO proposes to add a note to clarify that Wheels Through the NYCA and wheels through a neighboring Control Area will continue to be scheduled on an hourly basis when a portion of the wheel through crosses the CTS Enabled Interface between NYISO and ISO-NE. More specifically, the NYISO will schedule the following on an hourly basis (i) Decremental Bids for Wheels Through the NYCA, and (ii) CTS Interface Bids for wheels through the NECA that are importing or exporting power to or from the NYCA over the CTS Enabled Interface between NYISO and ISO-NE.
- Third, the NYISO proposes to specify that the Sandy Pond Proxy Generator Buses at the ISO-NE border will be variably scheduled, permitting the submission of Bids to import or export Energy that vary the amount of Energy offered, and/or vary the price at which Energy is offered for each quarter-hour of an upcoming Real-Time Market hour.

#### **Section 17.1: LBMP Calculation**

The NYISO proposes a ministerial correction to the definition of Interface ATC Constraint in Section 17.1.6. The correction uses “transfer capability” in the place of “Available Transfer Capability” to determine if proposed economic transactions would exceed the limits of the Interface or associated Proxy Generator Bus. This change is necessary to address the

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<sup>11</sup> See *New York Independent System Operator, Inc.*, 139 FERC ¶ 61,048 (2012); *NYISO’s Proposed Tariff Amendments to Add External Coordinated Transaction Scheduling Market Rules and Request for Waiver*, Docket No. ER12-701-000 (December 28, 2011). See *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,097 (2014); *NYISO’s Proposed Tariff Amendments to Implement External Coordinated Transaction Scheduling with PJM Interconnection, LLC*, Docket No. ER14-552-000 (December 6, 2013).

possibility that the scheduling of External Transactions could be based on or impacted by reliability limits established by ISO-NE in some circumstances.

#### **IV. Description and Justification of Proposed OATT Revisions**

##### **Section 6: Rate Schedules**

The NYISO proposes revisions to OATT Rate Schedules 1, 2 and 5 to clearly identify which Import and Export fees are eliminated for CTS Interface Bids scheduled across the CTS Enabled Interface between the NYCA and NECA. The ISOs have worked together to achieve consistent treatment.

##### **Section 6.1, Rate Schedule 1: ISO Annual Budget Charge and Other Non-Budget Charges and Payments**

##### **Section 6.2, Rate Schedule 2: Voltage Support Service; and**

##### **Section 6.5, Rate Schedule 5: Operating Reserves**

The NYISO and ISO-NE reciprocally agreed to eliminate certain Import and Export fees for CTS Interface Bids that are scheduled between their Control Areas. The elimination of fees and supporting Tariff revisions were accepted by the Commission in its 2011 CTS with ISO-NE Order. The NYISO proposes additional revisions to Sections 6.1 (Annual Budget Charge and Other Non-Budget Charges and Payments), 6.2 (Voltage Support Service) and 6.5 (Operating Reserves) of its OATT Rate Schedules with this filing. The proposed changes are necessary to clearly specify that the fees eliminated for Imports from New England and Exports to New England are not eliminated for hourly Imports to and Exports from New York that are a component of a wheel through New England that uses the CTS Enabled Interface. Wheels through New England will continue to be charged NYISO's Import and Export fees.

##### **Section 16.3**

The NYISO proposes ministerial modifications to Section 16.3 to standardize language used throughout the Tariff. There are no substantive modifications proposed to this section.

#### **V. Description and Justification of Proposed Revisions to Coordination Agreement between ISO-NE and NYISO**

The NYISO and ISO-NE propose the following amendments to their Coordination Agreement. The existing Coordination Agreement was previously filed by each ISO and accepted by the Commission.<sup>12</sup>

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<sup>12</sup> *New York Independent System Operator, Inc.*, Docket No. ER09-298 (unpublished letter order issued December 18, 2008); *New York Independent System Operator, Inc.*, Docket No. ER09-298 (unpublished letter order issued

The NYISO's filing proposes to add the Coordination Agreement to the NYISO OATT as Section 37, Attachment EE. The entire Coordination Agreement is attached hereto with all text, the previously accepted Coordination Agreement and the proposed revisions described in this filing, shown as new blackline because the NYISO is proposing to add the Coordination Agreement to its OATT for the first time. For the Commission's convenience, the NYISO has also attached a blackline comparison that distinguishes the proposed revisions to the Coordination Agreement from the accepted text of the Coordination Agreement. The NYISO describes the proposed revisions to the Coordination Agreement, as shown in the attached blackline comparison, below. ISO-NE will separately file the revised Coordination Agreement with the Commission.

