

ORIGINAL



10 Krey Boulevard Rensselaer, NY 12144

July 21, 2008

**BY HAND DELIVERY**

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

FILED  
 SECRETARY OF THE  
 COMMISSION  
 2008 JUL 21 P 4: 12  
 FEDERAL ENERGY  
 REGULATORY COMMISSION

Re: New York Independent System Operator, Inc.'s Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, Requesting Prospective Limited Tariff Waivers, Seeking Expedited Commission Action, Requesting Shortened Notice and Comment Periods, and Contingent Request for Consideration Under Section 206 of the Federal Power Act; Docket No. ER08-*1281-000*

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act,<sup>1</sup> the Federal Energy Regulatory Commission's ("Commission's") *Guidance Order on Expedited Tariff Revisions for Regional Transmission Organizations and Independent System Operators* ("Guidance Order"),<sup>2</sup> and Section 19.01 of the Independent System Operator Agreement ("ISO Agreement"), the New York Independent System Operator, Inc. ("NYISO"), at the direction of its Board of Directors ("Board"), hereby submits its *Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, Requesting Prospective Limited Tariff Waivers, Seeking Expedited Commission Action, Requesting Shortened Notice and Comment Periods, and Contingent Request for Consideration Under Section 206 of the Federal Power Act*, and respectfully requests that the Commission accept the proposed amendments to its Open Access Transmission Tariff ("OATT"), to Attachment J to its OATT, and to Attachment B to its Market Administration and Control Area Services Tariff ("Services Tariff") that are included as attachments to this filing letter.

<sup>1</sup> 16 U.S.C. § 824d (2007).

<sup>2</sup> *Guidance Order on Expedited Tariff Revisions for Regional Transmission Organizations and Independent System Operators*, 111 FERC ¶ 61,009 (2005).

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 2

The NYISO submits this filing pursuant to Section 205 of the Federal Power Act<sup>3</sup> under exigent circumstances at the direction of the NYISO Board. Section 19.01 of the ISO Agreement empowers the NYISO Board to direct the NYISO to submit a Section 205 filing that expires no later than 120 days after it is filed with the Commission without the concurrence of the NYISO's Management Committee<sup>4</sup> when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures."<sup>5</sup> The Board concluded that exigent circumstances exist in this instance because a relatively small number of Market Participants are scheduling transactions over circuitous Scheduling Paths around Lake Erie to take advantage of a "seam" between the methods that are used by the organized markets in the Eastern Interconnection to price External Transactions.<sup>6</sup> While the NYISO has not identified any violations of any provision of its existing Tariffs or market rules, the scheduling of transactions over circuitous paths around Lake Erie is adversely affecting the operation of the ISO-Administered markets.

The NYISO requests expedited consideration of this filing so that its proposed Tariff revisions are permitted to become effective on July 22, 2008, one day after the date of this filing. In accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations.<sup>7</sup> The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing as expeditiously as possible. Unless it is instructed to do otherwise by the Commission, on the morning of July 22, 2008 the NYISO will begin taking all of the actions necessary for it to ensure that the Tariff revisions proposed in this filing are effectuated as quickly as possible. The NYISO's implementation plan is addressed in Section VII.A. of this filing letter. Should the

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<sup>3</sup> In filings submitted pursuant to Section 205 of the Federal Power Act the Commission can reject a filing only if it finds that the changes proposed by the public utility are not just and reasonable. *Atlantic City Electric Company v. FERC*, 295 F.3d 1, 9-10 (D.C. Cir. 2002); *City of Winfield v. FERC*, 744 F.2d 871, 876 (D.C. Cir. 1984). The Commission's inquiry does not extend to determining whether a proposed rate schedule is more or less reasonable than alternative designs. See *ISO New England, Inc.*, 114 ¶ 61,315 at P. 33 and n. 35 (2005). The changes proposed herein need not be the only reasonable methodology, or even the most accurate. *Oxy USA Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995).

<sup>4</sup> Capitalized terms not otherwise defined herein have the meaning ascribed to them in the NYISO's OATT.

<sup>5</sup> In accordance with Section 19.1 of the ISO Agreement, the Tariff amendments proposed in this filing must expire no later than 120 days after the date of this filing unless either: (a) the NYISO's Management Committee files a written concurrence to the proposed amendment(s) within the 120 day period, or (b) the Commission accepts the proposed amendments for filing under the just and reasonable standard set forth in Section 206 of the Federal Power Act. 16 U.S.C. § 824c (2007).

<sup>6</sup> External Transactions include Imports, Exports and Wheels Through.

<sup>7</sup> 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 3

Commission determine it must reject the NYISO's proposed Tariff revisions, the NYISO respectfully requests that any such rejection be prospective in nature. Once the NYISO begins implementing its proposed new Tariff rules it will not be possible for the NYISO to retroactively go back and undo the effect of its implementation on already completed market outcomes. The NYISO can prospectively disable the software it will use to enforce the proposed new market rule if the Commission instructs it to do so. Finally, if the NYISO's Management Committee proves unable or unwilling to ratify the NYISO's proposed Tariff revisions within 120 days of this filing, the NYISO requests that the Commission instead accept the NYISO's proposed Tariff revisions for filing under Section 206 of the Federal Power Act as permanent amendments to the NYISO's Tariffs.<sup>8</sup>

### I. Description of Proposed Tariff Revisions and Justification

The proposed Tariff amendment would preclude the scheduling of External Transactions over the following eight "Scheduling Paths"<sup>9</sup>:

1. External Transactions that (a) exit the New York Control Area ("NYCA") at the NYISO's Proxy Generator Bus that represents the Interface between the NYCA and the Control Area operated by Ontario's Independent Electric System Operator ("IESO"), and (b) sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
2. External Transactions that (a) exit the NYCA at the NYISO's Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area,<sup>10</sup> and (b) sink in the IESO Control Area;
3. External Transactions that (a) enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area, and (b) source from the IESO Control Area;

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<sup>8</sup> The NYISO believes that this filing letter presents an adequate factual record for the Commission to determine that a "seam" between the methods used to price and settle External Transactions in the organized markets around Lake Erie is resulting in unjust and unreasonable rates and charges. The Commission is empowered to address unjust, unreasonable, unduly discriminatory and unduly preferential rates, charges, classifications, rules, regulations and practices by Section 206(a) of the Federal Power Act.

<sup>9</sup> A "Scheduling Path" is the transmission service arrangements reserved by the purchasing or selling entity (as appropriate) for an External Transaction.

<sup>10</sup> Transactions can be scheduled directly between the New York and PJM control areas at both the PJM Keystone and Neptune Proxy Generator Buses.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 4

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

For each of the eight paths over which the NYISO is proposing to foreclose scheduling, there is (and there will continue to be) a more direct Scheduling Path available to Market Participants. For example, although the NYISO is proposing to preclude Market Participants from scheduling Exports to the PJM Control Area at the NYISO's Proxy Generator Bus that represents the NYCA's Interface with IESO, the NYISO will continue to permit Market Participants to schedule Exports to the PJM Control Area at the NYISO's Proxy Generator Buses that represent the common border between the NYCA and the PJM Control Area. Similarly, although the NYISO proposes to prohibit the wheeling of power sourcing at the PJM Control Area through the NYCA (and IESO Control Area) with the MISO as its destination, Market Participants will still be able to sell power directly from PJM to the MISO by scheduling a transaction between those two RTOs at their common borders.

The NYISO proposes to preclude the scheduling of External Transactions via the eight circuitous Scheduling Paths identified above for two primary reasons. First, until such time as the Control Areas around Lake Erie are able to more closely conform actual power flows to scheduled power flows,<sup>11</sup> the path by which Energy that is scheduled to flow over one of the eight identified Scheduling Paths actually moves from source to sink will bear little relation to the Scheduling Path.<sup>12</sup> Divergence between scheduled and actual inter-Control Area flows has

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<sup>11</sup> As explained in greater detail below, the commissioning and operation of all four of the Ontario – Michigan Phase Angle Regulators ("PARs") by ITC Transmission and Hydro One Networks is a necessary prerequisite to more closely conform actual power flows to scheduled power flows around Lake Erie.

<sup>12</sup> See Section V.B. of this filing letter.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 5

increased the level of unscheduled power flows moving through the interconnected NYISO, MISO, PJM and IESO Control Areas and is exacerbating west-to-east congestion in the NYCA. Second, there is a “seam” between the method that the NYISO and IESO use to price External Transactions, and the method that PJM and the MISO use to price External Transactions that is *providing inefficient scheduling incentives that are resulting in increasing levels of inefficient transactions.*

Since January of this year a significant volume<sup>13</sup> of External Transactions have been *scheduled over two of the eight Scheduling Paths described above<sup>14</sup> by a small subset of Market Participants* that appear to be responding to an inefficient incentive resulting from differences between the External Transaction pricing and settlement rules of the ISOs and RTOs that surround Lake Erie. The NYISO and IESO price External Transactions based on the path over which an External Transaction is scheduled into or out of their respective Control Areas.<sup>15</sup> The NYISO separately prices each of its Proxy Generator Buses, and Import and Export transaction Bids are economically evaluated at each Proxy Generator Bus in the NYISO’s market evaluation. All Import and Export transactions scheduled by the NYISO that source from, or sink to, a particular external Proxy Generator Bus in a particular hour are paid (Imports) or pay (Exports) the same Locational Based Marginal Price (“LBMP”).<sup>16</sup> The NYISO does not consider the originating source of an Import or the ultimate sink of an Export, specified in the North American Electric Reliability Corporation (“NERC”) Tag supporting an External Transaction, when determining the LBMP the Transaction receives or pays. It is NYISO’s understanding that IESO’s method of pricing External Transactions is similar to the NYISO’s.<sup>17</sup>

PJM and the MISO pay or charge External Transactions scheduled to or from their Control Areas based on the source or sink identified in the transaction’s NERC Tag. It is the NYISO’s understanding that the Scheduling Path associated with Imports to and Exports from

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<sup>13</sup> Transactions scheduled over Scheduling Path No. 1 (described on p. 3 of this filing letter) have equaled or exceeded the NYCA/IESO Control Area interchange limit in some hours. It is possible to exceed the Control Area interchange limit in one direction when there are “counterflow” External Transactions scheduled in the opposite direction.

<sup>14</sup> The actively utilized Scheduling Paths are Nos. 1 and 5 (described on pp. 3 and 4 of this filing letter). Although these are currently the actively used Scheduling Paths, if the NYISO were to preclude scheduling over only these two paths, the other six Scheduling Paths present the same financial *opportunities under certain system conditions and could be used as substitutes for the precluded paths.*

<sup>15</sup> Wheels Through the NYCA are paid or charged based on the difference in congestion (accounting for losses) between the Proxy Generator Bus at which the wheel enters the NYCA and the Proxy Generator Bus at which the wheel departs the NYCA.

