

New York Independent System Operator, Inc.) **Docket No. ER08-1281-010**

In accordance with Rule 713 of the Commission’s Rules of Practice and Procedure,¹ the New York Independent System Operator, Inc. (“NYISO”) hereby submits this *Request for Rehearing, and Request to Defer Consideration*, of the Commission’s March 15, 2012 order in this proceeding (“March 15 Order”).² The March 15 Order addressed the NYISO’s December 22, 2011 compliance filing³ to implement a new interface pricing policy for certain interregional transactions in, and around, the Lake Erie region. It holds (i) that the NYISO should submit compliance tariff changes “specifying a revised pricing methodology for all interface transactions, based on NERC tag information and actual energy flows, *i.e.*, consistent with PJM’s⁴ methodology”;⁵ and states (ii) that prices should be calculated “based on the actual energy flows at all times.”⁶

The NYISO does not seek rehearing of the Commission’s instruction that it submit Tariff⁷ revisions that incorporate and reflect changes to its interface pricing rules. However, the

² *New York Independent System Operator, Inc.*, 138 FERC ¶ 61,195 (2012) (“March 15 Order”).

⁴ “PJM” means PJM Interconnection, LLC.

⁶ *Id.* at P 21.

⁷ Terms with initial capitalization that are not otherwise defined herein shall have the meaning set forth in the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"), and if not defined therein, in the NYISO's Open Access Transmission Tariff ("OATT").

NYISO is concerned that other aspects of the March 15 Order could be read as imposing unjust, unreasonable and unduly burdensome compliance obligations on it. For this reason, (1) the NYISO requested the scheduling of a technical conference before it had to submit this Request for Rehearing, and (2) requests below that the Commission rule on the NYISO's compliance filing in this Docket before it acts on this Request for Rehearing.

The NYISO requests rehearing of the provisions of the March 15 Order that determine that the NYISO has not made the changes to its market rules that were required the Commission's December 30, 2010 order ("December 2010 Order").⁸ The December 2010 Order required changes to the NYISO's interface pricing rules. The instructions in the March 15 Order that the NYISO is challenging are inconsistent with the compliance directives set forth in the December 30 Order, impermissibly vague, may be impossible or prohibitively expensive to implement, and are beyond the scope of the Commission's authority to require.

The March 15 Order does not explain how or why the changes that the NYISO made to its market design to comply with the December 30 Order to implement interface pricing revisions fell short of the NYISO's compliance obligation. For example, the March 15 Order does not explain why the NYISO's path validation method (which uses NERC e-Tag information to validate transactions) is insufficient to achieve consistency between scheduled power flows and expected power flows for pricing purposes. The NYISO recognizes that its implementation is not identical to PJM's source-and-sink pricing, but it accomplishes a similar result and improves the consistency between the NYISO and PJM interface prices. As explained below, there are fundamental differences between the PJM and NYISO market designs that make the NYISO's implementation appropriate for the NYISO's markets.

⁸ *New York Independent System Operator, Inc.*, 133 FERC ¶61,276 (2010) ("December 2010 Order").

The Commission's directive that prices should be calculated "based on the actual energy flows at all times," read literally, is not consistent with the method PJM actually uses to determine interface prices and settle External Transactions (Imports, Exports and Wheels-Through). Implementation of this interpretation of the March 15 Order would produce prices that are inconsistent with dispatch, and would be extremely impractical to accommodate, even partially. Requiring the NYISO to implement interface pricing rules "based on the actual energy flows at all times" (hereafter, the "Actual Energy Flow Requirement") would make NYISO's rules *less* consistent with PJM's. As the attached affidavit of Dr. David B. Patton establishes, PJM relies on expected energy flows and does not, in fact, use actual energy flows to set interface prices or to determine settlements for External Transactions. The March 15 Order's assumption that PJM uses actual energy flows to set prices, and that an Actual Energy Flow Requirement would harmonize the NYISO's rules with PJM's, is not correct.⁹

If the March 15 Order is intended to require that the NYISO adopt PJM's actual interface pricing rules, it would force the NYISO to make wholesale changes to its existing tariffs, and market design, that would require years of effort and would be prohibitively expensive to implement. Such a directive is essentially a requirement that the NYISO abandon its Commission-approved market design and adopt PJM's market design.

Since its inception in 1999 the NYISO has employed an economic evaluation based transmission reservation model that the Commission has repeatedly held is "consistent with or superior to" the physical reservation rules adopted in Order No. 890 and its predecessors.¹⁰ PJM

⁹ Attached Affidavit of Dr. David B. Patton at PP 10-12 ("Patton Affidavit").

¹⁰ See, e.g., *New York Independent System Operator, Inc.*, 123 FERC ¶ 61,134 at P 13 (2008) (conditionally approving NYISO's Order No. 890 compliance filing and acknowledging the substantial differences between the NYISO's tariffs and the *pro forma* OATT related to the NYISO's use of a financial reservation model); *New York Independent System Operator, Inc.*, 123 FERC ¶ 61,134 at P 13 (2008) (finding "that NYISO's proposed deviations from the *pro forma* OATT... [are] consistent with or

uses a physical reservation system that differs from the NYISO's economic evaluation based model. PJM's process of calculating interface prices (which reflect the cost of transmission congestion) is distinct from the physical reservation process PJM uses to allocate ramp and Available Transfer Capability ("ATC"). PJM does not require its interface pricing and interface scheduling to be entirely consistent. Because the NYISO's economic evaluation process sets the interface price and determines which External Transactions to schedule in a single step, scheduling and pricing **must** be consistent in New York. As a result, the NYISO could not adopt PJM's rules without making several fundamental changes to its markets. The required changes would not be confined to a discrete subset of systems governing External Transactions; they would broadly impact the NYISO's software and market rules.

Changes on this scale would be enormously expensive to develop and test, and would take years to implement. The necessary changes would go far beyond the tariff modifications that the NYISO proposed, or has ever contemplated, to address Lake Erie loop flow. The changes would extend far beyond what is necessary to effectively address interface pricing issues between New York and PJM, and would do more harm than good because they would require the NYISO to cease using economic priority to schedule External Transaction bids and offers. There is no factual record in this proceeding to justify imposing such changes and the Commission has failed to "articulate a satisfactory explanation for its action."¹¹ This is

superior to the pro forma OATT...."), *New York Independent System Operator, Inc.*, 125 FERC ¶ 61, 274 at P 13 (2008) (same). *See also*, *New York Independent System Operator, Inc.*, 133 FERC ¶ 61,246 (2010) (granting waiver of NAESB requirements because they are incompatible with the NYISO's market design); *New York Independent System Operator, Inc.*, 133 FERC ¶ 61,246 at P 25 (2010) (same); *New York Independent System Operator, Inc.*, 127 FERC ¶ 61,005 at P 7 (2009) (same); *New York Independent System Operator, Inc.*, 125 FERC ¶ 61,275 at P 15 (2008) (same); *New York Independent System Operator, Inc.*, 121 FERC ¶ 61,036 at P 9 (2007) (same); *New York Independent System Operator, Inc.*, 117 FERC ¶ 61,197 at PP 15-17 (2006) (same).

¹¹ *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

especially true given the Commission’s established policy of allowing different regions to adopt market designs that best suit their individual circumstances. Moreover, to the extent that the Commission intended to require such changes it lacks authority under the Federal Power Act (“FPA”) to do so because of the absence of an adequate record and the fact that such changes are outside the scope of this compliance proceeding.

To the extent that the March 15 Order was meant to subject the NYISO to an Actual Energy Flow Requirement, or to require the NYISO to adopt, wholesale, PJM’s market rules with respect to interface pricing, it must be overturned on rehearing. Such directives would be unlawful, arbitrary and capricious, inconsistent with reasoned decision-making, contrary to Commission precedent, and neither adequately explained nor justified.

In addition, the requirement that the new pricing method apply to “all interface transactions” involving the NYISO is unnecessary, would produce inaccurate prices at many NYISO interfaces, and would disrupt existing and proposed interface scheduling and pricing mechanisms between the NYISO and neighboring systems.

The directives in the March 15 Order are an unreasonable and unexplained departure from earlier orders that gave every indication that the changes that the Commission expected the NYISO to make “could be implemented ... at minimal cost,”¹² and that consistency between the NYISO’s and PJM’s interface pricing rules could be made without fundamental, time consuming and expensive changes to the NYISO’s market design. The Actual Energy Flow Requirement and instruction to apply the new pricing method to “all interface transactions” are beyond the scope of this proceeding and there is absolutely no factual record or legal basis for requiring these modifications.

¹² December 30, 2010 Order at P 31.

Finally, the NYISO respectfully requests that the Commission defer action on this request until after the Commission considers and rules on the NYISO's compliance filing in this Docket.¹³ The NYISO will withdraw this rehearing request if the Commission accepts the tariff revisions that the NYISO submits to comply with the March 15 Order without imposing significant additional/new compliance obligations on the NYISO. The NYISO believes that the tariff revisions it proposes will address the Commission's concerns because they will achieve greater consistency between the NYISO and PJM interface pricing rules, without imposing an unjust, unreasonable and unsupportable compliance burden on the NYISO.

I. COMMUNICATIONS

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¹³ *Request to Convene On-The-Record Technical Conference, Request for Extension of Time to Submit Compliance Filing, and Request for Shortened Notice and Comment Period and Expedited Commission Action of the New York Independent System Operator, Inc.*, Docket No. ER08-1281-010 (filed March 30, 2012) ("Technical Conference Request").

