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Assemblyman Kevin A. Cahill Chairman, Committee on Energy Room 713, Legislative Office Building Albany, NY 12248

Assemblyman Richard L. Brodsky Chairman, Committee on Corporations, Authorities And Commissions Room 422, Legislative Office Building Albany, NY 12248

Dear Chairman Cahill and Chairman Brodsky:

This is in response to your letter of April 7, 2009, wherein you posed certain questions concerning the New York Independent System Operator (NYISO) and many of its operations. We are pleased to supply you with the answers, and we apologize if the answers to some of the questions are quite lengthy. For the convenience of you and the members of your Committees, we have tried to compress the answers at the front of the letter and provide the details in an appendix.

Thank you once again for the opportunity to help inform you and your Committees on the complexities of New York's wholesale electricity markets.

Sincerely,

St D White

Attachment

In understanding the responses to many of the questions, we believe it will be useful to explain what the NYISO is and what it is not. In 1996, the Federal Energy Regulatory Commission ("FERC"), which, under the Federal Power Act, has exclusive jurisdiction regarding wholesale transfers of electricity, embarked on a policy to introduce competitive markets into the wholesale electricity industry. FERC and the New York Public Service Commission ("PSC") concluded that genuine competition would require that the bulk transmission system be operated by an entity that did not have a commercial interest that could impede such competitiveness. They also concluded that the same entity should administer the tariffs governing the new markets.

The entity selected in New York to serve those functions was what is now known as the NYISO. It is not an element of either state or federal government. It has only the authority granted to it by FERC in filed tariffs, and it is totally circumscribed by those tariffs. Since the greatest single reason for its existence is its lack of commercial ties to any market participant or segment of the markets, great emphasis is placed on the independence of its Board of Directors, and, before the NYISO can request any change in its tariffs, that independent board must concur with Market Participants on the desirability of the change.

1. At the hearing, it was indicated that the NY-ISO cannot or will not identify the names of bidders to the public. What is the justification for barring this disclosure? Does the NY- ISO have the authority to identify bidders? If not, who does? What is the justification for this policy? Who has the authority to allow bid information to be released? Who made the decision to release the bid information after six months? What is the justification for this policy? What are the policies of other RTOs/ISOs relating to bid identification and from what authority are those policies derived?

The NYISO is explicitly prohibited by its tariffs from disclosing bid data for six months after bids were submitted and explicitly prohibited by its tariffs from disclosing bidder identities even after that time. The NYISO tariffs state:

Pursuant to [FERC] requirements, the ISO shall make public Bid information from the Energy, Capacity, and Ancillary Services markets (but not the names of the bidders making these Bids) six months after the Bids are submitted. The ISO shall post the data in a way that permits third parties to track each individual bidder's bids over time. Prior to such disclosure, Bid information submitted to the ISO by Market Participants shall be considered Confidential Information.¹

The reason for the restriction was to prevent collusion among generators, since collusion is rendered much more difficult if the colluding parties are not aware of the bidding behavior of one another. Accordingly, bid information has been subject to limits on disclosure imposed by FERC since the inception of the NYISO. For this reason, FERC stated in its initial order on the formation of the NYISO that it would require that all information regarding energy bids be kept confidential for six months to help prevent collusive behavior. After six-months, information on individual bids (but not bidder identities) is released to help interested parties monitor the market.² FERC's concern is consistent with well-recognized antitrust principles. See, e.g., U.S.

¹ NYISO Market Administration and Control Area Services Tariff, Section 6.3.

² Central Hudson Gas & Electric Corp., 86 FERC ¶61,062 at p. 61,224 (1999).

v. Container Corp., 393 U.S. 333 (1969).³

As indicated by the quote above, bid disclosure involves a policy decision about the trade-offs between publicly providing market information and providing competitors with bidding information that is current enough to facilitate collusion. More recently, FERC has indicated that this policy trade-off could be adjusted to shorten the period of confidentiality. In Order 719, Wholesale Competition in Regions with Organized Electric Markets, 125 FERC ¶61,071 at P 420 (2008), FERC announced a requirement to "reduce the lag time for release of offer and bids data to three months" FERC also stated that this proposal "cuts the current lag time for most RTOs and ISOs in half." Id. at P 421. Thus, while setting a new shorter disclosure period for bid and offer data, Order 719 also confirms that the disclosure period is a matter of FERC policy and requirements that are binding on RTOs/ISOs. The new shorter disclosure period will be incorporated in the NYISO's tariff in its Order 719 compliance filing (see response to Question #18).

2. What procedures does the NYISO use to prevent market manipulation by participants? Please provide a list of all such manipulations known to the NY-ISO over the past ten years, including action taken by the NY-ISO with respect to market participants. How is this information made available to government agencies and the public?

The NYISO's Market Monitoring and Performance Department ("MMP") and its independent Market Advisor monitor the New York markets for prices that appear to be inconsistent with competitive market outcomes and investigate any such prices to determine whether they may have resulted from market manipulation or gaming of the market rules. If the NYISO were to identify a possible instance of "market manipulation"⁴ or gaming, it would inform the appropriate government agencies, including FERC and the New York PSC, provide notice to its stakeholders consistent with confidentiality requirements, and take action in accordance with its tariffs and FERC requirements to mitigate the harmful behavior.

Since start-up, the NYISO has identified two instances of market behavior that led to prices that were inconsistent with efficient market outcomes. The first such instance involved the gaming of the rules for determining prices for import and export transactions. The second was the circuitous scheduling of transactions around Lake Erie. In both cases, the NYISO addressed the problem with changes to the relevant pricing rules.

Additional information in response to Question 2 is provided in Attachment A.

3. Please identify all of the market participants involved in the Lake Erie Loop Flow market manipulation last year and their roles.

³ See also, e.g., U.S. Department of Justice v. Computer Associates International, Inc., No. 01-02062, 2002 WL 31961456 (D.D.C. Nov. 20, 2002) (settling collusion charges based on exchanges of bid information).

⁴ "Market manipulation" is defined by FERC, in 18 C.F.R. § 1c.2, as conduct affecting markets through fraud or deceit, such as material misstatements or omissions. Whether or not particular behavior constitutes market manipulation is a determination that can only be made by FERC. The NYISO's responsibility is to bring the behavior to the attention of FERC.

The NYISO is prohibited from disclosing this information without the permission of the individual market participants. The NYISO is required by its FERC-approved tariffs and FERC-approved agreements to treat commercially sensitive information, including the nature and extent of an entity's participation in the NYISO-administered markets, as confidential.⁵

4. Please provide copies of documents setting forth NY-ISO actions with respect to the Lake Erie Loop Flow market manipulation, including but not limited to actions used prospectively to block congestion-creating circuitous trades. What action did the NY-ISO take to recover money from this market manipulation? If no action was taken, why not?

Loop flows such as occurred at Lake Erie are electrically unavoidable, since there is no way to force electricity to flow the way a transaction or a tariff contemplates. In the past, the phenomenon was masked by the absence of open and transparent markets. The economic outcomes of this disparity became clear as the result of the transparency of the markets and were thus terminated.

Document Submitted

The NYISO is supplying a number of documents regarding actions that it has taken in response to the Lake Erie Loop Flow issue. A full list of the documents is provided in Attachment A. The documents fall into three groups:

- NYISO filings with the FERC that propose tariff revisions to prohibit the scheduling of circuitous trades around Lake Erie;
- Presentations to NYISO stakeholders and other ISOs/RTOs that describe the actions that the NYISO has taken to improve its internal processes for timely identifying and addressing market manipulation and other market concerns;⁶ and
- NYISO letters and reports that describe actions that it has taken with neighboring ISOs/RTOs to develop a long-term solution to the Lake Erie Loop Flow issue.

FERC's Office of Enforcement has initiated a non-public investigation into the Lake Erie

⁵ Market Monitoring Plan, §§2.8 and 6.3; Services Tariff §§6.1 and 6.3; OATT Attachment F.

⁶ In the wake of the Lake Erie Loop Flow issue in 2008, the NYISO undertook extensive reviews and analysis to determine what improvements could be made to expedite processes, both internal and external to the NYISO to identify and resolve such issues in a timely manner. Among the most significant steps, the NYISO established an Operations Analysis and Performance group to conduct daily analyses of market outcomes and search for any anomalous outcomes. The NYISO also intensified development of software tools to provide faster and better analytic capability and spearheaded an initiative to allow for the sharing of information among the ISOs/RTOs Market Monitoring units which will enable a fuller picture of market activity around Lake Erie.

Loop Flow issue.⁷ As of the date of this letter, FERC has not determined whether "market manipulation" occurred as part of the Lake Erie Loop Flow issue. The NYISO is prohibited from providing the documents that it has provided to the Office of Enforcement as part of the investigation. In addition, the Office of Enforcement has instructed the NYISO to not publicly discuss its involvement in the ongoing investigation.

Action Taken By The NYISO

The scope of the NYISO's authority is established in its FERC-approved tariffs, which do not authorize it to reclaim monies from market participants in connection with a situation such as the Lake Erie Loop Flow issue unless directed to do so by FERC. FERC has exclusive authority to enforce the rules established in the Market Behavior Rules (18 CFR § 35.41) and Prohibition of Electric Energy Market Manipulation (18 CFR § 1c.2). These provisions are not part of the NYISO's tariffs, and the NYISO does not have authority to determine that a market participant has violated these rules.

The NYISO's Market Monitoring and Performance Department informed FERC's Office of Enforcement of the Lake Erie Loop Flow issue. Since May 2008, the Office of Investigation has been actively engaged in a non-public investigation of this issue. FERC has stated that it will "determine what further actions may be appropriate after it considers the results of the staff investigation." Should FERC determine that its regulations have been violated, it has broad discretion in determining an appropriate remedy and may impose civil and criminal penalties against offenders. The NYISO provides herewith a November 3, 2008, presentation to its market participants that describes the broad scope of FERC's remedial authority.

The NYISO Board of Directors invoked its "exigent circumstances" authority to file requested tariff changes with FERC to prevent future distorted outcomes as a result of the loop flow phenomenon.

⁷ New York Independent System Operator, Inc., Order Accepting Tariff Sheets, Docket No. ER08-1281-000, at PP 29 - 32 (August 21, 2008).

5. What procedures does the NY-ISO have in place to determine the actual marginal costs of sellers? Does the NY-ISO routinely spot-check suppliers' actual bids and compare them with their marginal costs?

The NYISO's Market Mitigation Measures establish criteria and procedures for determining marginal costs. These determinations are made in connection with setting a contingent offer cap (called a "reference level") for a resource that might otherwise be able to affect market price outcomes by exercising power that should not otherwise affect competitive outcomes. (In organized markets, such power is known as "market power.") The reference level is intended to reflect the generator's marginal cost. Generator offers are routinely examined to ensure that market prices remain at competitive levels when the potential exercise of market power could otherwise enable a seller to raise prices. When transmission constraints or other conditions give rise to concentrated market conditions in which sellers might be able to exercise market power, those sellers' offers are subject to being capped at the appropriate reference level.

Additional information in response to Question 5 is provided in Attachment A.

6. What protocol does the NY-ISO utilize to seek refund of overcharges due to market manipulation? How often has the NY-ISO sought refund of overcharges? Have you computed the cost to consumers of that market manipulation? If so please provide that information.

If actions by a market participant violate a NYISO tariff, subject to FERC review and approval, and if feasible with the available data, the NYISO can recalculate its settlements to provide refunds or additional payments as appropriate to bring the market results into conformance with its tariffs. How this calculation would be done would depend on the facts of each particular situation.

"Market manipulation" is defined by FERC, in 18 C.F.R. § 1c.2, as conduct affecting markets through fraud or deceit, such as material misstatements or omissions. Whether or not particular behavior constitutes market manipulation is a determination that can only be made by FERC. The NYISO's responsibility is to bring the behavior to the attention of FERC.

As explained in response to Question # 4, the NYISO does not have independent authority to fashion remedies or impose penalties or other sanctions for market manipulation. If its tariffs do not authorize it to address certain conduct that may be distorting its markets, the NYISO would refer the matter to FERC's Office of Enforcement for investigation and determination of appropriate action and remedies, including a refund of overcharges if appropriate.⁸

In the two situations identified in the NYISO's response to Question #2, the NYISO tariffs do not authorize the NYISO to grant refunds or other remedies. If, however, FERC determines that market manipulation did occur in the Lake Erie situation and directs the NYISO to provide refunds or some other remedy, the NYISO stands ready to implement FERC's directives. In the meantime, the solution the NYISO employed was to implement appropriate tariff changes on an expedited basis to restore results consistent with the intended market design, using the NYISO's "exigent circumstances" tariff revision authority. This authority permits the

⁸ See FERC's Market Behavior Rules (18 CFR § 35.41), and Prohibition of Electric Energy Market Manipulation (18 CFR § 1c.2).

NYISO to utilize a streamlined procedure to revise its tariffs temporarily while it develops a longer-term solution with its market participants to the identified concern.

7. What is the portfolio mix of short-term and long-term bilateral contracts that the NY-ISO seeks to maintain to ensure adequate energy supply? Why is so much power being purchased by retail utilities in the NY-ISO spot markets instead of by long-term bilateral contracts? What fuel mix is in the portfolio?

The mix of purchases by load serving entities is not determined by the NYISO. It is determined by those entities, presumably with the intent of producing the lowest available overall cost to meet their requirements. In the case of the regulated utilities, their decisions are influenced by their obligations pursuant to the New York Public Service Law, as applied by the PSC. In the case of the many non regulated load serving entities, their decisions are governed by business consideration, which presumably should produce similar results. The adequacy of energy supply is addressed through an annual process in which the New York State Reliability Council determines the amount of generating capacity that electric companies that serve end-users must contract for to ensure reliable service.

Companies that serve end-use customers, and certain large customers themselves, arrange the mix of short-term and long-term supply resources that they determine are appropriate for a variety of reasons, including price. It is difficult, however, to determine the impact to retail consumers of the mix of short-term spot market purchases and long-term contacts. While 45 percent of New York's electricity requirements are met with purchases in the NYISOadministered day-ahead and real-time markets, the spot market prices are not necessarily passed directly to customers in their electricity bills. This is because many unregulated companies supply their customers with electricity under contracts in which the price terms do not vary with spot market prices.

In 2008, the generating capacity in New York was fueled as follows:

- 37% plants that use either natural gas or oil
- 17% plants that use only natural gas
- 14% hydroelectric and pumped-storage hydro power plants
- 13% nuclear power plants
- 9% plants that use only oil
- 8% plants that burn coal
- $\sim 2\%$ wind turbines and other renewable energy resources⁹

The mix of energy actually generated, however, was as follows:

30% - power plants that use natural gas and oil

29% - nuclear plants

- 18% hydroelectric plants
- ~5%- oil-fired power plants
- ~1% wind turbines

⁹ Source: NYISO's Power Trends, 2009, p. 14.

~1% - pumped-storage hydro plants¹⁰

The differences between the capacity figures and the energy produced numbers is attributable to the lower marginal costs of hydroelectric and nuclear plants. Depending on meteorological considerations, future numbers are likely to see improvements in energy actually generated from wind, for similar reasons.

Additional information in response to Question 7 is provided in Attachment A.

8. What, if any, protocols are in-place to prohibit a seller from demanding very high amounts for its last blocks of output from a power plant, a practice sometimes described as hockey-stick bidding?

Please see the answer to Question 9 below.

9. During the past ten years, when and how often has the \$1,000 MW - \$900 range price been hit? Please identify the participants who hid \$1,000 MW. Were these reasonable prices? What public interest is served by permitting bids at these levels? Prior to the imposition of the \$1,000 MW cap when and how often were prices set higher than \$1,000 MW? Please identify participants who bid over \$1,000 MW.

Historically only a very small amount of generator output has been sold in the NYISO markets at prices in the \$900-\$1,000 per MWh range. In the day-ahead market, which accounts for 95% of the energy transactions in the NYISO markets, such prices are particularly rare. Over the ten years that the NYISO has been in operation, prices in the day-ahead market have reached this level in just over .01% of hours. The last instance occurred in 2006 during a period of all-time record electricity use.

It is somewhat more common to experience prices at this level in the real-time market. In the real-time market, prices prevail for 5 minute intervals. Very high prices typically last for only a small number of 5 minute intervals and apply to only a tiny portion of the total electric output in a given year. Over the total of the years since the NYISO markets were instituted, prices in the real-time market have reached or exceeded \$900 per MWh for an average of only 234 of the nearly 1 million 5-minute intervals, or a total average of only 19.5 hours per year.

