

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

New York Independent System Operator, Inc.)))	Docket Nos. ER13-780-____
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**MOTION FOR LEAVE TO RESPOND, AND RESPONSE OF THE
NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.**

Pursuant to Rules 212 and 213 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) Rules of Practice and Procedure,¹ the New York Independent System Operator, Inc. (“NYISO”) submit the following response (“Response”) to the *Comments of the Independent Market Monitor for PJM* (“Comments”) that were submitted in the above-captioned Docket on February 8, 2013. The Comments were submitted in response to the *Interface Pricing Compliance Filing* (“Compliance Filing”) that the NYISO submitted in the above-captioned Docket on January 18, 2013.

I. NYISO’s Right to Respond/Motion for Leave to Respond

The NYISO recognizes that the Commission generally discourages responses to protests (but not comments). However, the PJM Independent Market Monitor’s (“PJM MMU’s”) Comment seeks affirmative relief from the Commission. The Comments ask the Commission to require the NYISO to “create a reference document that identifies the primary flows from every external balancing authority to and from the NYISO and [to] modify [the NYISO’s] path validations to ensure that each submitted transaction path is assigned a single NYISO interface pricing point” and suggests that the Commission should “provide an Order on Acceptance of the NYISO’s Compliance Filing contingent on the implementation of the recommended eTag path

¹ 18 C.F.R. §§ 385.212 and 385.213.

validation modifications [proposed by the PJM MMU].”² Although the PJM MMU’s pleading is styled as a “comment” it is, in fact, a motion that seeks affirmative relief from the Commission.³ Rule 213(a)(3) of the Commission’s Rules of Practice and Procedure allows an answer to motions seeking affirmative relief from the Commission.⁴ The Commission’s Rules of Practice and Procedure therefore permit the NYISO to respond to the PJM MMU’s Comments.

If and to the extent that the Commission determines that the NYISO’s Response is not expressly permitted under Rule 213, the NYISO respectfully requests leave to submit this Response. Although the Commission generally discourages responses to protests (but not comments), the Commission has allowed responses to protests when they help to clarify complex issues, provide additional information that will assist the Commission, correct inaccurate statements, or are otherwise helpful in developing the record in a proceeding.⁵ The NYISO’s response meets this standard. The NYISO’s response does not introduce new arguments, but instead is submitted for the limited purpose of clarifying certain factual matters and correcting inaccurate statements in the PJM MMU’s Comments, thereby assisting the Commission in its review and consideration of the issues presented in this proceeding. The NYISO therefore respectfully requests that the Commission exercise its discretion and accept this Response.

² Comments at 7, 8.

³ See 18 C.F.R. § 385.212(c)(2).

⁴ 18 C.F.R. § 385.213(a)(3).

⁵ See, e.g., *Morgan Stanley Capital Group, Inc. v. New York Independent System Operator, Inc.*, 93 FERC ¶ 61,017 at 61,036 (2000) (accepting an answer that was “helpful in the development of the record . . .”); *New York Independent System Operator, Inc.*, 91 FERC ¶ 61,218 at 61,797 (2000) (allowing “the NYISO’s Answer of April 27, 2000, [because it was deemed] useful in addressing the issues arising in these proceedings . . .”); *Central Hudson Gas & Electric Corp.*, 88 FERC ¶ 61,138 at 61,381 (1999) (accepting prohibited pleadings because they helped to clarify the issues and because of the complex nature of the proceeding).

II. Documents Submitted with this Response

The documents submitted are:

1. this Response;
2. Attachment A, the Affidavit of Dr. David Patton, President of Potomac Economics, the NYISO's MMU; and
3. a Certificate of Service.

III. Response to PJM MMU Comments

A. The PJM MMU Agrees that NYISO's Proposal Produces Appropriate Prices

The PJM MMU's Comments recognize that the NYISO's method for calculating bus prices is "comparable [to] PJM's method."⁶ The PJM MMU "does not object" to the NYISO's method of determining unscheduled power flows in the Day-Ahead Market⁷ and Real-Time Market.⁸ The Comments recognize that NYISO's eTag path validation process addresses the *same* concerns that PJM addresses via its source/sink pricing.⁹ In fact, the PJM MMU now supports the NYISO's use of eTag path validation and "agrees"¹⁰ that the NYISO's enforcement of its circuitous scheduling path prohibitions "ensures that each External Transaction Bid is consistently represented in the NYISO's market and reliability systems for evaluation."¹¹ The NYISO appreciates the PJM MMU's endorsement of the NYISO's pricing method and the NYISO's use of path validation.