¹⁴ Waiver of the Commission's regulations (18 C.F.R. § 385.203(b)(3) (2011)) is requested to the extent necessary to permit service on outside counsel for the NYISO in both Washington, DC and Houston, TX.

*Persons designated to receive service

II. LIST OF DOCUMENTS SUBMITTED

The NYISO submits the following documents:

1. This Rehearing Request; and
2. The Affidavit of Dr. David B. Patton.

III. STATEMENT OF ISSUES AND SPECIFICATION OF ERRORS

In accordance with Rule 713(c), 18 C.F.R. § 385.713(c), the NYISO submits the following statement of issues, specification of errors, and representative supporting precedents:

- 1) The March 15 Order is arbitrary and capricious and does not reflect reasoned decision making because it is impermissibly vague regarding the extent of the modifications that it is directing the NYISO to make. *See, e.g., Trinity Broadcasting of Florida, Inc. v. FCC*, 211 F.3d 618, 628 (D.C. Cir. 2000); *McElroy Electronics Corporation v. FCC*, 990 F.2d 1351, 1358 (D.C. Cir. 1993).
- 2) To the extent that the March 15 Order is directing the NYISO to adopt new interface pricing rules incorporating an Actual Energy Flow Requirement, or to adopt PJM's market design, that directive is arbitrary and capricious and does not reflect reasoned decision making because: (i) it is founded on basic and demonstrable factual errors; (ii) it requires the NYISO to fundamentally alter its existing Commission-approved market design, and would therefore necessitate unprecedented, unnecessary, and undesirable changes, while unreasonably and inexplicably rejecting a previously accepted NYISO proposal that would fully resolve the interface pricing issues being addressed in this proceeding; and (iii) it fails to articulate a satisfactory explanation for its action. *See Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1982); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *City of Charlottesville, Va. v. FERC*, 661 F.2d 945, 947 (D.C. Cir. 1981); *see also* Attached Affidavit of Dr. David B. Patton.
- 3) The March 15 Order is arbitrary and capricious, does not reflect reasoned decision making, and does not adequately explain the Commission's reasoning, to the extent it is intended as a reversal of the directives in the earlier orders in this proceeding that accepted the NYISO's Interface Pricing Proposal and stated that could be achieved with only limited adjustments to the NYISO's existing Commission-approved market design and within a relatively short time frame. *See, e.g., New York Independent System Operator, Inc.*, 136 FERC ¶61,011 (2011); *New York Independent System*

Operator, Inc., 133 FERC ¶61,276 (2010); *New York Independent System Operator, Inc.*, 132 FERC ¶ 61,031 at P 40 (2010).

- 4) The March 15 Order is arbitrary and capricious and does not reflect reasoned decision making to the extent that it suggests that the NYISO should have sought clarification or rehearing of Prior Orders that were clear and that could not have reasonably read at the time as requiring the NYISO to do something other than move to implement its Interface Pricing Proposal. *See, e.g., Sam Rayburn Dam Elec. Coop. v. Fed. Power Comm'n*, 515 F.2d 998, 1007 (D.C.Cir.1975); *see also East Texas Elec. Co-op, Inc. v. FERC*, 218 F. 3d 750, 754-755 (D.C. Cir. 2000); *LPSC v. FERC*, 482 F.3d 510, 517-18 (D.C. Cir. 2007); *Edison Mission Energy, Inc. v. FERC*, 394 F.3d 964,968 (D.C. Cir. 2005); *Dominion Resources, Inc. v. FERC*, 286 F.3d 586, 589-90 (D.C. Cir. 2002); *Pacific Gas and Elec. Co. v. FERC*, 533 F.3d 820 (D.C. Cir. 2008); *Competitive Telecommunications Ass'n v. FCC*, 309 F.3d 8, 11-12 (D.C. Cir. 2002).
- 5) The Commission's directives requiring modifications to elements of the NYISO's existing Commission-approved market design that were not the subject of the NYISO's section 205 FPA filing in this proceeding are unlawful, because the Commission failed to find those existing tariff provisions (or the market design they implement) to be unjust and unreasonable pursuant to the Commission's authority under section 206 of the Federal Power Act. *See, e.g., Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 9-10 (D.C. Cir. 2002); *Papago Tribal Utility Authority v. FERC*, 723 F.2d 950 (D.C. Cir. 1983); *City of Winnfield, La. v FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984); *Public Serv. Com'n of State of NY v. FERC*, 866 F.2d 487 (D.C. Cir. 1989); *Sea Robin Pipeline Co. v. FERC*, 795 F.2d 182, 183 (D.C. Cir. 1986); *ANR Pipeline Co. v. FERC*, 771 F.2d 507, 514 (D.C. Cir. 1985).
- 6) To the extent that the March 15 Order departs without justification or explanation from the Commission's well established policy of allowing different regions to adopt market designs that best serve their regional needs, it is arbitrary and capricious and does not reflect reasoned decision making. *See, e.g., Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Statutes and Regulations ¶31,281 at P 9 (2008), *order on reh'g*, Order No. 719-A, FERC Statutes and Regulations ¶31,292 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶61,252 (2009); *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 76 Fed. Reg. 49,842 at P 745 (Aug. 11, 2011), FERC Stats. & Regs. ¶31,323 (2011); *See also Remediating Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*, 112 FERC ¶ 61,073 (2005).

IV. BACKGROUND

The March 15 Order found that the NYISO's Compliance Notice, which stated that the software changes necessary to implement the NYISO's Interface Pricing Proposal to address

Lake Erie loop flow issues were completed, did not comply with the Commission's the December 2010 Order, the July 1, 2011 order ("July 2011 Order") and July 15, 2010 ("July 2010 Order") (collectively, the "Prior Order")),¹⁵ The Prior Orders addressed the NYISO's filings regarding the implementation of an interface pricing proposal that is consistent with the proposal that was developed through a collaborative process with its market participants, neighboring Independent System Operators ("ISOs") and Regional Transmission Organizations ("RTOs") and their market participants, and other interested parties (the "Interface Pricing Proposal"). The Interface Pricing Proposal was the culmination of extensive work to implement solutions to the Lake Erie loop flow problems identified in the NYISO's July 21, 2008 "exigent circumstances" tariff filing that initiated this proceeding ("July 2008 Filing").¹⁶

The December 2010 Order established additional compliance obligations and reporting requirements for the NYISO and its neighboring ISOs/RTOs. The Commission directed the NYISO, PJM, and the Midwest Independent Transmission System Operator, Inc. ("MISO") to make implementation of the Interface Pricing Proposal¹⁷ a priority, while also directing the NYISO to postpone work on other proposals. In the July 2011 Order, in response to a request for rehearing submitted by the NYISO on January 31, 2011 ("January 2011 Request"),¹⁸ the Commission granted the NYISO, additional time, until the end of 2011, to complete the software

¹⁵ *New York Independent System Operator, Inc.*, 133 FERC ¶61,276 (2010) ("December 2010 Order"); *New York Independent System Operator, Inc.*, 136 FERC ¶61,011 (2011) ("July 2011 Order"); *New York Independent System Operator, Inc.*, 132 FERC ¶ 61,031 at P 40 (2010) ("July 2010 Order").

¹⁶ *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 (July 21, 2008) ("July 2008 Filing").

¹⁷ The Commission also directed the NYISO to accelerate work on its "Congestion Management/Market-to-Market Coordination" proposal.

¹⁸ *Request for Rehearing*, Docket Nos. ER08-1281-007 (filed January 31, 2011) ("January 2011 Request").

necessary to implement the Interface Pricing Proposal by January 2012. The Compliance Notice reported that the NYISO had developed software to implement its Interface Pricing Proposal.

The March 15 Order stated that the Compliance Notice “failed to comply” with the Prior Orders, and directed a further compliance filing within 30 days.¹⁹ On March 30, 2012 the NYISO filed a request for technical conference and extension of time to make the compliance filing, in an attempt to obtain additional guidance from the Commission’s staff regarding the extent of the modifications required. The Commission granted the NYISO’s request for extension on April 10, 2012, extending the deadline for submission of the compliance filing to May 10, 2012.²⁰ The Commission has not yet acted on the NYISO’s request for a technical conference.

V. REQUEST FOR REHEARING

A. The Commission’s March 15 Order Is Arbitrary and Capricious and Does Not Reflect Reasoned Decision Making Because it Is Impermissibly Vague

The March 15 Order is arbitrary and capricious and does not reflect reasoned decision making because it is impermissibly vague. It does not clearly articulate the extent of the modifications the NYISO must make, states that the NYISO must emulate interface pricing rules that PJM supposedly uses, but does not actually use, and is ambiguous as to whether the methodology developed by the NYISO in its Interface Pricing Proposal has been rejected.

Commission orders must state “with ascertainable certainty, the standards with which the agency expects parties to conform.”²¹ However, the March 15 Order’s directives are unclear and

¹⁹ March 15 Order at P 1.

²⁰ *New York Independent System Operator, Inc.*, Notice of Extension, Docket No. ER08-1281-010 (issued April 10, 2012). The NYISO request that the Commission convene a technical conference is still pending.

²¹ *Trinity Broadcasting of Florida, Inc. v. FCC*, 211 F.3d 618, 628 (D.C. Cir. 2000); *see also McElroy Electronics Corporation v. FCC*, 990 F.2d 1351, 1358 (D.C. Cir. 1993) (regulated entities must

conflicting, leaving the NYISO with no guidance regarding what exactly the Commission has required.