### **Coordination Agreement Article 1**

The NYISO and ISO-NE propose to add a number of defined terms to the Coordination Agreement and to revise a small number of existing definitions to implement CTS.

"Confidential Information" is a new defined term being added due to the additional information exchange between NYISO and ISO-NE and points to Section 6.5 of the Coordination Agreement for the detailed discussion of Confidential Information.

"Confirmed Trust Relationship" is a new defined term being added for CTS to allow one Responsible Settlement Party to grant another Responsible Settlement Party permission to confirm, modify or withdraw its CTS Interface Bids.

"Control Area" is a new defined term being added for CTS. The term will mean an electric system or combination of electric power systems to which a common automatic generation control scheme is applied in order to: (1) match, at all times, the power output of the Generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the Load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of the applicable regional reliability council or the North American Electric Reliability Corporation; and (4) provide sufficient capacity to maintain Operating Reserves in accordance with Good Utility Practice.

"Coordinated Transaction Scheduling" or "CTS" is a new defined term being added to describe CTS between NYISO and ISO-NE and to reference that market rules exist in the Parties' respective tariffs. CTS is an external transaction scheduling process that allows transactions to be scheduled over a CTS Enabled Interface based on a bidder's willingness to purchase energy from the NYCA or NECA (the source) and sell it to the other Control Area (the sink) if the bid price is less than or equal to the expected LMP difference across the interface in the requested direction, as of the time the interface is scheduled.

“CTS Enabled External Proxy Bus” is a new defined term being added to provide a common term for NYISO and ISO-NE for an External Proxy Bus at which the Parties accept CTS Interface Bids to schedule external transactions in the real-time energy market.

“CTS Enabled Interface” is a new defined term being added to provide a descriptive label for the Interconnection at which the Parties will accept CTS Interface Bids for all import offers, for all export bids, and for wheels through the NECA. The CTS Enabled Interfaces are specified in Section 4.4.4 of the NYISO’s Market Administration and Control Area Services Tariff and in Section III.1.10.7.A of the ISO-NE Tariff.

“CTS Interface Bid” is a new defined term being added to provide a common term for CTS bids in the Coordination Agreement. In NYISO, a CTS Interface Bid has the meaning specified in the NYISO Tariff. In ISO-NE, a CTS Interface Bid has the meaning of Interface Bid as specified in the ISO-NE Tariff, and an hourly spread bid associated with the wheeling of energy through the NECA.

“External Interface Congestion” is a new defined term to identify the portion of the congestion component of the LMP at an External Proxy Bus that is associated with an External Proxy Bus Constraint.

“External Proxy Bus” is a new defined term to identify a location that is selected to represent an Interconnection with a Party’s Control Area for which LMPs are calculated. In NYISO, this is a Proxy Generator Bus as defined in the NYISO Services Tariff. In ISO-NE, this is an External Node as defined in the ISO-NE Tariff.

“External Proxy Bus Constraint” is a new defined term being added to the Coordination Agreement definitions section with a reference to Section 4.2 of Schedule D to the Coordination Agreement.

“ISO-NE Supply Price Points” is a new defined term being added to describe a set of increasing MW and price pairs, as further discussed in Section 3.0 of Schedule D to the Coordination Agreement.

“Locational Marginal Price” or “LMP” is a new defined term being added to identify the market price for energy at a given location in a Party’s Control Area, calculated in accordance with the requirements of the Party’s tariff. In addition, “Locational Marginal Pricing” will describe the processes related to the determination of the LMP.

“Market Participant” is an existing defined term in the Coordination Agreement being revised to identify a participant in either the NYISO-administered or ISO-NE administered wholesale power markets.

“New England Control Area” or “NECA” is a new defined term being added to identify the Control Area for New England as defined in the ISO-NE Tariff.

“New York Control Area” or “NYCA” is a new defined term being added to identify the Control Area that is under the operational control of the NYISO, as defined in the NYISO Tariffs.

“Operating Reserve” is an existing defined term in the Coordination Agreement being revised to point to the ISO-NE Tariff and the NYISO Services Tariff and to provide clarification on how the term is used in Schedule D to the Coordination Agreement.