⁶ Comments at 2, fn. 4.

⁷ Capitalized terms that are not defined in this Response have the meaning ascribed to them in the NYISO's Market Administration and Control Area Services Tariff or in the NYISO's Open Access Transmission Tariff.

⁸ Comments at 1-2.

⁹ Comments at 2 ("The NYISO eTag path validation approach addresses the same issue, on an *ex ante* basis, by rejecting the scheduled market path if it does not reflect the actual [expected] flows and accepting only scheduled market paths which reflect the expected actual energy flows.").

¹⁰ Comments at 5.

¹¹ *Id.* (quoting the NYISO's Compliance Filing at 7).

B. PJM MMU Recommendations

The PJM MMU's Comments recommend that the Commission require the NYISO to "create a reference document that identifies the primary flows from every external balancing authority to and from the NYISO and [to] modify [the NYISO's] path validations to ensure that each submitted transaction path is assigned a single NYISO interface pricing point."¹² The recommendations that the PJM MMU included in its Comments were not presented to or discussed with the NYISO prior to their submission.¹³ Neither the NYISO nor the NYISO MMU have identified significant benefits that would be gained by developing the additional software capability¹⁴ that would be necessary to implement the PJM MMU's recommendation at this time. A possible compromise solution that the NYISO believes would address the PJM MMU's concern is described below.

The PJM MMU's Comments also recommended that the Commission "make clear that it is a tariff violation to break a circuitous path into separate pieces in order to change the price that would be assigned compared to the price that would be assigned if the generation control area and load control area were specified consistent with the entire transaction."¹⁵ This PJM MMU recommendation appears to be directed both at (a) PJM's source/sink pricing (which is not at issue in this Docket), and (b) attempts to circumvent the NYISO's path validation process by

¹² Comments at 7.

¹³ The NYISO and PJM MMU met several times, in person and by phone, to discuss the NYISO's market rules and Compliance Filing. The NYISO MMU and PJM also attended some of these meetings. At the meetings, the PJM MMU asked NYISO representatives a number of questions about how the NYISO would schedule and price a Tennessee Valley Authority ("TVA") to New York transaction that is scheduled via different scheduling paths (TVA to PJM to New York vs. TVA to MISO to Ontario to New York). However, the PJM MMU did not propose or discuss the recommendation it submitted in its Comments with the NYISO prior to the submission of the PJM MMU's Comments.

¹⁴ The source/sink rules that the PJM MMU recommends that the Commission require the NYISO to implement do not appear to be the same as the NYISO's existing path validation logic. As Dr. Patton explains in PP 15, 16 and 21 of his attached Affidavit, the NYISO MMU does not agree with the PJM MMU's proposal to ignore the scheduling path when assessing the expected power flow impacts of External Transactions.

¹⁵ Comments at 8.

using a series of External Transactions to avoid the NYISO's circuitous scheduling path prohibitions.

In general, the NYISO agrees with the PJM MMU that External Transactions should be scheduled consistent with their expected power flow impacts. The NYISO agrees that External Transactions should not be scheduled in multiple steps that are designed to hide or obscure the overall power flow impact of a series of External Transactions. The NYISO agrees that External Transactions should not be scheduled in a manner that is designed to obtain payment for relieving transmission congestion, when such congestion relief is not consistent with the overall expected power flow impact of a series of External Transaction schedules.

C. NYISO Response to PJM MMU Recommendation that NYISO Implement Source/Sink Path Prohibitions for All Control Areas In the Eastern Interconnection

1. The PJM MMU's Recommendation Falls Outside the Scope of the Commission's Order on Rehearing, Proposes Changes to Existing NYISO Tariff Provisions, and is Unnecessary

The Commission's August 22, 2012 *Order on Rehearing* in Docket No. ER08-1281 instructed "we clarify that in requiring that NYISO's proposal be consistent with PJM's interface pricing approach, we are requiring NYISO's methodology to compatible with PJM's – not necessarily identical to it."¹⁶ The NYISO's Compliance Filing achieves the required result and should be accepted for filing by the Commission without modification.

The PJM MMU's recommendation that the Commission require the NYISO to discard or modify *existing* Tariff rules¹⁷ that the NYISO did not propose to change in its Compliance

¹⁶ *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,140 at P 22 (2012) ("Order on Rehearing").