As indicated above, the NYISO is not permitted to publicly identify the market participants that submitted particular offers. There are many generating operations that ordinarily would not want to offer all of their output into the markets. These include older steam driven plants that can only operate above certain levels at the risk of incurring prolonged outages or drastically increasing maintenance expense, hydroelectric facilities that need to manage their water supply under certain flow conditions and peaking units that must be kept in operating condition to meet anticipated summer peaks. However, it is a benefit to New York's power system to have participants offer the last available increments of additional supply from

¹⁰ Data are for 2006-2007 (average generation mix in New York State). Source: NYISO, "Fuel Diversity in the New York Electricity Market: A New York ISO White Paper," October 2008, pp. 2-5.

generating units, even at high prices, to ensure that important resources are available to operate when needed. It is thus in the public interest for such plants to offer at these high prices for power produced at emergency output levels in order to meet emergency conditions. This ensures that the plant will not be dispatched to its emergency output level under normal conditions and compensates the seller in those instances in which it must operate the plant at its emergency output level, which exposes the plant to a higher risk of costly mechanical failures.

The NYISO has a number of procedures in place to address circumstances in which a seller seeks a higher price for its last block of output from a power plant. In particular, when the potential exists for a seller to exercise market power (as defined above), the NYISO will compare its offer to the offeror's "reference level," and if the offer exceeds the reference level by a defined amount, the NYISO will replace the seller's offer with an offer at the reference level. The reference level reflects the out-of-pocket costs of the seller's unit based on offers that were accepted during competitive periods when the seller did not have market power. When this occurs in New York City, which has relatively stringent thresholds to address local supply conditions, there is an automatic mitigation procedure ("AMP") that automatically replaces the seller's offer with an offer at the unit's reference level.

Additional information in response to Questions 8 and 9 is provided in Attachment A.

10. Identify generators that on a regular basis and aggregate over the year have the greatest difference between the prices they bid and what they receive?

As a general rule, the generators that regularly offer their output at prices well below the market clearing prices are those units, such as wind turbines, hydroelectric plants, and nuclear plants, with low variable costs (e.g., fuel and operating costs) but relatively high fixed costs (e.g., construction and maintenance costs). These plants tend to be economical for the system to operate when they are available, and it benefits the system when these lower-priced units are dispatched in place of more expensive units that would have set a higher clearing price. Such units are able to recover some of their higher capital costs in the NYISO energy markets where prices are set by power plants with higher variable costs (e.g., oil and gas-fired power plants).

Additional information is provided in response to Question 10 in Attachment A.

11. In what manner do hedge funds or other financial entities participating in NY-ISO auctions and governance affect electric markets and what are the risks to which rate payers are exposed? How does this affect markets?

Please see the answer to Question 12 below.

12. Please define "virtual bids" and how they affect the market and how often they appear in NY-ISO auctions. What is their impact on market rates?

Of the more than 400 customers currently approved to participate in the NYISOadministered markets, approximately ten are financial entities of some kind.¹¹ Such financial

¹¹ http://www.nyiso.com/public/webdocs/services/customer_relations/customers/nyiso_approved_ customers.pdf;

entities participate in both physical and virtual trading in the NYISO markets, but are more active in virtual trading. In addition, financial entities may participate in the market for Transmission Congestion Contracts ("TCCs") in the same manner as other types of market participants.

As in the physical energy market, customers that participate in the virtual transactions market submit bids or offers for the purchase or sale of energy in the NYISO-administered dayahead market. Unlike with physical purchases or sales, however, a virtual bid or offer in the dayahead market is not related to physical energy consumption or generation in real-time. Instead, a virtual purchase or sale in the day-ahead market is settled at the real-time price for energy and the virtual transactions customer either pays or receives the difference in price between the day-ahead market and the real-time market. As such, these transactions are purely financial do not affect the physical energy consumption or production in real-time. Participation by financial entities benefits the NYISO markets by increasing the volume of participation in the day-ahead and realtime markets, thereby increasing the efficiency and competitiveness of these markets and reducing the volatility of prices both within New York and between New York and adjacent markets.

Additional information is provided in response to Questions 11 and 12 in Attachment A.

13. Explain the relationship between state and federal anti-trust laws and the market clearing price auction.

The relationship between the state and federal antitrust laws and the NYISO's marketclearing price auction is essentially the same as it is between those laws and the markets in New York and elsewhere for any product or service. That is, the antitrust laws prohibit certain types of conduct that have the purpose and effect of restraining competition. For example, the antitrust rules against bid rigging or other forms of anticompetitive collusion would apply to the markets for energy in New York just as they would to other kinds of markets. The NYISO-administered clearing-price auctions would not, without more, be subject to an antitrust challenge, since they result from a tariff that is filed with and approved by FERC as just and reasonable under the Federal Power Act.¹² Nonetheless, "anticompetitive activities based on filed rates are 'still subject to scrutiny under the antitrust laws by the Government and to possible criminal sanctions or equitable relief."¹³

¹² See Williams v. Duke Energy Int'l, No. C1-08-046, at 14 (S.D. Ohio Mar. 31, 2009) (holding that the filed rate doctrine applies to market-based rates and citing opinions from the 1st, 3rd, 5th, and 9th Circuits).

¹³ TXU Energy, Inc., 413 F.3d 503 at 508 (5th Cir. 2005), quoting Square D Co. v. Niagara Frontier Tariff Bureau, Inc., 476 U.S. 409, 422 (1986). See also Snohomish County v. Dynegy Power Marketing, Inc., 384 F.3d 756 (9th Cir. 2004).

14. Does the NY-ISO have any information about the use by generators of the "producers' surplus" created by the market clearing price? If so, has this surplus been invested in new generation or in the development of renewable energy and demand-response resources?

The NYISO does not have information regarding the use of proceeds received by specific generating companies, nor does the NYISO have authority to obtain such information. The NYISO does not have any authority beyond what has been specifically delegated to it by FERC through its FERC-accepted tariffs and organic agreements. If the Committees require this information, the question should be directed to individual generating companies or their trade organization.

Additional information is provided in response to Question 14 in Attachment A.

15. Please provide any and all information you have to support the idea that the market clearing price system is directly responsible for the development of renewable energy, and without it such development would not have occurred? How do you value the contributions made by the State RPS and SBC to the development of renewable power NYS?

The NYISO's market clearing price system provides incentives for suppliers to bid energy that reflect a power plant's variable costs (e.g., fuel and operating costs). This model is particularly attractive to renewable resources because they have low variable costs but relatively high fixed costs (e.g., construction, maintenance). Renewable resources are paid the market clearing price set by power plants that have much higher variable costs (e.g., oil and gas-fired plants). The revenue earned by renewable resources in excess of their variable costs enable them to support their fixed costs.

In 2004, the New York State PSC established the Renewable Portfolio Standard, which requires that 25% of the state's electricity be generated from renewable resources by 2013. New York's power market design has enhanced the state's ability to meet this renewable resource target. Currently, commercial power production from renewable resources in New York, predominantly hydroelectric power projects, totals more than 5,600 MW of electricity. Nearly two dozen private sector energy service companies now offer customers the option to purchase green power. Moreover, as of mid-2008, New York is third among states in wind capacity under construction. More than 1,000 MW of wind power has been added in recent years and over 8,000 MW of additional wind power projects are proposed for development in the state.¹⁴

New York State's SBC program has provided parallel and additional benefits. Between 1998 and 2008, the portfolio of SBC-funded programs is estimated to have reduced peak electric load by 1,284 megawatts – an amount equivalent to the size of one of the largest operating nuclear or fossil-fueled electric generation plants in the State.

Additional information is provided in response to Question 15 in Attachment A.

¹⁴ See Fuel Diversity in the New York Electricity Market: A NYISO White Paper (October 2008); NYISO, Power Trends, 2009.

16. Please clarify which NY-ISO employees are full-time/part-time, including board members, their compensation and the basis for that compensation. Please indicate which if any are employed on a contingent basis and their compensation.

All NYISO employees are full time except for 6 individuals. No NYISO employees or directors are employed on a contingent basis. The NYISO employs 436 working men and women, many of whom are professional engineers, accountants, economists, and attorneys. Excluding officers, the average compensation of these employees for 2008, the last full year for which data are available, was \$ 88,719. The NYISO is managed by ten officers. The average compensation for these officers for 2008 was \$286,534. The basis for NYISO employee compensation is a review conducted annually by a recognized independent consulting firm to determine the market compensation for individual positions.

The Board of Directors consists of 10 individuals, including the President, who is an ex officio member of the Board. (The President, however, is also an employee and is thus included in the figure for officer compensation above.) The average compensation for current Board members that served on the Board in 2008, excluding Karen Antion and Robert Hiney, was \$106,900. During the year 2008, the CEO left the company and Ms. Antion and Mr. Hiney stepped in to fill the roles of CEO and President, respectively, for four months. Their total compensation for 2008 was \$351,500 for Ms. Antion, who was also Board Chair, and \$240,250 for Mr. Hiney.

Additional details regarding employee and director compensation are provided in Attachment A.

17. Explain how conflicts of interests are resolved regarding the NY-ISO market advisor also serving as the market monitor for ISO-NE, the Midwest and Texas?

The NYISO is not aware of any conflict of interest arising from the fact that the NYISO's independent Market Advisor (Potomac Economics) also monitors the markets in New England, the Midwest, and Texas. He was presumably selected by those regions because of his expertise and solid reputation for objectivity and integrity. The entities administering those markets and the NYISO all operate in separate and distinct areas of the country. Moreover, the NYISO's Market Advisor is charged with providing independent economic analysis and advice based on established economic principles of competitiveness and economic efficiency. Those economic principles are the same in New York, New England, the Midwest, Texas, and throughout the country.

18. The Federal Energy Regulatory Commission Order 719, which went into effect December 2008, requires that organized wholesale electric markets improve their operations in the areas of: (1) demand response and market pricing during periods of operating reserve shortage; (2) long-term power contracting; (3) market-monitoring policies; and (4) the responsiveness of regional transmission organizations (RTOs) and independent system operators (ISOs) to their customers and other stakeholders, and ultimately to the consumers who benefit from and pay for electricity services.

How does the NY-ISO plan to meet the revised requirements of FERC Order 719? Does the NY-ISO intend to propose amendments to the existing tariff and market design? If so, what public comment will be sought when the NY-ISO proposes such amendments?

All ISO/RTOs, including the NYISO, are required to make compliance filings demonstrating either that their existing tariffs, markets, and governance processes already comply with the requirements of Order 719 or proposing related modifications. The NYISO believes that it is already in compliance with the requirements for demand response, scarcity pricing, and stakeholder responsiveness. The NYISO will propose tariff changes to comply with the new requirements for market monitoring and will address long term contracting by participating in the creation of a public online platform sponsored by the ISO/RTO Council.

In keeping with its usual practices with respect to major directives from FERC, the NYISO has engaged in extensive discussions with its stakeholders regarding the requirements of Order 719. Participants include the New York PSC, the New York CPB, end users of electricity and environmental groups, in addition to relevant commercial interests. In light of the diverse nature of the issues involved, the NYISO has conducted these discussions through various stakeholder committees to ensure that all interested parties have an opportunity to provide input. Accordingly, the NYISO has discussed the overall requirements of Order 719, as well as the NYISO's proposed responses, with its Management Committee and Business Issues Committee on several occasions over the past five months. The NYISO has also held discussions regarding market monitoring and stakeholder responsiveness with both of these committees. In addition, the provisions related to demand response have been discussed with the Price Responsive Load Working Group, the stakeholder subcommittee charged with responsibility for demand response issues, at meetings held in December 2008, and January and March of 2009. The long-term contracting issue was raised first at the Business Issues Committee, then at the Market Issues Working Group, and finally discussed on a conference call held with stakeholders that expressed a particular interest in this topic. Over the course of these meetings, stakeholder response to the NYISO's proposed response to Order 719 has been positive, and the NYISO has taken all input received into consideration.

In addition to the NYISO's discussions with its stakeholders to solicit their input, FERC will issue a public notice inviting comment on the NYISO's upcoming compliance filing from any interested parties.

ATTACHMENT A

ADDITIONAL INFORMATION IN RESPONSE TO IDENTIFIED QUESTIONS

2. What procedures does the NYISO use to prevent market manipulation by participants? Please provide a list of all such manipulations known to the NY-ISO over the past ten years, including action taken by the NY-ISO with respect to market participants. How is this information made available to government agencies and the public?

Since its beginning, the NYISO has had an internal Market Monitoring and Performance unit ("MMP") with responsibility for monitoring the markets administered by the NYISO for any signs of market manipulation. The NYISO has also retained an economic consulting firm to act as its independent Market Advisor, with authority under the NYISO's tariff to review and evaluate the competitiveness and efficiency of the NYISO markets. In particular, the MMP and the IMA monitor the New York markets for prices that are not consistent with competitive market outcomes. If such market results are detected, the MMP and IMA investigate further to determine whether there is evidence that market manipulation may have occurred. "Market manipulation" is defined in the FERC regulations as conduct affecting markets through fraud or deceit, for example through material misstatements or omissions.¹⁵ The MMP and IMA also monitor for gaming of market rules, that is, taking advantage of tariff provisions to realize financial benefits not intended by the market design and that are not consistent with efficient outcomes. In addition, the NYISO's tariffs include extensive provisions for the mitigation of market power abuse.

If the NYISO concludes, in consultation with the Market Advisor, that market manipulation or gaming of market rules has occurred, it can and does take one or more of the following actions: (1) advise the Office of Enforcement of the FERC, and as appropriate the New York PSC, of its findings and conclusions; (2) make an "exigent circumstances" filing with the FERC, which can be made on an expedited basis without the delay inherent in a stakeholder process, to implement temporary tariff provisions to remedy the manipulation;¹⁶ (3) exercise its authority under §2.4(b) of its Market Mitigation Measures to implement temporary, prospective changes in market operations to "mitigate the market effects of a rule, standard, procedure or design feature of an ISO Administered Market that allows a Market Party or its Affiliate to manipulate market prices or otherwise impair the efficient operation of that market, pending the revision of such rule, standard, procedure or design feature to preclude such manipulation of prices or impairment of efficiency;" and (4) convene a stakeholder process to approve permanent tariff measures to remedy the problem. All four of these steps involve informing the relevant government agencies of the problem, and all but the first involve public communication of the

¹⁵ 18 C.F.R. § 1c.2.

¹⁶ Under §19.01 of the Independent System Operator Agreement, the NYISO Board of Directors can authorize the submission of a tariff filing without the concurrence of the Management Committee if the "Board certifies that (1) the proposed amendment is necessary to address exigent circumstances related to the reliability of the NYS Power System or to address exigent circumstances related to an ISO Administered Market; and (2) the urgency of the situation justifies a deviation from the normal ISO governance procedures." *See also* §3.03 of the Agreement between New York Independent System Operator and Transmission Owners; *and Expedited Tariff Revisions for Regional Transmission Organizations and Independent System Operators*, Guidance Order on Expedited Tariff Revisions for Regional Transmission Organizations and Independent System Operators, 111 FERC ¶61,009 (2005).

NYISO's findings.

Since the formation of the NYISO, there have been two instances of conduct that took advantage of incentives provided by market rules to produce results that were not consistent with the efficient market outcomes that the rules were intended to produce. These are listed below:

- Gaming of the initial rules for determining prices at the busses for external transactions. This concern was mitigated by a change in the pricing rules. See New York Independent System Operator, Inc., Order on Tariff Filing, 97 FERC ¶ 61,206 (2001) for further details.
- The circuitous scheduling of transactions around Lake Erie referred to in questions 3 and • 4. This conduct was consistent with the economic incentives for the participants that was provided by scheduling rules that made transactions exiting New York over its interface with Ontario less costly to schedule than transactions exiting New York over its interface with PJM. Although this conduct was economically rational for the participants, it produced inefficient market results that raised prices in New York. Accordingly, it was also mitigated by a change in the pricing rules. See New York Independent System Operator, Inc., Order Accepting Tariff Sheets, 124 FERC ¶ 61,174 (2008), New York Independent System Operator, Inc., Order Accepting Tariff Sheets, 125 FERC ¶ 61,184 (2008), and New York Independent System Operator, Inc., Order on Clarification, 126 FERC ¶ 61,068 (2009), for further details. The NYISO is also working with its neighboring ISOs and RTOs to develop further solutions to the problem of unscheduled circulating power flows around Lake Erie, which will require participation by all the affected ISOs/RTOs. Further discussion of this situation is provided in the response to question #4, below.

Although the question did not refer to it, an answer would not be complete without reference to another phenomenon for which the NYISO monitors. That phenomenon is known as "market power." Within the context of organized electricity markets, it refers to the potential ability to affect prices as a result of having a transmission system that was not originally designed to foster competition. Thus, in areas constrained by transmission, the NYISO monitors to be sure that behavior by a party does not result in pricing outcomes that would not have resulted if transmission constraints had not limited competition. This issue is discussed further in the response to Question 5.

4. Please provide copies of documents setting forth NY-ISO actions with respect to the Lake Erie Loop Flow market manipulation, including but not limited to actions used prospectively to block congestion-creating circuitous trades. What action did the NY-ISO take to recover money from this market manipulation? If no action was taken. why not?