<sup>16</sup> Imports that are settled at a price below their accepted Bid may be eligible to receive a Bid Production Cost Guarantee.

<sup>17</sup> ISO New England also pays Imports and charges Exports based on the path over which energy is scheduled to enter or exit its Control Area.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 6

the PJM and MISO Control Areas is not considered in PJM or MISO's settlement of External Transactions. External Transactions that identify the NYCA as the source and the PJM Control Area as the sink receive the same compensation from PJM, without regard to whether they are scheduled to enter the PJM Control Area via the transmission lines that comprise PJM's common border with the NYCA, or if the Scheduling Path is around Lake Erie through IESO, through MISO, and finally into PJM at its midwestern border with the MISO. So long as a transaction's associated NERC Tag indicates that the source Control Area is the NYCA, PJM will settle the transaction based on the price it sets for its common border with the NYCA. In its Real-Time Market, it is the NYISO's understanding that PJM settles External Transactions based on LMPs it calculates at the common border between the two Control Areas.

Energy can be scheduled from the NYISO to PJM either directly, via the NYISO's Proxy Generator Buses that represent its common border with PJM, or indirectly, by scheduling power at the NYISO's IESO Proxy Generator Bus through IESO and the MISO, to PJM. The NYISO separately determines LBMPs for each of its Proxy Generator Buses. Because the NYISO's common border with PJM includes transmission lines that are located in relatively high cost (congested) areas of the NYCA, while the NYISO's Interface with IESO is located on the NYCA's western border, where there is little to no transmission congestion, LBMPs are, on average, higher at the NYISO's PJM Proxy Generator Buses than at the NYISO's IESO Proxy Generator Bus. By contrast, as explained above, PJM determines the settlement for New York Energy based on its price for Energy flowing over the common border between the two Control Areas without regard to whether the Energy was scheduled at a Proxy Generator Bus representing the common border between the two Control Areas, or was scheduled from the NYISO's IESO Proxy Generator Bus over a circuitous Scheduling Path, through IESO and MISO, to PJM.

The price at which PJM settles Imports from the NYCA ordinarily closely approximates the LBMP at the NYISO's PJM (Keystone) Proxy Generator Bus.<sup>18</sup> The LMP/LBMP at these Proxy Generator Buses can be substantially higher than the LBMP at the NYISO's IESO Proxy Generator Bus.<sup>19</sup> If the cost of scheduling Energy through IESO and MISO to PJM is less than the difference between the LBMPs at the NYISO's PJM and IESO Proxy Generator Buses, Market Participants can benefit financially if they schedule an Export from the NYISO's IESO Proxy Generator Bus and schedule Wheels Through the IESO and MISO Control Areas to PJM, instead of scheduling an Export directly from the NYCA to the PJM Control Area. Market Participants appear to be responding to this seam between External Transaction pricing rules, and the NYISO expects that they will continue to do so until the rules are changed or the Scheduling Path ceases to be profitable.

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<sup>18</sup> Over the first six months of 2008, real-time average monthly LBMPs at the NYISO's PJM (Keystone) Proxy Generator Bus have generally been within \$5/MWh of PJM's "NYIS" interface real-time LMPs.

<sup>19</sup> Over the first six months of 2008, the average monthly difference between the real-time LBMPs at the NYISO's PJM (Keystone) Proxy Generator Bus and its IESO Proxy Generator Bus has ranged from a low of \$11.12 in March to a high of \$33.94 in May.

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 7

Differences in pricing rules may make it financially advantageous for Market Participants to schedule Energy from the NYISO's IESO Proxy Generator Bus through the IESO and MISO Control Areas to the PJM Control Area, or to schedule over any of the other identified Scheduling Paths. The attached Tariff revisions propose to prohibit the scheduling of External Transactions over eight specified Scheduling Paths around Lake Erie to mitigate burdens on the interconnected Control Areas and costs to the NYCA that are not being accurately charged to the responsible Market Participants. These burdens and costs occur because actual power flows do not align with scheduled power flows when Market Participants schedule significant volumes of transmission service over circuitous Scheduling Paths around Lake Erie. Electricity does not follow a contractual Scheduling Path unless there are adequate controls in place to ensure that actual and scheduled flows are reasonably closely aligned.<sup>20</sup> In the absence of such controls, electricity flows over the path of least resistance in accordance with Ohm's Law.

When generation is increased in the NYCA to serve PJM Load as a result of the scheduling of an External Transaction over a circuitous Scheduling Path from New York to PJM, unless power flows are controlled, most (approximately 80%)<sup>21</sup> of the power will flow directly over the common border interconnections between the NYISO and PJM, rather than traveling circuitously around Lake Erie to enter PJM at its midwestern border with the MISO. Although New York generation will serve the PJM load, most of the Energy will not flow over the circuitous Scheduling Path.<sup>22</sup> The resulting difference between scheduled and actual flows is referred to in this filing as "unscheduled flow." A well known example of unscheduled flow is the flow of unscheduled energy through the interconnected transmission system around Lake Erie, often referred to as "Lake Erie circulation." As explained in Section V.A. of this filing letter, the NYISO has determined a significant degree of correlation exists between the scheduling of External Transactions around Lake Erie from the NYISO's IESO Proxy Generator Bus for delivery to the PJM Control Area and Lake Erie circulation power flows in a "clockwise" direction.

The NYISO's Real-Time Market software continuously re-dispatches internal NYCA generating resources in response to actual power flows and real-time transmission constraints to provide firm transmission service to NYISO Market Participants that are willing to pay congestion. The NYISO incurs additional congestion related costs when actual power flows include unscheduled power flows that exacerbate internal NYCA west-to-east transmission

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<sup>20</sup> It is the NYISO's understanding and expectation that the Ontario – Michigan PARs are being commissioned to control the IESO-MISO Scheduling Path actual power flows to their corresponding interchange schedule, within operational tolerances. The NYISO has been anticipating the commissioning of the Ontario – Michigan PARs for more than three years.

<sup>21</sup> See Section V.B. of this filing letter.

<sup>22</sup> Under the posited scenario it is likely that net real-time flows from New York to IESO would be less than scheduled, and that net real-time flows from New York to PJM would exceed scheduled flows. These divergences from the scheduled flows would be included in determining Lake Erie circulation.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 8

constraints. In 2008 Lake Erie circulation has predominantly flowed in a “clockwise” direction, which means that from the NYISO’s perspective it enters the NYCA at the border with the IESO Control Area, flows through the NYCA and exits the NYCA over various paths into the PJM Control Area. For the reasons explained in Section V.B. of this filing letter, clockwise circulation exacerbates internal NYCA transmission constraints. This determination, along with the NYISO’s identification of a significant statistical correlation between the scheduling of External Transactions over a circuitous Scheduling Path from the NYISO’s IESO Proxy Generator Bus for delivery to the PJM control area and clockwise Lake Erie circulation, supports the NYISO’s proposal to prohibit scheduling external transactions over the eight circuitous scheduling paths identified in this filing and in the proposed Tariff revisions.

Studies prepared by the NYISO’s Operations Department indicate that on May 26 2008, a day when Market Participants were scheduling more transactions over circuitous Scheduling Path No. 1 than the Available Transfer Capability on the NYISO – IESO interface,<sup>23</sup> more than half of the real-time congestion costs that the NYISO was experiencing were caused by Lake Erie circulation.<sup>24</sup> A study prepared by the NYISO’s Independent Market Advisor explains that the cost of redispatch to address Lake Erie circulation causes costs to the market that may either be reflected in market clearing prices, or charged to the market as uplift.<sup>25</sup>

The NYISO does not expect that Commission acceptance of its proposed Tariff revision will control or eliminate all Lake Erie circulation. Rather, NYISO expects that precluding scheduling over the eight identified Scheduling Paths will reduce Lake Erie circulation. Until there are adequate operational controls in place to ensure that actual and scheduled flows around Lake Erie are reasonably closely aligned,<sup>26</sup> the NYISO proposes to limit potential Lake Erie circulation by precluding the scheduling of External Transactions over the eight identified Scheduling Paths.

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<sup>23</sup> Again, it is possible to exceed the Control Area interchange limit in one direction when there are “counterflow” External Transactions scheduled in the opposite direction.

<sup>24</sup> A description of the study that the NYISO’s Operations Department prepared is set forth in Section V.B. of this filing letter.

<sup>25</sup> A description of the Study that the NYISO’s Market Advisor prepared is set forth in Section V.C. of this filing letter.

<sup>26</sup> The NYISO will revisit the need for the attached Tariff revisions once all four of the Ontario – Michigan PARs are operating and the NYISO determines that the PARs are effective in controlling Lake Erie circulation.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 9

## II. Documents Submitted

1. This filing letter;
2. The Affidavits of (a) Ricardo T. Gonzales, the NYISO's Vice President of Operations, (b) Dr. Nicole Bouchez, the NYISO's Manager of Market Monitoring, and (c) Dr. David Patton, the NYISO's Market Advisor, supporting the studies described in Section V. of this filing letter ("Attachment A");
3. Clean revised tariff sheets amending Section 15.1 of the NYISO's OATT, Section 5.0 of Attachment J to the OATT and Section 3.6 of Attachment B to the NYISO's Services Tariff to preclude the scheduling of External Transactions over the eight identified Scheduling Paths ("Attachment B"); and
4. Redlined revised tariff sheets depicting the changes that the NYISO proposes to make to Section 15.1 of the NYISO's OATT, Section 5.0 of Attachment J to the OATT and Section 3.6 of Attachment B to the NYISO's Services Tariff ("Attachment C").

## III. Copies of Correspondence

Communications regarding this proceeding should be addressed to:

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## IV. Reasons and Basis for this Filing

### A. Background

Early in January of 2008, Market Participants began scheduling significant volumes of External Transactions from the NYISO's IESO Proxy Generator Bus, through IESO and MISO,

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 10

sinking in PJM. By April of this year, the scheduling of these transactions had grown from almost nothing to more than 1000 MW in some hours, and volumes continued to increase through the month of May and June to more than 2000 MW in some hours.<sup>27</sup> The NYISO, IESO, PJM and MISO market monitoring units/departments (the "Market Monitors") worked together to figure out why such a heavy volume of transactions were being scheduled over this path. They identified the seam in external transaction pricing rules that is described in this filing. However, the Market Monitors' collaborative efforts were hampered and their conclusion was delayed by tariff requirements that preclude Commission jurisdictional market monitors from sharing and/or freely discussing confidential External Transaction data with each other and the IESO Market Monitor. In Section VIII.B. of this filing letter, the NYISO suggests that the Commission consider giving the Market Monitors access to NERC Tag data for all transactions that are scheduled to flow over any of their common borders and consider authorizing the Market Monitors to share External Transaction Bid and settlement data after appropriate protections to safeguard confidentiality are in place.