¹⁷ See Section 16.3.3.8 of (Attachment J to) the NYISO's OATT. The NYISO is not proposing to modify Section 16.3.3.8 of (Attachment J to) the NYISO's OATT in this Docket.

Filing, and develop source/sink scheduling path prohibitions for more than 150 Control Areas,¹⁸ must be rejected. The PJM MMU has not shown that the NYISO's existing Tariff rules produce unjust or unreasonable results, or that the PJM MMU's proposed changes to the NYISO's existing Tariff rules are necessary to ensure a just and reasonable result.¹⁹ To the contrary, the PJM MMU agrees that the NYISO's implementation of Section 16.3.3.8 of the NYISO's Open Access Transmission Tariff ("OATT") "'ensures that each External Transaction Bid is consistently represented in the NYISO's market and reliability systems for evaluation.'"²⁰

The NYISO's circuitous scheduling path prohibitions are only capable of affecting External Transactions that include the New York Control Area ("NYCA") on the scheduling path for the transaction. The PJM MMU's proposal would require NYISO to implement new source/sink scheduling path prohibitions for more than 130 Control Areas that were not the source or sink of even one single transaction schedule that included the NYCA as part of the scheduling path in 2011 or 2012. The PJM MMU's recommendation would create unnecessary additional work for the NYISO, and is not necessary to produce a just and reasonable result.

2. NYISO Review of Impact of PJM MMU Recommendation on 2011 and 2012 Scheduled Interchange

Below the NYISO reviews the actual interchange scheduled between (or through) the NYCA and all other Control Areas in 2011 and 2012. The NYISO's review shows that the NYISO's implementation of its currently effective circuitous scheduling path prohibitions (which are set forth in Section 16.3.3.8 of the NYISO's OATT) produce the same pricing result

¹⁸ The NYISO developed its "more than 150 Control Areas" estimate by performing a rough (est. 50 entries/page) tabulation of all of the Control Areas that PJM assigns to particular "Pricing Point Groups" in PJM's publicly posted *Mapping of External Balancing Authorities to Interface Pricing Points*. Link: <http://www.pjm.com/~media/etools/ees/pricing-point-guide.ashx>

¹⁹ See 16 U.S.C. § 824(e) (Section 206 of the Federal Power Act).

²⁰ Comments at 5 (quoting the NYISO's Compliance Filing at 7).

that the PJM MMU's recommendation would produce more than 99.75% of the time. There is little practical difference between the PJM MMU's recommendation and what the NYISO already does. With regard to the remaining 0.25% of scheduled interchange that *might* present an area of disagreement, the NYISO MMU explains that the NYISO's circuitous scheduling path prohibition, in combination with the pricing rules that the NYISO proposed in its Compliance Filing, produce an appropriate result that is consistent with the NYISO's market design.²¹

a. Interchange Scheduled Between PJM and the NYCA

In 2011 and 2012 almost 37% (36.78%) of all interchange scheduled into, out of, or through the NYCA involved direct interchange between the NYCA and PJM.²² The NYISO's currently effective circuitous scheduling path prohibitions prevent power from being scheduled circuitously between the NYCA and PJM, just like the PJM MMU's proposal would.²³ The PJM MMU acknowledges that the NYISO's existing circuitous scheduling path prohibitions produce the correct result for PJM/NYCA scheduled interchange on pages 5 and 6 of its Comments.

b. Interchange Scheduled Between the NYCA and ISO-New England

More than 25% (25.66%) of NYCA scheduled interchange involved External Transactions scheduled directly between the NYCA and ISO New England ("ISO-NE"). It is not possible for interchange between the NYCA and ISO-NE to be scheduled in a circuitous manner.²⁴ It is not necessary for the NYISO to put in place a new Tariff rule specifying a

²¹ See Attachment A at PP 20-22.

²² The NYISO's statistics are based on interchange that was scheduled in the NYISO's Real-Time Commitment ("RTC") software. A portion of the scheduled interchange was likely removed at check-out between the NYISO and its neighbors (or at another point of check-out on the scheduling path of a transaction) following the NYISO's RTC economic evaluation.

²³ See Sections 16.3.3.8(1) and (4) of (Attachment J to) the NYISO's OATT.