“Ramp Limit” is a new defined term being added, for purposes of Schedule D to the Coordination Agreement, to describe either: (1) the maximum allowable amount of change in net interchange at a CTS Enabled Interface over a defined period of time, established in accordance with Section 5.1 of Schedule D; or (2) the maximum allowable amount of change in net interchange across all NYISO Proxy Generator Buses over a defined period of time, established in accordance with the NYISO Tariffs.

“Real-Time Commitment” or “RTC” is a new defined term being added to identify the NYISO’s multi-period security constrained unit commitment and dispatch model, as defined in the NYISO Tariffs.

“Responsible Settlement Party” or “RSP” is a new defined term being added to refer to a Market Participant that is responsible for the financial settlement of one or more transactions at a CTS Enabled Interface, as determined in accordance with the requirements of the Parties’ respective tariffs that address the settlement of external transactions at CTS Enabled Interfaces.

“Transfer Limit” is a new defined term being added to identify the maximum net interchange that can be scheduled on a CTS Enabled Interface and is established in accordance with Section 5.0 of Schedule D to the Coordination Agreement.

## **Coordination Agreement Section 2.2**

Proposed modifications to this section identify two additional functions related to the Reliability of interconnected operations between the NYISO and ISO-NE: (i) administering CTS, and (ii) implementing other arrangements between the NYISO and ISO-NE for the coordination of the neighboring systems.

## **Coordination Agreement Section 4.10**

Proposed revisions to this section reference the proposed information exchange and system coordination requirements set forth in Section 6 of the Coordination Agreement. The proposed cross-reference reduces the need for repetition within the Coordination Agreement and improves consistency.

## **Coordination Agreement Article 6**

Proposed revisions to this Article relate to the exchange of information between NYISO and ISO-NE and the confidential treatment of Confidential Information or Critical Energy Infrastructure Information that is exchanged between the ISOs.

The revisions propose to specifically identify that additional information needs to be exchanged to implement and administer CTS. Such information includes the following: (i) ISO-NE Market Participant user and organization information; (ii) ISO-NE Supply Price Points for each CTS Enabled Interface; (iii) ISO-NE Transfer Limits for each CTS Enabled Interface; (iv) NYISO and ISO-NE Operating Reserves and reserve requirements; (v) Day-ahead schedules, and real-time actual output and limits for NYCA generators that have capacity obligations in the ISO-NE market and for NECA generators that have capacity obligations in the NYISO market; (vi) Real-time bids, including real-time bids to wheel energy, submitted at a CTS Enabled Interface between the NYCA and the NECA (to be provided by NYISO); (vii) NYISO Day Ahead Operating Plan; and (viii) NYISO RTC results, including cleared MWs for all bids at a CTS Enabled Interface between the NYCA and the NECA, as well as LMPs, Transfer Limits and constraint information related to the scheduling of real-time energy transactions between the NYCA and the NECA. The proposed revisions will also allow the ISOs to share Confidential Information that is not specifically identified if the information is necessary for the coordinated operation of their systems.

The revisions propose to more clearly describe the labeling, treatment and protection of Confidential Information. Specifically, the proposed revisions identify the scenarios when the ISOs could be required to disclose Confidential Information and the process to be followed. In preparing the materials for this submittal, the ISOs discovered that two provisions in Section 6.5 of the Coordination Agreement that they had intended to strike - specifically, Sections 6.5 (d) and (h) - were inadvertently removed altogether before the proposed changes were presented to stakeholders. Because stakeholders did not have the opportunity to review these proposed strike-outs, the ISOs have agreed not to remove the two provisions from Section 6.5 at this time. The ISOs have also agreed that they will address the removal of these two provisions with stakeholders and file the proposed changes with the Commission as quickly as possible.

The ISOs proposed to add a new section, Unauthorized Transfer of Third-Party Intellectual Property, specifying that neither ISO will transfer to the other any intellectual property if use by the other party would constitute an infringement of the rights of another entity. The proposed language closely parallels language in the Commission-accepted *Joint Operating Agreement Among and Between NYISO and PJM*.

#### **Coordination Agreement Sections 7.2 - 7.4**

The proposed revisions clarify how the Coordination Committee assists with implementation of the Coordination Agreement and development of Operating Instructions.