The NYISO's Market Monitor has identified a second circuitous Scheduling Path that is being actively utilized by Market Participants (Scheduling Path No. 5). The transaction is usually initiated from the PJM Control Area as a wheel through the NYISO and IESO to the MISO. Market Participants benefit by scheduling External Transactions over this Scheduling Path because their transaction appears to be a "counterflow" transaction that relieves congestion in the NYCA, so the Market Participants are paid to schedule their Energy across the NYCA. However, it is likely that most of the power actually flows from Generators in PJM to Loads in the MISO across the RTOs' common borders, so the congestion relief in New York is illusory. In order for a circuitous transaction of this nature to provide the congestion relief that the NYCA is paying for, flows and schedules must be brought into closer alignment. The operational controls needed to effectively align schedules and flows are not available yet.

The NYISO has also attempted to determine why the scheduling of large volumes of transactions over circuitous Scheduling Paths began to occur in early January of 2008. The NYISO's review has identified several factors that appear to be important. First, in late December of 2007 the general direction of Lake Erie flows changed from a generally counter-clockwise direction around the Lake to a generally clockwise direction. As explained below, counter-clockwise flow tends to reduce congestion on the NYISO's west-to-east transmission constraints, while clockwise flow tends to have the opposite effect, and can increase the price disparity between the NYISO's IESO Proxy Generator Bus and the NYISO's PJM Proxy Generator Bus. Second, it is the NYISO's understanding that PJM and the MISO have eliminated all, or at least the vast majority, of "pancaked" transmission charges for scheduling Energy between their two Control Areas, which reduces the cost to schedule External Transactions over most of the identified Scheduling Paths.

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<sup>27</sup> Market Participants are also consistently scheduling wheels through the NYCA that source from PJM and sink in the MISO (Scheduling Path No. 5), but the transaction volumes are significantly smaller than the transactions over Scheduling Path No. 1.

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 11

Finally, in mid 2007 the NYISO improved the method it uses to determine the price at its PJM Keystone Proxy Generator Bus to ensure that the Proxy Generator Bus reflected congestion across the entire NYISO/PJM interface.<sup>28</sup> This change was implemented to represent the operation of certain phase angle regulated interconnections between the NYCA and the PJM Control Area consistent with the Commission's Opinion No. 476,<sup>29</sup> and to better reflect the true cost of scheduling External Transactions across the common border between the two Control Areas. Because the improved pricing method takes west-to-east congestion in New York into account when setting the PJM (Keystone) Proxy Generator Bus LBMP, the LBMP at the Keystone Proxy Generator Bus tends to diverge from the LBMP at the IESO Proxy Generator Bus, which is located in western New York, when the NYCA is experiencing west-to-east transmission constraints. Because LBMPs at the NYISO's PJM Proxy Generator Buses are generally much higher than LBMPs at the NYISO's IESO Proxy Generator Bus due to west-to-east transmission constraints, Market Participants are scheduling Energy to PJM over Scheduling Path No. 1 to take advantage of the difference between the LBMPs at the NYISO's PJM and IESO Proxy Generator Buses. As the NYISO's Market Advisor explained in reporting the results of his study (that is described in Section V.C. of this filing letter) the scheduling of these transactions would not be problematic if physical flows and scheduled flows were closely aligned. Unfortunately, it is not possible at this time to ensure that physical energy flows follow circuitous Scheduling Paths around Lake Erie. Until it is possible to more closely conform schedules and flows for these transactions, the NYISO proposes to prohibit the scheduling of transactions over circuitous Scheduling Paths that appear to contribute to Lake Erie circulation.

**B. Considerations Underlying the NYISO Board's Decision to Direct the NYISO to Submit this Exigent Circumstances Section 205 Filing**

Section 19.01 of the ISO Agreement empowers the NYISO's Board of Directors to direct the NYISO staff to submit a FPA Section 205 when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures." An exigent circumstances filing necessarily expires no later than 120 days after it is filed with the Commission, unless it receives the concurrence of the NYISO's Management Committee within that period, or if the Commission accepts it for filing under the more stringent requirements of Section 206 of the FPA. If the NYISO's Management

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<sup>28</sup> The changes were presented at several NYISO stakeholder working groups, including the January 17, 2007 Market Issues Working Group. A link to the NYISO's January 17, 2007 presentation is provided for the Commission's convenience.

[http://www.nyiso.com/public/webdocs/committees/bic\\_miwg/meeting\\_materials/2007-01-17/MIWG\\_PJM\\_Proxy\\_Pricing\\_11707.pdf](http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2007-01-17/MIWG_PJM_Proxy_Pricing_11707.pdf)

<sup>29</sup> *Consolidated Edison Company of New York v. Public Service Electric and Gas Company, PJM Interconnection, L.L.C., and New York Independent System Operator, Inc.*, 108 FERC ¶ 61,120, at P. 85 (2004). Opinion No. 476 required certain phase angle regulated interconnections be made available to carry open access flows.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 12

Committee does not ratify the Tariff revisions submitted in this exigent circumstances Section 205 filing within 120 days, the NYISO requests that the Commission instead accept the filing under Section 206 of the FPA and permit it to become effective on a permanent basis.

The NYISO Board determined that exigent circumstances justify the submission of the attached Tariff revisions because the scheduling of External Transactions via circuitous Scheduling Paths around Lake Erie appears to be increasing Lake Erie circulation,<sup>30</sup> exacerbating congestion on the New York transmission grid without paying the full cost of that congestion<sup>31</sup> and increasing the overall cost to serve load in New York.<sup>32</sup> Unless something is done to end the scheduling of these transactions (or until it is possible to ensure better convergence between the physical and scheduled paths of these transactions), their scheduling will continue to adversely affect the operation of the NYISO markets. Unless the NYISO's proposed Tariff revisions are accepted for filing, the NYISO expects these transactions to continue for the foreseeable future. Market participants that regularly participate in transactions over at least one of the Scheduling Paths that the NYISO proposes to prohibit have obtained firm transmission reservations in neighboring control areas to support the continued scheduling of these transactions.

Finally, the NYISO Board determined that exigent circumstances exist in this case because the scheduling of External Transactions over circuitous Scheduling Paths would have continued while the NYISO was vetting its proposed Tariff revisions with its stakeholders in its governance process. Moreover, additional Market Participants might have joined the Market Participants that are engaging in the transactions that the NYISO proposes to prohibit once the NYISO publicly disclosed how it is possible to take advantage of the seam between the organized market External Transaction pricing rules.

**C. The Commission Should Accept the Proposed Tariff Revisions for Filing on an Expedited Basis**

At its July 15, 2008 meeting, the NYISO's Board of Directors instructed the NYISO's management to make this filing based on the Board's determination that the exigent circumstances described in this filing letter needed to be addressed immediately in order to prevent harm to the markets that the NYISO administers. Section 19.1 of the ISO Agreement does not specifically define "exigent circumstances," leaving the determination to the Board's discretion based on the specific facts and circumstances encountered. The Commission's Guidance Order, on the other hand, sets forth specific criteria that ISOs and RTOs are expected to meet in a filing seeking expedited review of Tariff revisions that are designed to remedy a market rule flaw. The NYISO believes that both the "exigent circumstances" requirement set forth in Section 19.1 of the ISO Agreement, and the requirements set forth in the Commission's

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<sup>30</sup> See Sections V.A. and V.C. of this filing letter.

<sup>31</sup> See Section V.B. of this filing letter.

<sup>32</sup> See Sections V.B. and V.C. of this filing letter.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 13

Guidance Order are designed to achieve a similar purpose—to identify filings that require immediate consideration and action by the Commission.

In paragraph two of its Guidance Order the Commission sets forth three criteria that must be satisfied in order for a Tariff revision addressing an identified tariff or rule flaw<sup>33</sup> to qualify for expedited consideration by the Commission. First, the concern must materially adversely impact the market due to (in this case) unanticipated actions by Market Participants. Studies performed by the NYISO's Operations Department and its Market Advisor that are described in Sections V.B. and V.C. of this filing letter indicate that the scheduling of External Transactions around Lake Erie from the NYISO's IESO Proxy Generator Bus, through IESO and MISO, to the PJM Control Area has caused significant additional, incremental, clockwise Lake Erie circulation and caused the NYISO to incur significant additional redispatch costs to address congestion that are reflected in both LBMPs and uplift paid by NYISO customers.<sup>34</sup> The studies described in this filing letter do not account for the harm that additional Lake Erie circulation causes to the NYISO's neighboring markets. The NYISO believes this filing adequately identifies a material adverse impact to the markets it administers.

Second, the Guidance Order requires a showing that prompt action is needed to prospectively revise the Tariffs to remove the ability to cause such material adverse impacts. In this case immediate action is needed because the NYISO is approaching the height of its summer peak season. Adding significant volumes of unscheduled Lake Erie circulation to high load conditions and a congested transmission system can significantly impact the NYISO's markets. Precluding the scheduling of External Transactions over circuitous Scheduling Paths that have been determined by the NYISO's Market Monitor to have a direct statistical correlation with Lake Erie circulation is expected to reduce Lake Erie circulation and, in turn, to permit better convergence of Day-Ahead and real-time schedules.<sup>35</sup> This convergence will enable the NYISO to cost-effectively serve peak summer loads using resources that were committed in its Day-Ahead Market.

Finally, the NYISO is required to show that the concern it has identified is susceptible to being remedied by a clear-cut Tariff revision. The NYISO's proposed Tariff revisions will preclude the scheduling of External Transactions over the eight identified circuitous Scheduling

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<sup>33</sup> In this case, the identified "tariff or rule flaw" is not in the NYISO's market rules or Tariff *per se*. Rather, the identified seam is the ability of Market Participants to take advantage of differences between the method that the NYISO/IESO use to price External Transactions and the method that PJM/MISO use to price External Transactions, combined with the fact that transactions scheduled to exploit this seam between the two market rules appear to exacerbate Lake Erie circulation. The NYISO is confident that the Commission will agree that the market rule flaw identified in this filing is exactly the type of concern that the Commission issued its Guidance Order to permit ISOs and RTOs to address on an expedited basis.

<sup>34</sup> See Section V.C. of this filing letter.

<sup>35</sup> See Section V.A. of this filing letter.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 14

Paths around Lake Erie, two of which are actively being used by Market Participants to take advantage of a seam between the NYISO – IESO and PJM – MISO External Transaction settlement rules, and the other six of which are viable substitutes under certain system conditions. As explained in this filing letter, foreclosing scheduling over these eight circuitous paths (*until such time as it is possible to better align schedules with actual inter-Control Area power flows*) will reduce Lake Erie circulation by better aligning transmission schedules with actual power flows and will reduce the opportunities available for Market Participants to schedule External Transactions that take advantage of the seam between External Transaction settlement rules. The foregoing factors also amply support the NYISO Board's determination that "exigent circumstances" warranted the submission of this filing without further delay.