Paragraph 21 of the March 15 Order appears to reject the NYISO's Interface Pricing Proposal, stating that the NYISO's must submit a further compliance filing that "includes an interface pricing methodology consistent with PJM's methodology, i.e. an interface pricing methodology that uses NERC tag information to determine actual source and sink for a transaction and calculates prices based on the actual flows at all times." Similarly, Paragraph 25 directs the NYISO to "submit detailed tariff provisions specifying a revised pricing methodology for all interface transactions, based on NERC tag information and actual energy flows, *i.e.*, consistent with PJM's methodology." As is discussed below in Section V.B, however, these requirements are contradictory and impossible to satisfy literally because PJM uses expected, not actual energy flows to determine interface prices. The NYISO is therefore forced to guess whether the March Order requires it to: (i) adopt interface pricing rules that incorporated an Actual Energy Flow Requirement, notwithstanding the fact that PJM does not calculate prices "based on the actual flows at all times," so compliance would make the PJM and NYISO rules less consistent and produce prices that are inconsistent with schedules; or (ii) replace the NYISO's economic evaluation of External Transactions and transmission scheduling path validation processes with PJM's physical ATC/ramp reservation process and source-sink pricing, notwithstanding the fact that PJM's rules, are not compatible with the NYISO's existing market design and could not be implemented by the NYISO "at minimal cost..."²² or (iii) take some other action that is not expressly described by the March 15 Order.

have "knowledge of requirements established by the Commission, and elementary fairness requires clarity of standards sufficient to apprise an [entity] of what is expected").

²² December 30, 2010 Order at P 31.

Alternatively, it might be appropriate to read Paragraph 23 of the March 15 Order as allowing the NYISO to modify its existing Interface Pricing Proposal to implement only the “Non-Conforming Mode.” Such a change would appear to address the Commission’s concern that “certain elements of the method outlined by the NYISO’s Compliance Notice (namely, the Conforming Mode, which relies on NYISO’s *status quo* pricing and scheduling policy), are inconsistent with the PJM methodology.” This would be a reasonable outcome, but it is not clearly directed by the language of Paragraphs 21 and 25 of the March 15 Order.

An order with this degree of ambiguity is impermissibly vague, imposes unreasonable (and unknowable) compliance burdens, and is inconsistent with “elementary fairness.” The March 15 Order must, therefore, be overturned on rehearing.

B. To the Extent that the March 15 Order Is Directing the NYISO to Adopt New Interface Pricing Rules Incorporating an Actual Energy Flow Requirement, or to Adopt PJM’s Interface Pricing Method, that Directive is Arbitrary and Capricious and does Not Reflect reasoned Decision Making Because it Is Founded on Fundamental Factual Mistakes and Rejects a Reasonable Proposal Without Articulating a Reasonable Factual Basis for Doing So

If the March 15 Order requires the NYISO to overhaul its interface pricing rules to incorporate an Actual Energy Flow Requirement at all interfaces, and rejects, the Interface Pricing Proposal, it must be reversed on rehearing. The alternative contemplated by the Commission is not a realistic solution to the issues being addressed in this proceeding.

If the March 15 Order requires the NYISO to change its market design and adopt “PJM’s interface pricing,” then the March 15 Order’s directives extend far beyond the changes needed to address Lake Erie loop flow. Implementing such a requirement would require the NYISO to abandon its Commission-approved economic evaluation of transmission service based market design and adopt PJM’s physical transmission reservation based market design.

1. A Directive to Adopt an Actual Energy Flow Requirement to Achieve Greater Pricing Consistency with PJM Would Be Based on a Demonstrably Inaccurate Understanding of PJM’s Pricing Rules

The Commission appears to place great weight on the following statement made by the PJM external market monitoring unit, Monitoring Analytics, LLC (“Monitoring Analytics”):

The Market Monitor requests that FERC direct the NYISO to implement an interface pricing method that matches the methods successfully implemented by PJM and MISO. *These methods provide a dynamic, real-time approach to defining and modifying the interface definitions, which reflect the actual flows on the PJM or MISO systems resulting from generation sources at their actual locations serving loads at their actual locations, as appropriate whether the PARs are operational or not and whether scheduled flows equal actual flows [or not].*²³

Based, apparently, on that assertion, the March 15 Order finds that “NYISO is required to submit a further compliance filing that includes an interface pricing methodology consistent with PJM’s methodology, *i.e.*, an interface pricing methodology that uses NERC tag information to determine actual source and sink for a transaction and calculates prices *based on the actual energy flows at all times.*”²⁴

However, as explained in the attached Patton Affidavit contrary to the Commission’s findings in the March 15 Order PJM’s real-time pricing method does not use “actual” energy flows for interface pricing. As Dr. Patton states “[w]hen Monitoring Analytics speaks of “actual flows” it is referring to the *expected* power flows associated with a schedule, not actual power flows determined after-the-fact based on the specific locations where power was actually injected

²³ *Protest of the Independent Market Monitor for PJM* at 5, Docket Nos. ER08-1281-005, 006, 007, and 010 (filed January 12, 2012).

²⁴ March 15 Order at P 21 (emphasis added); *see also* March 15 Order at PP 23, 25 (stating that “PJM’s methodology, as noted above, utilizes NERC tag information to determine the actual source and sink for a transaction and calculates prices based on the actual energy flows” and directing implementation of a “revised pricing methodology for all interface transactions, based on NERC tag information and actual energy flows, *i.e.*, consistent with PJM’s methodology”).

and withdrawn.”²⁵ PJM’s existing market design, much like the NYISO’s market design, uses expected power flows in its determination of prices.

The Patton Affidavit explains that “it is virtually impossible for any RTO to know precisely where power will be injected and withdrawn for a control area to control area transaction. For example, when power is scheduled from PJM to New York, certain generators in PJM will produce more (*i.e.*, the marginal generators) and certain generators in New York will produce less. The locations of these marginal generators and the current topology of the networks in the two areas determine how the power will actually flow. However, the locations of the marginal generators are not known at the time external transactions are scheduled and priced.... Therefore, in order to incorporate expected power flows into its interface pricing, PJM necessarily makes assumptions about where the power will be injected and withdrawn.”²⁶ So, while PJM’s *ex post* pricing uses the actual output of PJM internal generators for the determination of LMPs at their locations, in order for PJM’s prices to be consistent with its dispatch, that PJM’s *ex post* pricing must also use constraints developed when PJM determined its commitment and dispatch.²⁷ Thus, PJM and NYISO both use expected power flows to determine interface prices in their Real-Time Markets,²⁸ and both PJM and the NYISO run their Day-Ahead Markets using models and estimates, not actual energy flows, to develop schedules and prices.

Further, Dr. Patton explains that Monitoring Analytics’ statement regarding that PJM’s methods reflect actual flows from “generation sources at their actual locations serving loads at

²⁵ Patton Affidavit at P 10.

²⁶ *Id.* at PP 11-12.

²⁷ *See Patton Affidavit* at P 12.

²⁸ *Id.* at PP 11-12.

their actual locations” appears to have also been misunderstood in the March 15 Order.²⁹ In PJM’s real-time market, the source control area and sink control area of a transaction are used to determine an expected set of power flows and congestion impacts when PJM sets External Transaction schedules as part of its scheduling/dispatch process. PJM does not map each External Transaction’s scheduled MWs to specific PJM tie lines, and does not utilize actual energy flows. PJM rather “uses representative generator locations in other Control Areas to estimate the expected power flows that will result from external transactions to or from those Control Areas.”³⁰ PJM also “sets the interface price for many different Control Areas to a common price or common set of prices.”³¹ For example, PJM determines the expected power flows that it uses to price transactions scheduled directly with the NYISO by assigning the scheduled interchange, on a weighted basis, to two New York generator locations (Roseton and Dunkirk) that it uses as proxies for the New York Control Area. PJM’s weighting of the allocation between these two proxy generator locations is based on expected power flows. Hence, PJM’s prices are not based on “actual energy flows at all times,” but rather on expected power flows, just like the NYISO’s.

The Commission is required to base its decisions on accurate data.³² The March 15 Order should be overturned on rehearing to the extent that it actually meant to require that the NYISO implement an Actual Energy Flow Requirement.

²⁹ *Id.* at P 14.

³⁰ *Id.*

³¹ *Id.*

³² See *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1982) (An agency must show a “rational connection between the facts found and the choices made”); *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (An agency “must examine the relevant data and articulate a satisfactory explanation for its action”); *City of Charlottesville, Va. v. FERC*, 661 F.2d 945, 947 (D.C. Cir. 1981) (stating that the Commission must have “factual support” for its orders); see also Attached Affidavit of Dr. David B. Patton.

2. The NYISO Should Not Be Forced to Adopt PJM's Interface Pricing Rules Because Doing So Would Require Unprecedented, Unwarranted, and Undesirable Changes to the NYISO's Existing Commission-Approved Market Design

The NYISO's Interface Pricing Proposal presents a reasonable solution to the interface pricing issues that the orders in his proceeding seek to remedy. It makes the NYISO's interface pricing significantly more consistent with PJM's and MISO's by (1) accurately reflecting the Ontario/Michigan PARs present inability to conform actual power flows to scheduled power flows, and (2) appropriately relying on the NYISO's path validation process to ensure that transactions around Lake Erie are scheduled over a direct path and not circuitously.