The NYISO has enclosed as Attachment B to these responses the following responsive documents regarding actions that it has taken with respect to the "Lake Erie Loop Flow" issue:

NYISO Filings with FERC Regarding the Lake Erie Loop Flow Issue:

• New York Independent System Operator, Inc.'s Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, Requesting Prospective Limited Tariff Waivers, Seeking Expedited Commission Action, Requesting Shortened Notice and Comment Periods, and Contingent Request for Consideration Under Section 206 of the Federal Power Act, Docket No. ER08-1281-000 (July 21, 2008).

- New York Independent System Operator, Inc.'s Request to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, for Shortened Notice and Comment Periods, and for Expedited Commission Action, Docket No. ER09-198-000 (October 31, 2008).
- New York Independent System Operator, Inc.'s Submission of Tariff Sheets Supplementing its October 31, 2008 Filing, Request for Shortened Notice and Comment Periods, and Requests for Expedited Commission Action, Docket No. ER09-198-000 (November 4, 2008).
- New York Independent System Operator, Inc.'s 90 Day Report on Efforts to Develop Long-Term Solutions To Lake Erie Circulation and Inter-ISO/RTO Congestion Management Processes in Docket No. ER09-198-000, Docket No. ER09-198-000 (February 17, 2009).

FERC Orders Regarding the Lake Erie Loop Flow Issue:

- New York Independent System Operator, Inc., Order Accepting Tariff Sheets, 124 FERC ¶ 61,174, Docket No. ER08-1281-000 (August 21, 2008).
- New York Independent System Operator, Inc., Order Accepting Tariff Sheets, 125 FERC ¶ 61,184, Docket Nos. ER09-198-000 & ER09-198-001 (November 17,2008).
- New York Independent System Operator, Inc., Order on Clarification, 126 FERC ¶ 61,068, Docket No. ER08-1281-000 (January 28, 2009).

NYISO Submission of Comments to the Department of Energy

• Comments of the New York Independent System Operator, Inc. in Support of International Transmission Company's Application to Amend Presidential Permit, OE Docket No. PP-230-4 (March 9, 2009).

NYISO Presentations to Stakeholders

- "Process Review: Enterprise-wide Critical Issue Resolution," NYISO Management Committee (August 27, 2008).
- "Additional Tariff Remedies/FERC Remedial Authority," NYISO Market Issues Working Group (November 3, 2008).
- "Additional Tariff Remedies/FERC Remedial Authority," NYISO Market Issues Working Group (February 6, 2009).

Additional NYISO Presentations

• "Inter-Market Transaction Monitoring," Energy Intermarket Surveillance Group Conference (September 15, 2008).

Additional Documentation

• "Lake Erie Loop Flow Mitigation: A report from the New York Independent System Operator" (November 2008).

FERC has not granted enforcement authority to ISOs. FERC's rules are clear that ISOs are to refer suspected market manipulation to FERC and then desist from further independent action. See, for example, FERC's 2005 Policy Statement on Market Monitoring Units, found at http://www.ferc.gov/whats-new/comm-meet/052505/E-5.pdf, which states:

<u>Protocol No. 1</u>. An MMU should make a referral to the Commission in all instances where the MMU has reason to believe that a Market Violation may have occurred. While the MMU need not be able to prove that a Market Violation has occurred, the MMU should provide sufficient credible information to warrant further investigation by the Commission. Once the MMU has obtained sufficient credible information to warrant referral to the Commission, the MMU should immediately refer the matter to the Commission and desist from independent action related to the alleged Market Violation[s].

5. What procedures does the NY-ISO have in place to determine the actual marginal costs of sellers? Does the NY-ISO routinely spot-check suppliers' actual bids and compare them with their marginal costs?

The Market Mitigation Measures in the NYISO's tariff set forth specific criteria and procedures for determining marginal costs. These determinations are made in connection with setting a contingent bid cap (called a "reference level") for a resource that might otherwise be able to affect market prices by exercising market power. Generator offers are routinely tested to ensure that market prices remain at competitive levels when the potential exercise of market power would otherwise enable a seller to raise prices.

The NYISO relies in the first instance, however, on the fact that the design of its markets provides a compelling incentive for producers to bid at the level of their marginal costs. Sellers that did not bid their marginal costs would be losing money. This feature of the NYISO markets was recognized by the FERC in its first order approving the formation of the NYISO: "Under the current proposal, separate energy prices would be determined hourly for each node (or bus) in the control area. The price at each node would equal the marginal cost to the ISO of producing and delivering energy to the node, based on the bids submitted in an energy auction."¹⁷

The NYISO's Services Tariff recognizes an important exception to this incentive: when

¹⁷ Central Hudson Gas & Electric Corp., 86 FERC ¶61,062 at p. 61,222 (1999); see also PJM Interconnection, LLC, 112 FERC ¶61,031 at P 88 (2005) (finding that suppliers would be expected to bid at the level of their marginal costs in a clearing-price auction).

transmission constraints or other conditions give rise to concentrated markets in which sellers may be able to exercise market power. When these conditions arise, the offers of resources in the affected area are subject to being capped at each seller's "reference level." As stated in the Services Tariff: "The reference level for a Generator's Energy Bid is intended to reflect the Generator's marginal costs."¹⁸

The Tariff recognizes that the best way to determine a seller's reference level is by averaging its accepted bids during periods when conditions that might present the opportunity to exercise market power do not exist.¹⁹ Accordingly, the NYISO routinely collects and analyzes offer data, as well as information on competitive conditions and market prices, in order to calculate reference levels.

Otherwise, the NYISO calculates a supplier's reference level on the basis of its relevant costs, using the following formula: ((heat rate * fuel costs) + (emissions rate * emissions allowance price) + other variable operating and maintenance costs)), or estimates reference levels based on the best available data.²⁰ The results of the foregoing formula may be adjusted up or down to take into account the specific facts and circumstances affecting each supplier. The NYISO believes that the reference levels determined from these costs analyses confirm that reference levels calculated on the basis of averaging accepted bids during competitive conditions are in fact indicative of marginal costs for comparable units.

Since the inception of the NYISO, market power has only been a significant issue in the downstate area, principally New York City, because of the limited transmission capacity going into the City. In New York City, supplier energy offers are subject to an Automated Mitigation Procedure (the "AMP") under which, when the lack of transmission capacity limits the ability of outside suppliers and resources to freely compete with resources located in the City, the market software automatically tightens the thresholds it applies to test in-City offers to determine if a seller is trying to exercise market power, and if the thresholds are crossed the seller's bids are automatically capped at its reference level. The market for Installed Capacity (ICAP) in New York City is also subject to mitigation based on marginal costs principles.

7. What is the portfolio mix of short-term and long-term bilateral contracts that the NY-ISO seeks to maintain to ensure adequate energy supply? Why is so much power being purchased by retail utilities in the NY-ISO spot markets instead of by long-term bilateral contracts? What fuel mix is in the portfolio?

A. <u>Portfolio Management.</u> As an independent system operator, the NYISO is not responsible for maintaining a particular portfolio objective regarding the mix of short-term and long-term supply commitments in New York State. However, as described in Part D below, the NYISO does have various responsibilities to ensure that adequate resources are available to operate the New York Transmission System for short-term reliability purposes and to plan the system for long-term resource adequacy.

¹⁸ Services Tariff, Attachment H §3.1.4(a)(3).

¹⁹ Services Tariff, Attachment H §3.1.4(a)(1).

²⁰ Services Tariff, Attachment H §3.1.4(a)(3).

Short-term and long-term supply commitments entered into by regulated utilities under the jurisdiction of the New York PSC are governed by orders issued by the PSC. Further, individual non-regulated companies who supply electricity to customers – and in some cases, individual consumers themselves – arrange the mix of short-term and long-term supply resources they think are appropriate for a variety of reasons, including the price of such resources.

The NYISO notes that, as a general rule, there are certain advantages in the electric industry (like so many other sectors of the economy) to hold some sort of mix of short-term and long-term supplies. There could be problems with a supply made up entirely of short-term transactions (as California discovered around 2000/2001 when its law required that all retail supply of electricity be procured in the short-term spot markets, whose prices began to rise around that period). There could also be problems if all supplies were supported by long-term contracts (as many utilities discovered when their long-term PURPA contracts had prices that remained high when market prices fell). Just as an individual investor tends to put his or her savings into a mix of investments (e.g., cash, money market accounts, long-term bonds, growth funds), the different participants in the electric industry tend to pursue a mix as well. The principle of spreading risk between short-term and long-term changes in prices is sound in the electric industry, and is reflected in the mix that actually presently exists in New York State.

B. <u>Purchases in NYISO Spot Markets.</u> Companies that serve end-use customers, and certain large customers themselves, arrange the mix of short-term and long-term supply resources that they determine are appropriate for a variety of reasons, including price. It is difficult, however, to determine the impact to retail consumers of the mix of short-term spot markets purchases and long-term contacts. While 45 percent of New York's electricity requirements are met with purchases in the NYISO-administered day-ahead and real-time markets, the spot market prices are not necessarily passed directly to customers in their electricity bills. This is because many companies supply their customers with electricity under contracts in which the price terms do not vary with spot market prices. (A parallel could be drawn to other consumer services, such as billing arrangements for wireless telephone service: consumers who take service from wireless telephone providers under a monthly contract that sets out the pricing for minutes of use do not see the various ways in which the wireless companies trade among each other on a combination of short-term and long-term agreements to gain access to and use the wireless network facilities.)

C. <u>Fuel Diversity</u>. Electricity in New York's power market totaled 144,619 GWh, having been produced in the following mix of fuels and power plants:

- 30% power plants that use natural gas and oil
- 29% nuclear plants
- 18% hydroelectric plants
- ~5%- oil-fired power plants
- ~1% wind turbines
- ~1% pumped-storage hydro plants²¹

In addition, the breakdown of New York's generating capacity as of 2008 is:

²¹ Data are for 2006-2007 (average generation mix in New York State). Source: NYISO, Fuel Diversity in the New York Electricity Market: A New York ISO White Paper, pp. 2-5 (October 2008).

- 37% plants that use either natural gas or oil
- 17% plants that use only natural gas
- 14% hydroelectric and pumped-storage hydro power plants
- 13% nuclear power plants
- 9% plants that use only oil
- 8% plants that burn coal
- $\sim 2\%$ wind turbines and other renewable energy resources²²

D. <u>NYISO Role in Resource Adequacy.</u> The NYISO has various responsibilities to ensure that there are adequate resources to operate the New York Transmission System for short-term reliability purposes and to plan the system for long-term resource adequacy. For example, the NYISO is required by its FERC-approved tariffs to conduct annual or biennial reliability studies to assess the amount of capacity that must be present in New York to ensure that the probability of an unplanned outage on the bulk power system is never more than one occurrence in 10 years.

The NYISO also conducts the studies used by the New York State Reliability Council to determine the Installed Reserve Margin. The Installed Reserve Margin represents the amount of generating capacity needed to meet anticipated demand, plus an allowance for equipment that could become unavailable, giving consideration to all reliability considerations. That criterion is then reviewed by regulators and forms the principal basis for determining the amount of capacity that must be purchased by electric companies (including electric utilities) that serve end-use customer load in New York ("Load Serving Entities"). This year, the New York State Reliability Council accepted the NYISO's Installed Reserve Margin study and determined that the minimum capacity that must be on New York's power system will be 116.5% of the forecasted peak load for summer 2009. Load Serving Entities are, therefore, responsible for arranging for this amount of capacity (including procuring net amounts through the NYISO's capacity auctions) that add up to a minimum of 116.5% of their customers' peak load requirements.

The NYISO also conducts long-term planning, including its Comprehensive Reliability Planning Process. That process looks out over ten years to determine the amount of load that will need to be served and the amount of old resources retiring, the amount likely to remain online, and the new resources planned to enter service during that period. This year, the NYISO determined that, due to market-based resource additions and government conservation programs, New York looks to meet its reliability requirements without new capacity additions on the New York power system between 2009 and 2018. (This does not mean that additional resources might not be added for reasons of economics, rather than reliability.) The NYISO also conducts a 10year planning process with its neighbors in PJM, New England, the provinces of Quebec and Ontario, and the Maritimes, which has determined that planned resource additions will be sufficient to maintain adequate resources in the Northeastern United States and Canada.

8. What, if any, protocols are in-place to prohibit a seller from demanding very high amounts for its last blocks of output from a power plant, a practice sometimes described as

²² Source: NYISO's *Power Trends*, 2009, p. 14.

hockey-stick bidding?

Please see the answer to Question 9 below.

9. During the past ten years, when and how often has the \$1,000 MW - \$900 range price been hit? Please identify the participants who bid \$1,000 MW. Were these reasonable prices? What public interest is served by permitting bids at these levels? Prior to the imposition of the \$1,000 MW cap when and how often were prices set higher than \$1,000 MW? Please identify participants who bid over \$1,000 MW.

There is a cap in the NYISO rules such that no generator may bid more than \$1,000 for its output in the day-ahead market. The \$1,000 bid cap was introduced in mid 2000, less than a year after the commencement of the wholesale spot markets administered by the NYISO. Since then, in the day-ahead market, in which 95 percent of energy in the NYISO-administered markets is transacted, there rarely have been prices in the \$900/MWh to \$1,000/MWh range. The last time such prices occurred was in 2006, when there was all-time record electricity use and the NYISO had to operate at emergency output levels on the system.

It is somewhat more common to experience prices at this level in the real-time market. In the real-time market, prices prevail for 5 minute intervals. Very high prices typically last for only a small number of 5 minute intervals and apply to only a tiny portion of the total electric output in a given year. Over the total of the years since the NYISO markets were instituted, prices in the real-time market have reached or exceeded \$900 per MWh for an average of only 234 of the nearly 1 million 5-minute intervals, or a total average of only 19.5 hours per year.

The NYISO tariffs prohibit the NYISO from publicly identifying the market participants that submit particular bids. Specifically, Section 6.3 of the NYISO Services Tariff states:

Pursuant to [FERC] requirements, the ISO shall make public Bid information from the Energy, Capacity and Ancillary Services markets (but not the names of the bidders making these Bids) six-months after the Bids are submitted. The ISO shall post the data in a way that permits third parties to track each individual bidder's bids over time. Prior to such disclosure, Bid information submitted to the ISO by Market Participants shall be considered Confidential Information."²³

The NYISO is, however, aware of many practical and reasonable reasons why it is good for the New York power system for certain types of bidders to offer their resources at high prices such that they are only available to the market and dispatched under emergency circumstances. The New York wholesale markets are designed for a least-cost dispatch of power plants to minimize the overall cost of generation while also ensuring reliable supply. The following examples indicate why permitting offers with high "tails" is consistent with ensuring a least-cost reliable supply of electricity and describe circumstances under which the system as a whole benefits by allowing sellers to offer its "tail-end" output at high prices so that this output is not used more often than absolutely necessary:

²³ Section 6.3 of the Services Tariff is available at:

http://www.nyiso.com/public/documents/tariffs/market_services.jsp.

- A power plant typically has a normal output capacity (in MW) as well as a rating under which it could generate additional power under emergency conditions. Because of the higher risk of mechanical failures associated with generating power at this emergency output level, the generator may offer its output produced from these "emergency" megawatts at high prices so that they are only selected for dispatch when the power system is short of capacity relative to the amount of consumers' demand, and the alternatives include: lowering the voltage on the system, running small on-site emergency generators on the sites of hospitals and other institutions that keep such back-up supply for reliability purposes, or running power plants at their emergency output levels under normal conditions and also compensates the seller when it is required to operate the plant at its emergency output level, which exposes the plant to a higher risk of costly mechanical failures.
- A hydroelectric facility may offer its output at relatively lower prices up to the point at which dispatch of the water in the reservoir might lead to water usage that would take the reservoir below its normal safe operating limits. At this point, it may offer its output at high prices to limit its operations to only those periods in which there are supply emergencies to avoid operating below safe operating limits under normal conditions. Similarly, a hydroelectric plant that is faced with low river-flow conditions may have to offer its output at high prices to limit its operations to only those periods in which there are supply emergencies.
- A power plant that faces environmental or fuel-supply limitations on the amount of emissions that may be produced at the plant over a particular time period may offer its output at high prices to signal to the system dispatcher that it wants to conserve its electricity output so as to enable the power plant to live within its environmental or fuel supply limitations. Were, for example, such a plant to make itself available at a low price during off-peak periods of the year when there are other plants available to operate, then that power plant might not be available to operate later in the season when the plant is truly needed to operate for reliability purposes because the plant has already reached its quota of air emissions, water use, or fuel supply.
- Certain power plants may only operate above their normal operating limits in emergencies and/or where they needs to reconfigure certain physical aspects of their plants to do so. In this circumstance, such a plant may only be willing to operate when it is a genuine emergency and when it is fully compensated for these equipment changes to enable the plant to operate above its normal upper operating limit.