²⁴ Schedules between the NYCA and ISO-NE through Canada would necessarily involve a direct current interconnection that would conform actual power flows to scheduled power flows with great precision and would not present circuitous scheduling concerns.

scheduling path or source/sink pairing that must be used for transactions between the NYCA and ISO-NE in order to ensure that the scheduling path accurately represents expected power flows.

c. Interchange Scheduled Between the NYCA and Hydro Quebec

More than 20% (20.56%) of NYCA scheduled interchange occurred at the NYISO's direct current interconnection with Hydro Quebec.²⁵ The NYISO and Hydro Quebec operate asynchronously. As the Commission recognized in PP 19 and 22 of its Order on Rehearing in Docket No. ER08-1281²⁶ the direct current converters that interconnect the NYCA with Quebec precisely match actual power flows to scheduled power flows at Chateauguay, and no circuitous scheduling concern exists at that interface. It is not necessary for the NYISO to put in place a new Tariff rule specifying a source/sink pairing that must be used for transactions between the NYCA and Hydro Quebec in order to ensure that imports scheduled at Chateauguay (or Dennison) accurately represent expected power flows.

d. Interchange Scheduled Between the NYCA and Ontario

Almost 14% (13.92%) of NYCA scheduled interchange involved External Transactions scheduled directly between the NYCA and Ontario. The NYISO's currently effective circuitous scheduling path prohibitions already prevent power from being scheduled circuitously between the NYCA and Ontario.²⁷ The PJM MMU acknowledges that the NYISO's existing circuitous scheduling path prohibitions produce the correct result for Ontario/NYCA scheduled interchange on pages 5 and 6 of its Comments.

²⁵ A small portion of the scheduled interchange with Hydro Quebec occurred over the Dennison Scheduled Line, which is controlled by a variable frequency transformer that is nearly as precise as a direct current converter.

²⁶ See Order on Rehearing at PP 19, 22 ("We also clarify that the interface pricing revisions at issue in this proceeding were not intended to apply to those interfaces for which unscheduled Lake Erie loop flows are not an issue.").

²⁷ See Sections 16.3.3.8(2) and (3) of (Attachment J to) the NYISO's OATT.

e. Wheels Scheduled Through the NYCA Between Hydro Quebec and ISO-NE

Approximately 2.25% of all scheduled interchange related to wheels of power between the NYISO's direct current interconnection with Hydro Quebec and ISO-NE. The NYISO's implementation of its circuitous scheduling path prohibitions already prevents the scheduling of a wheel between Hydro Quebec and ISO-NE via a circuitous scheduling path that includes the NYCA.²⁸ The NYISO prices Wheels Through using the difference in the LBMP between (i) the Proxy Generator Bus where the Wheel Through is scheduled to enter the NYCA, and (ii) the Proxy Generator Bus where the Wheel Through is scheduled to exit the NYCA. PJM uses the same method to price similar Wheels Through.

f. Wheels Scheduled Through the NYCA Between PJM and Ontario

Approximately 0.24% of NYCA scheduled interchange involved wheels through the NYCA between Ontario and PJM. The NYISO's Tariff does not prohibit Wheels Through the NYCA between PJM and Ontario. The NYISO prices Wheels Through using the difference in the LBMP between (i) the Proxy Generator Bus where the Wheel Through is scheduled to enter the NYCA, and (ii) the Proxy Generator Bus where the Wheel Through is scheduled to exit the NYCA. PJM uses the same method to price similar Wheels Through. The PJM MMU recognizes in its Comments that the NYISO is developing appropriate Proxy Generator Bus prices at its Ontario (Bruce) and PJM (Keystone) Proxy Generator Buses.²⁹ The PJM MMU should agree that the NYISO's treatment and pricing of wheels scheduled through the NYCA

²⁸ The NYISO's implementation of the circuitous scheduling path prohibitions extends to any External Transaction that *includes* a prohibited path. See the NYISO's January 21, 2008 Exigent Circumstances Filing in Docket No. ER08-1281 at 25.