#### **Coordination Agreement Section 9.2**

The NYISO and ISO-NE propose deleting this section regarding points of data for operating information as it is repetitious of other Coordination Agreement provisions and unnecessary.

### **Coordination Agreement Section 11.1**

Proposed revisions include a new Scheduling Checkout Protocols section describing the requirement that all real-time energy market transaction schedules be tagged in accordance with the NERC tagging standard.

### **Coordination Agreement Article 12**

The proposed new Article 12 states that CTS is addressed in Schedule D to the Coordination Agreement and in the NYISO and ISO-NE Tariffs.

### **Coordination Agreement Article 13**

The NYISO and ISO-NE propose ministerial updates throughout Article 13 as well as new language indicating that the Liability Between the Parties section does not limit the amount that can be paid for Emergency Energy scheduled between the Control Areas.

### **Coordination Agreement Article 19**

The proposed modifications revise the dispute resolution procedures in the event that NYISO and ISO-NE senior officers do not agree to a resolution. The ISOs may mutually agree to submit their dispute for binding or non-binding arbitration by the FERC or, if the senior officers do not mutually agree to arbitration, the ISOs can request that FERC's Dispute Resolution Service mediate their efforts to resolve the dispute. The proposed revisions closely parallel language in the Commission-accepted *Joint Operating Agreement Among and Between NYISO and PJM*.

### **Coordination Agreement Section 22.3**

The proposed revisions add language describing the notification process between the ISOs if one ISO is required to self-report a potential violation to FERC regarding its compliance with the Coordination Agreement or administration of CTS.

### **Coordination Agreement Schedule A**

The proposed revisions in Schedule A update the name of an Intertie on the NY/NE Northern AC Interconnection and the name of a transmission substation in NY. The NYISO and ISO-NE propose to change the name of the "690 Intertie" to the "690/FV Intertie." The proposed Intertie name change was identified after the NYISO's stakeholder process concluded, so this ministerial revision was not presented to the NYISO's stakeholders for their consideration. If NYISO stakeholders raise substantive concerns with the proposed change, the NYISO is prepared to withdraw this ministerial revision.

### **Coordination Agreement Schedule B**

Consistent with Coordination Agreement Sections 7.2 through 7.4, the proposed revisions to Schedule B clarify how the Coordination Committee assists with implementation of the Coordination Agreement and development of Operating Instructions.

### **Coordination Agreement Schedule C Article VI**

The proposed revisions update the billing and payment provisions to account for more frequent invoicing and prompter payment expectations.

### **Coordination Agreement Schedule D**

Schedule D to the Coordination Agreement is entirely new for CTS. A description of each proposed article within the new Schedule D follows below.

#### **Coordination Agreement Schedule D Article I**

The proposed language provides an overview of CTS and links the Schedule D language to the respective tariffs of each ISO.

#### **Coordination Agreement Schedule D Article II**

Article II describes the process for Market Participants to submit CTS Interface Bids. The NYISO hosts the bidding platform to be used for all CTS Interface Bids at the CTS Enabled Interface between NYISO and ISO-NE. All CTS Interface Bids must specify both a NYISO and ISO-NE market participant. Market participants will have the option to set up trust relationships between individual NYISO and ISO-NE market participants to auto-confirm submitted CTS Interface Bids.

#### **Coordination Agreement Schedule D Article III**

The proposed language describes how ISO-NE will develop “ISO-NE Supply Price Points” and provide them to the NYISO as increasing MW-price pairs. The MW value will represent a net interchange level and the price value represents ISO-NE’s forecasted real-time LMP for that net interchange level. ISO-NE will calculate forecasted energy prices at the CTS Enabled Interface based on varying interchange levels using its forward-looking co-optimized real-time production system. ISO-NE will provide no fewer than one and no more than 11 MWprice pairs for each of ten consecutive quarter-hour intervals. ISO-NE Supply Price Points will be calculated using the current production data for load forecasts, active transmission constraints, state estimator data, Market Participant energy re-offers, wind forecasts, forecasted net interchange on all Interconnections (including forward looking RTC interchange schedules provided by NYISO), and operator updates to resource limits.

#### **Coordination Agreement Schedule D Article IV**

The proposed language describes the process for evaluating CTS Interface Bids, determining External Interface Congestion, and apportioning External Interface Congestion between the two Control Areas.