The offers described above are, therefore, based on sound rationales that enable important resources to be kept in reserve to be available to operate when needed during high-value hours of the year (e.g., during summer peak periods). These resources have characteristics that inherently cause them to be more expensive than other power suppliers – whether they have fuel limitations (e.g., a limitation on the amount of water behind a hydroelectric impoundment, or the maximum number of hours in a year in which a natural gas power plant may use its back-up fuel (e.g., oil)),

limitations on the total amount of air emissions that the plant may produce in a given time period (e.g., operating on different fuels may produce different emissions levels and use up more of the emissions budget that the plant has under its operating permit from air regulators), or some other limitation (in permits, technology, fuel types) imposed on the plant's operations.

Notably, the NYISO has a number of protocols and other price mitigation rules and practices in place to mitigate the prices of sellers seeking a high price for its last block of output from a power plant when the type of circumstances described above are not present. For example, the NYISO applies a conduct and impact test that will impose a bid cap if a supplier has the potential to exercise market power and affect prices in the New York power markets. This process is activated when there is the potential for a power seller to exercise market power. In such circumstances, the NYISO will compare the seller's bid to the seller's unit's "reference level." The reference level reflects the out-of-pocket costs of the seller's unit as determined from its accepted bids during periods when the markets in which it operates are competitive, or by an examination of its fuel and other operating costs. When the seller's bid is higher than its reference level by a pre-defined amount and when the seller's bid would affect the clearing price of power sold at that point in time and in that place by a specified amount, the NYISO replaces the seller's bid with a bid at the reference level.

When this occurs in New York City, which has relatively stringent thresholds given its supply conditions, there is an "automatic mitigation procedure" (or an "AMP") that automatically replaces the seller's bid with a bid at the unit's reference level. When this occurs in the rest of the state, then a parallel process occurs in a non-automated fashion, such that when both "conduct" (i.e., making offers higher than the applicable reference level) and "impact" (i.e., the higher prices affect clearing prices) occurs, then the seller's bid is adjusted going forward.

10. Identify generators that on a regular basis and aggregate over the year have the greatest difference between the prices they bid and what they receive?

As a general rule, the power plants that regularly bid their output at low prices relative to the resulting market clearing prices are those power producers with low out-of-pocket costs (e.g., low variable costs, such as fuel and operating costs), but relatively high capital costs (e.g., construction and maintenance costs). Such plants include renewable resource power plants and nuclear power. For example: (1) <u>Wind Turbines.</u> The wind (i.e., the fuel) is free, but the turbines are relatively expensive to construct. (2) <u>Hydro Plants.</u> The water to operate the plant and produce power is effectively free, but the plant is relatively expensive to construct and maintain. (3) <u>Nuclear Plants.</u> The plants are expensive to own, operate, and maintain and require high costs to store the nuclear fuel, but produce output at relatively low costs. (By contrast to these renewable resource and nuclear power plants, the fuel-related costs are higher at coal-fired power plants, and much higher at generating units that burn natural gas or oil.)

These nuclear and renewable resource power plants tend to be economical for the system to operate whenever they are available to run; therefore, it benefits the system when they bid their low operating costs, when they are dispatched in the least-cost generation dispatch, and when another, more expensive power generator does not need to be dispatched and set a higher clearing price. For example, Hydro plants have the ability to be dispatched flexibility, with the operator ramping their electrical output up or down when the system's demand goes up and down quickly during periods when other plants cannot respond as flexibly to the dispatch instructions needed for reliability. As a result, these hydro plants provide great value to the system's overall operations and economy dispatch.

Because these renewable resource and nuclear power plants have relatively high capital costs, as compared to typical oil-fired and gas-fired power plants, they require more revenue from operations in energy markets for the owners of these plants to cover the higher fixed costs of operations. Without suggesting that the following represents actual costs of owning and operating plants today, the following list of capital and variable costs of different kinds of new power plant technologies illustrates the ways in which an owner of a nuclear, wind or hydro plant experience higher fixed costs for which the owner will seek revenue support in the energy markets where prices are set by power plants with higher variable costs but lower capital costs:²⁴

		capital costs	variable costs
Technology	f <u>uel</u>	<u>(\$/kW 2007\$)</u>	(mills/KWh 2007\$)
Conv'l Combined cycle	oil/nat gas	\$962	2.07 (at 7,196 Btu heat rate)
Conv'l Comb. Turbine	oil/natural	\$670	3.57 (at 10,810 Btu heat rate)
Nuclear plant	uranium	\$3,318	0.49 (at 10,434 Btu heat rate)
Wind turbine	wind	\$1,923	0.00
Conventional hydro	water	\$2,242	2.43

11. In what manner do hedge funds or other financial entities participating in NY-ISO auctions and governance affect electric markets and what are the risks to which rate payers are exposed? How does this affect markets?

Please see the answer to Question 12 below.

12. Please define "virtual bids" and how they affect the market and how often they appear in NY-ISO auctions. What is their impact on market rates?

NYISO's market participants include electric distribution utilities, municipal electric systems, transmission companies, power plant owners, power marketers, large industrial customers, universities, hospitals, financial institutions, and others. Of the over 400 approved "customers" who participate in the markets administered by NYISO, there are currently approximately 10 financial institutions and less than 10 hedge funds.²⁵ Like other market participants, financial entities may participate in the physical markets, as well as the day-ahead energy market through virtual trading (see below), although they tend to participate more heavily in the latter than the former. Financial entities generally improve the performance of the NYISO markets in a number of ways, including increasing the number of participants in markets and participating in transactions that tends to lead to greater price convergence and less volatility

²⁴ Source: Energy Information Administration, "Assumptions to the Annual Energy Outlook, 2009," March 2009, Table 8.2. Cost and Performance Characteristics of New Central Station Electricity Generating Technologies

²⁵ http://www.nyiso.com/public/webdocs/services/customer_relations/customers/ nyiso_approved_ customers.pdf; http://www.nyiso.com/public/webdocs/committees/general_information/ part_0_1_2_rpt_ membership_for_web.pdf.

between the prices day-ahead and real-time markets. (These effects are described in more detail below.)

To manage the financial risks associated with transactions in the markets it administers, the NYISO's federally-approved tariffs establish specific financial credit requirements for NYISO's market participants and various markets. Such requirements provide mechanisms to assure adequate credit coverage to support the transactions among those who are buying power or selling power in the financial and physical markets NYISO administers. Despite the recent volatility in the U.S. and global economies, the NYISO has managed the risk resulting from failed financial institutions (e.g., Bear Stearns and Lehman), and has not experienced a bad debt loss from such financial entities.

In the New York electricity markets, Virtual Bidding is the submission of bids or offers to purchase or sell energy in the day-ahead energy market administered by NYISO. To define "virtual bids" and "virtual bidding," it might help to begin with the context that most of us think about when we think of supply and demand for electricity. Commonly, we assume that an offer to sell or buy an amount of electricity on the next day at a particular price is tied to an actual delivery of power supply. In other words, if the seller offers to sell electricity at \$50/MWh at noon tomorrow, and a load-serving entity bids to buy electricity at a price at or above that amount, then the transaction is commonly expected to result in power production and consumption – that is, the "physical" delivery of power. By contrast, a "virtual bid" is a bid or offer for the financial purchase or sale of energy, rather than or in addition to the physical delivery or purchase of energy in the NYISO-administered energy markets. Virtual Load and Virtual Supply transactions are financial transactions only and have no effect on real time physical energy consumption. Virtual Bidding enables qualified NYISO customers to:

- buy energy (i.e., Virtual Load) in the day-ahead market at day-ahead prices and sell it in the real-time market at real-time prices and;
- sell energy (i.e., Virtual Supply) in the day-ahead market at day-ahead prices and buy energy to cover the sale in the real-time market at real-time prices (Virtual Supply).

A Virtual Load differs from a physical load because the bidding entity does not intend to consume the energy it seeks to buy in the day-ahead market. Instead, the bidder intends to sell the energy in the real-time market. In the day-ahead market, there is no difference between a Physical Load and a Virtual Load. In real-time markets, however, the physical load will consume energy (to the extent that it has not over-bid in the day-ahead market), whereas the Virtual Load will not actually consume energy. A physical load that buys more energy in the day-ahead market than it consumes in real-time is indistinguishable in its effects from a Virtual Load. A Virtual Supply bid works in the converse: it is an offer in the day-ahead market to supply a specific amount of energy, for a particular hour, in a specific New York Control Area zone, at or above a specific price. A Virtual Supply bid differs from a physical generation bid because the bidding entity will not generate the energy it seeks to sell in the day-ahead market; rather, the bidder intends to buy the energy in the real-time market to fulfill its supply obligation.

There are several sizable benefits of Virtual Trading in the day-ahead energy market. First, Virtual Trading improves the competitive performance and efficiency to the market by improving the price convergence between the day-ahead and real-time markets. This convergence is very important because day-ahead market results that diverge significantly from the real-time results will have the effect of leading to inefficient "generator commitments" (i.e., the decision to start-up and shut-down generating units) since these commitments are coordinated through the day-ahead market. In addition, when load-serving entities must purchase short-term energy to serve their customers, most of these purchases are made in the day-ahead market. Therefore, it is very important that the day-ahead market results accurately reflect anticipated real-time conditions.

Second, virtual trading mitigates potential market power in the day-ahead market. If physical suppliers withhold resources from the day-ahead market or raise their offer prices, virtual suppliers will sell more energy. This serves to undercut the withholding strategy.

Third, Virtual Trading reduces overall day-ahead price volatility by providing liquidity and increased dispatch flexibility. As prices begin to rise in the day-ahead market, virtual traders will increase their sales, which will limit the price increase. This was evident in May 2000, before the introduction of Virtual Trading, when day-ahead prices spiked to more than \$1000. No such events have occurred since Virtual Trading was introduced seven years ago. This reduction in price volatility lowers the overall costs of serving electricity consumers in New York, which includes managing the risks associated with such volatility.

Although it would be impossible to quantify, these benefits of Virtual Trading should translate to lower market rates and costs to New York's consumers. Because financial entities tend to participate in Virtual Trading (more than in physical trading), their participation in the market generally improve the performance of the NYISO markets.

By their involvement in transactions where there is likely to be a difference in prices between the day-ahead and real-time energy markets, as well as the differences between the NYISO markets and adjacent markets in New England, Ontario, and the Mid-Atlantic region, these financial entities help to increase the overall efficiency of the electricity markets. For example, when prices are higher in New York than a neighboring market, participants will schedule additional imports to New York to capture this price difference, with this transaction helping to lead to price convergence and lower prices for New York's consumers. In general, the increased liquidity provided by financial entities lowers the risks to New York's consumers that prices will move sharply in a manner that does not reflect underlying supply and demand fundamentals.

Virtual Loads and Virtual Supply offer prices are monitored and subject to price mitigation rules that monitor bidding behavior and impose caps and limits on quantities of Virtual bids when they are seen to be driving prices in the day-ahead and real-time markets apart. (See Section 4.6 ("Virtual Bidding Measures") of Attachment H ("ISO Market Power Mitigation Measures") of the NYISO Services Tariff.)

14. Does the NY-ISO have any information about the use by generators of the "producers' surplus" created by the market clearing price? If so, has this surplus been invested in new

generation or in the development of renewable energy and demand-response resources?

The NYISO does not have information regarding the use of proceeds received by specific generating companies, nor does the NYISO have the authority to obtain such information. The NYISO does not have any authority beyond what has been specifically delegated to it by FERC through its FERC-accepted tariffs and organic agreements. If the Committees require this information, the question should be directed to individual generating companies or their trade organization.

It is crucial to note that the funds that a generator receives, reflecting the difference between its marginal cost and the uniform clearing price, is quite different from a "producer's surplus." The precise meaning of the term "producer's surplus" as defined in economics is the amount a producer receives above the price at which he would be willing to sell his product; conversely, a "consumer surplus" is the amount of savings the consumer experiences when he buys a product for an amount lower than the amount he or she would be willing to spend to buy that product. Putting this into the terms of a power market, a power owner might be willing to supply power for an hour if he were repaid at or just above his out-of-pocket costs to operate that hour, but that could not be equated with "profit" if that plant owner actually needed the revenue above his out-of-pocket fuel and operating costs to pay his staff, pay his property taxes, repay his debt, compensate equity investors (e.g., shareholders of the company) for a fair return, and so forth. So, while he may experience a "producer surplus" of \$1 if he were willing to and did sell at a \$50/MWh price, when his out-of-pocket costs were \$49/MWh, that \$1 producer surplus would not necessarily provide him with undue "profit." The same could well be true for producer surplus amounts at much higher levels, for example as might occur if the power plant owner (e.g., of a wind farm) had very low out-of-pocket costs but high costs associated with construction, ownership and financing of the wind farm project.

In parallel, there may be hours of the day when many electricity customers buy power at a price lower than what they would be willing to pay if buying at a higher price might avoid a blackout. (This can be illustrated by the hospital or a factory that pays out of its own pocket to install its own emergency generator on its property, because the hospital or manufacturer could simply not afford to experience a blackout.) The buyer who obtains electricity at a price lower than he would be willing to spend enjoys what economists call a consumer surplus. Just as a producer surplus does not equate with profit, nor does a consumer surplus represent actual proceeds from the market.

In theory, it might be possible, although exceedingly difficult, to track the flow of dollars when a market participant receives either a producer (or a consumer) surplus, but the NYISO does not track such data nor does it have the authority to obtain such information.

15. Please provide any and all information you have to support the idea that the market clearing price system is directly responsible for the development of renewable energy, and without it such development would not have occurred? How do you value the contributions made by the State RPS and SBC to the development of renewable power NYS?

The NYISO has previously commented that as "Established by the New York PSC in 2004, the Renewable Portfolio Standard (RPS) requires that 25% of the state's electricity be

generated from renewable resources by 2013. Policy benefits include 1) a more diverse mix of fuels used for power generation, which will improve energy security and independence, and 2) an improved environment from reduced power plant air emissions." NYISO, "Power Trends 2009," page 16.

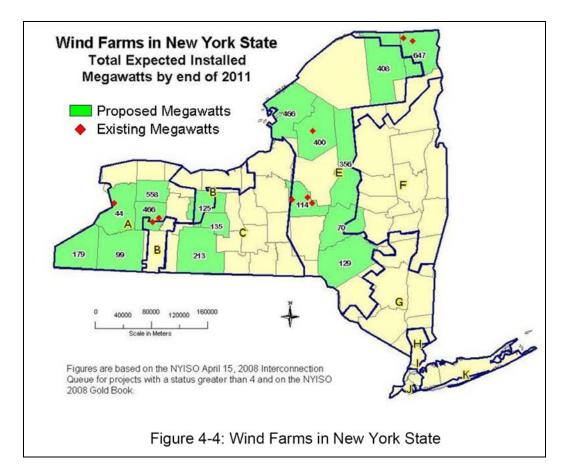
In so commenting, NYISO has noted how the design of New York's power market has enhanced the state's ability to meet its renewable-energy targets, and together these policy and market factors have produced significant investment and jobs in the state, and will help New York and the region meets its greenhouse-gas emission reductions targets more efficiently than they otherwise would. Other states that lack the combination of state policies and power market designs have not seen the same type of investment in renewables occur within their states.

For example, since its inception in 2004, New York's RPS program has supported 28 large-scale projects ("Main Tier" projects) and approximately 332 customer-sited projects ("Customer Tier" projects). Together, these projects represent approximately 1,100 megawatts of installed renewable capacity, and an additional 65 MW projected to be operational by year-end 2009. These power under contract to be supplied from these projects represents approximately 3.8 million MWh annually, enough to power 635,000 homes. Public sector investment in large-scale renewable projects has been \$475.6 million, and is mostly in large scale wind development. The economic development benefits associated with this investment can be evaluated by measuring jobs created, property and other local tax benefits that flow to host communities, royalty payments to landowners and purchase of in-state materials, goods and services. An estimated \$742 million in RPS funding to date has been projected to leverage \$2.1 billion in private investment and over \$4 billion in economic spin-off over next 20 years.

In its recent study on fuel diversity ("Fuel Diversity in the New York Electricity Market: A NYISO White Paper," October 2008), the NYISO reported that

"New York is third among the states in wind capacity under construction. As of June 30, 2008, only Texas and Iowa had more wind capacity under construction.[fn] At that time, New York State had 706.8 MW of wind power, with 588.5 MW more under construction. And, as shown in Figure 4-4 [below], thousands more MWs of wind capacity have been proposed in the state. Wind projects support fuel diversity in New York's power market, since most other new generating capacity added in the past decade and currently proposed is from power plants that use natural gas – a fossil fuel whose price has tripled since 2000. The price of wind remains the same over the same period: zero cents per kWh. As indicated in Figure 4-4, most of the wind developments are in the upstate area. Therefore, without enhancements to the transmission grid in the state that will allow greater transfers of power from north to south, the wind resources may do little to reduce energy prices and diversify the downstate mix. Moreover, without transmission enhancements enabling greater delivery of wind, wind turbines may be required to dispatch down even when the wind is blowing because the grid would otherwise become overloaded with too much power for the local region to absorb.[fn]"

NYISO, "Fuel Diversity in the New York Electricity Market: A NYISO White Paper," October 2008, page 4-8.