²⁹ See Comments at 1 and at 2 fn. 4 ("The NYISO's method for calculating such bus prices is comparable to PJM's").

between PJM and Ontario is appropriate and consistent with PJM's treatment of similar Wheels Through.

g. Wheels Scheduled Through the NYCA Via Other Paths

Wheels Through the NYCA between ISO-NE and PJM accounted for approximately 0.16% of all NYCA scheduled interchange. Wheels Through the NYCA between ISO-NE and Ontario accounted for approximately 0.07% of all NYCA scheduled interchange. Wheels Through the NYCA between Hydro Quebec and Ontario accounted for approximately 0.06% of all NYCA scheduled interchange. Wheels Through the NYCA between Hydro Quebec and PJM accounted for approximately 0.05% of all NYCA scheduled interchange. The NYISO's implementation of the circuitous scheduling path prohibitions set forth in Section 16.3.3.8 of (Attachment J to) the NYISO's OATT prevents the circuitous scheduling of *each* of the identified wheels, so long as the scheduling path includes the NYCA.³⁰ As explained above, the NYISO prices these Wheels Through in the same manner that PJM would price a similar Wheel Through its Control Area.

h. NYISO's Path Prohibitions Produce Results Consistent With the PJM MMU's Recommendation for More Than 99.75% of NYCA Interchange Scheduled in 2011 and 2012

The source and sink control areas listed above accounted for *more than 99.75%* of all of the External Transactions that were scheduled into, out of, or through the NYCA in 2011 and 2012. For the reasons explained above, in each case the NYISO's application of its existing circuitous scheduling path prohibitions and its proposed interface pricing rules would produce the *same result* as the PJM MMU's recommendation. The appropriate treatment of the

³⁰ See the NYISO's January 21, 2008 Exigent Circumstances Filing in Docket No. ER08-1281 at 25.

remaining 0.25% of interchange that was actually scheduled in the NYISO's Real-Time Commitment software in 2011 and 2012 is addressed below.

Approximately 0.24% of NYCA scheduled interchange involved External Transactions scheduled between the NYCA and the Midwest Independent Transmission System Operator ("MISO"). In P 16 of Attachment A to this Response, the NYISO's MMU explains that it is appropriate for the NYISO to take the scheduling path into account when pricing External Transactions scheduled between the NYISO and the MISO.

The other source/sink Control Area pairs were as follows:

- 500 MWh of interchange was scheduled between Alcoa Power Generating, Inc.'s Yadkin division (in North Carolina) and the NYCA. The scheduling path was through PJM. The interchange schedule made up approximately 0.0006% of all NYCA scheduled interchange.
- 200 MWh of interchange was scheduled between Southern Company and the NYCA. The scheduling path was through PJM. The interchange schedule made up approximately 0.0002% of all NYCA scheduled interchange.
- 100 MWh of interchange was economically scheduled between Oklahoma Gas & Electric and the NYCA in the NYISO's RTC, but the scheduled did not actually flow in real-time due to a checkout failure. The scheduling path was through Ontario. The interchange schedule made up approximately 0.0001% of all NYCA scheduled interchange in 2011 and 2012.

- The NYISO did not identify a single MW of interchange (Import, Export or Wheel-Through) that was directly scheduled between TVA and the NYCA in 2011 or 2012.³¹

The NYISO's review of *actual* transaction scheduling in 2011 and 2012 shows that it is entirely unnecessary, and would be a waste of time and resources, for the Commission to require the NYISO to implement the PJM MMU's recommendation that the NYISO be required to modify the circuitous scheduling path prohibition Tariff rules that are set forth in Section 16.3.3.8 of (Attachment J to) its OATT. The NYISO did not propose any changes to Section 16.3.3.8 of (Attachment J to) its OATT in its Compliance Filing. The PJM MMU's recommendation will not solve any problem that has actually been shown to exist. As explained in PP 10-22 of Attachment A to this Response, the NYISO MMU concurs with the NYISO's assessment of the PJM MMU's recommendation.

D. Possible Compromise Solution

The PJM MMU appears to be concerned that scheduling paths other than the eight scheduling paths identified in Section 16.3.3.8 of (Attachment J to) the NYISO's OATT could be used to schedule transactions over a contract path that is not consistent with the NYISO's expectation of how power will actually flow. The NYISO is not conceptually opposed to resolving the concern that the PJM MMU's Comments seek to address. The NYISO proposes the following compromise for the Commission's consideration.

If the Commission so instructs, the NYISO proposes to submit a further compliance filing in this Docket proposing to modify Section 16.3.3.8 of (Attachment J to) the NYISO's OATT in a manner that would permit the NYISO, acting in consultation with its MMU, to submit future

³¹ See Comments at 6-7.

compliance filings seeking authorization from the Commission to implement additional prohibited scheduling paths. If and when the NYISO, acting in consultation with its MMU, determines that particular scheduling paths are being used to schedule External Transactions in a manner that is not consistent with the manner in which power is actually expected to flow, the NYISO will submit a compliance filing in this Docket seeking permission to prohibit the inappropriate paths.

