NEW YORK INDEPENDENT SYSTEM OPERATOR
10 Krey Boulevard ♦ Rensselaer, NY 12144

March 20, 2015

By Electronic Delivery

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

Re: ***New York Independent System Operator, Inc.,*** **Docket ER08-1281-000; Second Broader Regional Markets Informational Report**

Dear Ms. Bose:

In accordance with paragraph 33 and ordering paragraph "D" of the Federal Energy Regulatory Commission's ("Commission's" or "FERC's") December 30, 2010 *Order on Rehearing and Compliance* in Docket No. ER08-1281 ("December 2010 Order") and the Commission's June 2, 2014 order[1] modifying the reporting requirement from a semiannual to an annual obligation, the New York Independent System Operator, Inc. ("NYISO") hereby submits this second *Broader Regional Markets Informational Report* ("Report"). Ordering paragraph "D" of the December 2010 Order states that the "RTO/ISO parties are hereby directed to submit informational reports, as discussed in the body of this order." **In footnote 35 of its December 2010 Order the Commission stated that it <u>does not</u> intend to issue a public notice or an order on this informational Report.**

Paragraph 33 of the December 2010 Order instructs the NYISO:

> "in collaboration with its neighboring RTO/ISOs, NERC and other market participants, to submit a report, as an information filing, addressing (i) the effects of the reforms on reducing congestion that results from loop flows and the costs associated with mitigating congestion; (ii) the effects of the implementation of the enhanced interregional transaction coordination initiative; and (iii) recommendations and analyses as to whether the buy-through congestion proposal is required, and if so, when it should be implemented.[35]"

[1] *New York Independent System Operator, Inc.*, 133 FERC ¶ 61,276 (2010) and *New York Independent System Operator, Inc.*, 147 FERC ¶ 61,175 (2014).

[35] These reports will be for informational purposes only. They will not be noticed and the Commission does not intend to act on them.

While the NYISO is responsible for submitting this informational Report to the Commission, the contents of the Report were developed through collaboration between and among PJM Interconnection, LLC ("PJM"), the Midcontinent Independent System Operator, Inc. ("MISO"), the Ontario Independent Electricity System Operator ("IESO") and the NYISO (collectively the "Lake Erie ISOs and RTOs"), with input from the North American Electric Reliability Corporation ("NERC").

I. Market Design and Physical Improvements

A. Market Design Improvements the ISOs/RTOs Have Completed or Are Presently Developing

The Lake Erie ISOs and RTOs present the following summary of the market design features that have been, or will be, implemented to improve coordination between markets and reduce Lake Erie loop flow.

1. PJM/NYISO Market-to-Market Implementation

The Commission authorized the NYISO and PJM to begin coordinated congestion management/market-to-market coordination ("M2M") in January 2013.[2] The M2M coordinated congestion management process allows transmission constraints that are significantly impacted by generation dispatch changes in both the NYISO and PJM markets, or by the operation of the Ramapo PARs, to be jointly managed in the real-time security-constrained economic dispatch models of both RTOs.[3] This joint real-time management of transmission constraints near the market borders provides a more efficient and lower cost transmission congestion management solution, and facilitates price convergence at the market boundaries. Real-time coordination results in a more efficient economic dispatch solution to manage the real-time transmission constraints that impact both markets.

The M2M coordination process has provided NYISO and PJM a set of very effective tools to assist their management of congestion caused by unscheduled power flows including Lake Erie loop flow. During 2014, the NYISO estimated that the value to New York of M2M

[2] *New York Independent System Operator, Inc.*, 138 FERC ¶ 61,192 (2012).

[3] NYISO/PJM M2M includes two types of coordination: (1) re-dispatch coordination; and (2) Ramapo PAR coordination. For re-dispatch coordination, the non-monitoring RTO re-dispatchs its generation to help manage congestion in the monitoring RTO, when economic, if one of the pre-defined flowgates becomes congested in the monitoring RTO. For Ramapo PAR coordination, the Ramapo PARs are operated to reduce overall congestion if certain pre-defined flowgates become congested in one or both RTOs.

coordination was $8.35M.[4] The estimate represents the value New York realizes from Ramapo PAR coordination. This includes (1) the estimated savings to NYISO for additional deliveries into New York, and (2) PJM compensation to NYISO for additional deliveries into PJM (as compared to the Ramapo Target Value,[5] excluding service to RECO load). The identified value is net of any settlements to PJM when PJM's transmission system is congested.