In a July 28, 2008 memorandum, NYISO published a memorandum prepared to describe the "hospitability of New York's wholesale electricity markets, and in particular New York's "single clearing price" design, to investments in wind power development." This memo stated that:

"The attractiveness of New York for wind power development is supported by the design of the state's electricity markets. Since the markets began operating in 1999, NYISO has had a "single clearing price" design for the state's electric energy market. This market design is the one operating in most of the central wholesale electricity markets administered by Regional Transmission Organizations in the U.S. and elsewhere, and is advocated by most of the economists who have studied the subject. New York adopted a single clearing price market (also known as a "uniform price auction" approach) because it is an economically efficient design for a competitive wholesale power market. Under this approach, all suppliers interested in providing power offer bids into a centralized market where winning bidders are selected based on their offer price. The selection process identifies offers ranked from lowest to highest offer prices, with the award group made up of enough supply needed to satisfy demand requirements in that auction. All winning bidders are paid the same "clearing price," set at the offer price of the last resource needed to satisfy load.

"This approach has proven to be an effective way to operate power plants in a least-cost fashion and attract power generation investment generally. This occurs because this

market design encourages power plant owners to offer to sell power into New York's electric energy market based on bids that reflect only a power plant's variable (out-of-pocket) costs. Doing so allows them to be dispatched by NYISO when their power supply has a lower cost to New York electricity users than other power suppliers' bid prices.

"The design also provides strong incentives to suppliers to offer low prices and improve the efficiency of their power plants, because (a) they will be only be paid in the energy markets if they are called upon to supply power; and (b) when they are dispatched, they will be paid the offer price of the last supplier dispatched to generate power in that hour (i.e., the clearing price). The revenue earned in excess of a supplier's variable costs (i.e., amount of revenue between their offer price and the clearing price) goes to support the fixed costs of the plant (including repayment of debt, employee salaries, a return to investors, property taxes, and other costs that do not depend upon the amount of power produced at the plant).

"This model is particularly attractive to wind developers, whose variable costs are extremely low, since the wind is free. Wind projects are relatively capital-intensive power sources with very low operating costs. Wind projects are paid the clearing price, which is much higher than their variable costs and which supports repayment of construction-cost debt, other investment costs, personnel, and a return on investment.

"The single clearing price model was of course selected because it provides market efficiency, but wind developers are among the chief beneficiaries of it. Similar benefits should be available to other renewable projects, such as new hydro and solar as they become available, since they too have very low variable costs and relatively high capital requirements.

For New Yorkers, this benefit to renewables is especially important. When wind or other renewable projects are dispatched, it means that an alternative source of power is not dispatched; in almost 90 percent of the hours of the year, the alternative source of power would be at a plant that uses natural gas, oil or coal. Renewables, by contrast, are sources of power without greenhouse gas emissions or other air pollutants. This market design helps New York to satisfy its RGGI and Renewable Portfolio Standard (RPS) goals efficiently, and to provide efficient electric power to consumers.

"It must be noted that market design alone will not be sufficient to maximize the State's use of wind or other renewables. Renewables are only available where the wind blows or the water falls. The State must have the means of efficiently transmitting the electrical output of these facilities to the places where the electricity is needed. Such transmission facilities in New York are badly in need of reinforcement and expansion – especially in order to move plentiful renewable resources located Upstate to the state's customer loads, over half of which is located in Downstate and reachable only by transmission pathways."

Further, NYISO reported in its "Power Trends 2009" report, that "Open access to the state's electricity grid has also increased the number of existing and planned projects powered by renewable resources, which are more protective of the environment than are traditional fossil-fueled plants. Commercial power production from renewable resources, predominantly

hydroelectric power projects, currently totals more than 5,600 MW of electricity. Nearly two dozen private sector energy service companies now offer customers the option to purchase green power. More than 1,000 MW of wind power has been added in recent years and over 8,000 MW of additional wind power projects are proposed for development in the state. The NYISO has taken steps that, according to FERC, "will benefit, and encourage, wind and other intermittent generators." Those steps include a centralized wind-forecasting initiative, unique market rules for wind projects, and proposals to enhance the dispatch of wind power on New York's bulk electricity grid." NYISO, Power Trends, 2009, page 7.

There are parallel and additional benefits from New York State's SBC program. Annual funding committed to efficiency programs by New York's utilities and energy authorities began with at the level of \$25 million in 1984, and is now approximately \$321 million as of 2008. Approximately half of these funds are generated through a SBC collected from the customers of the State's jurisdictional utilities. NYPA, LIPA and other agencies have established separate efficiency programs for their customers which account for the balance of the annual expenditures. Between 1998 and 2008, the portfolio of SBC-funded programs is estimated to have reduced peak electric load by 1,284 megawatts – an amount equivalent to the size of one of the largest operating nuclear or fossil-fueled electric generation plants in the State. These peak load reductions, along with the associated decreased production and delivery of electricity (and combined with programs that achieved air-emission reductions at power plants) provided the following benefits to the State in 2008:

- \$590 million in annual energy bill savings (electric, oil, and natural gas) for New York consumers
- 2,725 tons of annual nitrogen oxides (NOx) emission reductions
- 4,960 tons of annual sulfur dioxide (SO2) emission reductions
- 2.1 million tons of annual carbon dioxide (CO2) emission reductions (equivalent to removing 425,000 automobiles from New York's roadways).

Expenditures on energy efficiency programs also have substantial macroeconomic impacts that go beyond direct financial benefits to participants. Purchases of goods and services through these programs set off a financial ripple effect that influences many sectors of the New York economy and the level and distribution of employment and income in the State.

16. Please clarify which NY-ISO employees arc full-time/part-time, including board members, their compensation and the basis for that compensation. Please indicate which if any are employed on a contingent basis and their compensation.

All NYISO employees are full time except for 6 individuals. No NYISO employees or Directors are employed on a contingent basis. The NYISO employs 436 working men and women, many of whom are professional power system engineers, NERC certified system operators, accountants, economists and attorneys. Excluding executive management employees, whose compensation is provided below, the average compensation of these employees for 2008, the last full year for which data are available, was \$ 88,719. There are 25 employees with PHDs, 107 with Masters degrees, and 200 with Bachelor degrees or equivalent. All NYISO employees have been subjected to extensive security reviews, in cooperation with the United States Departments of Energy and Homeland Security.

For the convenience of the Committees, we have listed the current officers of the NYISO. Among them are also the highest paid employees in the organization. The basis for their compensation is a review, conducted annually by recognized independent consulting firms, to determine the market compensation for the individual positions. The compensation is for 2008, the most recent full year for which data are available. The officers and their 2008 compensation are as follows:

President & Chief Executive Officer-Stephen G. Whitley- \$ 466, 899

• Mr. Whitley, an electrical engineer, is an expert in planning and operating complex bulk power systems and markets. He was retained by the NYISO in July of 2008 after the NYISO conducted a nationwide search for a new CEO. At the time, Mr. Whitley was serving as Chief Operating Officer of the New England ISO where he was responsible for System Operations, System Planning, Market Operations, Customer Service and Training, and NERC/NPCC Compliance. He was responsible for the recent augmentation of the 345-kV transmission system in New England, including new 345-kV infrastructure in all six NE states and a new interconnection with New This effort reduced costs and enhanced reliability for consumers Brunswick. throughout New England. Prior to his service in New England, Mr. Whitley served in various executive capacities for the Tennessee Valley Authority (TVA), including VP Transmission, and General Manager Electric System Operations. He serves on many national electricity industry councils and boards and is nationally recognized for his expertise in transmission, operations and planning. He is a retired U.S. Army Reserve Colonel.

Vice President, Market Structures- Rana Mukerji- \$439,597

• Mr. Mukerji is an experienced electricity industry executive. Before joining the NYISO, he was Senior Group Vice President at ABB where among his responsibilities was leadership of ABB's Global Utility Partner business. Prior to joining ABB, he was General Manager of GE Power Systems, in Schenectady. A native of India, he was graduated in electrical engineering from the Indian Institute of Technology and holds both a masters degree in engineering and an MBA from Rensselaer Polytechnic Institute.

Vice President & General Counsel-Robert E. Fernandez- \$ 361,189

• Mr. Fernandez is an experienced energy lawyer. Prior to joining the NYISO, he was Chief Regulatory Counsel and Vice President at Sithe Energies, Inc. Earlier in his career, he practiced energy law and taxation at the firm of Cullen & Dykman, served as in-house counsel at Long Island Lighting Company and was an attorney for the United States Internal Revenue Service. Mr. Fernandez is a graduate of Brooklyn Law School and holds a Master of Laws degree in taxation from New York University School of Law.

Vice President, Operations-Ricardo T. Gonzales- \$ 291,000

• Mr. Gonzales has extensive experience in and knowledge of New York State's electricity system and its operations. He joined the New York Power Pool in 1987,

and has been involved in various capacities with operating the system for all of the 22 years since that time. He played the central role in restoring electricity to the State after the 2003 Northeast blackout, and the NYISO received the admiration of the industry and regulators for that prompt and effective recovery. He started his career in the electricity industry at the Connecticut Valley Electric Exchange. He is a graduate of Clarkson University and also holds a Masters Degree from Clarkson in Electrical Engineering.

Vice President, System & Resource Planning-Dr. Xingyong H. (Henry) Chao- \$ 223,293

• Dr. Chao is an experienced executive and consultant in the electricity industry. Before joining the NYISO, he was Vice President of Technology and Business Development at ABB. Prior to that, he was a consultant in demand side and supply side resource adequacy planning. Earlier in his career he worked at PTI/Siemens, in Schenectady, for Southern Company, in Atlanta, and at Nanjing Automation Research Institute, in China. His doctoral degree is from Georgia Institute of Technology.

Vice President and Chief Financial Officer-Mary K. McGarvey- \$ 216,316

• Ms McGarvey has had a distinguished career as a CPA, Controller and manager of the NYISO's complex billing and settlement processes, budget management, regulatory accounting and reporting, credit and financial security issues, Sarbanes Oxley related issues and financial management. Before joining the NYISO, she was a CPA at Pricewaterhouse Coopers, where she provided audit and business management services to both public and closely held companies. She is a graduate in accounting from LeMoyne College and is a New York State licensed CPA.

Vice President & Chief Information Officer-Richard Dewey- \$ 211,516

• Information Technology (IT) is at the heart of operating an electric system based on competitive market considerations. Mr. Dewey has been a central figure in the development and deployment of the most successful such system in the United States, at a cost that is only a fraction of less advanced systems now being developed and deployed elsewhere. Mr. Dewey has spent his career in innovative IT posts in the electricity industry and elsewhere. He was IT Manager at a large tonnage machine business and Manager of Corporate Network Services at Niagara Mohawk Power Corporation. He holds a Bachelor of Science degree in Electrical and Computer Engineering from Clarkson University and a Master of Science degree from Syracuse University in Computer Engineering.

Vice President, Risk Management/Compliance/Human Resources-Wayne Bailey- \$182,493

• Mr. Bailey joined the NYISO in 2000, and his competence, energy and insights have propelled him to roles of increasing responsibility. Prior to joining the NYISO, he was an intelligence officer with the rank of Captain in the United States Army and then a civilian intelligence officer and program manager for intelligence agencies and defense contractors in Washington, DC. He holds a Bachelor of Science Degree from the Georgetown University School of Foreign Service and a Master of Science degree from the Defense Intelligence College in Washington, DC.

Corporate Secretary-Diane Egan- \$ 125,035

• Ms Egan has an extensive background in administrative matters, the transition from

NYPP to the NYISO and in professional administration for successive Presidents and the Board of Directors. She progressed from administrative assistant and engineering clerk to Personnel Administrator at NYPP. She is currently Corporate Secretary and Assistant to the Board of Directors at NYISO.

The Board of Directors consists of 10 individuals, including the President, who is an ex officio member of the Board. (The President, however, is also an employee and is thus listed above.)

Karen Antion (Board Chair)

• Ms. Antion is a recognized Information Technology executive with experience in the Transportation, State and Local Government, and Financial Services Industries. Ms. Antion served as the senior IT executive in large public and private sector organizations including Oracle Corporation and The Port Authority of New York and New Jersey. Among her major accomplishments are the implementation of the E-Z Pass electronic toll collection program, the introduction of the Newark International Airport Monorail System, and approval and funding to advance the \$1.5 Billion JFK Airtrain system. At the NYISO, Ms. Antion oversaw the development and implementation of an industry leading software system that is now being implemented in other markets at considerably greater cost. Ms. Antion is the Board Chair. **

Michael Bemis (effective April 21)

• Mr. Bemis is one of the three required electricity industry executives on the Board. He formally took office at the Board's annual meeting on April 21. He has three decades of experience in various aspects of the electricity business, including having been President of Exelon Power, Exelon Energy Delivery and international operations of Entergy in the United Kingdom, Australia and Argentina. Mr. Bemis was not on the Board in 2008.

Ave Bie (effective April 21)

• Ms. Bie is an attorney and is managing partner of a Wisconsin law firm. She formally took office at the Board's annual meeting on April 21. She is the former Chair of the Public Service Commission of the State of Wisconsin and has a strong background in consumer issues as well as extensive experience in the regulatory side of the electricity industry. Ms. Bie was not on the Board in 2008.

Alfred F. Boschulte

• Mr. Boschulte is a telecommunications expert. He is currently President of AFB Consulting. Mr. Boschulte was an officer for many years at New York Telephone Company where, at various times, he supervised information systems, marketing and engineering. Mr. Boschulte chairs the Board's Audit and Compliance Committee. His compensation in 2008 was \$ 114,250.

Robert A. Hiney

• Mr. Hiney is one of the three required electricity industry executives on the Board. He is the former Executive Vice President of the New York Power Authority, where he

served in various capacities for 35 years until retirement. Mr. Hiney has extensive knowledge of the New York bulk transmission system. He has served as Vice Chair of the Northeast Power Coordinating Council and, while still at NYPA, was elected by the NYISO's Market Participants to Chair their Management Committee. His unique knowledge of New York's transmission system has guided the NYISO in implementation of a new planning regime. Mr. Hiney chairs the Board's Reliability and Markets Committee. **

James V. Mahoney

• Dr. Mahoney is the third of the three required electricity industry executives on the Board. He is the President and CEO of Energy Market Solutions, an energy advisory company. He is the former President and CEO of DPL, Inc., the parent company of Dayton Power and Light, DPL Energy and DPL Energy Resources. Dr. Mahoney's compensation in 2008 was \$ 79,750.

Thomas F. Ryan

• Mr. Ryan, an expert in markets, is the former President and CEO of the American Stock Exchange. Before that he was an officer of the Boston Stock Exchange. He also had a distinguished career at the firm of Kidder Peabody, culminating in his being Chairman and CEO of the firm. Mr. Ryan formerly chaired the Market Performance Committee, and he oversaw the original development of the NYISO's markets and its market monitoring function. His guidance has kept New York's electricity markets protected from the financial reverses that have affected other regions. His compensation in 2008 was \$ 105,500.

Richard Schuler

• Dr. Schuler is emeritus Professor of economics and emeritus Professor of Civil and environmental engineering at Cornell University. Dr. Schuler also served on the New York PSC, where he was Deputy Chairman. Dr. Schuler chairs the Board's Governance Committee and serves as its lead outside director. Dr. Schuler's dedication to consumer and environmental causes has informed Board discussions and decisions. His compensation in 2008 was \$ 113,750.

Erland E. Kailbourne

• Mr. Kailbourne is the former President and CEO of Fleet Bank. He has served New York State in a number of capacities, including the Board of Trustees of SUNY, where he was Vice Chair, and as Chairman of the New York State Bankers Association. Mr. Kailbourne chairs the Board's Commerce and Compensation Committee. His breadth of business experience has been brought successfully to bear on a succession of difficult issues facing the Board. Among other things, he has overseen the administration of the NYISO's customer financial settlements and counterparty credit risk management. His compensation in 2008 was \$ 121,250.

The compensation of the Directors is calculated individually, depending on number of Board meetings attended, number of Committee meetings attended, Committee Chairmanships and other Board responsibilities, as follows:

Basic Retainer, each Member	\$35,000/annum
Incremental Retainers	
Chair	\$45,000/annum
Vice Chair	\$7,000/annum
Non Audit Committee Chairs	\$7,000/annum
Audit Committee Chair	\$10,000/annum
Expanded Chair Role	\$12,666/mo.
Lead Director Role	\$7,000/annum
Board Meeting Compensation	\$2,000/meeting
Committee Meetings	\$1,500/meeting, not to exceed \$3,000/diem

Lesser amounts are also provided for teleconferences, and Directors are reimbursed for travel expenses.