The NYISO's RTC optimization will use CTS Interface Bids and ISO-NE Supply Price Points to economically schedule the CTS Interface Bids and determine the net interchange schedules, taking into account any scheduling limits that apply. The RTC optimization will also determine External Interface Congestion if the net interchange schedule is limited in the RTC solution due to one or more of four specified reasons: (i) there are more economic transactions offered in a common direction (import or export) than the Transfer Limit of the External Proxy Bus can accommodate, or (ii) there are fewer economic transactions offered in a common direction (import or export) than the Transfer Limit requires, or (iii) the NYCA (system-wide) Ramp Limit prevents the RTC from scheduling one or more external transactions at the External Proxy Bus consistent with the economics of the underlying bids, or (iv) a Ramp Limit prevents the RTC from scheduling one or more external transactions consistent with the economics of the underlying bids (collectively, the "External Proxy Bus Constraints").

External Interface Congestion at the External Proxy Bus will be apportioned between New England and New York based on the reason(s) the RTC optimization was limited. New England will be assigned the External Interface Congestion associated with the External Proxy Bus Constraint when (and to the extent) the RTC optimization is limited by a Transfer Limit determined by an ISO-NE Operating Reserve limitation, an ISO-NE minimum generation limitation, or ISO-NE capacity deliverability limit. New York will be assigned the External Interface Congestion associated with the External Proxy Bus Constraint when (and to the extent) the RTC optimization is limited by NYCA-wide Ramp Limits. The Control Areas will share the External Interface Congestion associated with the External Proxy Bus Constraint equally when the RTC optimization is limited by any Ramp Limit or Transfer Limit that is not specifically assigned to New England or New York. This External Interface Congestion sharing method reflects the reliability need in the real-time prices for the Control Area addressing the real-time reliability. The ISOs appreciate that there could be many ways to apportion the External Interface Congestion between New York and New England; however, this approach aligns each ISO's real-time prices with the reliability needs of the region.

#### **Coordination Agreement Schedule D Article V**

Article V describes the process for establishing CTS Enabled Interface Ramp Limits and Transfer Limits. The NYISO and ISO-NE will mutually agree to the default quarter-hour and top-of-the-hour Ramp Limits. In real-time operations, when necessary to protect system reliability, NYISO and ISO-NE may mutually agree to temporarily change the Ramp Limit(s) at a CTS Enabled Interface. The Transfer Limit sets the minimum or maximum net interchange that can be scheduled on a CTS Enabled Interface in the RTC solution. The following limitations can impact Transfer Limits: (1) normal scheduling limits; (2) Operating Reserve limitations; (3) minimum generation limitations; (4) capacity requests; and (5) operator overrides. Incorporating Transfer Limits into RTC optimization solution will produce more

accurate interchange schedules, prices and External Interface Congestion allocation. The proposed rules should reduce the need for operator actions to respond to system conditions.

For the real-time operating day, ISO-NE will send the normal scheduling limits at the CTS Enabled Interface to the NYISO. NYISO and ISO-NE may also mutually agree to change the normal scheduling limit to address transmission outages, generation outages or other changes in system conditions. ISO-NE may request an Operating Reserve limitation. This limit reflects the net interchange required to meet ISO-NE's 10-minute and 30-minute reserve requirements. ISO-NE may request a minimum generation limitation. This limit reflects the net interchange level beyond which ISO-NE cannot further dispatch down internal generation while maintaining reliable operations. Capacity requests will be coordinated day-ahead and in real-time by ISO-NE and NYISO. ISO-NE may request delivery of capacity over a CTS Enabled Interface from resources located in the NYCA that have obligations in the ISO-NE capacity market. The impact a capacity requests has on Transfer Limits will depend on the amount of New York capacity requested by ISO-NE that is deliverable and available, and may also depend on the amount of capacity NYISO requests from its capacity resources located in ISO-NE. Limitations that ISO-NE provides to the NYISO are expected to cover the same ten consecutive quarter-hour intervals for which ISO-NE provides Supply Price Points.

Finally, real-time system conditions may require a NYISO or ISO-NE operator to request a Transfer Limit override to establish flow that can be transferred over a CTS Enabled Interface in a reliable manner. Operator overrides will not be used to submit limits that can be submitted via the electronic data exchange between the two ISOs, except when the imposition of an override limit is necessary to protect reliability.