Under this compromise proposal, when and if the NYISO, acting in consultation with the NYISO MMU, makes the necessary determination, the NYISO will submit a compliance filing in this Docket: (1) proposing to add a new prohibited scheduling path; (2) explaining the scheduling behavior it has identified and why that behavior presents a concern or risk; and (3) explaining why the NYISO believes that the problem it has identified can be remedied or mitigated by adding one or more new circuitous scheduling path prohibitions. Any such compliance filing that the NYISO submits would be required to include, or be accompanied by, a discussion of the NYISO MMU's position regarding the NYISO's proposal to add a new prohibited scheduling path or new prohibited scheduling paths.³²

In order to expedite the NYISO's ability to submit, and the Commission's ability to review and act on, a proposal to add a new prohibited scheduling path, the NYISO proposes to use a compliance filing mechanism similar to the filing rules that were proposed by the NYISO and accepted in Docket No. ER11-2547.³³ As explained in P 4 of Attachment A to this Reply, the NYISO MMU does not oppose the NYISO's proposed compromise solution.

³² The NYISO MMU's position could be explained in the NYISO's filing letter, be set forth in an accompanying affidavit, or be submitted by the NYISO's MMU as a companion filing to, or comments on, the NYISO's compliance filing in this Docket.

³³ See Section 4.4.4 of the NYISO's Market Administration and Control Area Services Tariff; *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,186 (2011); NYISO's April 13, 2011 Compliance Filing in Docket No. ER11-2547 at 3-4; Letter Order accepting NYISO Compliance Filing issued in Docket No. ER11-2547

IV. Conclusion

WHEREFORE, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission (i) accept this Response to the PJM MMU's Comments, (ii) accept the Tariff revisions proposed in the NYISO's Compliance Filing, and either (iii) reject the relief requested in the PJM MMU's Protest, or (iv) instruct the NYISO to submit an additional compliance filing consistent with the compromise solution that the NYISO proposes in Section III.D of this Response.

Respectfully submitted,

/s/ Alex M. Schnell

Robert E. Fernandez, General Counsel
Alex M. Schnell
New York Independent System Operator, Inc.

Dated: February 25, 2013

on July 21, 2011; NYISO's November 13, 2012 Compliance Filing in Docket No. ER11-2547; Letter Order accepting NYISO Compliance Filing issued in Docket No. ER11-2547-008 on December 18, 2012.

CERTIFICATE OF SERVICE

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

Dated at Rensselaer, New York this 25th day of February, 2013.

/s/ Alex M. Schnell

Alex M. Schnell
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, New York 12144
518-356-8707

Attachment A

Affidavit of Dr. David Patton

President, Potomac Economics

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

AFFIDAVIT OF DAVID B. PATTON, PH.D.

I. Qualifications and Purpose

1. My name is David B. Patton. I am an economist and President of Potomac Economics, Ltd. 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. Potomac Economics is the New York Independent System Operator, Inc.'s ("NYISO's") Market Monitoring Unit.
2. On January 18, 2013 I submitted an affidavit in support of a Compliance Filing that the NYISO submitted in Federal Energy Regulatory Commission ("Commission") Docket No. ER13-780. My background and qualifications are set forth in that affidavit.
3. I have been asked to submit this affidavit in response to comments that Monitoring Analytics, Inc., the Market Monitoring Unit for PJM Interconnection, LLC ("PJM"), submitted in Docket No. ER13-780. Monitoring Analytics' comments ask the Commission to require modifications to the NYISO's Compliance Filing.
4. For the reasons explained below, I do not agree that the changes to the NYISO's Compliance Filing requested by Monitoring Analytics are appropriate, or are necessary to

achieve a just and reasonable result. I can support the NYISO's proposed compromise, which is designed to address Monitoring Analytics' concerns.