The NYISO's Interface Pricing Proposal can be implemented within the framework of the NYISO's existing, Commission-approved market design. By contrast, compelling the NYISO to implement PJM's interface pricing method would require the NYISO to adopt significant elements of PJM's market design, which would necessitate years of work, cost tens of millions of dollars, and have undesirable consequences that would vastly outweigh the comparatively small expected benefits. Fundamental differences between PJM and NYISO market designs make it exceedingly difficult, and unreasonable, for the NYISO to comply with such a directive. Therefore, it is arbitrary and capricious, and incompatible with reasoned decision making, for the March 15 Order to require the NYISO to make such tariff modifications.

a. The NYISO's and PJM's Market Designs Utilize Different Methods for Scheduling External Transactions

PJM's market utilizes express, physical transmission service and ramp reservations at its external proxy buses to schedule imports, exports and wheels-through (collectively "External Transactions"). When there are more transmission service requests than ATC or ramp limits are able to accommodate, PJM allocates transmission and ramp capacity at its external proxy buses

based on: (1) service priority (firm transmission service request trump non-firm transmission service requests); (2) transaction duration (longer duration requests may trump shorter duration requests); (3) whether transactions are pre-confirmed; and (4) the timing of transmission reservation requests. PJM does not auction ATC or ramp capability based on economic offers. All entities that schedule transmissions service in the PJM markets are price takers for whatever minimum duration PJM requires their transactions to be available for scheduling.

The NYISO does not use express reservations of transmission capacity. Instead transmission service is scheduled in tandem with the scheduling of energy transactions as part of the NYISO's centralized, bid-based, economic dispatch algorithms. Since the NYISO first commenced operation in 1999, it has economically evaluated and selected External Transactions based on the financial offers Market Participants submit in the New York markets, consistent with its Commission-accepted tariffs. When ATC and ramp are scarce, the NYISO allocates these scarce resources to the entities willing to pay the most to secure them.

Economic evaluation of External Transactions has been a fundamental precept of the NYISO's markets since their inception. Because of this, the software used to perform this function is a core component of the NYISO-administered markets. The NYISO's economic evaluation of External Transaction is incorporated into its Commission-accepted tariffs, and into every major component of the NYISO scheduling, pricing and dispatch software. Changing the method of scheduling External Transactions in New York from an economic evaluation process to physical reservation of ATC and ramp that PJM uses would require years of effort and tens of millions of dollars to accomplish. It would also eliminate a market feature that provides substantial benefits to customers in New York.

The NYISO's economic evaluation of External Transactions has repeatedly been found by the Commission to be appropriate for the New York region and just and reasonable. If and to the extent that the March 15 Order directed the NYISO to change its markets to eliminate its economic evaluation of external transactions and use physical transmission reservations, the Commission erred because it did not articulate a reasoned basis for such a directive.³³ Further, such a compliance directive would be beyond the scope of the issues raised and the tariff modifications proposed³⁴ in this proceeding. Therefore, the March 15 Order is arbitrary and capricious and must be reversed on rehearing.

b. The NYISO uses Path Validation and PJM uses NERC E-Tag Source and Sink

PJM uses the source control area and sink control area on the NERC e-tag to determine how to settle each External Transaction. External Transactions that are all scheduled at the same proxy bus, at the same time, may not all receive the same settlement price if they have differing sources and sinks. The NYISO's understanding is that PJM's market is designed to tolerate a degree of divergence between the path over which a transaction is scheduled, and the path over which a transaction is assumed to flow for pricing purposes. The source-sink pricing that PJM applies in its settlement process is intended to ensure that PJM's market participants will make efficient use of the transfer capability and ramp reservations they obtain.

The NYISO markets do not rely on express physical reservations of ATC and ramp, but rather utilize implicit transmission reservations. In order for the NYISO to be able to perform an

³³ See, e.g., *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (An agency "must examine the relevant data and articulate a satisfactory explanation for its action").

³⁴ See, e.g., *City of Winnfield, La. v FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984) (finding that under Section 205(e) the Commission cannot "institute any change in a rate-making component ... that does not represent at least partial approval of the change for which the enterprise had petitioned in its filing") (internal citations omitted)).

economic evaluation that compares competing offers and to develop *ex ante* prices, the NYISO must identify which set of External Transactions are eligible to compete to use the available ATC and ramp resources at each of its interfaces before the eligible transactions can be economically evaluated and scheduled. The NYISO must determine which External Transactions are eligible to be scheduled at an interface before it performs its economic evaluation of the associated offers/bids to ensure it is evaluating External Transactions with similar network impacts on a comparable basis.

The NYISO determines *ex ante* LBMPs at its Proxy Generator Buses consistent with the NERC e-tag evaluation performed by its offer/bid validation software. This, coupled with the NYISO's implementation of the circuitous path scheduling prohibition (which is also implemented in the NYISO's offer/bid validation software), provides strong safeguards to ensure the reliable operation of the interconnected transmission system. For example, the NYISO's circuitous path scheduling prohibition helps ensure that the power flow expectations that PJM uses to develop its interface prices (*e.g.*, the Roseton/Dunkirk proxy bus weighting that PJM uses to price transactions that are scheduled directly with the NYISO) remain accurate and appropriate.

In Dr. Patton's *Talking Points for Technical Conference on NYISO Proxy Bus Pricing* (submitted in this Docket on Dr. Patton's behalf by the NYISO on April 10, 2012), Dr. Patton explained why it is appropriate for the NYISO to continue to use its bid validation software:

[E]ven though the pricing may be based on the scheduled source/sink, the scheduled path cannot reasonably be ignored for two reasons. First, the RTOs must still manage external interface and ramp capability, which is affected by the path over which the transaction is scheduled. Second, Phase Angle Regulators ("PARS") can cause the expected power flows associated with two transactions with identical sources and sinks, but different paths, to be very different. Hence, the NYISO's path validation is reasonable and does not conflict with source/sink proxy bus pricing. Removing it would not provide any economic benefit.

The NYISO's path validation process is designed to ensure that transactions are scheduled directly, similar to the economic incentives provided by PJM's source-sink pricing. Because the NYISO economically evaluates transactions to determine which transactions to schedule, the NYISO cannot wait until settlement occurs to ensure consistency between schedules and prices. The NYISO's path validation process is well adapted to the NYISO's market design and the Commission should accept its continued use as a reasonable method of conforming interface schedules and prices.

3. The Commission Failed to Articulate a Reasoned Basis for its Directive that the NYISO Alter its Existing Market Design in a Manner that Would Affect Interfaces and Transactions Not at Issue in this Proceeding and Jeopardize a Broadly Supported Proposal to Address External Transaction Issues Between the NYISO and ISO-NE

The March 15 Order fails to articulate a reasoned juncture between the facts considered and the decision made,³⁵ especially as it relates to the Order's directive requiring the NYISO to change the method it uses to price External Transactions at "all interfaces."³⁶ The Commission does not articulate a basis for its directive that requires the NYISO to alter its existing market design in a manner that would affect: (1) proposals submitted in other proceedings to address issues with External Transactions between the NYISO and ISO-NE; and (2) External Transactions that are scheduled over tightly controlled interfaces that are not significantly affected by the loop flow issues addressed in this proceeding.

³⁵ See *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1982) (An agency must show a "rational connection between the facts found and the choices made"); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (An agency "must examine the relevant data and articulate a satisfactory explanation for its action"); *City of Charlottesville, Va. v. FERC*, 661 F. 2d 945, 947 (D.C. Cir. 1981) (stating that the Commission must have "factual support" for its orders); see also Attached Affidavit of Dr. David B. Patton.

³⁶ March 15 Order at P 25.

The March 15 Order's directive would adversely impact other proceedings where the NYISO proposed tariff modifications to address issues with External Transactions between itself and a neighboring ISO. The Coordinated Transaction Scheduling tariff provisions recently filed by the NYISO and ISO-New England³⁷ address price disparities between the regions by improving "the efficiency of Energy trading across the external Interfaces for which it is implemented." Those tariff modifications are premised on the NYISO's and ISO-New England's mutual understanding and agreement regarding how External Transactions at the New York/New England border will be scheduled and priced. They enjoy broad support from stakeholders in both regions. The March 15 Order, however, could require fundamental market design changes that would alter the basis for the CTS provisions for no benefit and without reasoned explanation. The March 15 Order does not explain why a pricing and scheduling construct that has been mutually agreed to by the NYISO and ISO New England is not an appropriate method of developing prices at the New York/New England border.

Additionally, the Commission has failed to articulate a reasoned basis for requiring the modification of the pricing method for transactions for which unscheduled flows are not an issue. For example, the changes directed in the March 15 Order would require the modification of the pricing method used for controlled facilities, such as the NYISO's DC interconnection with Hydro Quebec, and the NYISO's Scheduled Lines (*i.e.*, Cross-Sound Cable, Neptune, Linden VFT, Dennison, Northport-Norwalk). The NYISO's Non-Conforming Scheduling Mode treats these injection/withdrawal points like generators or loads. It would not be appropriate for the Commission to require the NYISO to modify the pricing method used at these locations to reflect

³⁷ See *Proposed Tariff Amendments to Add External Coordinated Transaction Scheduling Market Rules and Request for Waiver* at 1, Docket No. ER12-701-000 (filed December 28, 2011) (proposed NYISO tariff revisions) and *Market Rule 1 Revisions Relating to Coordinated Transaction Scheduling*, Docket No. ER12-1155-000 (filed February 24, 2012) (proposed ISO New England tariff revisions).

additional unscheduled power flows, because they are controlled facilities that are only minimally affected by unscheduled loop flows.