## **V. Studies Supporting Proposed Tariff Revisions**

The Affidavits of Ricardo T. Gonzales, Dr. Nicole Bouchez and Dr. David Patton, included in Attachment A to this filing, are provided to affirm the accuracy of the facts, explanations and descriptions stated in Sections V.A., V.B. and V.C. of this filing letter.

### **A. NYISO Market Monitoring Study Indicating Statistical Correlation Between Scheduling of Circuitous Transactions and Lake Erie Circulation**

The NYISO's Market Monitor has determined that there is a significant linear correlation between Lake Erie circulation and the transactions scheduled along the contract path from NY-IESO-MISO-PJM. The existence of this significant correlation, coupled with the results of the NYISO Planning Department's interchange transfer distribution factor study (discussed in Section V.B. of this filing letter) and the Market Advisor's study data indicating the relative proportion of circuitously scheduled to directly scheduled transactions at various Control Area interfaces around Lake Erie (addressed in Section V.C. of this filing letter) suggests that (1) Lake Erie circulation changes in step with the scheduling of transactions over circuitous Scheduling Paths around Lake Erie, so (2) if the number of transactions scheduled over circuitous Scheduling Paths around Lake Erie is reduced, there is likely to be a related reduction in Lake Erie circulation.

The study that the NYISO's Market Monitor performed to determine that a correlation exists involved a three-step process. First, the Market Monitor determined the amount of unscheduled flows around Lake Erie by measuring the difference between the scheduled and actual megawatts at its border with the IESO on an hourly basis from October 1<sup>st</sup> 2007 through May 31<sup>st</sup> 2008. The data used to perform the study was acquired through NYISO's internal metering ("PI") software.

Once it had gathered the hourly PI data, the NYISO's Market Monitor next identified transactions scheduled along the path from NY-IESO-MISO-PJM by querying the NYISO's Market Information System ("MIS"). The query identified transactions that were scheduled to

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 15

exit the NYISO at the OH\_LOAD\_BRUCE proxy bus and that identified PJM as the Receiving Control Area (“RCA”).

Finally, after the Market Monitor had assembled both the PI data (differences between scheduled and actual flows on an hourly basis) and a list of transactions that were scheduled to flow from the NYISO’s IESO Proxy Generator Bus, through the IESO and MISO Control Areas, to the PJM Control Area, on an hourly basis over the same time period, both sets of data were exported to Microsoft Excel. The Market Monitor used Microsoft Excel’s CORREL function to determine if a correlation existed between the two sets of data. The correlation analysis was done on an hourly basis from October 1<sup>st</sup> 2007 through May 31<sup>st</sup> 2008.

The exact test that Microsoft Excel’s CORREL function performs to determine if a correlation exists is:

## CORREL

[⌵ Show All](#)

Returns the correlation coefficient of the array1 and array2 cell ranges. Use the correlation coefficient to determine the relationship between two properties. For example, you can examine the relationship between a location’s average temperature and the use of air conditioners.

### Syntax

**CORREL(array1,array2)**

**Array1** is a cell range of values.

**Array2** is a second cell range of values.

### Remarks

If an array or reference argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value zero are included.

If array1 and array2 have a different number of data points, CORREL returns the #N/A error value.

If either array1 or array2 is empty, or if s (the standard deviation) of their values equals zero, CORREL returns the #DIV/0! error value.

The equation for the correlation coefficient is:

$$\text{Correl}(X, Y) = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}}$$

where x and y are the sample means AVERAGE(array1) and AVERAGE(array2).

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 16

Two sets of data that are perfectly correlated would have a correlation coefficient of 1, meaning that the sets are perfectly (linearly) moving together. Even a perfect correlation does not prove causality. The correlation coefficient of 0.717, which the Market Monitor obtained from its analysis, indicates a significant linear association between the two sets of data. As explained above, the existence of this significant correlation suggests that Lake Erie circulation changes in step with the scheduling of transactions over circuitous Scheduling Paths around Lake Erie. Considering this result in conjunction with the results of the NYISO Planning Department's interchange transfer distribution factor study and the Market Advisor's study data indicating the relative proportion of circuitously scheduled to directly scheduled transactions at various Control Area interfaces around Lake Erie it is reasonable to expect that if the number of transactions scheduled over circuitous Scheduling Paths around Lake Erie is reduced, there is likely to be a related reduction in Lake Erie circulation.

**B. Studies Performed by the NYISO's Operations Department Explaining Impact of Additional Incremental Clockwise Circulation On Congestion in New York**

To evaluate how the scheduling of External Transactions over circuitous Scheduling Paths around Lake Erie may have affected NYISO Energy market outcomes, the NYISO's Operations and Planning Departments performed three studies.

First, the NYISO Planning Department calculated interchange transfer distribution factors between the NYCA and the PJM Control Area using generator shifts between the PJM Control Area and the NYCA. An interchange transfer distribution factor indicates the percentage of actual power that can be expected to flow over certain paths if generation is increased in one of the studied Control Areas, while generation in the other studied Control Area is correspondingly decreased. The NYISO's interchange transfer distribution factor studies indicate that for transactions scheduled between the PJM Control Area and the NYCA, approximately 80% of the scheduled power physically flows over the common border between the two Control Areas. This means that only approximately 20% of the transaction MWs scheduled over the circuitous path around Lake Erie would be expected to actually follow that Scheduling Path. The modeling of certain operational controls, such as the Ramapo phase angle regulators (PARs) that control power flows over the Branchburg-Ramapo 500kV interconnection between PJM and the NYISO, affects the study results.<sup>36</sup>

The NYISO's Operations Department next performed a pair of studies that show the impact that the scheduling of External Transactions from the NYISO's IESO Proxy Generator

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<sup>36</sup> The interchange transfer distribution study was performed assuming that the PARs on the A, B, C and J, K Lines, which interconnect eastern New York to northern New Jersey hold flow to effectuate the Consolidated Edison wheel, while Branchburg-Ramapo and the uncontrolled lines located in Western New York were treated as free-flowing.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 17

Bus scheduled to sink in the PJM Control Area had in a particular Real-Time Market hour. Both studies use real-time data from the May 26, 2008 market day. May 26, 2008 was selected for several reasons. First, for fifteen hours on May 26 significant volumes<sup>37</sup> of NYISO to PJM transactions were scheduled to exit the NYISO at its IESO Proxy Generator Bus and flow over a circuitous Scheduling Path around Lake Erie. Second, there were no significant<sup>38</sup> transmission system facility outages that impacted congestion<sup>39</sup> or thunderstorm alerts on May 26, 2008, so it is possible to look at the impact that the scheduling of circuitous transactions had on congestion in the New York Control Area and on Real-Time Market congestion redispatch costs in relative isolation.

The NYISO Operations Department's second study investigated the impact that the scheduling of 2095MW of External Transactions around Lake Erie and the high level of corresponding Lake Erie circulation for Hour Beginning ("HB") 20 on May 26. The analysis was performed by re-running the ISO's Real-Time Market software starting with the actual market conditions and then superimposing the assumption that Energy associated with the HB20 transactions actually flowed as scheduled.<sup>40</sup> This study posits what might have happened if there were effective operational controls in place to more closely align actual and scheduled power flows. Controls needed to realize this result include having the Ontario — Michigan PARs available and operating to mitigate Lake Erie circulation.

The Operations Department's second study indicated that the ISO would experience a reduction in Real-Time Market Bid Production Costs<sup>41</sup> of \$52,000 for HB20 on May 26 if schedules and flows were more accurately aligned. Assuming the same cost impact in all fifteen hours that had in excess of 2000MW of External Transactions scheduled from the NYISO's

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<sup>37</sup> In 15 hours on May 26, 2008 from 2095MW to 2275MW were scheduled to flow between the two Control Areas over the described circuitous Scheduling Path, rather than being schedule over the Proxy Generator Buses that represent the common border between the NYISO and PJM. The posted Available Transfer Capability of the NYISO/IESO interface in the relevant hours was approximately 1200 MW. Counter-flow transactions (from IESO into the NYCA) made it possible to schedule the additional MWs.

<sup>38</sup> There was an outage that reduced transfer capability between the NY and IESO Control Areas. This outage did not impact congestion on the NYCA grid.

<sup>39</sup> Because clockwise Lake Erie circulation exacerbates NYCA west-to-east congestion, increasing Lake Erie circulation would ordinarily be expected to magnify the congestion impact of a transmission facility outage. Hence, while choosing May 26, 2008 permitted the NYISO to focus its study on the impact of clockwise Lake Erie circulation on total Bid Production Cost in the NYCA, it may understate the impact that clockwise Lake Erie Circulation has on days when significant Lake Erie circulation combines with the outage of NYCA transmission facilities.

<sup>40</sup> To accomplish this, Lake Erie circulation was reduced to 0 MW in the study simulation.

<sup>41</sup> The Services Tariff defines Bid Production Costs as total cost of the Generators required to meet Load and reliability Constraints based upon Bids corresponding to the usual measures of Generator production cost (e.g., running cost, Minimum Generation Bid, and Start-Up Bid).

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 18

IESO Proxy Generator Bus to sink in the PJM Control Area results in a Real-Time Market Bid Production Costs of close to eight hundred thousand dollars that was attributable to Lake Erie circulation that day.<sup>42</sup>

The NYISO Operations Department's third study was undertaken to estimate the LBMP Market Participants scheduling Exports from the NYCA to the PJM Control Area would have paid if the transactions had been scheduled over the direct interconnections between PJM and NYISO, rather than being scheduled circuitously around Lake Erie. Hence, the third study forces schedules to conform more closely to actual power flows and considers the LBMP impact of this change.

Starting with actual system conditions from HB 20 on May 26, 2008, 2095 MW of External Transactions scheduled to flow over a circuitous path around Lake Erie were instead assumed to have been scheduled at the NYISO's PJM (Keystone) Proxy Generator Bus. The study indicates that Market Participants scheduling these Exports would have paid a market clearing price of \$100/MWh, rather than the \$80/MWh LBMP that Market Participants exporting Energy at the NYISO's IESO Proxy Generator Bus paid, a difference of \$20/MWh.

The Operations Department's third study indicates that Market Participants scheduling transactions over circuitous Scheduling Paths around Lake Erie are not being assessed the full congestion cost of scheduling their External Transactions. In addition, to the extent that the NYISO is scheduling External Transactions that would not be profitable if the scheduling Market Participant had to pay the true congestion cost associated with scheduling them, the scheduling of these transactions is inefficient.