**During the year 2008, the previous CEO left the company and Mr. Hiney and Ms. Antion filled in as President and CEO, respectively, for four months. Their total compensation for 2008 was \$ 240,250 for Mr. Hiney and \$ 351,500 for Ms. Antion, who was also Board Chair. During that time, they managed the organization and its staff, supervised operation of the electric system, oversaw planning and regulatory issues and conducted a successful search for a new President.

ATTACHMENT B

DOCUMENTS PROVIDED IN RESPONSE TO QUESTION 4



July 21, 2008

BY HAND DELIVERY

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

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

Dear Secretary Bose:

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

¹ 16 U.S.C. § 824d (2007).

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

The NYISO submits this filing pursuant to Section 205 of the Federal Power Act³ under exigent circumstances at the direction of the NYISO Board. Section 19.01 of the ISO Agreement empowers the NYISO Board to direct the NYISO to submit a Section 205 filing that expires no later than 120 days after it is filed with the Commission without the concurrence of the NYISO's Management Committee⁴ when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures."⁵ The Board concluded that exigent circumstances exist in this instance because a relatively small number of Market Participants are scheduling transactions over circuitous Scheduling Paths around Lake Erie to take advantage of a "seam" between the methods that are used by the organized markets in the Eastern Interconnection to price External Transactions.⁶ While the NYISO has not identified any violations of any provision of its existing Tariffs or market rules, the scheduling of transactions over circuitous paths around Lake Erie is adversely affecting the operation of the ISO-Administered markets.

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

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

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

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

⁶ External Transactions include Imports, Exports and Wheels Through.

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

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

I. Description of Proposed Tariff Revisions and Justification

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

- External Transactions that (a) exit the New York Control Area ("NYCA") at the NYISO's Proxy Generator Bus that represents the Interface between the NYCA and the Control Area operated by Ontario's Independent Electric System Operator ("IESO"), and (b) sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- External Transactions that (a) exit the NYCA at the NYISO's Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area,¹⁰ and (b) sink in the IESO Control Area;

3. External Transactions that (a) enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area, and (b) source from the IESO Control Area;

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

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

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

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

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

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

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

¹² See Section V.B. of this Filing letter.

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

Since January of this year a significant volume¹³ of External Transactions have been scheduled over two of the eight Scheduling Paths described above¹⁴ by a small subset of Market Participants that appear to be responding to an inefficient incentive resulting from differences between the External Transaction pricing and settlement rules of the ISOs and RTOs that surround Lake Erie. The NYISO and IESO price External Transactions based on the path over which an External Transaction is scheduled into or out of their respective Control Areas.¹⁵ The NYISO separately prices each of its Proxy Generator Buses, and Import and Export transaction Bids are economically evaluated at each Proxy Generator Bus in the NYISO's market evaluation. All Import and Export transactions scheduled by the NYISO that source from, or sink to, a particular external Proxy Generator Bus in a particular hour are paid (Imports) or pay (Exports) the same Locational Based Marginal Price ("LBMP").¹⁶ The NYISO does not consider the originating source of an Import or the ultimate sink of an Export, specified in the North American Electric Reliability Corporation ("NERC") Tag supporting an External Transaction, when determining the LBMP the Transaction receives or pays. It is NYISO's understanding that IESO's method of pricing External Transactions is similar to the NYISO's.¹⁷

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

²¹ See Section V.B. of this filing letter.

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

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

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

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

²³ Again, it is possible to exceed the Control Area interchange limit in one direction when there are "counterflow" External Transactions scheduled in the opposite direction.

²⁴ A description of the study that the NYISO's Operations Department prepared is set forth in Section V.B. of this filing letter.

²⁵ A description of the Study that the NYISO's Market Advisor prepared is set forth in Section V.C. of this filing letter.

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

II. Documents Submitted

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

4. Redlined revised tariff sheets depicting the changes that the NYISO proposes to make to Section 15.1 of the NYISO's OATT, Section 5.0 of Attachment J to the OATT and Section 3.6 of Attachment B to the NYISO's Services Tariff ("Attachment C").

III. Copies of Correspondence

Communications regarding this proceeding should be addressed to:

Robert E. Fernandez General Counsel Elaine D. Robinson Acting Vice President of External Affairs *Alex M. Schnell New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 Tel: (518) 356-8707 Fax: (518) 356-7678 aschnell@nyiso.com

*Person designated for receipt of service.

IV. Reasons and Basis for this Filing

A. Background

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

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

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

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

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

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

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

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

http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2007-01-17/MIWG_PJM_Proxy_Pricing_11707.pdf

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

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

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

The NYISO Board determined that exigent circumstances justify the submission of the attached Tariff revisions because the scheduling of External Transactions via circuitous Scheduling Paths around Lake Erie appears to be increasing Lake Erie circulation,³⁰ exacerbating congestion on the New York transmission grid without paying the full cost of that congestion³¹ and increasing the overall cost to serve load in New York.³² Unless something is done to end the scheduling of these transactions (or until it is possible to ensure better convergence between the physical and scheduled paths of these transactions), their scheduling will continue to adversely affect the operation of the NYISO markets. Unless the NYISO's proposed Tariff revisions are accepted for filing, the NYISO expects these transactions over at least one of the Scheduling Paths that the NYISO proposes to prohibit have obtained firm transmission reservations in neighboring control areas to support the continued scheduling of these transactions.

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

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

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

³⁰ See Sections V.A. and V.C. of this filing letter.

³¹ See Section V.B. of this filing letter.

³² See Sections V.B. and V.C. of this filing letter.

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

In paragraph two of its Guidance Order the Commission sets forth three criteria that must be satisfied in order for a Tariff revision addressing an identified tariff or rule flaw³³ to qualify for expedited consideration by the Commission. First, the concern must materially adversely impact the market due to (in this case) unanticipated actions by Market Participants. Studies performed by the NYISO's Operations Department and its Market Advisor that are described in Sections V.B. and V.C. of this filing letter indicate that the scheduling of External Transactions around Lake Erie from the NYISO's IESO Proxy Generator Bus, through IESO and MISO, to the PJM Control Area has caused significant additional, incremental, clockwise Lake Erie circulation and caused the NYISO to incur significant additional redispatch costs to address congestion that are reflected in both LBMPs and uplift paid by NYISO customers.³⁴ The studies described in this filing letter do not account for the harm that additional Lake Erie circulation causes to the NYISO's neighboring markets. The NYISO believes this filing adequately identifies a material adverse impact to the markets it administers.

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

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

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

³⁴ See Section V.C. of this filing letter.

³⁵ See Section V.A. of this filing letter.

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

V. Studies Supporting Proposed Tariff Revisions

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

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

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

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

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

exit the NYISO at the OH_LOAD_BRUCE proxy bus and that identified PJM as the Receiving Control Area ("RCA").

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

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

CORREL

Show All

. . . .

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

Syntax

CORREL(array1,array2)

Array1 is a cell range of values.

Array2 is a second cell range of values.

Remarks

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

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

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

The equation for the correlation coefficient is:

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

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

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

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

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

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

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

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

Bus scheduled to sink in the PJM Control Area had in a particular Real-Time Market hour. Both studies use real-time data from the May 26, 2008 market day. May 26, 2008 was selected for several reasons. First, for fifteen hours on May 26 significant volumes³⁷ of NYISO to PJM transactions were scheduled to exit the NYISO at its IESO Proxy Generator Bus and flow over a circuitous Scheduling Path around Lake Erie. Second, there were no significant³⁸ transmission system facility outages that impacted congestion³⁹ or thunderstorm alerts on May 26, 2008, so it is possible to look at the impact that the scheduling of circuitous transactions had on congestion in the New York Control Area and on Real-Time Market congestion redispatch costs in relative isolation.

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

The Operations Department's second study indicated that the ISO would experience a reduction in Real-Time Market Bid Production Costs⁴¹ of \$52,000 for HB20 on May 26 if schedules and flows were more accurately aligned. Assuming the same cost impact in all fifteen hours that had in excess of 2000MW of External Transactions scheduled from the NYISO's

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

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

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

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

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

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

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

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

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

In addition to preparing the studies described above, the NYISO's Operations Department provides the following brief explanation of why clockwise Lake Erie circulation exacerbates congestion on the New York State Transmission System ("NYS Transmission System"). Power generally flows from west to east, and from north to south over the NYS Transmission System to serve load centers in and around New York City. From the NYISO's perspective, when Lake Erie circulation is flowing in a "clockwise" direction it enters the NYCA from the IESO Control Area and flows from west to east, in the same direction and over the same facilities⁴³ as the prevailing flow of Energy that has been scheduled to serve NYCA Load. In doing so, the Lake Erie circulation power flow uses valuable NYS Transmission System capacity, and contributes to congestion in the NYCA. However, Lake Erie circulating power

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

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

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

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

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

• New York to Ontario;

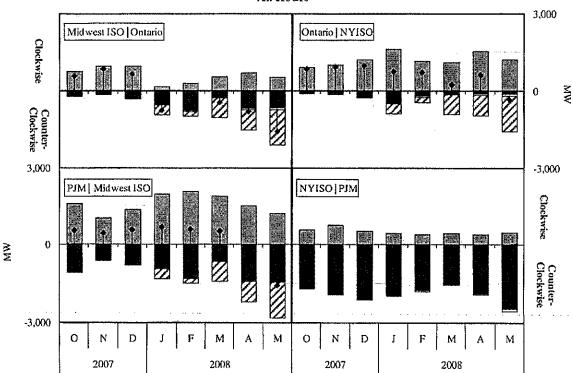
Ontario to Midwest ISO;

• Midwest ISO to PJM; and

• PJM to New York.

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

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



Interchange around Lake Erie by All Participants All Hours

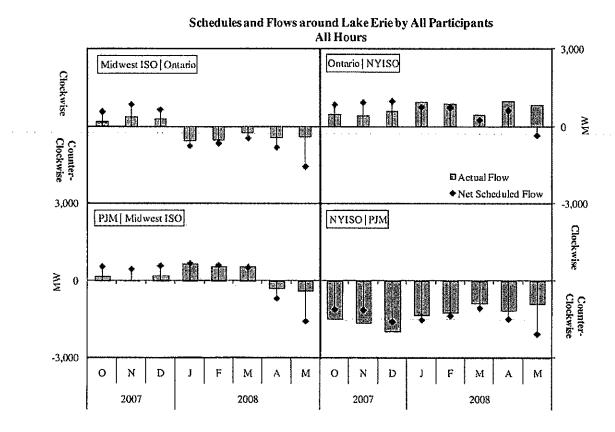
The above chart shows that the circuitous scheduling began in January 2008 and grew steadily over the year to a monthly peak in May 2008 of almost 1500 MW, on average, per hour. Also, note that the cross-hatched segment of the graph identifies the same quantity of circuitously scheduled MW at the NYISO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

Since the scheduling of External Transactions over circuitous Scheduling Paths around Lake Erie began, net schedules over all of the interfaces, except the IESO – MISO⁴⁵ and NYISO – PJM interfaces, reversed directions over the time period covered in the study. This would not be a substantial concern if the power actually flowed in the direction it is scheduled. However, power flows around Lake Erie have not and do not, in fact, conform to schedules. Unless and until there are adequate facilities in place to control interchange between Control Areas, power will generally flow over the paths of least resistance, with larger shares of the power flowing over more direct paths. Scheduling External Transactions over circuitous Scheduling Paths has

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

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

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



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

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

VI. Description of Proposed Tariff Changes

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

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

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

VII. Implementation Plan

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

1. NYISO Bid Validation Screen

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

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

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

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

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

2. NYISO Temporary Manual Screening of Wheels Through

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

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

⁴⁷ Removal of scheduled Transactions via the inter-Control Area check-out process will occur on a bestefforts basis, subject to operational considerations.

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

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

3. Handling of Previously Validated Bids

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

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

4. Financial Impact Charges

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

B. Explanation of Prohibited Scheduling Paths

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

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

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

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

C. Request for Prospective Limited Tariff Waiver

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

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

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

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

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

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

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

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

Three of the four Michigan/Ontario PARs are already in place and capable of operation. However, they have been operated in "by-passed mode" since the beginning of 2006.⁴⁹ The fourth PAR failed and is in the process of being replaced. It is the NYISO's understanding that the fourth PAR is expected to be in place and operational by Summer of 2009.⁵⁰ However, an agreement addressing the operation of the Ontario/Michigan PARs still needs to be negotiated. One of the "Key Findings" of the NERC 2007 Long Term Reliability Assessment was that "[PARs] intended to resolve loop flow issues occurring through the Canadian system (Ontario) have been in place since the beginning of 2006, but they are still not being actively used to manage loop flows due to protracted negotiations among the parties.... The agreement for the operation of the Michigan – Ontario PARs should be finalized."⁵¹ Similarly, PJM and MISO discussed Lake Erie circulation in their *Investigation of Loop Flows Across Combined Midwest ISO and PJM Footprint* in May of 2007. PJM and MISO's recommendations included a recommendation in which IESO and NYISO joined, stating that the four ISOs/RTOs "recommend the commissioning of the Michigan-Ontario PARs as soon as possible to mitigate the loop flow around the Lake Erie Loop."⁵²

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

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

As explained in Section IV.A. of this filing letter, the NYISO, PJM, IESO and MISO Market Monitors worked together to determine why Market Participants were scheduling everincreasing volumes of External Transactions over circuitous Scheduling Paths around Lake Erie. The Commission jurisdictional Market Monitors inability to share confidential information with each other impeded and slowed their efforts. The Commission should consider granting all of the Market Monitors⁵³ unrestricted access to NERC Tag data and should consider permitting the

⁴⁹ NERC 2007 Long Term Reliability Assessment at p. 160 (October 25, 2007). Link: ftp://ftp.nerc.com/pub/sys/all_updl/docs/pubs/LTRA2007.pdf

⁵⁰ Id. at 173.

⁵¹ NERC 2007 Long Term Reliability Assessment, Key Findings, at p. 19.

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

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

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

IX. Requested Effective Date and Request for Expedited Commission Action

For the reasons explained in Section IV.C. of this filing letter, and in accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations⁵⁴ and permit its proposed Tariff revisions to become effective on July 22, 2008. The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing as expeditiously as possible.

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

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

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

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

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

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

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

XI. Stakeholder Concerns and NYISO Stakeholder Process

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

XII. Service

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

XIII. Conclusion

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

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

Respectfully submitted,

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

July 21, 2008

ATTACHMENT A

Supporting Affidavits Of

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

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. Docket No. ER08-__-

AFFIDAVIT OF RICARDO T. GONZALES

I. Qualifications and Purpose

1.

My name is Ricardo T. Gonzales. I am the Vice President of Operations for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include the reliable operation of the New York Control Area transmission system, in compliance with all applicable NERC, NPCC, and NYSRC reliability rules and standards, the operation of the ISO Day-Ahead and Real-Time wholesale Energy Markets and validating the Energy Markets' prices, and the operation of the NYISO Transmission Congestion Contract and Installed Capacity Markets, and other NYISO administered markets.

- I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent
 Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the
 Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
- The NYISO Operations and Planning Department Staffs, acting at my direction, prepared the studies described in Section V.B. of the Exigent Circumstances
 Filing.

- The descriptions of the studies that the NYISO Operations Department prepared, including the results described in the Exigent Circumstances Filing, are accurate.
- 5. The underlying studies were conducted using reasonable assumptions and are reliable to the best of my information, knowledge and belief.
- 6. The explanation of the impact Lake Erie circulation power flows in the

"clockwise" direction have on congestion in the New York Control Area that is

set forth in Section V.B. of the Exigent Circumstances Filing is accurate.

ATTESTATION

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

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

July 21, 2008

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

Notary Public

My commission expires: March 21, 2010

DIANE L. EGAN Notary C. J. Stat. Inw York Qualif. A. Schend J. County No. 192 Commission Expires March 21, 20

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. Docket No. ER08-___-

AFFIDAVIT OF DR. NICOLE BOUCHEZ

I. Qualifications and Purpose

1.

My name is Dr. Nicole Bouchez. I am the Manager of Market Monitoring for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include administering Attachment H of the NYISO OATT and the NYISO's Market Monitoring Plan. I have worked as an Energy Economist for five years. I hold a Ph. D. and M.A. in International Economics from the University of California, Santa Cruz and a B.A. in Economics and International Relations from the University of California, Davis.

- I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
- The NYISO Market Monitoring Department Staff, acting at my direction, prepared the correlation study described in Section V.A. of the Exigent Circumstances Filing.