The NYISO's Interface Pricing Proposal, particularly the Non-Conforming Scheduling Mode, will achieve all of the objectives of the Commission's Prior Orders and is a just and reasonable proposal. It allows the NYISO to address the issues raised by Lake Erie loop flow in a manner consistent with its existing market design, without having adverse effect on tariff proposals filed in other proceedings or on facilities that are not, or are only minimally, affected by Lake Erie loop flow.

C. To the Extent that the Commission's March 15 Order Rejected the NYISO's Interface Pricing Proposal and Directed the NYISO to Revise its Interface Pricing Rules to Adopt PJM's Method it Is Arbitrary and Capricious and Does Not Reflect Reasoned Decision Making Because it Does Not Adequately Explain the Reasoning Behind the Commission's Departure from its Prior Orders in this Proceeding

1. The NYISO's Prior Filings in this Proceeding Clearly Explained the Interface Pricing Proposal

All of the NYISO's previous filings in this proceeding included clear descriptions of how the Interface Pricing Proposal would be implemented. Most significantly, they explained that the Interface Pricing Proposal would be implemented within the framework of the NYISO's existing Commission-approved market design. The January 2010 Filing explained that "the Midwest ISO, PJM Interconnection and the NYISO have agreed to implement *comparable* interface pricing methods at their common borders."³⁸ The proposals were designed "in such a manner that they can be *incorporated into the various ISOs and RTOs respective market designs*

³⁸ *Report on Broader Regional Markets; Long-Term Solutions to Lake Erie Loop Flow* at 11, Docket No. ER08-1281-004 (filed January 12, 2010) ("January 2010 Filing") (emphasis added).

*without the need for fundamental changes to the rules that underlie the various interconnected markets.”*³⁹

Further, the NYISO explained, in its January 2011 Request, that its Interface Pricing Proposal would “ensure that the jurisdictional ISOs and RTOs around Lake Erie use *similar* methods to price interregional transactions, so that differences in pricing methods do not create ‘seams’ that can be exploited.”⁴⁰ The January 2011 Request clearly explained that the Interface Pricing method that the NYISO was proposing would include “Conforming” and “Non-Conforming” Scheduling modes. Specifically, the NYISO stated:

If the Ontario/Michigan PARs are effective in conforming actual power flows to scheduled power flows at the Ontario/Michigan border, then the NYISO believes it will be necessary to have two distinct sets of pricing rules. One set of pricing rules that will apply when the Ontario/Michigan PARs are effective in conforming actual power flows to scheduled power flows, and a different set of pricing rules that will apply when the Ontario/Michigan PARs are not effective in conforming actual power flows to scheduled power flows.⁴¹

The NYISO’s Interface Pricing Proposal complies with the Prior Orders. It will make the NYISO’s interface pricing similar to PJM’s and will produce comparable prices. The NYISO’s Interface Pricing Proposal, particularly the “Non-Conforming” Scheduling mode,⁴² achieves the objective of the Prior Orders, and the goal that the parties’ worked toward in this proceeding, *i.e.*, to implement similar interface pricing methods, that would work within existing market designs.

³⁹ January 2010 Filing at Attachment A - *Broader Regional Markets, Long-Term Solutions to Lake Erie Loop Flow White Paper* at 4 (emphasis added).

⁴⁰ January 2011 Request at 3 (emphasis added).

⁴¹ *Id.*

⁴² The “Non-Conforming” mode: (1) recognizes and accounts for (for purposes of both pricing and scheduling) the expected loop flow impacts of transactions scheduled at its IESO (Bruce) and PJM (Keystone) Proxy Generator Buses; (2) recognizes the loop flow impacts of internal New York Control Area (“NYCA”) generation dispatch to serve NYCA load; and (3) achieves these results by modeling the Ontario/Michigan interface as an uncontrolled/free-flowing A/C transmission path, like PJM and MISO currently do. See *Motion for Leave to Respond and Response of the New York Independent System Operator, Inc.* at 8, Docket Nos. ER08-1281-005, 006, 007, 010 (filed January 27, 2012).

The Commission had many opportunities to direct changes to the Interface Pricing method that the NYISO proposed. Instead, the Commission accepted the NYISO's proposal, without giving any indication that it was flawed, even commending the parties for their efforts.⁴³

2. The Prior Orders Accepted the NYISO's Interface Pricing Proposal

The March 15 Order errs to the extent that Paragraphs 21 and 25 would require the NYISO to adopt "an interface pricing methodology consistent with PJM's methodology ... for all interface transactions," as that directive contravenes the Prior Orders. Contrary to the March 15 Order's reading of the Prior Orders, they required that the NYISO implement its Interface Pricing Proposal.

The July 2010 Order at Paragraph 14 expressed the Commission's understanding that the NYISO proposed to develop and implement "interface pricing revisions to address existing seams between markets that tend to exacerbate loop flows" and that "efficient and compatible interface proxy bus prices will improve the interconnected markets' ability to efficiently transfer power within the four ISO/RTO regions." The July 2010 Order commended the NYISO and other entities with which it "collaborated in developing the recommendations and proposals outlined in the NYISO Report" agreeing "that these planned regional initiatives, taken as a whole, appear to represent a constructive, workable framework for minimizing the occurrence of Lake Erie region loop flow" listing each proposal, including the Interface Pricing Proposal.⁴⁴

In its December 2010 Order the Commission stated that the changes contemplated in the Interface Pricing Proposal "may reduce the incentives for scheduling these transactions" acknowledging that "interface pricing reform and congestion management/market-to-market coordination can address and resolve many of the price incentives that create loop flow related

⁴³July 2010 Order at P 40.

⁴⁴ *Id.* at P 40.

concerns” and directed implementation of the Interface Pricing Proposal and related revisions “concurrently for the Commission-jurisdictional RTO/ISOs.”⁴⁵

The January 2011 Request, explained that the NYISO intended to achieve compliance with the December 2010 Order through implementation of Interface Pricing using the two pricing rules (*i.e.*, the “Conforming” and “Non-Conforming” methods) approach that was later described in the December 2012 Filing. The July 2011 Order did not state that it was rejecting the proposal, comment on the NYISO’s Interface Pricing Proposal, or direct any modifications. Instead, the July 2011 Order adopted the NYISO’s explanation of its Interface Pricing Proposal, stating:

Interface Pricing: the NYISO Report recommended the development and implementation of Interface Pricing revisions to address existing seams between markets that tend to exacerbate loop flows, an initiative that would require that the ISOs and RTOs around Lake Erie use *similar* methods to price interregional transactions, with one set of pricing rules applicable when the Ontario/Michigan PARs are effective in conforming power flows to scheduled power flows, and a different set of pricing rules applicable when the Ontario/Michigan PARs are not effective in conforming actual power flows to scheduled power flows...⁴⁶

The July 2011 Order also characterized the December 2010 Order’s compliance directive with respect to Interface Pricing as follows: “The Commission directed the NYISO to prioritize Interface Pricing and Market-to-Market initiatives to address and resolve the price incentives that exacerbate Lake Erie loop flow.”⁴⁷ Further, the July 2011 Order provided the NYISO with additional time to implement the Interface Pricing Proposal, based on the NYISO’s request. The NYISO’s January 2011 Request explained that “the PJM and New York markets operate on

⁴⁵ December 2010 Order at PP 27, 30-31.

⁴⁶ July 2010 Order at P 3 (emphasis added).

⁴⁷ *Id.* at P 6.

fundamentally different market platforms” thus “the assumption that PJM software can readily be adapted for use by the NYISO is not credible.”⁴⁸

Further, the Commission’s directives with respect to the other proposal at issue in the July 2011 Order (*i.e.*, the Market-to-Market Coordination initiative), clearly show that the Prior Orders did not limit the NYISO’s discretion or direct compliance modifications to the Interface Pricing Proposal. Paragraph 16 of the July 2011 Order provided the NYISO with extensive guidance on how it should modify the Market-to-Market Coordination initiative, clearly stating particular directives and how compliance with those directives could be achieved.⁴⁹ Had Commission intended to require modifications to the NYISO’s Interface Pricing Proposal in its July 2011 Order, the Commission would have included directives to that effect in the order. The July 2011 Order adopted the NYISO’s explanation of its Interface Pricing Proposal without comment and without directing changes. The only compliance directive on the Interface Pricing Proposal in the July 2011 Order was the Commission’s acceptance of the time frame proposed by the NYISO.

Except for isolated references to assertions by the PJM MMU regarding a method that “has been used by PJM and the Midwest ISO for years”⁵⁰ and that “the Commission [should] require immediate correction to interface pricing at the NYISO’s interfaces ... to reflect the

⁴⁸ *Id.* at P 11.

⁴⁹ *Id.* at P 16 (stating that “we want to be clear that in the December 30, 2010 Order, we did not intend to direct the NYISO to develop and use its own market flow tool, nor did we intend to direct the NYISO to abandon the NERC parallel flow visualization tool. In the December 30, 2010 Order, the Commission concluded that the NYISO should not delay implementation of the Market-to-Market Coordination initiative to wait for the NERC parallel flow visualization tool to be completed. While in this order we direct the NYISO to achieve Market-to-Market coordination with PJM in accordance with the schedule the NYISO has proposed, it may, but is not required to, develop and use an alternate tool of its own design in the interim to achieve that coordination. Nonetheless, we also expect the NYISO to continue to work within the NERC process to expeditiously pursue finalization of the NERC parallel flow visualization tool, and to use that tool once it is developed.”).