In addition to preparing the studies described above, the NYISO's Operations Department provides the following brief explanation of why clockwise Lake Erie circulation exacerbates congestion on the New York State Transmission System ("NYS Transmission System"). Power generally flows from west to east, and from north to south over the NYS Transmission System to serve load centers in and around New York City. From the NYISO's perspective, when Lake Erie circulation is flowing in a "clockwise" direction it enters the NYCA from the IESO Control Area and flows from west to east, in the same direction and over the same facilities<sup>43</sup> as the prevailing flow of Energy that has been scheduled to serve NYCA Load. In doing so, the Lake Erie circulation power flow uses valuable NYS Transmission System capacity, and contributes to congestion in the NYCA. However, Lake Erie circulating power

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<sup>42</sup> Actual Real-Time Market Congestion costs (exclusive of Day-Ahead Market congestion costs) for the fifteen hours on May 26, 2008 averaged approximately \$97,000/hour. In these hours Lake Erie circulation-related costs accounted for over one-half of Real-Time Market congestion costs.

<sup>43</sup> A portion of the Lake Erie circulation power flows over the NYISO's center-east constraint before exiting the NYCA.

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 19

flows are not used to serve NYCA Load. Rather, power circulating in a clockwise direction that flows in to the NYCA from the IESO Control Area exits the NYCA to the PJM Control Area.<sup>44</sup>

**C. Study Performed by the NYISO's Market Advisor Indicating Impact of Transactions Scheduled Over Circuitous Paths Around Lake Erie On Congestion In New York**

Because Dr. David Patton serves as the Independent Market Monitor for the MISO and as the Independent Market Advisor ("Market Advisor") for the NYISO, Potomac Economics has access to data on all four interfaces around Lake Erie. The Market Advisor has used this data to study the scheduling patterns and estimated loop flows around Lake Erie for the period from October 2007 to May 2008. The interfaces studied include:

- New York to Ontario;
- Ontario to Midwest ISO;
- Midwest ISO to PJM; and
- PJM to New York.

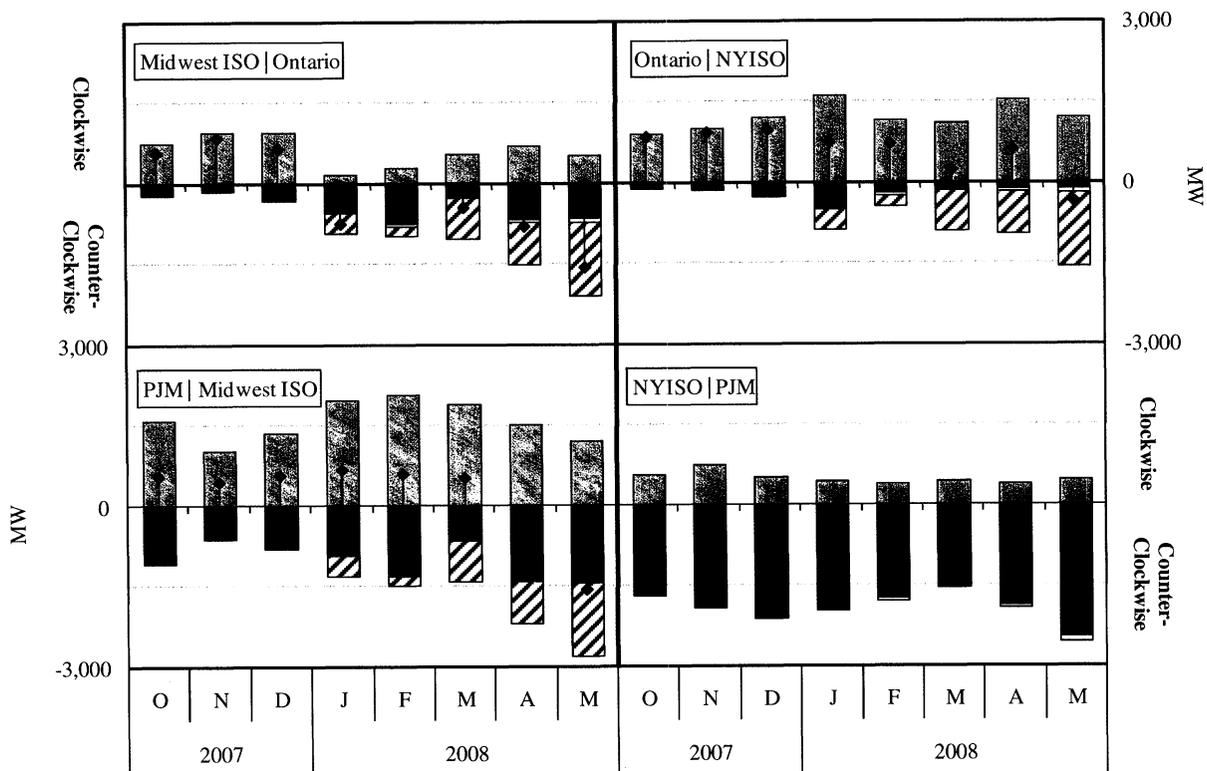
The results of the Market Advisor's analysis are shown in the following chart. The chart identifies the monthly hourly schedules in both the clockwise and counter-clockwise directions around Lake Erie, as well as the net schedule on each interface. The light blue bars represent clockwise schedules, the maroon bars represent counter-clockwise schedules that do not involve circuitous Scheduling Paths. The striped areas shown in the chart are the transactions beginning in New York and ending in PJM that are scheduled circuitously (scheduled from New York through Ontario and the Midwest ISO to PJM over Scheduling Path No. 1). The barely visible yellow portion of the graph represents transactions that were circuitously scheduled sourcing from PJM, through New York and Ontario, to sink in the Midwest ISO (over Scheduling Path No. 5). Finally, the drop line indicates the net scheduled flow for each month.

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<sup>44</sup> When Lake Erie circulation occurs in a counter-clockwise direction (flowing from PJM, through New York to IESO), it tends to congest portions of the PJM Control Area and reduce congestion on the NYS Transmission System. Because Lake Erie circulation is not predictable, none of the Control Areas around Lake Erie consider Lake Erie circulation to be beneficial or desirable, regardless of the direction in which the power circulates.

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 20

**Interchange around Lake Erie by All Participants  
 All Hours**



The above chart shows that the circuitous scheduling began in January 2008 and grew steadily over the year to a monthly peak in May 2008 of almost 1500 MW, on average, per hour. Also, note that the cross-hatched segment of the graph identifies the same quantity of circuitously scheduled MW at the NYISO – IESO, IESO – MISO, and MISO – PJM interfaces in each month of 2008 because the circuitously scheduled MW were scheduled to flow over all three Control Area Interfaces.

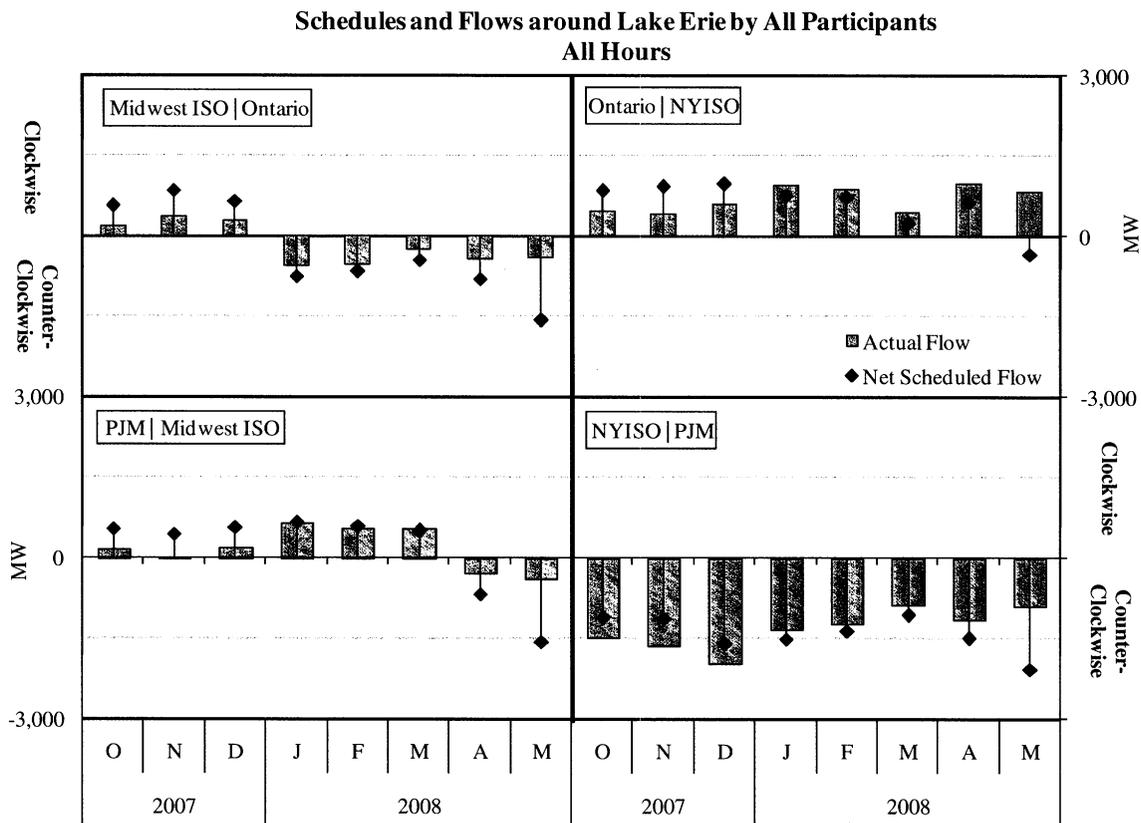
Since the scheduling of External Transactions over circuitous Scheduling Paths around Lake Erie began, net schedules over all of the interfaces, except the IESO – MISO<sup>45</sup> and NYISO – PJM interfaces, reversed directions over the time period covered in the study. This would not be a substantial concern if the power actually flowed in the direction it is scheduled. However, power flows around Lake Erie have not and do not, in fact, conform to schedules. Unless and until there are adequate facilities in place to control interchange between Control Areas, power will generally flow over the paths of least resistance, with larger shares of the power flowing over more direct paths. Scheduling External Transactions over circuitous Scheduling Paths has

<sup>45</sup> Schedules over the IESO – MISO interface reversed direction in late December of 2007.

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 21

significantly increased the divergence between scheduled flows and actual physical flows around Lake Erie.

The Market Advisor next analyzed the divergence between actual and physical flows using shift factors provided by the NYISO's Planning Department. A shift factor is the amount by which the flow on a constraint changes when power is injected at one location and withdrawn at another location on the network. The Market Advisor focused on the injections and withdrawals associated with the transactions illustrated in the chart above. The Market Advisor's analysis of the divergence between schedules and flows is shown in the chart below with the blue bars indicating the estimated actual flows associated with the circuitously scheduled transactions and the green diamonds showing the net scheduled flows over each interface.