#### **Coordination Agreement Schedule D Article VI**

The proposed language specifies that each ISO will settle CTS Interface Bids, and other bids and offers, scheduled at a CTS Enabled Interface with its Market Participants in accordance with the rules set forth in its respective tariffs. The proposed rules require Market Participants to raise and address settlement-related corrections and disputes that involve CTS transactions with their ISO, in accordance with the settlement-related correction and dispute language contained in their ISO's tariffs. In the event a dispute involves information or data held by the other ISO, the proposed language specifies that each ISO agrees to provide support, including information and data that is not otherwise available to the requesting ISO, when the requested information is necessary to assist the ISO in addressing a settlement (but not price) correction or a CTS settlement-related dispute. The proposed rules specify that each ISO will follow the price correction process set forth in its tariff.

#### **Coordination Agreement Schedule D Article VII**

The proposed language describes non-standard CTS operation. The language specifies three non-standard operating scenarios and outlines the process to be followed in each scenario: (1) permitted modification to ISO-NE Supply Price Points; (2) permitted modifications to ISONE Transfer Limits; and (3) hourly scheduling under CTS.

If NYISO does not receive the ISO-NE Supply Price Points before it commences the RTC optimization, or if one or more quarter-hour intervals within the ISO-NE Supply Price Points fail the NYISO's input checks, then RTC will use the most recent validated set of ISO-NE Supply Price Points NYISO received to perform the next optimization. If the ISO-NE Supply Price Points do not cover the full quantity (in MWs) of bids that are being evaluated by RTC, the last pricing point on either end of the ISO-NE Supply Price Points will be extended by NYISO to cover all the bids and offers that are available for RTC evaluation.

If NYISO does not receive the ISO-NE Transfer Limits before it commences the RTC optimization, or if one or more quarter-hour intervals within the ISO-NE Transfer Limits fail the NYISO's input checks, then RTC will use the most recent validated set of ISO-NE Transfer Limits NYISO received to perform the next optimization.

The NYISO and ISO-NE may agree to temporarily employ hourly scheduling in the RTC optimization on a CTS Enabled Interface when necessary to ensure or preserve system reliability, or when the ISOs are not able to implement schedules as expected due to software or communication issues.

#### **Coordination Agreement Schedule D Article VIII**

Article VIII addresses each ISO's customer service focus, the maintenance of data links, software and other systems necessary to implement CTS, and the suspension of CTS. Each ISO will be the primary customer service contact for its Market Participants. It is the goal of both ISOs that the data links, software, and other systems necessary to implement CTS are available continuously, subject to reasonable expectations and maintenance outages.

NYISO and ISO-NE may suspend the scheduling of CTS transactions at a CTS Enabled Interface when: (1) the NYISO is unable to receive bids; (2) a failure or outage of the data link between the Parties prevents the timely exchange of information necessary to implement CTS transactions; (3) an actual or suspected failure of any software, computational, or data system that is necessary to implement CTS transactions occurs; (4) one or both of the ISOs need to verify the functionality of the tools that are necessary to implement CTS; or (5) necessary to ensure or preserve NYISO or ISO-NE system reliability. When CTS is suspended the NYISO and ISO-NE will mutually agree to interchange schedules at CTS Enabled Interfaces.

#### **Coordination Agreement Schedule D Article IX**

The proposed language describes the CTS change management process, which must be followed prior to materially changing any tariff language, software or process that is directly involved with implementing Schedule D to the Coordination Agreement.

#### **Coordination Agreement Schedule D Article X**

Article X addresses (i) testing CTS processes and software prior to their implementation and when making changes thereto; (ii) exchange of certification or audit results for CTS-related software functions; and (iii) exchange of Service Organization Controls report information

addressing CTS-related software. Article X also addresses cyber-security and the obligation to inform the other ISO of any CTS-related cyber-security breaches.

## **VI. Requested Effective Date and Request Regarding the Timing of Commission Action**

The NYISO requests a flexible effective date between December 1, 2015 and December 30, 2015 for its proposed additional Tariff revisions that are necessary to implement CTS with ISO-NE. The NYISO respectfully requests that the Commission issue an order on this filing within 60 days of the date the filing is submitted.

The ISOs will not be able to propose a precise effective date until the software changes needed to implement the proposed Tariff revisions are ready for deployment and testing is complete. The NYISO will coordinate with ISO-NE to agree on an implementation date.