⁵⁰ December 2010 Order at P 31.

actual flow of energy”⁵¹ there was nothing in the Prior Orders that even mentioned an obligation to adopt PJM’s interface pricing method. Rather, consistent with the Interface Pricing Proposal, the Prior Orders directed, the modification of the NYISO’s interface pricing rules to be more consistent with PJM’s method, but in a manner that would fit within the NYISO’s existing Commission-approved market design.

The March 15 Order’s alteration of the meaning of those Prior Orders based on assertions that the NYISO never presented its Interface Pricing Proposal and the Prior Orders did not factor the NYISO’s explanations into their analysis⁵² are clearly erroneous. The NYISO described and explained its Interface Pricing Proposal and the Commission considered it, as evidenced by the Commission’s summary of the Interface Pricing Proposal in the July 2011 Order.⁵³ The March 15 Order dramatically alters the requirements of the Prior Orders, in a manner that the NYISO could not have anticipated, is arbitrary and capricious and does not reflect reasoned decision making.

The March 15 Order’s reinterpretation of the Prior Orders is especially unreasonable because compelling the NYISO to adopt PJM’s interface pricing method would essentially require that the NYISO replace accepted New York market rules with components of PJM’s market design. Imposing this requirement would force the NYISO to make extensive changes to its existing tariffs and rules. As explained in Section V.B.2 above, the necessary changes would be prohibitively expensive, would require years of effort to complete, and would necessarily displace other projects that the NYISO is working on to improve its markets. There was nothing in the Prior Orders suggesting that the Commission intended to impose such a requirement. The

⁵¹ July 2010 Order at P 29.

⁵² March 15 Order at P 20.

⁵³ July 2011 Order at P 3.

March 15 Order's attempt to retroactively revise the Prior Orders is unsupported and untenable, and must be reversed on rehearing.

3. The Deadlines for the NYISO to Make Modifications that Were Established by Prior Orders Clearly Indicate that the NYISO Was Expected to Implement an Interface Pricing Proposal that Fit Within the Framework of its Existing Market Design

The Prior Orders directed the NYISO to develop a proposal that would achieve the Commission's objectives, in a time frame that indicated that such changes must, necessarily, fit within the framework of the NYISO's existing Commission-approved market design. The December 2010 Order provided the NYISO with six months to make the modifications needed to implement modified interface pricing rules.⁵⁴ In response to the NYISO's request that additional time be provided, the Commission gave the NYISO an additional six months for implementation of Interface Pricing.

If the Prior Orders had intended that the NYISO adopt significant elements of PJM's market design, which, as is discussed in Section V.B.2, would require fundamental market design changes, the Commission's compliance deadlines would have been unachievable. These changes would go far beyond the limited scope of interface pricing improvements that were the subject of these proceedings and which the Commission characterized as being changes that could be "implemented immediately and a minimal cost."⁵⁵

The compliance periods determined in the Prior Orders are reasonable when evaluated against the compliance directives that the Commission actually established: *i.e.*, implementation of the NYISO's Interface Pricing Proposal. The NYISO could not have anticipated that the Prior Orders would be reinterpreted in the March 15 Order to require the NYISO to complete a

⁵⁴ *New York Independent System Operator, Inc.*, 133 FERC ¶ 61,276 at PP 30-31 (2010).

⁵⁵ December 2010 Order at P 27.

fundamental re-design of major components of its market within the relatively limited time frames specified in the Prior Orders. Further, the interpretation espoused in the March 15 Order contravenes the Prior Orders' clear directives allowing the NYISO discretion to implement and formulate its Interface Pricing Proposal.⁵⁶ The March 15 Order must be reversed on rehearing.

D. The March 15 Order Is Arbitrary and Capricious and Does Not Reflect Reasoned Decision Making to the Extent that it Suggests that the NYISO Should have Sought Clarification or Rehearing of Prior Orders that Were Clear and that Could Not Have Reasonably Been Read at the Time to Impose Impossible Requirements on the NYISO

The March 15 Order erred to the extent that it found that the NYISO should have sought rehearing, or clarification of the directives in the Prior Orders in this proceeding addressing the NYISO's Interface Pricing Proposal. As explained in Section V.B.2, the Prior Orders accepted the NYISO Interface Pricing Proposal, subject to minor conditions. Specifically, Paragraph 27 of the December 2010 Order stated that:

PJM and Midwest ISO use NERC tag information regarding the source and sink of a transaction to determine the price the transaction receives or pays. In contrast, the NYISO and IESO base the price on the path over which the external transaction is scheduled into their respective control areas. The NYISO acknowledges that this difference creates incentives for market participants to schedule circuitous transactions which can exacerbate loop flow. The NYISO's comments indicate that a change to their pricing methodology may reduce the incentives for scheduling these transactions, and has agreed to evaluate what changes are necessary.

Based on the Prior Orders, the NYISO understood the Commission's directives as requiring it to implement changes that would improve price convergence between it, PJM and MISO. The Compliance Notice, therefore, explained the method the NYISO developed to improve price convergence. A significant component of the NYISO's solution is "a Scheduling Mode that

⁵⁶ See December 2010 Order at PP 30-31; July 2010 Order at P 15.

anticipates and accounts for the expected deviation between actual and scheduled power flows.⁵⁷

This “Non-Conforming” Mode computes all generator, load and proxy generator bus shift factors, and delivery factors to reflect expected deviation of scheduled flows from corresponding contract paths.⁵⁸ Consistent with the Commission’s directive, the “Non-Conforming” Mode improves price convergence, yielding “pricing results that are similar to the results produced by the external interface pricing methods that ... PJM and the MISO currently employ.”⁵⁹

However, the March 15 Order suggests that the compliance directive in the December 2010 Order somehow required the NYISO to adopt “an interface pricing methodology consistent with PJM’s methodology”⁶⁰ that would necessitate fundamental changes to the NYISO’s existing market design. To the extent that the March 15 Order imposes an Actual Energy Flow Requirement, or a requirement that the NYISO adopt PJM’s actual interface pricing rules without accounting for differences between the PJM and NYISO’s market design, it attempts to substantially modify the holdings of the Prior Orders.

The March 15 Order also errs to the extent that it implies that the NYISO should have sought clarification or rehearing of the Prior Orders at the time that they were issued. The Commission is not allowed to reinterpret its Prior Orders in a manner that radically changes their directives without providing an opportunity for further review. The United States Court of Appeals for the District of Columbia Circuit has held that the Federal Power Commission’s (“FPC”) denial of a rehearing request as untimely was improper where the FPC had issued an order interpreting a prior order in an unexpected manner. The court held that allowing such a

⁵⁷ Compliance Notice at 3.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ March 15 Order at P 21.

denial to stand “would permit an administrative agency to enter an ambiguous or obscure order, willfully or otherwise, wait out the required time, then enter an ‘explanatory’ order that would extinguish the review rights of parties prejudicially affected.”⁶¹

The Prior Orders accepted the NYISO’s Interface Pricing Proposal. The Commission cannot retroactively reject the compliance proposals that the NYISO described to the Commission on at least two occasions, and the subsequently direct the adoption of a method that would require fundamental market design changes,⁶² without affording the NYISO an opportunity to seek rehearing. Additionally, the same court has stated that review is appropriate where “an order is not final because it leaves an issue contingent on subsequent compliance proceedings.”⁶³ Footnote 23 of the March 15 Order is therefore invalid to the extent that it is intended to limit the NYISO’s rights to seek rehearing.

E. The Commission’s Directives Requiring Modifications to Elements of the NYISO’s Existing Commission-Approved Market Design that Were Not the Subject of the NYISO’s Section 205 FPA filing in this Proceeding Are Unlawful, Because the Commission failed to Find the Existing Tariff

⁶¹ *Sam Rayburn Dam Elec. Coop. v. Fed. Power Comm’n*, 515 F.2d 998, 1007 (D.C.Cir.1975); see also *East Texas Elec. Co-op, Inc. v. FERC*, 218 F. 3d 750, 754-755 (D.C. Cir. 2000) (stating that “[w]e have consistently rejected agency efforts to bind parties ‘by what the agency intended, but failed to communicate. ...’”, stating that “an agency order must provide reasonable notice of its import” (internal citations omitted).

⁶² *Dominion Resources, Inc. v. FERC*, 286 F.3d 586, 589-90 (D.C. Cir. 2002) (finding that the order is a modification and thus reviewable where a reasonable party in that position could not have perceived that there was “a very substantial risk” that the prior order would be interpreted in the manner that the subsequent order interpreted it”); see also *LPSC v. FERC*, 482 F.3d 510, 517-18 (D.C. Cir. 2007) (finding that petitioner could seek rehearing of an order which interpreted prior orders in such a way that it was not obvious to the petitioner, until issuance of that order, that review would be necessary). See also *Edison Mission Energy, Inc. v. FERC*, 394 F.3d 964, 968 (D.C. Cir. 2005) (finding that an entity was not barred from challenging Commission orders representing modification of prior orders in a proceeding that the entity did not challenge, where the new orders obviously increased the likely harm to such entity); see also, *Competitive Telecommunications Ass’n v. FCC*, 309 F.3d 8, 11-12 (D.C. Cir. 2002) (finding that where an subsequent order on clarification “radically changed” the directives in prior orders an entity could challenge the subsequent order which interpreted a rule in a way that could not have been originally anticipated).