4. The descriptions of the study that the Market Monitoring Department prepared,

including the results described in the Exigent Circumstances Filing, are accurate.

5. The underlying study was conducted using reasonable assumptions and is reliable

to the best of my information, knowledge and belief.

ATTESTATION

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

Nicole Bouchez

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

July 21, 2008

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

Notary Public

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

March 21, 2010 My commission expires: 🖉

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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

AFFIDAVIT OF DAVID B. PATTON

I. Qualifications and Purpose

1.

2.

З.

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

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

ATTESTATION

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

David B. Patton

Vice President, Operations New York Independent System Operator, Inc.

July 21, 2008

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



Commonwealth of Virginia Georgia L. McCallam-Notary Poblic Commission No. 324948 My Commission Expires \$342610

Mccillan

Notary Public

My commission expires: 5-31-2010

ATTACHMENT B

Proposed Tariff Revisions (clean version)

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

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

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

15.0

Service Availability

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

Issued by: Issued on: Elaine D. Robinson, Dir. Reg. Affairs July 21, 2008 Effective: July 22, 2008

uiy 22, 2008

New York Independent System Operator, Inc. FERC Electric Tariff Original Volume No. 1 Attachment J Tenth Revised Sheet No. 472 Superseding Ninth Revised Sheet No. 472

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the

NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer

Capability of that Interface.

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

following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");

Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;

Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

Issued by: Issued on:

6.

7.

Elaine D. Robinson, Dir. Reg. Affairs July 21, 2008

Effective: July

July 22, 2008

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

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

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

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

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

Effective:

July 22, 2008

New York Independent System Operator, Inc. FERC Electric Tariff Original Volume No. 2 Attachment B Twelfth Revised Sheet No. 355 Superseding Eleventh Revised Sheet No. 355

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

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

following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and
- 8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

Issued by: Elaine D. Robinson, Dir. Reg. Affairs Issued on: July 21, 2008 Effective: July 22, 2008

Original Sheet No. 355.01

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

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

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

1.0 Overview of the Sales of TCCs

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

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

ATTACHMENT C

Proposed Tariff Revisions (redlined version)

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

<u>First Revised Sheet No. 122</u> Superseding Original Sheet No. 122

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

15.0 Service Availability

15.1 General Conditions: <u>Unless its Tariffs provide to the contrary.</u> <u>T</u>the ISO will provide Firm and Non-Firm Point-To-Point

Issued by: William J: Museler, President<u>Elaine D. Robinson. Dir. Reg. Affairs</u> Effective:September.<u>July 122</u>, 2009<u>8</u> Issued on: November-July 210, 2009<u>8</u> Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. RM99-12-000, issued March 31, 2000, 90 FERC ¶ 61,352 (2000). New York Independent System Operator, Inc.Ninth-Tenth Revised Sheet No. 472FERC Electric TariffSuperseding Substitute EighthNinthOriginal Volume No. 1Attachment J

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the

NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer

Capability of that Interface.

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

following eight scheduling paths:

- External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO:
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PIM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

 Issued by:
 Mark S. Lynch, PresidentElaine D. Robinson, Dir. Reg. Affairs
 Effective: May July 202, 20078

 Issued on:
 July 201, 20078

 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER07 570-002, issued June 21, 2007.

 New York Independent System Operator, Inc.
 First Second Revised Sheet No. 472A

 FERC Electric Tariff
 Superseding Original First Revised Sheet No. 472A

 Original Volume No. 1
 Attachment J

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

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

Reserved for future use.

 Issued by:
 William J. Musoler, PresidentElaine D. Robinson, Dir. Reg. Affairs
 Effective:February-July 122, 20058

 Issued on:
 January-July 281, 20058

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER04-230 000, et. al., issued February 11, 2004, 106 FERC 9 61,111 (2004).

New York Independent System Operator, Inc.Eleventh Twelfth Revised Sheet No. 355FERC Electric TariffSuperseding Substitute Tenth Eleventh Revised Sheet No. 355Original Volume No. 2Attachment B

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

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

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO:
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO"):
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

Issued by: Mark S. Lynch, President Elaine D. Robinson, Dir. Reg. Affairs Effective: May-July 202, 20078 Issued on: July 201, 20078 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER07 570 002, issued June 21, 2007. <u>New York Independent System Operator, Inc.</u> <u>FERC Electric Tariff</u> <u>Original Volume No. 2</u> <u>Attachment B</u>

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

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

1.0 Overview of the Sales of TCCs

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

Issued by:	Elaine D. Robinson, Dir, Reg. Affairs	Effective:	July 22, 2008	
Issued on:	July 21, 2008			
				· ··



10 Krey Boulevard & Rensselaer, NY 12144

October 31, 2008

BY HAND DELIVERY

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

Re: New York Independent System Operator, Inc.'s Request to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, for Shortened Notice and Comment Periods, and for Expedited Commission Action; Docket No. ER08-1281-___.

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act¹ and the Federal Energy Regulatory Commission's ("Commission's") August 21, 2008 Order in Docket No. ER08-1281-000 ("August 21 Order")², the New York Independent System Operator, Inc. ("NYISO"), with the concurrence of its Management Committee³ and at the direction of its Board of Directors, hereby submits its *Request to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions, for Shortened Notice and Comment Periods, and for Expedited Commission Action*, and respectfully requests that the Commission permit the amendments to Attachment J to its Open Access Transmission Tariff ("OATT"), and to Attachment B to its Market Administration and Control Area Services Tariff ("Services Tariff") that were temporarily accepted in the Commission's August 21 Order (at PP. 2, 20) to become "permanently"⁴ effective.

For reasons explained in greater detail below, consistent with the decision of its Management Committee, the NYISO is not requesting that the Commission extend the duration of the revisions to Section 15.1 of the NYISO's OATT that were temporarily accepted in the

³ Capitalized terms not otherwise defined herein have the meaning ascribed to them in the NYISO's OATT.

¹ 16 U.S.C. § 824d (2007).

² New York Independent System Operator, Inc., 124 FERC ¶ 61,174.

⁴ When the NYISO says "permanently" effective in this filing it really means "effective until the NYISO's Tariffs are revised in accordance with either Section 205 or Section 206 of the Federal Power Act." As explained below, consistent with Paragraph 28 of the Commission's August 21 Order the NYISO has begun the process of working with its Market Participants to develop potential alternative solutions to loop-flow concerns. The NYISO intends to engage its sister ISOs and RTOs around Lake Erie in discussions on loop-flow issues in 2009.

Commission's August 21 Order. Clean and redlined revised Tariff sheets removing the modification to Section 15.1 of the OATT that were proposed by the NYISO on July 21, 2008 and temporarily permitted to become effective by the Commission are included as **Attachment A** to this transmittal letter. So long as the Commission does not act to continue the effectiveness of the temporary revisions to Section 15.1 of the NYISO's OATT these revisions will expire on November 18, 2008.

The NYISO requests expedited consideration of this filing so that the revisions to Section 3.6 of Attachment B to the NYISO's Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT that the Commission permitted to become temporarily effective in its August 21 Order, remain in place, without a gap in their effectiveness, following the November 18, 2008 expiration of the initial/temporary effective period. In accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations.⁵ The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing expeditiously. Unless it is instructed to do otherwise by the Commission, the NYISO will continue to apply the prohibitions set forth in Section 3.6 of Attachment B to its Services Tariff and Section 5.0 of Attachment J to its OATT after November 18, 2008.

Should the Commission determine it must reject the NYISO's request that its temporarily effective revisions to Sections 3.6 of Attachment B to its Services Tariff and Section 5.0 of Attachment J to its OATT, be permitted to become "permanently" effective, the NYISO respectfully requests that any such rejection be prospective in nature. If the NYISO continues implementing the identified Tariff rules post November 18, 2008, it will not be possible for the NYISO to retroactively go back and undo the effect of its implementation on already completed market outcomes. With advance notice, the NYISO can prospectively disable the software it uses to enforce the proposed new market rule if the Commission instructs it to do so.

I. Description of Proposed Tariff Revisions and Justification

The NYISO proposes to continue the effectiveness of the Tariff amendments that preclude the scheduling of External Transactions over the following eight "Scheduling Paths" ⁶:

1. External Transactions that (a) exit the New York Control Area ("NYCA") at the NYISO's Proxy Generator Bus that represents the Interface between the NYCA and the Control Area operated by Ontario's Independent Electric System Operator

⁵ 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

⁶ A "Scheduling Path" is the transmission service arrangements reserved by the purchasing or selling entity (as appropriate) for an External Transaction.

("IESO"), and (b) sink in the Control Area operated by PJM Interconnection, LLC ("PJM");

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

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

⁷ Transactions can be scheduled directly between the New York and PJM control areas at both the PJM Keystone and Neptune Proxy Generator Buses.

to sell power directly from PJM to the MISO by scheduling a transaction between those two RTOs at their common borders.

Until such time as the Control Areas around Lake Erie are able to more closely conform actual power flows to scheduled power flows,⁸ the path by which Energy that is scheduled to flow over one of the eight identified Scheduling Paths actually moves from source to sink would bear little relation to the Scheduling Path. Due in large part to the scheduling of transactions via circuitous Scheduling Paths around Lake Erie, in early to mid 2008 divergence between scheduled and actual inter-Control Area flows had increased the level of unscheduled power flows moving through the interconnected NYISO, MISO, PJM and IESO Control Areas and was significantly exacerbating west-to-east congestion in the NYCA. For the first 21 days of July, 2008, average hourly Lake Erie circulating power flows were 457 MW in a clockwise direction. Following the NYISO's implementation of the eight-path prohibition on July 22, 2008, average hourly Lake Erie circulating power flows from July 23, 2008 to October 20, 2008 have been 127 MW in a counter-clockwise direction. Over the past 30 days, hourly flows have averaged approximately 200 MW in a counter-clockwise direction.

Although the solution that the NYISO implemented on July 22, 2008 appears to have, on average, reduced both the magnitude of Lake Erie circulating power flows and their adverse impacts on the NYCA,⁹ the NYISO does not expect that Commission acceptance of its proposed Tariff revision will control or eliminate all Lake Erie circulation.¹⁰ Rather, NYISO expects that precluding scheduling over the eight identified Scheduling Paths will reduce Lake Erie circulation. Until there are adequate operational controls in place to ensure that actual and scheduled flows around Lake Erie are reasonably closely aligned,¹¹ or until the NYISO working with its Market Participants and neighboring ISOs and RTOs is able to develop a more effective solution, the NYISO proposes to continue to limit potential Lake Erie circulation by precluding the scheduling of External Transactions over the eight identified Scheduling Paths. In accordance with paragraph 28 of the Commission's August 21 Order (language from which was incorporated into the Management Committee's motion approving the Tariff revisions proposed

⁸ The commissioning and operation of all four of the Ontario – Michigan Phase Angle Regulators ("PARs") by ITC Transmission and Hydro One Networks is a necessary prerequisite to more closely conform actual power flows to scheduled power flows around Lake Erie.

⁹ As the NYISO explained in its July 21, 2008 filing, significant unscheduled Lake Erie circulating power flows are undesirable to all of the Control Areas that surround Lake Erie because unscheduled Lake Erie power flows can aggravate transmission constraints, result in inappropriate costs to consumers, or raise reliability concerns in any/all of the Control Areas that surround Lake Erie.

¹⁰ Even with the NYISO's eight scheduling path prohibition in place, Lake Erie circulating power flows continue to be unpredictable and volatile. In the July 23, 2008 to August 20, 2008 period, the NYISO has seen hourly average circulating power flows range from an extreme of 1194 MW in a clockwise direction, to the alternate extreme of 1637 MW in a counter-clockwise direction. Still, on average, circulating power flows around Lake Erie have been significantly reduced since the NYISO's July 22, 2008 implementation.

¹¹ The NYISO will revisit the need for the attached Tariff revisions once all four of the Ontario – Michigan PARs are operating and the NYISO determines that the PARs are effective in controlling Lake Erie circulation.

herein), the NYISO has already begun to work with its Market Participants and plans to engage neighboring ISOs and RTOs to develop potential additional and/or alternative solutions to reduce Lake Erie circulating power flows.

Rather than repeating the entire contents of its July 21, 2008 filing, which filing the Commission has already considered and ruled on, the NYISO incorporates the contents of its earlier filing in this request by reference. Until there are adequate operational controls in place to ensure that actual and scheduled flows around Lake Erie are reasonably closely aligned, or until the NYISO working with its Market Participants and neighboring ISOs and RTOs is able to develop an alternative solution, the NYISO expects that removing the Tariff prohibition against scheduling power via the eight circuitous Scheduling Paths identified in the NYISO's July 21, 2008 filing would result in an increase in circulating power flows around Lake Erie and a resumption of the undesirable market impacts described in its July 21, 2008 filing.

II. Documents Submitted

- 1. This filing letter;
- 2. Clean and redlined revised tariff sheets reflecting the change to Section 15.1 of the NYISO's OATT that will occur on November 19, 2008 when the revisions that the Commission temporarily accepted in its August 21 Order cease to be effective ("Attachment A"); and
- 3. A copy of the Management Committee Motion ratifying the revisions to Section 5.0 of Attachment J to the OATT and Section 3.6 of Attachment B to the Services Tariff ("Attachment B").

III. Copies of Correspondence

Communications regarding this proceeding should be addressed to:

Robert E. Fernandez General Counsel Elaine D. Robinson Director of Regulatory Affairs *Alex M. Schnell (person designated for receipt of service) New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 Tel: (518) 356-8707 Fax: (518) 356-7678 aschnell@nyiso.com

IV. Reasons and Basis for this Filing

The reasons the NYISO proposed the revisions to Attachment B to its Market Services Tariff and Attachment J to its OATT are described in detail in the NYISO's July 21, 2008 filing in Docket No. ER08-1281-000; which filing is incorporated herein by reference. For the same reasons that the Commission temporarily accepted the Tariff revisions proposed in the NYISO's July 21, 2008 filing on an expedited basis in its August 21 Order, the Commission should act expeditiously to permit the continued effectiveness of the identified Tariff provisions until it is possible to identify, develop and implement a more effective solution.

V. Description of Proposed Tariff Changes

The NYISO proposes to leave in place (without any gap in effectiveness) the modifications to Section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services Tariff that the Commission's August 21 Order permitted to become temporarily effective commencing July 22, 2008. The revisions to section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services add a statement that the NYISO "shall not permit Market Participants to schedule External Transactions over the following eight scheduling paths," followed by a description of each of the eight paths identified on pages two and three of this filing letter. No changes to the relevant Tariff sheets are proposed, so clean and redlined versions of these Tariff sheets are not provided as part of this filing. The relevant Tariff sheets were provided in Attachments B and C to the NYISO's July 21, 2008 filing in Docket No. ER08-1281-000; which filing is incorporated herein by reference.

At the request of its Market Participants, and consistent with the decision of its Management Committee, the NYISO requests that the Commission permit the modifications to Section 15.1 of its OATT that were permitted to become temporarily effective commencing July 22, 2008, to expire on November 18, 2008. The revision to Section 15.1 of the NYISO's OATT clarified that the NYISO is not required to make Transmission Service available to a Transmission Customer "if its Tariffs provide to the contrary." The NYISO has agreed to requests by its Market Participants that it permit its changes to Section 15.1 of its OATT to expire because the NYISO does not believe that it is necessary for any such statement to be included in Section 15.1 of its OATT for the NYISO to possess adequate authority to reject requests to schedule External Transactions, or to curtail External Transactions in accordance with its Tariffs. While it may be possible to read some of the more general statements in Section 15.1 of the OATT as conflicting with provisions of the NYISO's Tariffs that permit it to reject or curtail transmission service requests, the NYISO is fully confident that if a potential conflict were presented to the Commission, the Commission would act quickly and appropriately to address the dispute.

VI. Update On Other Actions that the NYISO Asked the Commission to Consider Taking to Address Lake Eric Circulation in its July 21, 2008 Filing

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

The NYISO continues its earlier request that the commissioning of the fourth Phase Angle Regulators ("PARs") at the Ontario — Michigan boundary occur expeditiously, and that MISO and IESO operate the PARs to better align their actual Control Area interchange power flows to their scheduled interchange, thereby reducing Lake Erie circulation.

B. Market Monitor Access to NERC Tag Information and Authority to Share Bidding and Scheduling Information Related to External Transactions

The Northeast Market Monitoring Units (NYISO, ISO-NE, Monitoring Analytics for PJM, Potomac Economics for MISO, and IESO) are working together to (i) identify the types of information they believe would enable them to more effectively carry out their mandates, and (ii) to develop clear rationales/bases for requesting enhanced access from the Commission and/or from the North American Electric Reliability Company (if and to the extent such requests are necessary). The group will seek input from a broader set of Market Monitoring Units and will work with the ISO/RTO Council and individual ISO/RTOs to implement any proposed changes and bring appropriate requests to the Commission for its consideration.