The above chart shows that as the MW scheduled over circuitous scheduling paths increases, the divergence between the scheduled flows and actual flows also increases. For example, in May of 2008 the actual flows and scheduled flows on the Ontario-New York ISO interface completely decoupled. While schedules at the interface were in a counter-clockwise direction, power was actually flowing in a clockwise direction. On each of the three other

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 22

interfaces studied, the loop flow (the difference between the scheduled flow and the actual flow) was greater than 1100 MW in May. Loop flows of this magnitude can cause congestion management and uplift issues in the affected Control Areas. The congestion management problem is that the settlements do not reflect the congestion being caused by the circuitously scheduled transactions. Costs of redispatching resources to manage the congestion associated with the actual flows that are not captured in the Day-Ahead Market model must be billed to participants in the form of uplift. Even when these costs are included in the Day-Ahead Market assumptions and reflected in LBMPs, they represent real costs to the market. Finally, if drastic and unexpected changes to Day-Ahead Market model assumptions must be made to capture significant changes in loop flow patterns, this can cause ISOs and RTOs to collect insufficient revenue to fund their transmission rights under some circumstances.<sup>46</sup>

## **VI. Description of Proposed Tariff Changes**

In order to preclude the scheduling of External Transactions over the eight identified paths, the NYISO proposes to modify Section 15.1 of its OATT, Section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services Tariff. The revisions to OATT Attachment J and Services Tariff Attachment B are identical.

The NYISO proposes to modify Section 15.1 of its OATT to clarify that the NYISO is not required to make Transmission Service available to a Transmission Customer “if its Tariffs provide to the contrary.”

The NYISO proposes to modify Section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services Tariff by adding a statement that it “shall not permit Market Participants to schedule External Transactions over the following eight scheduling paths,” followed by a description of each of the eight paths identified on pages three and four of this filing letter.

## **VII. Implementation Plan**

### **A. Software Implementation Schedule and Temporary Manual External Transaction Monitoring Plan**

#### **1. NYISO Bid Validation Screen**

The NYISO is modifying its Bid validation software so that it will not validate Bids submitted to schedule External Transactions over any of the eight Scheduling Paths identified on

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<sup>46</sup> Transmission rights are referred to as Transmission Congestion Contracts in New York and PJM, and Financial Transmission Rights in the Midwest ISO. The Market Advisor has not studied the impact of circuitously scheduled External Transactions on the NYISO’s funding of Transmission Congestion Contracts.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 23

pages 3 and 4 of this filing letter. Bids that do not pass validation are not made available for economic evaluation by the NYISO's Day-Ahead or Real-Time Market software.

Bid validation occurs immediately after a Bid is submitted to the NYISO's Market Information System ("MIS"). Validation occurs before (sometimes days or months before) Bids are made available to be economically evaluated for scheduling by the NYISO's Day-Ahead and Real-Time Market software. The Bid validation function is used by the NYISO to allow only feasible transactions that contain all required data, including NERC Tag data.

Unless it is instructed otherwise by the Commission, at approximately noon on July 22, 2008, the NYISO will enable changes to its Bid validation software that will preclude Bids associated with Imports to or Exports from the NYCA that have not already been validated from being scheduled over Scheduling Paths Nos. 1 - 4. Improvements to the NYISO's existing Bid validation software are needed to permit the software to automatically screen transactions that involve Wheels Through the NYCA. Bids that will not be automatically invalidated until software improvements are deployed include Wheels Through over Scheduling Path Nos. 1 - 4 and all External Transactions over Scheduling Path Nos. 5 - 8 (these paths all address Wheels Through the NYCA). The NYISO has already designed the needed improvements and intends to code and deploy them on or before September 16, 2008.

## **2. NYISO Temporary Manual Screening of Wheels Through**

Until the improvements to the NYISO's Bid validation software are deployed in September of this year, the NYISO will manually monitor Real-Time Market Bids on a best-efforts basis and will try to remove any Real-Time Market Bids (including Real-Time Market Bids that result from a Day-Ahead schedule) that would permit a Market Participant to effectuate a Transaction over an impermissible Scheduling Path before they are evaluated by the NYISO's Real-Time Market. If the NYISO fails to catch a Bid prior to Real-Time Market evaluation and acceptance, it may also use the inter-Control Area checkout process to remove the impermissible schedule.<sup>47</sup> It is possible that the NYISO's manual screening process may fail to catch some Bids that should have been invalidated or rejected, although the screening process should timely catch the vast majority of Real-Time Market Bids associated with proposed schedules over impermissible Scheduling Paths.

The NYISO is not able to apply an interim manual screen to its Day-Ahead Market, so Bids involving Wheels Through the NYCA will not be precluded until the improved Bid validation software is deployed in September, and Market Participants may receive Day-Ahead schedules for Bids that are associated with External Transactions over impermissible Scheduling Paths that involve Wheels Through the NYCA. However, the NYISO's manual screening process will not permit the resulting Real-Time schedules to flow, and the NYISO will require

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<sup>47</sup> Removal of scheduled Transactions via the inter-Control Area check-out process will occur on a best-efforts basis, subject to operational considerations.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 24

these Market Participants to buy out of their impermissible Day-Ahead positions in New York (to financially balance their Day-Ahead schedules against Real-Time Market LBMPs). The fact that the NYISO is not presently capable of screening Day-Ahead Bids associated with the scheduling of Wheels Through over impermissible Scheduling Paths does not mean that Day-Ahead or real-time schedules over these Scheduling Paths will be authorized by, or permitted under the NYISO's Tariffs.

Without regard to whether a Bid associated with an impermissible Scheduling Path was submitted in the Real-Time or Day-Ahead Market (or both), on the market day the NYISO's manual screening process identifies a Market Participant that has submitted Bids associated with External Transactions over an impermissible Scheduling Path the NYISO will report the Bids to its Market Monitor, which will contact the Market Participant directly and provide an electronic list of the prohibited Scheduling Paths to the Market Participant via e-mail. If the same Market Participant attempts to schedule impermissible transactions on a second occasion, the NYISO will immediately report the Market Participant's behavior to FERC's Office of Enforcement as a possible violation of Section 35.41(a) of the Commission's Regulations, which requires sellers participating in organized markets to comply with the Commission-approved rules and regulations of those markets.

### **3. Handling of Previously Validated Bids**

In order to address Bids supporting External Transactions over impermissible Scheduling Paths that have already been validated, on the morning of July 22, 2008, the NYISO will issue a notice to its Market Participants asking them to remove any existing Bids that are associated with External Transactions over any of the eight prohibited Scheduling Paths. The NYISO's Market Monitor will both e-mail and call the Market Participants that it has identified as engaging in these transactions and ask them to remove any previously validated Bids that are associated with External Transactions over the prohibited paths. The NYISO will also monitor for these transactions in real-time on a best-efforts basis and remove them from the Real-Time Market when possible, subject to operational considerations.

If the NYISO still sees impermissible External Transactions that are associated with previously validated Bids being scheduled on or after July 23 in the Real-Time Market, or on or after July 24 in the Day-Ahead Market, the NYISO will report the behavior to the Commission's Office of Enforcement as a possible violation of Section 35.41(a) of the Commission's Regulations.

### **4. Financial Impact Charges**

The NYISO intends to begin assessing Financial Impact Charges to transactions that are scheduled over impermissible Scheduling Paths in the Real-Time Market, but that fail inter-Control Area checkout on or after July 23, 2008. These transactions will be failing checkout for reasons within the Supplier or Transmission Customer's control.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bosc  
July 21, 2008  
Page 25

## **B. Explanation of Prohibited Scheduling Paths**

Scheduling Path No. 1 is described in this filing letter (and in the attached proposed Tariff revisions) as follows:

1. External Transactions that (a) exit the New York Control Area ("NYCA") at the NYISO's Proxy Generator Bus that represents the Interface between the NYCA and the Control Area operated by the IESO ("IESO Control Area"), and (b) sink in the Control Area operated by PJM ("PJM Control Area");

The operation of the NYISO's rules is more complex than may be apparent on their face. Because External Transactions include Imports, Exports and Wheels Through, the Scheduling Path No. 1 prohibition set forth above will, for example, effectively prohibit each of the following External Transactions:

- a. an Export at the NYISO's IESO Proxy Generator Bus that is scheduled to be wheeled through IESO and MISO, and to sink in PJM;
- b. a Wheel Through New York that sources from the ISO-New England Control Area, that is scheduled to exit New York at its IESO Proxy Generator Bus to be wheeled through IESO and MISO, and to sink in PJM; and
- c. a Wheel Through New York that sources from the PJM Control Area, that is scheduled to exit New York at its IESO Proxy Generator Bus to be wheeled through IESO and MISO, and to sink in PJM.

In general, the eight proposed prohibited External Transaction Scheduling Paths are designed to require Market Participants to schedule transactions across common interfaces between neighboring Control Areas. However, in order to prevent Market Participants from circumventing the rules, the NYISO's implementation is more complex. Market Participant questions regarding whether or not a particular transaction would be scheduled over one of the eight prohibited Scheduling Paths should be sent via e-mail to the NYISO's Customer Relations Department at [market\\_services@nyiso.com](mailto:market_services@nyiso.com). The NYISO would appreciate if Market Participants would refrain from sending the NYISO inquiries that do not relate to immediate External Transaction scheduling activity on July 21, 22, 23 and 24, 2008.

## **C. Request for Prospective Limited Tariff Waiver**

Should the Commission accept the Tariff revisions submitted herewith for filing, the NYISO will not be able to immediately preclude the scheduling of all External Transactions over prohibited Scheduling Paths for: (i) Day-Ahead and Real-Time Market Bids that have already been validated, (ii) Day-Ahead Wheels-Through the NYCA, and (iii) real-time External Transactions scheduled over impermissible Scheduling Paths that the NYISO does not timely

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 26

identify in its best efforts review of Real-Time Market Bids. In order to address these possible, minor, temporary implementation difficulties, the NYISO requests that if and when the Commission accepts the NYISO's proposed Tariff revisions for filing, it also grant the NYISO a Tariff waiver until September 16, 2008, to excuse its possible imperfect implementation of the proposed new prohibitions on the scheduling of External Transactions over circuitous Scheduling Paths, and permit the NYISO to continue to require any prohibited Day-Ahead Transactions that are scheduled to balance in the Real-Time Market.

The Commission's evaluation of whether it should permit tariff waivers has focused on several key points, including whether: (1) the entity seeking the waiver acted in good faith; (2) the waiver is of a limited scope; (3) a concrete problem needs to be remedied; and (4) the waiver will not have undesirable consequences, such as harming third parties.<sup>48</sup> In this case, the NYISO is acting in good faith to ensure the integrity of its markets, both the duration and scope of the requested waiver are limited, the waiver is necessary to permit the NYISO to immediately implement its proposed remedy, and the waiver is expected to reduce Lake Erie circulation, which should, in the long term, benefit customers in all of the Control Areas around Lake Erie.