II. Response to Monitoring Analytics

A. Path Validation

5. The NYISO's path validation process is designed to ensure that the actual power flows associated with the transactions are as consistent with the scheduled flows as possible. Precluding circuitous paths substantially reduces unscheduled loop flows and reduces market participants' ability to engage in patterns of transactions that may constitute gaming of the Lake Erie RTOs' interface pricing.
6. The NYISO's proposed scheduling process and pricing is generally consistent with PJM's source-sink scheduling. In fact, it is superior because it goes further than PJM's scheduling rules to recognize the designation of the path. The scheduled path cannot reasonably be ignored for two reasons.
7. First, ISOs and RTOs must still manage external interface capability and ramp capability, which are affected by the path over which the transaction is scheduled. By requiring that transactions be scheduled on the paths over which most of the power will flow, both the dispatch and pricing outcomes will be as efficient as possible.
8. Second, Phase Angle Regulators ("PARs") can cause the expected power flows associated with two transactions with identical sources and sinks, but that are scheduled over different paths, to be very different. In a world without PARs, the network power flows associated with a transaction would be entirely determined by the source and sink,

but this is simply not true on the network today where PARs play a significant role in influencing the power flows.

9. Ultimately, therefore, I believe it may be necessary for all RTOs' interface pricing to distinguish between transactions that may have the same source and sink, but different transmission paths, when one or both paths include PARs whose operation is affected by the transaction schedule. For example, if PARs on a particular path are operated to conform actual flows over an interface to the net schedules (*i.e.*, to reduce loop flows), then the expected power flows for transactions over that path may be materially different than the expected power flows for transactions from the same source that is scheduled over other paths. However, this improvement in the interface pricing should be addressed in the future once the performance of relevant PARs has been fully evaluated.

B. Monitoring Analytics' Proposal

10. Monitoring Analytics' proposes replacing the NYISO's path-specific validations¹ with source/sink path validations. Implementing Monitoring Analytics' recommendation would require changes to the NYISO's Tariffs and market software. The source/sink prohibitions proposed by Monitoring Analytics would be less precise than the path-specific prohibitions that the NYISO has in its Tariff and market software today.
11. For the vast majority of transactions, there would be no distinction between the NYISO path validation provisions and the Monitoring Analytics proposal. Unlike PJM, the New York Control Area ("NYCA") is bordered by only four geographically expansive control

¹ Set forth in Section 16.3.3.8 of Attachment J to the NYISO's Open Access Transmission Tariff ("OATT").

areas, three of which are RTO markets: PJM, Ontario, Hydro Quebec (“HQ”) and ISO-New England (“ISO-NE”). Given the geographic scope of these control areas, it is not at all surprising to me that in 2011 and 2012, 99.75 percent of the NYISO’s transactions had their source or sink in one of these four control areas.²

12. For transactions scheduled to or from these control areas, both the Monitoring Analytics’ proposal and the NYISO Tariff provisions would compel the transaction to be scheduled over the interface that directly interconnects these control areas with New York. Hence, the Monitoring Analytics proposal would only potentially affect the 0.25 percent of transactions that were scheduled to or from other control areas that are not directly interconnected with New York.
13. Unfortunately, the Monitoring Analytics proposal would adversely affect many of these transactions and provide less efficient incentives to govern their scheduling. Many of the transactions scheduled from these second-tier control areas can legitimately be scheduled through more than one of NYISO’s interfaces. The Monitoring Analytics proposal would be unnecessarily restrictive by requiring these transactions to only be scheduled through one NYISO interface. The NYISO Tariff, on the other hand, establishes much narrower restrictions by prohibiting only those scheduled on paths that would create gross inconsistencies between the scheduled flow and the expected actual flow.
14. Monitoring Analytics does seem to recognize that it may be appropriate for some sources or sinks to be scheduled at more than one of the NYISO interfaces. On page 8 of its Comments Monitoring Analytics states:

² Interchange that the NYISO scheduled with other source/sink Control Areas in 2011 and 2012 is described on pages 9-12 of the NYISO’s Response.

In the event that expected flows to or from any external balancing authority do not reflect flows over a single NYISO interface, the Market Monitor suggests that the NYISO either create a separate interface price that reflects the distribution of flow across the multiple interfaces or that the NYISO modify their market and reliability systems to recognize this distribution of flows to accurately model and price the transaction based on the expected actual flows.³