During 2014 the PJM and the NYISO worked together to develop, and the Commission accepted for filing, new M2M coordination operating requirements and settlement rules that apply when a Storm Watch is in effect in New York.[6] Under the revised M2M rules, during a declared Storm Watch, PJM is not subject to an M2M Ramapo PAR settlement obligation if PJM satisfies its obligation to operate the available Waldwick PARs to achieve certain operating requirements that are specified in Section 8.3.1 of Schedule D to the NYISO/PJM Joint Operating Agreement,[7] or if the NYISO fails to operate the available ABC PARs or Ramapo PARs to achieve the operating requirements specified in that Joint Operating Agreement provision. The NYISO is not subject to an M2M coordination Ramapo PAR settlement obligation during a Storm Watch if it satisfies its obligation to operate the available ABC and Ramapo PARs to achieve the operating requirements specified in Section 8.3.1 of Schedule D to the NYISO/PJM Joint Operating Agreement. If NYISO and PJM each operate the PARs they are responsible for in the manner are expected to, then there will be no M2M Ramapo PAR settlement obligation during a Storm Watch.

The RTOs also revised Sections 7.2 and 7.2.1 of Schedule D to their Joint Operating Agreement to limit the percentage of net scheduled interchange that is expected to flow over the 5018 transmission line when one Ramapo PAR is out-of-service to the rating of the in-service facilities. The NYISO and PJM now use 46% (instead of 61%) of scheduled net interchange to determine the Ramapo Interchange Factor when one Ramapo PAR is out-of-service. This improvement more accurately reflects expected power flows when one Ramapo PAR is out-of-service.

2. Implementation of More Frequent Scheduling

Enhanced Interregional Transaction Coordination ("EITC") permits the scheduling of inter-Balancing Authority transactions on a more frequent basis than hourly schedules.[8]

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[4] http://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2015-01-28/Agenda%2003_Operations_Report.pdf

[5] The Ramapo Target Value is defined in the NYISO/PJM Joint Operating Agreement, Schedule D, Section 7.2.1. The Ramapo Target Value is based on the net interchange schedule between the NYISO and PJM plus the deviation of actual flows and desired flows across the ABC and JK interfaces.

[6] *See New York Independent System Operator, Inc.*, Docket No. ER14-1868 (unpublished letter order issued June 4, 2014).

[7] NYISO/PJM Joint Operating Agreement, Schedule D, Section 8.3.1. The Joint Operating Agreement between NYISO and PJM is set forth in Attachment CC to the NYISO's Open Access Transmission Tariff.

[8] *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,186 (2011).

The NYISO continues to work with ISO-New England ("ISO-NE"), Hydro-Quebec ("HQ") and IESO to develop more frequent scheduling options. NYISO and ISO-NE are working together to implement Coordinated Transaction Scheduling ("CTS") at the end of 2015, which will include the scheduling of CTS Interface Bids on a quarter-hour basis. The NYISO is also evaluating the feasibility of 5-minute scheduling with Hydro-Quebec and 15-minute scheduling with IESO.

3. PJM/NYISO Coordinated Transaction Scheduling

The Commission accepted for filing CTS Real-Time Market rules[9] that allow imports and exports between PJM and the NYISO to be scheduled based on a bidder's willingness to purchase energy at a source in one Control Area and sell it at a sink in another Control Area if the forecasted price at the sink minus the forecasted price at the corresponding source is greater than or equal to the bid dollar value.[10]

On November 4, 2014, the NYISO and PJM implemented CTS at all four of the Proxy Generator Buses that represent the interconnections between their two areas where interchange can be scheduled. CTS enables market participants to access the least-cost source of power within the two regions and helps lower the combined energy production cost of the two systems. CTS enables PJM and the NYISO to more efficiently use the transmission lines connecting the two regions. The new scheduling system also minimizes counterintuitive power flows by explicitly incorporating projected price differences between the two markets into interregional scheduling decisions. Since its introduction, Market Participants have utilized CTS at all four of the Proxy Generator Buses representing the border between NYISO and PJM. CTS offers at the Keystone Proxy Generator Bus during the month of December 2014 averaged 509 MW per hour for on peak hours and 494 MW per hour for off peak hours.[11]

4. PJM/MISO Coordinated Transaction Scheduling

As part of the MISO-PJM Joint and Common Market ("JCM") effort, PJM and MISO have developed a CTS design for the RTOs to achieve more optimal coordination of interchange in real time across the MISO-PJM interface. The JCM effort was concluded in November of 2014 and individual RTO stakeholder review and approval process is currently underway. The RTOs currently expect to submit a filing to FERC by the third quarter of 2015 with implementation of CTS across the MISO-PJM interface scheduled for November 2016.