#### **VIII. Other Actions the Commission Should Consider Taking to Address Lake Erie Circulation**

##### **A. The Commission Should Encourage the Commissioning and Effective Operation of the Ontario – Michigan Phase Angle Regulators to Address Lake Erie Circulation**

Lake Erie circulation is unscheduled power flow that affects the NYCA, PJM, MISO and IESO Control Areas. The present inability of the Control Areas around Lake Erie to adequately contain/control Lake Erie circulation disrupts the scheduling of economically desirable inter-Control Area transactions, can exacerbate (or relieve) transmission congestion, disrupts market operation and settlements, and imposes other real costs on the affected Control Areas. In order to minimize Lake Erie circulation, the Control Areas around Lake Erie need to improve their ability to correlate actual interchange to their scheduled interchange.

For more than three years, the NYISO has anticipated the commissioning of four Phase Angle Regulators ("PARs") at the Ontario — Michigan boundary. The NYISO expects that the operation of these PARs will enable the MISO and IESO to better align their actual Control Area interchange power flows to their scheduled interchange, thereby reducing Lake Erie circulation.

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<sup>48</sup> *ISO New England, Inc.*, 117 FERC ¶ 61,171 at P 21 (2006); see also *Wisvest-Connecticut*, 101 FERC at 62,551 (observing that error was "an inadvertent mishap"); *Great Lakes Gas Transmission Limited Partnership*, 102 FERC ¶ 61,331 (2003); *TransColorado Gas Transmission Co.*, 102 FERC ¶ 61,330 (2003); *Northern Border Pipeline Co.*, 76 FERC ¶ 61,141 (1996).

Federal Energy Regulatory Commission  
 Hon. Kimberly D. Bose  
 July 21, 2008  
 Page 27

Three of the four Michigan/Ontario PARs are already in place and capable of operation. However, they have been operated in “by-passed mode” since the beginning of 2006.<sup>49</sup> The fourth PAR failed and is in the process of being replaced. It is the NYISO’s understanding that the fourth PAR is expected to be in place and operational by Summer of 2009.<sup>50</sup> However, an agreement addressing the operation of the Ontario/Michigan PARs still needs to be negotiated. One of the “Key Findings” of the NERC 2007 Long Term Reliability Assessment was that “[PARs] intended to resolve loop flow issues occurring through the Canadian system (Ontario) have been in place since the beginning of 2006, but they are still not being actively used to manage loop flows due to protracted negotiations among the parties.... The agreement for the operation of the Michigan – Ontario PARs should be finalized.”<sup>51</sup> Similarly, PJM and MISO discussed Lake Erie circulation in their *Investigation of Loop Flows Across Combined Midwest ISO and PJM Footprint* in May of 2007. PJM and MISO’s recommendations included a recommendation in which IESO and NYISO joined, stating that the four ISOs/RTOs “recommend the commissioning of the Michigan-Ontario PARs as soon as possible to mitigate the loop flow around the Lake Erie Loop.”<sup>52</sup>

The NYISO encourages the Commission to take an active interest in the commissioning of the Michigan – Ontario PARs and in ensuring the timely negotiation of an operating agreement, so that the PARs are placed in operation and are operated to mitigate Lake Erie circulation as soon as possible.

**B. The Commission Should Consider Granting Market Monitors Enhanced Access to NERC Tag Information and Permitting Market Monitors to Share Bidding and Scheduling Information Related to External Transactions**

As explained in Section IV.A. of this filing letter, the NYISO, PJM, IESO and MISO Market Monitors worked together to determine why Market Participants were scheduling ever-increasing volumes of External Transactions over circuitous Scheduling Paths around Lake Erie. The Commission jurisdictional Market Monitors inability to share confidential information with each other impeded and slowed their efforts. The Commission should consider granting all of the Market Monitors<sup>53</sup> unrestricted access to NERC Tag data and should consider permitting the

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<sup>49</sup> *NERC 2007 Long Term Reliability Assessment* at p. 160 (October 25, 2007).

Link: [ftp://ftp.nerc.com/pub/sys/all\\_updl/docs/pubs/LTRA2007.pdf](ftp://ftp.nerc.com/pub/sys/all_updl/docs/pubs/LTRA2007.pdf)

<sup>50</sup> *Id.* at 173.

<sup>51</sup> *NERC 2007 Long Term Reliability Assessment, Key Findings*, at p. 19.

<sup>52</sup> *Investigation of Loop Flows Across Combined Midwest ISO and PJM Footprint* at pp. 41-42 (May 25, 2007). Link: <http://www.jointandcommon.com/working-groups/joint-and-common/downloads/20070525-loop-flow-investigation-report.pdf>

<sup>53</sup> The NYISO would also recommend including ISO-New England’s Market Monitor should the Commission elect to broaden the Market Monitors access to NERC Tag data and ability to share confidential information related to External Transactions.

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 28

Market Monitors to share Market Participants' External Transaction Bid and schedule data with each other. Of course, the sharing of confidential information should only be permitted if and when there are appropriate Tariff protections in place to ensure that confidential information shared between Market Monitors is accorded appropriate protections (the same protections that apply to other confidential information in the relevant Control Areas).

### **IX. Requested Effective Date and Request for Expedited Commission Action**

For the reasons explained in Section IV.C. of this filing letter, and in accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations<sup>54</sup> and permit its proposed Tariff revisions to become effective on July 22, 2008. The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing as expeditiously as possible.

As explained in this filing letter, good cause exists for the Commission to grant the requested waivers and act on an expedited basis because waiting the full sixty days to make the proposed Tariff revisions effective would leave the NYCA and neighboring Control Areas without any deterrent against the scheduling of External Transactions over Scheduling Paths that are not closely tied to the expected physical flow of Energy and that may adversely affect both market prices and the reliability of the interconnected transmission grid during the height of the summer peak. Under the circumstances, and in light of the potential for relatively tight supplies in New York during peak summer load periods, it is entirely appropriate for the Commission to take expedited action in this proceeding.

Unless it is instructed to do otherwise by the Commission, on July 22, 2008 the NYISO will begin taking all of the actions necessary for it to ensure that the Tariff revisions proposed in this filing takes effect as quickly as possible. The NYISO's implementation plan is addressed above. Should the Commission determine it must reject the NYISO's proposed Tariff revisions, the NYISO respectfully requests that any rejection be prospective in nature. Once the NYISO begins implementing its proposed new Tariff rules it will not be possible for the NYISO to retroactively go back and undo the effects of its implementation on already completed market outcomes. The NYISO can prospectively disable the software it will use to enforce the proposed new market rule if the Commission instructs it to do so.

### **X. Proposed Expiration Date and Request that the Commission Act Under Section 206 of the FPA if the Management Committee Does Not Ratify the NYISO's Proposed Tariff Revisions Within 120 Days**

Section 19.01 of the ISO Agreement specifies that an "exigent circumstances" tariff filing must contain an expiration date of no later than 120 days after the date that it is filed with the

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<sup>54</sup> 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 29

Commission. Such filings may become permanent in duration if they are subsequently endorsed by the Management Committee or accepted by the Commission. Accordingly, the NYISO's proposed Tariff revisions will expire on November 18 2008, unless the provisions are subsequently ratified and made permanent by the Management Committee or are accepted for filing by the Commission under the just and reasonable standard set forth in Section 206 of the Federal Power Act. 16 U.S.C. § 824e (2007).

If the Management Committee does not ratify the exigent circumstances filing within 120 days, the NYISO requests that the Commission instead accept the proposed Tariff revisions that are attached hereto for filing under Section 206 of the Federal Power Act and permit them to become effective on a permanent basis.

### **XI. Stakeholder Concerns and NYISO Stakeholder Process**

The NYISO has been contacted by Market Participants with concerns about the effect increased Lake Erie circulation has had on uplift and on Transmission Congestion Contracts. At its July 23, 2008 Management Committee meeting the NYISO will commence an open and transparent stakeholder process that the NYISO expects will ultimately result in the Management Committee's ratification of the Tariff revisions proposed in this filing as a permanent amendment to the NYISO's Tariffs under Section 205 of the Federal Power Act.

### **XII. Service**

Consistent with Paragraph 2 of the Guidance Order, and longstanding NYISO practice, the NYISO will electronically send a 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, to the electric utility regulatory agencies of New Jersey and Pennsylvania, and to PJM, MISO and IESO. In addition, the complete filing will be posted on the NYISO's website at [www.nyiso.com](http://www.nyiso.com). The NYISO will also make a paper copy available to any interested party that requests one. To the extent necessary, the NYISO requests waiver of the requirements of Section 35.2(d) of the Commission's Regulations (18 C.F.R. § 35.2(d) (2008)) to permit it to provide service in this manner.

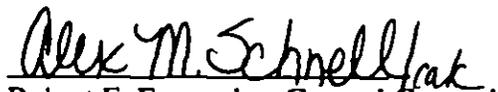
### **XIII. Conclusion**

The NYISO Board has exercised its independent judgment, and concluded that the submission of the attached Tariff revisions is both necessary and appropriate. Accordingly, for the reasons explained in this filing letter, the NYISO respectfully requests that the Commission: (a) accept the proposed Tariff revisions that are attached hereto for filing on an expedited basis to become effective on July 22, 2008, and to expire on November 18, 2008, unless the NYISO's Management Committee ratifies the changes within 120 days of the date of this submission or

Federal Energy Regulatory Commission  
Hon. Kimberly D. Bose  
July 21, 2008  
Page 30

the Commission accepts them for filing under Section 206 of the Federal Power Act; and  
(b) grant the prospective limited Tariff waivers requested in Section VII.C. of this filing letter.

Respectfully submitted,

  
Robert E. Fernandez, General Counsel  
Alex M. Schnell

New York Independent System Operator, Inc.

July 21, 2008

**ATTACHMENT A**

Supporting Affidavits Of

**Ricardo T. Gonzales  
Dr. Nicole Bouchez, and  
Dr. David Patton**

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**New York Independent System Operator, Inc.    Docket No. ER08-\_\_\_-\_\_\_**

**AFFIDAVIT OF RICARDO T. GONZALES**

**I.    Qualifications and Purpose**

1.    My name is Ricardo T. Gonzales. I am the Vice President of Operations for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include the reliable operation of the New York Control Area transmission system, in compliance with all applicable NERC, NPCC, and NYSRC reliability rules and standards, the operation of the ISO Day-Ahead and Real-Time wholesale Energy Markets and validating the Energy Markets' prices, and the operation of the NYISO Transmission Congestion Contract and Installed Capacity Markets, and other NYISO administered markets.
  
2.    I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
  
3.    The NYISO Operations and Planning Department Staffs, acting at my direction, prepared the studies described in Section V.B. of the Exigent Circumstances Filing.