⁶³ *Pacific Gas and Elec. Co. v. FERC*, 533 F.3d 820, n.1 (D.C. Cir. 2008).

Provisions (or the Market Design they Implement) to Be Unjust and Unreasonable Pursuant to Section 206 of the FPA

The Commission cannot lawfully require the NYISO to implement an Actual Energy Flow Requirement or PJM's market design because that would require the NYISO to involuntarily change numerous other previously accepted tariff provisions without a finding that they are unjust and unreasonable pursuant to FPA section 206. This proceeding was initiated as a section 205 filing on behalf of the NYISO to address loop flow issues in the Lake Erie region, a fact that is acknowledged in the first two paragraphs of the March 15 Order. Nothing in the NYISO's proposals to address the issues raised in this proceeding, including the tariff provisions accepted by the Commission which implemented scheduling path prohibitions,⁶⁴ acquiesced to the implementation of the fundamental market design changes described above.

In *Atlantic City Elec. Co. v. FERC*, the United States Court of Appeals for the District of Columbia Circuit has found that where the Commission wishes to require involuntary changes to accepted tariff provisions, that the public utility is not seeking to change on its own initiative under section 205 of the FPA, it must find those existing and accepted provisions unjust and unreasonable pursuant to section 206.⁶⁵ Section 205 of the FPA only empowers the Commission

⁶⁴ See *New York Independent System Operator, Inc.*, 124 FERC ¶ 61,174 (2008) (accepting tariff provisions to implement scheduling path prohibitions on a temporary basis) and *New York Independent System Operator, Inc.*, 125 FERC ¶ 61,184 (2008) (accepting tariff provisions to implement scheduling path prohibitions on a permanent basis).

⁶⁵ See, e.g., *Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 9-10 (D.C. Cir. 2002) (stating that "in order to make any change in an existing rate or practice, FERC must first prove that the existing rates or practices are 'unjust, unreasonable, unduly discriminatory or preferential'. Then FERC must show that its proposed changes are just and reasonable. ... The courts have repeatedly held that FERC has no power to force public utilities to file particular rates unless it first finds the existing filed rates unlawful. ... [T]he very thing that the statute was designed to protect ... [is] the ability of the utility owner to 'set the rates it will charge prospective customers, and change them at will,' subject to review by the Commission." (internal citations omitted)); *City of Winnfield, La. v. FERC*, 744 F.2d 871, 876 (D.C. Cir. 1984) (finding that under Section 205(e) the Commission cannot "institute any change in a rate-making component ... that does not represent at least partial approval of the change for which the enterprise had petitioned in its filing. If the Commission seeks to make such changes, it has no alternative save compliance with the

to review voluntarily proposed changes to the rates, charges, classification or services filed by public utilities. If the Commission wants to order changes to previously approved rates that were not proposed to be modified in the section 205 filing, the Commission must find those approved rates to be unjust and unreasonable under section 206 of the FPA.⁶⁶

As explained in above in Section V.C.1, the NYISO's prior filings clearly set forth the modifications that the NYISO was proposing to make to address the issues raised by its July 2008 Filing, namely its Interface Pricing Proposal. That proposal was formulated because it could be implemented: (i) in the time frames contemplated by the Prior Orders; (ii) within the framework of the NYISO's existing Commission-approved market design; and (iii) in a manner that effectively addressed Lake Erie loop flow issues. The NYISO did not contemplate, and could not have contemplated based on the Prior Orders, that the March 15 Order would require

strictures of ... [section] 206(a)" and noting that this "principle applies to an attempt by the agency to impose under § 205 a sort of rate which the utility (as opposed to one of its customers) does not desire. For in that circumstance the agency is effectively using § 205, which is intended for the benefit of the utility — i.e., as a means of enabling it to increase its rates within what was been called the 'zone of reasonableness,' — for the quite different purpose of depriving the utility of the statutory protection contained § 206, that its existing rates be found to be entirely outside the zone of reasonableness before the agency can dictate their level or form." (internal citations omitted)); *see also*, *Public Serv. Com'n of State of NY v. FERC*, 866 F.2d 487, 488 (D.C. Cir. 1989) (explaining that under § 4 of the NGA the "company has the burden of showing that the proposed rates are just and reasonable, while under § 5 the Commission must show that the rates it would alter are not just and reasonable, and that the ones it seeks to impose are. The unifying principle is that the proponent of the change bears the burden"); *Sea Robin Pipeline Co. v. FERC*, 795 F.2d 182, 183 (D.C. Cir. 1986) (finding that where FERC sought to change a set of rates not directly affected by the filing the court held that FERC must show the existing rate to be unjust and unreasonable, stating that "The Commission is not free to blend, or pick and choose at will between its section 4 and 5 authority; FERC must use the appropriate authorization in the appropriate way in order to remain within the bounds Congress has set for the agency."); *ANR Pipeline Pipeline Co. v. FERC*, 771 F.2d 507, 514 (D.C. Cir. 1985) (finding that where FERC was seeking to change an existing rate that the company did not seek to alter it had to "find the existing provision is unjust and unreasonable").

⁶⁶ *See, e.g., Papago Tribal Utility Authority v. FERC*, 723 F.2d 950, 952-953 (D.C. Cir. 1983) (explaining that "the Federal Power Act provides two routes for changing electricity rates: The seller may initiate rate changes under § 205 of the Act, by filing a new schedule, which is subject to Commission review for justness and reasonableness ... and the Commission itself may initiate rate changes (usually, of course, upon application of one of the parties to the contract) under § 206, but only upon finding that the existing rates are unjust, unreasonable, unduly discriminatory or preferential.").

changes to elements of the NYISO's market design that the NYISO never proposed, intended or expected to modify in order to address the issues raised in the July 2008 Filing. The NYISO's understanding was consistent with the Commission's statement that the compliance obligation it was imposing "could be implemented by other RTOs/ISOs at minimal cost."⁶⁷

The Commission does not have the authority under Section 205 to require the adoption of an Actual Energy Flow Requirement or significant elements of PJM's market design. The NYISO's compliance filing submittals did not waive the NYISO's statutory rights or empower the Commission to impose involuntary changes to elements of the NYISO's tariffs and Commission-approved market design that are outside the scope of the July 2008 Filing.

Further, the Commission has not met its burden under FPA section 206. If and to the extent the March 15 Order purports to require fundamental changes to the NYISO's market design, it must be reversed because it is directing changes to existing tariff provisions based only on unsupported, inaccurate statements by Monitoring Analytics that PJM's system uses an interface pricing method that provides:

a dynamic, real-time approach to defining and modifying the interface definitions, which reflect the actual flows on the PJM ... [system] resulting from generation sources at their actual locations serving loads at their actual locations, as appropriate whether the PARs are operational or not and whether scheduled flows equal actual flows [or not].⁶⁸

As explained in Section V.B.2 above, and confirmed by the Patton Affidavit, Monitoring Analytics' reference to "actual flows" is intended to refer to "an approximation of the *expected* power flows associated with a schedule, not the actual power flows determined after-the-fact

⁶⁷ December 2010 Order at P 31.

⁶⁸ *Protest of the Independent Market Monitor for PJM* at 5, Docket Nos. ER08-1281-005, 006, 007, and 010 (filed January 12, 2012).

based on the specific locations where power was actually injected and withdrawn”⁶⁹ Thus, the Commission directive that the NYISO adopt an Actual Energy Flow Requirement is incorrect, as PJM’s system does not utilize such a method and adoption of such a method for all interfaces would reduce the consistency between the NYISO and PJM interface pricing methods. There is no reasonable basis for the Commission to determine that the fact that the NYISO’s tariffs do not incorporate an Actual Energy Flow Requirement makes the NYISO’s tariffs “unjust and unreasonable” under section 206.

A Commission directive that the NYISO make involuntary changes to its filed Tariffs in order to adopt significant elements of PJM’s market design would similarly require the Commission to first determine that the NYISO’s existing Commission-accepted, tariff provisions are unjust and unreasonable. The Commission has not made such a determination. The March 15 Order must therefore be reversed on rehearing.

F. The March 15 Order is an Unexplained Departure from the Commission’s Well-Established Policy of Allowing Different Regions to Adopt Market Designs that Best Serve their Regional Needs

A directive that the NYISO adopt an Actual Energy Flow Requirement or significant elements of PJM’s market design would require it to alter its Commission-approved market design, which has been carefully structured to address New York’s unique regional circumstances, to conform it to PJM’s market design (or to an inaccurate portrayal of PJM’s market design). This directive is an unexplained departure from the Commission’s policy allowing the development, and adoption, of regionally appropriate market designs. The Commission has issued numerous orders rejecting the imposition of “one-size-fits-all” market

⁶⁹ Patton Affidavit at P 10.

solutions. It has consistently recognized that market designs can, and should, be tailored to accommodate the needs of individual regions.

The Commission most recently affirmed these principles in its Orders No. 719 and 1000. In Order No. 719, the Commission articulated its policy that it “recognize[s] and respect[s]” that “[s]ignificant differences exist between regions” and allowed for the development of changes that met the Commission’s goals while preserving the diversity of the solutions.⁷⁰ Similarly, Order No. 1000 directed changes to regional transmission planning, but emphasized the development of solutions that were appropriate on a regional basis.⁷¹ Because the March 15 Order’s directive seeks to, without regard to regional variation, impose interface pricing rules on the NYISO that are not consistent with elements of the NYISO’s Commission-accepted market design, it contravenes the Commission’s long-standing policy and must be reversed on rehearing.