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[9] *See New York Independent System Operator, Inc.*, 139 FERC ¶ 61,048 (2012) and *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,097 (2014).

[10] Transmission Customers using CTS will submit a single CTS Interface Bid to indicate their desire to simultaneously buy Energy in one Control Area and sell Energy into the other Control Area based on the forecasted price difference between the NYISO and PJM markets at the relevant location.

[11] http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-01-29/BRM%20Metrics.pdf.

B. Ontario-Michigan (ONT-MI) Interface PARs

As of April 5, 2012, all four circuits comprising the Michigan/Ontario interconnection had in-service PARs. Starting on that date, the MISO and IESO began actively operating the PARs to better conform actual power flows to scheduled power flows. The expectation was that such operations, in conjunction with controls already operational elsewhere on the system, would help reduce the unscheduled flows which cause Lake Erie Circulation ("LEC").

In January 2014, MISO, PJM and IESO completed an evaluation of the PARs on the Ontario-Michigan interface and their ability to maintain actual flow within a 200 MW bandwidth of scheduled flow and produced an Evaluation Report.[12] The Evaluation Report follows from the Regional Power Control Device Coordination ("RPCDC") Study report published in 2011 as a joint effort among IESO, MISO, NYISO, and PJM.

Although the RPCDC Study recommended a follow-up study (Second Study) be performed after the Ontario-Michigan PARs enter service and operational data had been collected for a year, the Evaluation Report should not be considered as meeting that recommendation. A Second Study is still planned for the future and is anticipated to include the involvement of all four RTOs/ISOs around Lake Erie.

II. The Lake Erie ISOs and RTOs Agree That Implementing Buy-Through of Congestion is Premature at This Time

The objective of the proposed Buy-Through of Congestion Broader Regional Market solution is to (a) identify the sources of loop flow caused by interregional transaction scheduling, (b) determine the costs incurred in supporting the loop flows by each impacted region, and (c) allocate the costs incurred by the off-contract path Balancing Authorities to the scheduling entity, or remove the associated schedules if the scheduling entity is not willing to pay the full cost of flowing its transaction(s). Implementing Buy-Through of Congestion will result in a more complete identification, and accurate assignment, of the costs to move power between regions, and will provide an economic alternative to the administrative/physical curtailment processes. Buy-Through of Congestion will allow the scheduling entity to decide whether or not it is willing to pay the congestion charges caused by its transaction's off-contract path flow impacts. If a scheduling party indicates it is not willing to pay congestion charges, its transaction will be removed if the off-contract path flow impacts add to congestion costs in an off-contract path ISO or RTO.

The Lake Erie ISOs and RTOs need additional time to understand how the collective set of market solutions discussed herein and in the March 2014 report submitted in this docket will affect Lake Erie loop flow and how the market solutions should account for the operation of all of the controllable devices around Lake Erie. The only way to understand the impact of these

[12] The Ontario-Michigan PAR Performance Evaluation Report ("Evaluation Report") is posted at http://www.miso-pjm.com/documents.aspx.

market solutions is to gain operational experience with the recently, and soon to be, implemented Broader Regional Market improvements and to study the resulting operational data. NYISO, PJM, MISO and IESO all agree that it is not necessary to begin to develop the proposed Buy-Through of Congestion Broader Regional Market solution at this time. The Lake Erie ISOs and RTOs need more time to analyze the other recently, and soon to be, implemented programs before determining whether or not the Buy-Through of Congestion Broader Regional Market solution will provide sufficient additional benefits to merit its development and implementation.

III. Communications and Correspondence

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

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IV. Service

The NYISO will send an electronic link to this filing to the official representative of each party to this proceeding, 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.

V. Conclusion

The NYISO respectfully requests that the Commission accept this Report as satisfying the requirements set forth in the Commission's December 2010 Order, as modified in the June 2014 Order.

Respectfully submitted,

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

cc: Michael Bardee
Gregory Berson
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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 20th day of March, 2015.

/s/ Mohsana Akter

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