15. Implementing this recommendation would be both costly from a software development standpoint and inefficient from an economic standpoint. As explained above, it would be invalid for the NYISO to ignore the scheduled path and focus its interface pricing/scheduling on only the source and sink for the transaction. This can be illustrated most simply by considering transactions between MISO and NYISO (which represented only 0.24 percent of all of NYISO's scheduled interchange in 2011 and 2012).
16. Transactions between MISO and NYISO can be scheduled through Ontario or PJM. It would be equally valid to schedule along either of these paths. The Monitoring Analytics proposal to assume one distribution of flows, regardless of the scheduled path, would only be reasonable on a network with no PARs because the scheduled path would have no effect on the expected power flows associated with the transaction. This is demonstrably not the case in the Eastern Interconnection. The power flows for a MISO to NYISO transaction would be affected by both the Ontario-Michigan PARs on the Northwest side of Lake Erie, as well as the Ramapo and ABC and JK PARS on the Southeast side of Lake Erie. Both sets of PARs are operated in a manner that would tend to restrict loop flows and cause changes in network flows to roughly correspond to the changes in scheduled flows. For that reason, it is more reasonable to settle the MISO

³ See Monitoring Analytics comments at page 8.

transactions scheduled through Ontario at the Ontario interface price and those scheduled through PJM at the PJM interface price. I do not support creating a blended price, which is an option that Monitoring Analytics suggests might be appropriate.

17. Further, transactions are rarely scheduled from (or to) more distant control areas, such as Duke, TVA, Southern Company, or Entergy, by wheeling across PJM, MISO or Ontario to New York. In most cases, the cost of transmission congestion and/or losses in PJM or MISO will make it more economic to simply schedule the energy directly to or from PJM or MISO, rather than scheduling a wheel across these Control Areas to or from New York.

C. Circuitous Schedules with Multiple eTags

18. Until contract-path scheduling is eliminated in favor of scheduling processes that are more consistent with how power flows on a transmission network, there will always be potential concerns regarding inconsistencies between the schedule and the flow. While NYISO has effectively addressed those inconsistencies through its path validation, it is not possible to enforce circuitous scheduling path prohibitions that involve several different NERC eTags. Therefore, the NYISO's path validation approach does not address issues that can arise when participants execute schedules using multiple eTags. PJM's source and sink pricing is similarly ineffective at addressing the use of multiple NERC eTags.
19. For this reason, both Potomac Economics (as the MMU for MISO and NYISO) and Monitoring Analytics (as the MMU for PJM) closely monitor scheduling activity in the Eastern Interconnection to identify potential gaming or Market Violations. If Potomac

Economics identifies a trading pattern that may constitute a Market Violation or that raises other economic efficiency concerns, it will notify the Commission as required by the NYISO's Market Monitoring Plan (Attachment O to the NYISO's Market Services Tariff), which implements Commission Order No. 719. In addition to monitoring of transactions by Market Monitoring Units, the Commission recently required that it be provided direct access to all eTag data.⁴

III. Conclusion

20. The NYISO's path validation process is well adapted to the NYISO's market design and essential for ensuring efficient market outcomes and transaction scheduling incentives. The recommendation by Monitoring Analytics would require that the NYISO modify existing Tariff provisions that are not at issue in this docket, and would require costs be incurred to modify the NYISO's market and settlement software.
21. We have reviewed Monitoring Analytics' proposal and find that it would only potentially affect a portion of the less than 1 percent of NYISO's external transactions that source or sink in control areas that are not adjacent to NYISO. Further, Monitoring Analytics' proposal would be substantially inferior to the NYISO's current path validation and interface pricing methodologies for the reasons described above. For the very small subset of transactions that would be subject to different requirements under Monitoring Analytics' proposal, it would restrict the scheduled path for many of the control areas and could lead to inefficient scheduling incentives in some cases.

⁴ *Availability of E-Tag Information to Commission Staff*, 141 FERC ¶ 61,235 at P 41, FERC Order No. 771, (2012).

22. Therefore, the Commission should accept NYISO's continued use of its path validation methodology as a reasonable method of ensuring that schedules are not significantly inconsistent with expected network flows and approve its associated interface pricing methodology.
23. This concludes my affidavit.

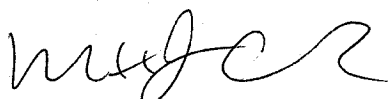
ATTESTATION

I am the witness identified in the foregoing Affidavit of David B. Patton, Ph.D. dated February 25, 2013 (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
February 25, 2013

Subscribed and sworn to before me
this 25th day of February, 2013



Notary Public

My commission expires: Nov. 30, 2013

MATTHEW JAMES CARRIER
Notary Public
City/County of Fairfax
Commonwealth of Virginia
Notary registration number - 7233763
My commission expires - Nov. 30, 2013