- 4. The descriptions of the studies that the NYISO Operations Department prepared, including the results described in the Exigent Circumstances Filing, are accurate.
- 5. The underlying studies were conducted using reasonable assumptions and are reliable to the best of my information, knowledge and belief.
- 6. The explanation of the impact Lake Erie circulation power flows in the "clockwise" direction have on congestion in the New York Control Area that is set forth in Section V.B. of the Exigent Circumstances Filing is accurate.

ATTESTATION

I am the witness identified in the foregoing Affidavit of Ricardo T. Gonzales. dated July 21, 2008 (the "Affidavit"). I have read the Affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

*Ricardo T. Gonzales*

Ricardo T. Gonzales  
Vice President, Operations  
New York Independent System Operator, Inc.

July 21, 2008

Subscribed and sworn to before me  
this 21<sup>st</sup> day of July, 2008

*Diane L. Egan*

Notary Public

DIANE L. EGAN  
Notary Public, State of New York  
Qualified in Schoharie County  
No. 12345  
Commission Expires March 21, 20 10

My commission expires: March 21, 2010

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**New York Independent System Operator, Inc.    Docket No. ER08-\_\_\_-\_\_\_**

**AFFIDAVIT OF DR. NICOLE BOUCHEZ**

**I.    Qualifications and Purpose**

1.    My name is Dr. Nicole Bouchez. I am the Manager of Market Monitoring for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include administering Attachment H of the NYISO OATT and the NYISO's Market Monitoring Plan. I have worked as an Energy Economist for five years. I hold a Ph. D. and M.A. in International Economics from the University of California, Santa Cruz and a B.A. in Economics and International Relations from the University of California, Davis.
  
2.    I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
  
3.    The NYISO Market Monitoring Department Staff, acting at my direction, prepared the correlation study described in Section V.A. of the Exigent Circumstances Filing.

4. The descriptions of the study that the Market Monitoring Department prepared, including the results described in the Exigent Circumstances Filing, are accurate.
5. The underlying study was conducted using reasonable assumptions and is reliable to the best of my information, knowledge and belief.

ATTESTATION

I am the witness identified in the foregoing Affidavit of Dr. Nicole Bouchez, dated July 21, 2008 (the "Affidavit"). I have read the Affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.



Nicole Bouchez  
Manager, Market Monitoring  
New York Independent System Operator, Inc.

July 21, 2008

Subscribed and sworn to before me  
this 21st day of July, 2008



Notary Public

DIANE L. EGAN  
Notary Public, State of New York  
Qualified in Schenectady County  
No. 4924890  
Commission Expires March 21, 20 10

My commission expires: March 21, 2010

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**New York Independent System Operator, Inc. Docket No. ER08-\_\_\_\_-\_\_\_\_**

**AFFIDAVIT OF DAVID B. PATTON**

**I. Qualifications and Purpose**

1. My name is David B. Patton. I am an economist and President of Potomac Economics. Our offices are located at 9990 Fairfax Boulevard, Fairfax, Virginia 22030. Potomac Economics is a firm specializing in expert economic analysis and monitoring of wholesale electricity markets.
  
2. I currently serve as the Independent Market Advisor for the New York Independent System Operator, Inc. ("NYISO") and ISO New England Inc. ("ISO-NE"). I have served in this capacity for the NYISO since May 1999 and for ISO-NE since June 2001. As the Independent Market Advisor, I am responsible for assessing the competitive performance of the markets, including assisting in the implementation of a monitoring plan to identify and remedy market design flaws and abuses of market power.
  
3. I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions ("Exigent Circumstances Filing").

- 4. Potomac Economics' Staff, acting at my direction, prepared the studies described in Section V.C. of the Exigent Circumstances Filing.
- 5. The descriptions of the study and its results that the NYISO includes in the Exigent Circumstances Filing are accurate.
- 6. The underlying studies were conducted using reasonable assumptions and are reliable to the best of my information, knowledge and belief.

ATTESTATION

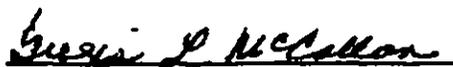
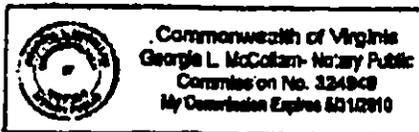
I am the witness identified in the foregoing Affidavit of David B. Patton, dated July 21, 2008 (the "Affidavit"). I have read the Affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.



David B. Patton  
Vice President, Operations  
New York Independent System Operator, Inc.

July 21, 2008

Subscribed and sworn to before me  
this 21<sup>st</sup> day of July, 2008



Notary Public

My commission expires: 5-31-2010

**ATTACHMENT B**

**Proposed Tariff Revisions**  
(clean version)

**14.7 Curtailment or Interruption of Service:** The ISO reserves the right to Curtail, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under the Tariff for reliability reasons when, an Emergency or other unforeseen condition threatens to impair or degrade the reliability of the NYS Transmission System. The ISO reserves the right to Interrupt, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under this Tariff for economic reasons if the NYS Transmission System experiences Congestion. Where required, Curtailments or Interruptions will be made on a non-discriminatory basis to the transaction(s) that effectively relieve the Constraint, however, Non-Firm Point-To-Point Transmission Service shall be subordinate to Firm Point-to-Point Transmission Service and Network Integration Transmission Service. The ISO will provide advance notice of Curtailment or Interruption where such notice can be provided consistent with Good Utility Practice. The process of Curtailment of Non-Firm Point-To-Point Transmission Service for Imports, Exports, and Wheels Through may cause these non-firm transactions to incur incidental real-time Congestion Rents due to inter-Control Area Curtailment procedures.

**15.0 Service Availability**

**15.1 General Conditions:** Unless its Tariffs provide to the contrary, the ISO will provide Firm and Non-Firm Point-To-Point

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 1  
Attachment J

Tenth Revised Sheet No. 472  
Superseding Ninth Revised Sheet No. 472

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer Capability of that Interface.

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

1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's 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

Issued by: Elaine D. Robinson, Dir. Reg. Affairs  
Issued on: July 21, 2008

Effective: July 22, 2008

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 1  
Attachment J

Second Revised Sheet No. 472A  
Superseding First Revised Sheet No. 472A

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.**

**External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line and Neptune Scheduled Line shall also be governed by Attachment N to the ISO Services Tariff.**

Issued by: Elaine D. Robinson, Dir. Reg. Affairs  
Issued on: July 21, 2008

Effective: July 22, 2008

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 2  
Attachment B

Twelfth Revised Sheet No. 355  
Superseding Eleventh Revised Sheet No. 355

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer Capability of that Interface.

The ISO shall not permit Market Participants to schedule External Transactions over the following eight 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.

Issued by: Elaine D. Robinson, Dir. Reg. Affairs  
Issued on: July 21, 2008

Effective: July 22, 2008

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 2  
Attachment B

Original Sheet No. 355.01

External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line and Neptune Scheduled Line shall also be governed by Attachment N to the ISO Services Tariff.

#### **IV. SALE OF TRANSMISSION CONGESTION CONTRACTS ("TCCs")**

##### **1.0 Overview of the Sales of TCCs**

TCCs will be made available through both (i) the Centralized TCC Auction ("Auction") and Reconfiguration Auction, which will be conducted by the ISO; and (ii) Direct Sales by the Transmission Owners, which will be non-discriminatory, auditable sales conducted solely on the OASIS in compliance with the applicable requirements and restrictions set forth in Order No. 889 et seq.

Issued by: Elaine D. Robinson, Dir. Reg. Affairs  
Issued on: July 21, 2008

Effective: July 22, 2008

**ATTACHMENT C**

**Proposed Tariff Revisions**  
(redlined version)

New York Independent System Operator, Inc.  
 FERC Electric Tariff  
 Original Volume No. 1

First Revised Sheet No. 122  
Superseding Original Sheet No. 122

**14.7 Curtailment or Interruption of Service:** The ISO reserves the right to Curtail, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under the Tariff for reliability reasons when, an Emergency or other unforeseen condition threatens to impair or degrade the reliability of the NYS Transmission System. The ISO reserves the right to Interrupt, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under this Tariff for economic reasons if the NYS Transmission System experiences Congestion. Where required, Curtailments or Interruptions will be made on a non-discriminatory basis to the transaction(s) that effectively relieve the Constraint, however, Non-Firm Point-To-Point Transmission Service shall be subordinate to Firm Point-to-Point Transmission Service and Network Integration Transmission Service. The ISO will provide advance notice of Curtailment or Interruption where such notice can be provided consistent with Good Utility Practice. The process of Curtailment of Non-Firm Point-To-Point Transmission Service for Imports, Exports, and Wheels Through may cause these non-firm transactions to incur incidental real-time Congestion Rents due to inter-Control Area Curtailment procedures.

## **15.0 Service Availability**

**15.1 General Conditions:** Unless its Tariffs provide to the contrary, The ISO will provide Firm and Non-Firm Point-To-Point

Issued by: ~~William J. Musoler, President~~ Elaine D. Robinson, Dir. Reg. Affairs Effective: ~~September 12, 2008~~  
 Issued on: ~~November 7, 2008~~  
 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. RM99-12-000, issued March 31, 2000, 90 FERC ¶ 61,352 (2000).

New York Independent System Operator, Inc.  
 FERC Electric Tariff  
 Original Volume No. 1  
 Attachment J

~~Ninth-Tenth~~ Revised Sheet No. 472  
 Superseding ~~Substitute-Eighth~~~~Ninth~~ Revised Sheet No. 472

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer Capability of that Interface.

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

1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's 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

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New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 1  
Attachment J

~~First-Second~~ Revised Sheet No. 472A  
Superseding ~~Original-First Revised~~ Sheet No. 472A

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.

External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line and Neptune Scheduled Line shall also be governed by Attachment N to the ISO Services Tariff.

~~Reserved for future use.~~

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New York Independent System Operator, Inc.  
 FERC Electric Tariff  
 Original Volume No. 2  
 Attachment B

~~Eleventh-Twelfth~~ Revised Sheet No. 355  
 Superseding ~~Substitute Tenth-Eleventh~~ Revised Sheet No. 355

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer Capability of that Interface.

The ISO shall not permit Market Participants to schedule External Transactions over the following eight 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.

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 2  
Attachment B

Original Sheet No. 355.01

External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line and Neptune Scheduled Line shall also be governed by Attachment N to the ISO Services Tariff.

#### **IV. SALE OF TRANSMISSION CONGESTION CONTRACTS ("TCCs")**

##### **1.0 Overview of the Sales of TCCs**

TCCs will be made available through both (i) the Centralized TCC Auction ("Auction") and Reconfiguration Auction, which will be conducted by the ISO; and (ii) Direct Sales by the Transmission Owners, which will be non-discriminatory, auditable sales conducted solely on the OASIS in compliance with the applicable requirements and restrictions set forth in Order No. 889 et seq.

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