VI. REQUEST TO DEFER CONSIDERATION OF REHEARING REQUEST

The NYISO is prepared and able to comply with Paragraph 23 of the March 15 Order by making tariff modifications to implement its Interface Pricing Proposal. Specifically, the NYISO will propose compliance modifications to address the directive that it alter “certain elements of the methodology” it has outlined, “namely, the Conforming Mode, which relies on NYISO’s status quo pricing and scheduling policy” to the extent they are “inconsistent with the PJM

⁷⁰ *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Statutes and Regulations ¶31,281 at P 9 (2008), *order on reh’g*, Order No. 719-A, FERC Statutes and Regulations ¶31,292 (2009), *order on reh’g*, Order No. 719-B, 129 FERC ¶61,252 (2009).

⁷¹ *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 76 Fed. Reg. 49,842 at P 745 (Aug. 11, 2011), FERC Stats. & Regs. ¶31,323 (2011) (explaining that it intended for its cost allocation principles to “afford public utility transmission providers in individual transmission planning regions the flexibility needed to accommodate unique regional characteristics.”). *See also Remediating Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*, 112 FERC ¶ 61,073 (2005) (terminating the Standard Market Design proceeding indicating that it had been “overtaken by events” including the fact that “interested parties, through region-specific proceedings, [had taken steps] to shape the development of independent entities to reflect the needs of each particular region.”).

methodology.”⁷² The NYISO has also requested that a technical conference be scheduled to permit it to seek guidance from Commission Staff regarding possible additional tariff revisions that might satisfy the Commission’s expectations. However, as discussed above, Paragraphs 21 and 25 of the March 15 Order could be read to direct the NYISO to adopt an Actual Energy Flow Requirement or elements of PJM’s market design that would require the NYISO to abandon its economic evaluation of External Transactions.

The NYISO respectfully requests that the Commission defer action on this rehearing request until after it considers and rules on the NYISO’s upcoming compliance filing. The NYISO will withdraw this rehearing request if the Commission accepts the NYISO’s compliance filing without imposing significant additional or new compliance obligations.

VII. CONCLUSION

WHEREFORE, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission grant rehearing, or in the alternative clarification, of the March 15 Order as specified above.

Respectfully Submitted,

/s/Ted J. Murphy

Ted J. Murphy

Counsel to the

New York Independent System Operator, Inc.

April 16, 2012

⁷² March 15 Order at P 23.

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing document to be served on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, DC, this 16th day of April, 2012.

/s/Ted J. Murphy

Ted J. Murphy
Hunton & Williams LLP
2200 Pennsylvania Ave, N.W.
Washington, DC 20037
(202) 955-1500

**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.
2. Potomac Economics is the external Market Monitoring Unit for the New York Independent System Operator, Inc. ("NYISO"), ISO New England, Inc., and the Midwest ISO ("MISO"). In these roles, I am responsible for assessing the competitive performance of the markets administered by these Independent System Operators and Regional Transmission Organizations ("ISOs/RTOs"), including developing and implementing monitoring plans to identify and remedy market design flaws and abuses of market power. I also review and provide recommendations regarding market design and market rules.
3. On numerous occasions over the past twelve years in my work with NYISO I have worked on analyses that required a detailed understanding of the PJM Interconnection,

Potomac Economics study of the loop flow issues around Lake Erie. Additionally, I have monitored and analyzed pricing, scheduling and congestion management in PJM in connection with Potomac Economics responsibilities as the Independent Market Monitor for MISO. An understanding of PJM's pricing, scheduling and congestion is necessary because PJM and the MISO jointly manage congestion on a large number of transmission constraints that affect PJM's and MISO's interconnected transmission systems.

4. I have worked as an energy economist for twenty one years, focusing primarily on the electric utility and natural gas industries. I have provided strategic advice, analysis, and expert testimony in the areas of electric power industry restructuring, pricing, mergers, and market power. I have also advised other existing and prospective RTOs on transmission pricing, market design, and congestion management issues. With regard to competitive analysis, I have provided expert testimony and analysis regarding market power issues in a number of mergers and market-based pricing cases before the Federal Energy Regulatory Commission ("FERC"), state regulatory commissions, and the U.S. Department of Justice.
5. Prior to my experience as a consultant, I served as a Senior Economist in the Office of Economic Policy at the Federal Energy Regulatory Commission, advising the Commission on a variety of policy issues including transmission pricing, open-access and electric utility mergers.
6. Before joining the Commission, I worked on energy policy as an economist for the U.S. Department of Energy. I hold a Ph.D. and M.A. in Economics from George Mason

University and a B.A. in Economics with a minor in Mathematics from New Mexico State University.

7. Monitoring Analytics, LLC is the external Market Monitoring Unit for PJM. I have been asked to submit this testimony in response to an imprecise claim that Monitoring Analytics made in its January 12, 2012 Protest in FERC Docket No. ER08-1281, that the Commission appears to have relied on in its March 15, 2012 *Order on Compliance Filing* (“Order”).¹

8. I have been asked to respond to the following statement by Monitoring Analytics, LLC:

The Market Monitor requests that FERC direct the NYISO to implement an interface pricing method that matches the methods successfully implemented by PJM and MISO. *These methods provide a dynamic, real-time approach to defining and modifying the interface definitions, which reflect the actual flows on the PJM or MISO systems resulting from generation sources at their actual locations serving loads at their actual locations, as appropriate whether the PARs are operational or not and whether scheduled flows equal actual flows [or not].*

Monitoring Analytics January 12, 2012 Protest, at 5. Emphasis added and bracketed language added.

9. I have also been asked to respond to the following statements in the Commission’s Order:

21. ... NYISO is required to submit a further compliance filing that includes an interface pricing methodology consistent with PJM’s methodology, i.e., an interface pricing methodology that uses NERC tag information to determine actual source and sink for a transaction *and calculates prices based on the actual energy flows at all times.*

25. ... Specifically, we direct NYISO to submit detailed tariff provisions specifying a revised pricing methodology for all interface transactions, based on NERC tag information *and actual energy flows*, i.e., consistent with PJM’s methodology, that it proposes to utilize to determine prices...

Order at PP. 21, 25. Emphasis added.

¹ <http://www.ferc.gov/docfile/ER08-1281-0001.pdf>

10. When Monitoring Analytics speaks of “actual flows” it is referring to an approximation of the *expected* power flows associated with a schedule, not the actual power flows determined after-the-fact based on the specific locations where power was actually injected and withdrawn.
11. Transactions in the eastern interconnection are generally scheduled on a control area to control area basis. It is virtually impossible for any RTO to know precisely where power will be injected and withdrawn for a control area to control area transaction. For example, when power is scheduled from PJM to New York, certain generators in PJM will produce more (*i.e.*, the marginal generators) and certain generators in New York will produce less. The locations of these marginal generators and the current topology of the networks in the two areas determine how the power will actually flow. However, the locations of the marginal generators are not known at the time external transactions are scheduled and priced. Furthermore, they can only really be accurately known in retrospect by re-running each ISO’s/RTO’s market model to measure how the dispatch level of each generator would have changed, and how those changes affected transmission constraints on each system.
12. Therefore, in order to incorporate expected power flows into its interface pricing, PJM necessarily makes assumptions about where the power will be injected and withdrawn. For example, I understand that PJM calculates the expected power flows associated with transactions to and from New York based on two electrical nodes in New York. This simplified assumption is not unreasonable, given that PJM cannot know the actual

locations of the marginal generators associated with imports from or exports to New York. In fact, the

true source and sink locations can change on a five-minute basis, which could cause erratic changes in the interface prices were PJM to actually know the location of the marginal resources in New York and use them to calculate the interface prices.

Therefore, while PJM's *ex post* pricing uses the actual output of internal PJM generators to determine LMPs at those generators' locations, it does not incorporate comparable information on actual flows associated with external schedules.

13. Nonetheless, the Commission's principle of setting interface prices consistent with how the power will actually flow remains sound. Since actual flows associated with an external transaction cannot be known at the time the external transaction is scheduled and priced, ISOs and RTOs all make assumptions about how power is expected to flow, and set prices consistent with those assumptions.
14. Monitoring Analytics' statement that PJM's interface definitions dynamically reflect "generation sources at their actual locations serving loads at their actual locations" appears to have been similarly misunderstood. PJM uses representative generator locations in other Control Areas to estimate the expected power flows that will result from external transactions to or from those Control Areas. In addition, PJM recognizes the lack of precision in using these estimates to set interface prices in that it sets the interface price for many different Control Areas to a common price or common set of prices.²
15. This concludes my affidavit.

² See PJM Pricing Point Guide: Mapping of External Balancing Authorities to Interface Pricing Points,

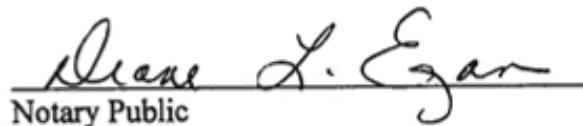
ATTESTATION

I am the witness identified in the foregoing Affidavit of David B. Patton, Ph.D. dated April 16, 2012 (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
April 16, 2012

Subscribed and sworn to before me
this 16th day of April, 2012


Notary Public

My commission expires: March 21, 2013

DIANE L. EGAN
Notary Public, State of New York
Qualified in Schenectady County
No. 4924890
Commission Expires March 21, 20 13