The NYISO proposes to submit a compliance filing at least two weeks in advance of the proposed effective date specifying the date on which the CTS with ISO-NE Tariff revisions will take effect and the Sandy Pond Proxy Generator Buses will become a CTS Enabled External Proxy Bus (the “2015 Compliance Filing”).<sup>13</sup> Consistent with Commission precedent,<sup>14</sup> the NYISO’s 2015 Compliance Filing will provide adequate notice to the Commission and to Market Participants of the NYISO’s implementation date for CTS with ISO-NE.

The NYISO developed its additional CTS with ISO-NE Tariff revisions by building on the language that the NYISO developed, and the Commission accepted, in its “CTS with ISO-NE Order” in 2012<sup>15</sup> and the language that the NYISO developed, and the Commission accepted, its “CTS with PJM Order” in 2014.<sup>16</sup> In its 2015 Compliance Filing, the NYISO will submit proposed effective dates for all of the Tariff sections that are related to CTS.

The NYISO’s proposed 2015 Compliance Filing will specify the effective date for the following Tariff sections that are modified by this filing:

- Services Tariff Sections 4.4 and 17.1;
- OATT Sections 16.3 and 37 (in its entirety).<sup>17</sup>

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<sup>13</sup> The NYISO will submit revisions to Section 4.4.4 of its Services Tariff specifying the proposed effective date for enabling CTS at its External Proxy Bus with ISO-NE.

<sup>14</sup> *New York System Operator, Inc.*, 106 FERC ¶ 61,111 at PP 5, 10 (2004) (“We will allow NYISO to implement parts of the filing prior to September 2004, as such parts become ready for implementation, provided that NYISO adheres to the three steps identified above in Paragraph 5 of this order.”); *New York Independent System Operator, Inc.*, Letter Order, Docket No. ER11-2544-000 (Feb. 10, 2011).

<sup>15</sup> *See New York Independent System Operator, Inc.*, 139 FERC ¶ 61,048 (2012); *NYISO’s Proposed Tariff Amendments to Add External Coordinated Transaction Scheduling Market Rules and Request for Waiver*, Docket No. ER12-701-000 (December 28, 2011).

<sup>16</sup> *See New York Independent System Operator, Inc.*, 146 FERC ¶ 61,097 (2014).

<sup>17</sup> The 2015 Compliance Filing will include a dated and executed version of the Coordination Agreement along with the effective date; no other new revisions will be included.

The NYISO's proposed 2015 Compliance Filing will also specify the effective date for the following Tariff sections that were first amended in the 2011 CTS with ISO-NE Filing and are further modified by this filing:

- OATT Sections 6.1, 6.2 and 6.5.

The NYISO's proposed 2015 Compliance Filing will further specify the effective date for the following Tariff sections that the Commission accepted in the 2011 CTS with ISO-NE Order, which are not yet effective, and are *not* further amended in this filing, but are necessary to implement CTS with ISO-NE:

- Services Tariff Section 31;
- OATT Section 16.2.

## **VII. Stakeholder and NYISO Board of Directors Approval**

The NYISO's Management Committee approved without dissent, by a show of hands with abstentions, the Tariff revisions proposed in this filing on June 16, 2015. The NYISO Board of Directors approved the proposed Tariff revisions on August 17, 2015.

## **VIII. Communications and Correspondence**

All communications and service in this proceeding should be directed to:

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\* Designated to receive service.

**IX. Service**

The NYISO will send an electronic link to this filing to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, the complete filing will be posted on the NYISO's website at [www.nyiso.com](http://www.nyiso.com).

**X. Conclusion**

Wherefore, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept its proposed Tariff revisions for filing, subject to NYISO's submission of a compliance filing that will (i) specify a December 2015 effective date for the proposed Tariff revisions, and (ii) specify the date on which the NYISO's External Proxy Bus at ISO-NE will become a CTS Enabled External Proxy Bus.

Respectfully submitted,

/s/ James H. Sweeney

Alex M. Schnell, Registered Corporate Counsel  
James H. Sweeney, Attorney  
New York Independent System Operator, Inc.

cc: Michael Bardee  
Gregory Berson  
Anna Cochrane  
Morris Margolis  
David Morenoff  
Daniel Nowak  
Kathleen Schnorf  
Jamie Simler  
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