VII. Requested Effective Date and Request for Expedited Commission Action

For the reasons explained in Section IV. of this filing letter and in Section IV.C. of the NYISO's July 21, 2008 filing letter, and in accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations¹² and permit its proposed Tariff revisions to continue their effectiveness post November 18, 2008. The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing expeditiously.

Good cause exists for the Commission to grant the requested waivers and act on an expedited basis because waiting the full sixty days to make the proposed Tariff revisions effective could leave the NYCA and neighboring Control Areas without any deterrent against the scheduling of External Transactions over Scheduling Paths that are not closely tied to the expected physical flow of Energy and that may adversely affect both market prices and the reliability of the interconnected transmission grid. Under the circumstances, it is entirely appropriate for the Commission to take expedited action in this proceeding.

¹² 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

Unless it is instructed to do otherwise by the Commission, the NYISO will continue to apply the rules that were temporarily added (effective from July 22, 2008 to November 18, 2008) to Section 3.6 of Attachment B to its Market Services Tariff, and in Section 5.0 of Attachment J to its OATT post November 18, 2008. Should the Commission determine it must reject the NYISO's proposed Tariff revisions, the NYISO respectfully requests that any rejection be prospective in nature. If the NYISO continues implementing its proposed Tariff rules after November 18, 2008 it will not be possible for the NYISO to retroactively go back and undo the effects of its implementation on already completed market outcomes. Given adequate advance notice (approximately three business days), the NYISO can prospectively disable the software it will use to enforce the proposed new market rule if the Commission instructs it to do so.

VIII. Stakeholder Process and Board of Directors Approval

The NYISO has worked with its stakeholders to obtain Management Committee ratification of the Tariff revisions that it filed under exigent circumstances on July 21, 2008 and that the Commission's August 21 order permitted to become temporarily effective. On September 25, 2008 the NYISO's Management Committee ratified the NYISO's proposed revisions to Section 3.6 of Attachment B to the NYISO's Market Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT. A copy of the Management Committee Motion that was approved without any dissenting votes is included as Attachment B to this transmittal letter. On October 21, 2008 the NYISO's Board of Directors authorized the NYISO to submit this filing.

IX. Service

The NYISO will electronically send a copy of or link to this filing to every party included on the Secretary's official service list in Docket No. ER08-1281-000, to the official representative of each of its Customers, to each participant on its stakeholder committees, to the New York Public Service Commission, to the electric utility regulatory agencies of New Jersey and Pennsylvania, and to PJM, MISO and IESO. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com. The NYISO will also make a paper copy available to any interested party that requests one. To the extent necessary, the NYISO requests waiver of the requirements of Section 35.2(d) of the Commission's Regulations (18 C.F.R. § 35.2(d) (2008)) to permit it to provide service in this manner.

X. Conclusion

For the reasons explained in this filing letter and in the NYISO's July 21, 2008 filing letter in Docket No. ER08-1281-000, the NYISO respectfully requests that the Commission: (a) permit to become permanently effective under Section 205 of the Federal Power Act the proposed revisions to Section 3.6 of Attachment B to the NYISO's Market Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT that were temporarily accepted for filing in the Commission's August 21 Order; and (b) permit the revisions to Section 15.1 of the NYISO's OATT to expire on November 19, 2008 (which will naturally occur in the absence of further Commission action to continue the effectiveness of these Tariff revisions).

Respectfully submitted,

<u>/s/ Alex M. Schnell</u>

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

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October 31, 2008

ATTACHMENT A

Proposed Tariff Revisions OATT Section 15.1

(NYISO proposes to allow the revisions that were temporarily accepted on August 21, 2008 in Docket No. ER08-1281-000 to expire on November 19, 2008)

(clean and redlined versions)

New York Independent System Operator, Inc.First-Second Revised Sheet No. 122FERC Electric TariffSuperseding Original First Revised Sheet No. 122Original Volume No. 1Original First Revised Sheet No. 122

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

15.0 Service Availability

15.1 General Conditions: Unless its Tariffs provide to the contrary, t<u>T</u>he ISO will provide Firm and Non-Firm Point-To-Point

 Issued by:
 Elaine D. Robinson, Dir. Reg. AffairsStephen G. Whitley, President
 Effective:July-22November 19, 2008

 Issued on:
 July 2October 31, 2008

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

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

15.0 Service Availability

15.1 General Conditions: The ISO will provide Firm and Non-Firm Point-To-Point

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Issued by: Issued on: Stephen G. Whitley, President October 31, 2008

Effective: November 19, 2008

ATTACHMENT B

September 25, 2008 Management Committee Motion

Motion #2:

The Management Committee hereby ratifies the revisions to Attachment J (Section 5) of the OATT, and Attachment B (Section 3.6) of the Services Tariff that were filed with the Federal Energy Regulatory Commission ("FERC") on July 21, 2008 in Docket No. ER08-1281-000 and recommends that the New York Independent System Operator, Inc. ("NYISO") and its Board of Directors take such actions as may be necessary to continue indefinitely the effectiveness of these Tariff revisions.

The Management Committee does not ratify, and recommends that the revisions to Section 15.1 of the OATT that were filed with the Federal Energy Regulatory Commission on July 21, 2008 in Docket No. ER08-1281-000, and that were permitted to become temporarily effective by FERC, be permitted to expire on November 18, 2008.

In order to carry out FERC's recommendation that "the long term solutions to the loop-flow problem should be worked out through a collaborative process where all such issues may be fully considered," the Management Committee requests that the NYISO return to the October 22, 2008 Business Issues Committee meeting with a defined schedule (including milestones) for developing long term market solutions. If long-term solutions are ultimately agreed upon, the Management Committee further requests that the NYISO develop and provide a schedule to implement those solutions as expeditiously as possible.

Consistent with the NYISO's presentation to the Management Committee, it is the Management Committee's understanding that the NYISO will actively work with Market Participants through the Market Issues Working Group to determine whether there is a need to develop additional tariff provisions to discourage possible future manipulation of the markets it administers and to protect Market Participants from bearing the consequences of any future market manipulation.

Finally, following NYISO consultation with FERC staff, the Management Committee requests that the NYISO report on when it will be able to present to the Market Issues Working Group its analysis of the financial impact on the markets it administers of the scheduling practices that were the subject of its July 21, 2008 filing in FERC Docket No. ER08-1281-000.

(Motion passed by a majority show of hands with abstentions)

CERTIFICATE OF SERVICE

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

Dated at Rensselaer, New York this 31st day of October, 2008.

<u>/s/ Alex M. Schnell</u>

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



10 Krey Boulevard & Rensselaer, NY 12144

November 4, 2008

BY HAND DELIVERY

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

> Re: New York Independent System Operator, Inc.'s Submission of Tariff Sheets Supplementing its October 31, 2008 Filing, Request for Shortened Notice and Comment Periods, and Request for Expedited Commission Action; Docket No. ER09-198-000.

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act¹ and the Federal Energy Regulatory Commission's ("Commission's") August 21, 2008 Order in Docket No. ER08-1281-000 ("August 21 Order")², and consistent with its October 31, 2008 filing in Docket No. ER09-198-000, the New York Independent System Operator, Inc. ("NYISO"), hereby provides this *Submission of Tariff Sheets Supplementing its October 31, 2008 Filing, Request for Shortened Notice and Comment Periods, and Request for Expedited Commission Action*, and respectfully requests that the Commission permit the amendments to Attachment J to its Open Access Transmission Tariff ("OATT"), and to Attachment B to its Market Administration and Control Area Services Tariff ("Services Tariff") that were temporarily accepted in the Commission's August 21 Order (at PP. 2, 20) to become "permanently"³ effective.

The NYISO also requests that the Commission retain the shortened comment period already established for this docket, or otherwise shorten or waive the customary comment period in order to permit it to act on the NYISO's filing expeditiously.

¹ 16 U.S.C. § 824d (2007).

² New York Independent System Operator, Inc., 124 FERC ¶ 61,174.

³ When the NYISO says "permanently" effective in this filing it really means "effective until the NYISO's Tariffs are revised in accordance with either Section 205 or Section 206 of the Federal Power Act." As explained below, consistent with Paragraph 28 of the Commission's August 21 Order the NYISO has begun the process of working with its Market Participants to develop potential alternative solutions to loop-flow concerns. The NYISO intends to engage its sister ISOs and RTOs around Lake Erie in discussions on loop-flow issues in 2009.

In order to ensure compliance with the requirements of Commission's Order No. 614,⁴ the NYISO hereby supplements its October 31, 2008 filing with revised Tariff sheets that are substantively identical, in pertinent part,⁵ to the Tariff sheets that the NYISO submitted on July 21, 2008, but that have had their administrative designations (version, issued by, issue date and effective date) modified to account for the expiration of the temporary revisions to Section 3.6 of Attachment B to the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"), and to Section 5.0 of Attachment J to its Open Access Transmission Tariff ("OATT") on November 18, 2008.

For the reasons stated in its October 31, 2008 filing in the above docket, the NYISO requests expedited consideration of this filing so that the revisions to Section 3.6 of Attachment B to the NYISO's Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT that the Commission permitted to become temporarily effective in its August 21 Order, remain in place following the expiration of the temporary effective period on November 18, 2008. In accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations.⁶ The NYISO also requests that this amended filing be assigned the same comment date that the Commission assigned to the NYISO's October 31, 2008 filing.⁷ Adequate notice of the Tariff revisions that the NYISO is proposing in this filing has been provided because (i) the substantive Tariff provisions proposed in this filing were considered, and temporarily accepted, by the Commission in its August 21 Order following comment by interested parties, and (ii) the NYISO's October 31, 2008 filing made clear that the NYISO is seeking to extend the Tariff revisions that were considered by the Commission and temporarily accepted in the August 21 Order, which is what this supplemental filing also proposes to do. Shortened notice and comment periods are necessary order to permit the Commission to act on the NYISO's filing expeditiously.

Unless it is instructed to do otherwise by the Commission, the NYISO will continue to apply the prohibitions set forth in Section 3.6 of Attachment B to its Services Tariff and Section 5.0 of Attachment J to its OATT after November 18, 2008.

Should the Commission determine it must reject the NYISO's request that its temporarily effective revisions to Sections 3.6 of Attachment B to its Services Tariff and Section 5.0 of Attachment J to its OATT, be permitted to become permanently effective, the NYISO

⁴ Designation of Electric Rate Schedule Sheets, 90 FERC ¶ 61,352 (2000).

⁵ Sheet No. 355.01 of Attachment B to the NYISO's Market Services Tariff also reflects pending Tariff revisions that are not related to the NYISO's July 21, 2008 filing in Docket ER08-1281-000. The pending Tariff revisions were submitted by the NYISO on October 16, 2008 to comply with a Commission Order in Docket Nos. ER07-521-000 and -001. See New York Independent System Operator, Inc., 123 FERC ¶ 61,235 (2008).

⁶ 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

⁷ The Commission's November 3, 2008 Notice of Filing in Docket No. ER09-198-000 set a November 10, 2008 comment date for the NYISO's October 31, 2008 filing.

respectfully requests that any such rejection be prospective in nature. If the NYISO continues implementing the identified Tariff rules post November 18, 2008, it will not be possible for the NYISO to retroactively go back and undo the effect of its implementation on already completed market outcomes. With approximately three business days advance notice, the NYISO can prospectively disable the software it uses to enforce the proposed new market rule if the Commission instructs it to do so.

I. Documents Submitted

- 1. This filing letter;
- Redlined revised Tariff sheets reflecting the NYISO's proposed change to Section 3.6 of Attachment B to the NYISO's Services Tariff and Section 5.0 of Attachment J to its OATT that the NYISO requests be permitted to become effective on November 19, 2008 when the revisions that the Commission temporarily accepted in its August 21 Order cease to be effective ("Attachment A"); and
- 3. Clean revised Tariff sheets reflecting the NYISO's proposed change to Section 3.6 of Attachment B to the NYISO's Services Tariff and Section 5.0 of Attachment J to its OATT that the NYISO requests be permitted to become effective on November 19, 2008 when the revisions that the Commission temporarily accepted in its August 21 Order cease to be effective ("Attachment B").

II. Reasons and Basis for this Filing

The reasons the NYISO proposed the revisions to Attachment B to its Market Services Tariff and Attachment J to its OATT are described in detail in the NYISO's July 21, 2008 filing in Docket No. ER08-1281-000, and in the October 31, 2008 filing in Docket No. ER09-198-000 that this filing supplements. These reasons persist, spurring this filing.

III. Description of Proposed Tariff Changes

The NYISO proposes to amend Section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services Tariff to make permanently effective the Tariff revisions that the Commission's August 21 Order permitted to become temporarily effective commencing July 22, 2008. The revisions to section 5.0 of Attachment J to its OATT and Section 3.6 of Attachment B to its Services add a statement that the NYISO "shall not permit Market Participants to schedule External Transactions over the following eight scheduling paths," followed by a description of each of the eight paths identified on pages two and three of the NYISO's October 31, 2008 filing letter in this docket. Clean and redlined versions of the proposed Tariff sheets that reflect a

November 19, 2008 effective date and other conforming ministerial revisions are provided in Attachments A and B to this filing letter.

The NYISO's proposal to permit the temporarily effective changes to Section 15.1 of its OATT to expire on November 19, 2008 is addressed in the NYISO's October 31, 2008 filing in this docket.

IV. Requested Effective Date and Request for Expedited Commission Action

For the reasons explained on page 2 of this filing letter and in Section IV. of the NYISO's October 31, 2008 filing letter in this docket, and in accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations⁸ to permit the NYISO's proposed Tariff revisions to become effective on November 19, 2008. The NYISO also requests that the Commission retain the shortened comment period already established in this docket, or otherwise shorten the customary comment period in order to permit it to act on the NYISO's filing expeditiously.

Good cause exists for the Commission to grant the requested waivers and act on an expedited basis because waiting the full sixty days to make the proposed Tariff revisions effective could leave the NYCA and neighboring Control Areas without any deterrent against the scheduling of External Transactions over Scheduling Paths that are not closely tied to the expected physical flow of Energy and that may adversely affect both market prices and the reliability of the interconnected transmission grid. Under the circumstances, it is entirely appropriate for the Commission to take expedited action in this proceeding.

Unless it is instructed to do otherwise by the Commission, the NYISO will continue to apply the rules that were temporarily added (effective from July 22, 2008 to November 18, 2008) to Section 3.6 of Attachment B to its Market Services Tariff, and in Section 5.0 of Attachment J to its OATT post November 18, 2008. Should the Commission determine it must reject the NYISO's proposed Tariff revisions, the NYISO respectfully requests that any rejection be prospective in nature. If the NYISO continues implementing its proposed Tariff rules after November 18, 2008 it will not be possible for the NYISO to retroactively go back and undo the effects of its implementation on already completed market outcomes. Given adequate advance notice (approximately three business days), the NYISO can prospectively disable the software it will use to enforce the proposed new market rule if the Commission instructs it to do so.

V. Stakeholder Process and Board of Directors Approval

The NYISO has worked with its stakeholders to obtain Management Committee ratification of the Tariff revisions that it filed under exigent circumstances on July 21, 2008 and that the Commission's August 21 order permitted to become temporarily effective. On

⁸ 16 U.S.C. § 824d(d); 18 C.F.R. §§ 35.3, 35.11 (2008).

September 25, 2008 the NYISO's Management Committee ratified the NYISO's proposed revisions to Section 3.6 of Attachment B to the NYISO's Market Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT. On October 21, 2008 the NYISO's Board of Directors authorized the NYISO to act to effectuate the Management Committee's ratification of these Tariff revisions.

VI. Service

The NYISO will electronically send a copy of or link to this filing to every party included on the Secretary's official service list in Docket Nos. ER08-1281-000 and ER09-198-000, to the official representative of each of its Customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the electric utility regulatory agencies of New Jersey and Pennsylvania. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com. The NYISO will also make a paper copy available to any interested party that requests one. To the extent necessary, the NYISO requests waiver of the requirements of Section 35.2(d) of the Commission's Regulations (18 C.F.R. § 35.2(d) (2008)) to permit it to provide service in this manner.

VII. Conclusion

For the reasons explained in this filing letter, in the NYISO's October 31, 2008 filing letter in this docket, and in the NYISO's July 21, 2008 filing letter in Docket No. ER08-1281-000, the NYISO respectfully requests that the Commission: (a) permit to become "permanently" effective under Section 205 of the Federal Power Act the proposed revisions to Section 3.6 of Attachment B to the NYISO's Market Services Tariff and to Section 5.0 of Attachment J to the NYISO's OATT that are provided herewith; and (b) permit the revisions to Section 15.1 of the NYISO's OATT to expire on November 19, 2008 (which will naturally occur in the absence of further Commission action to continue the effectiveness of these Tariff revisions), consistent with the Tariff sheet that the NYISO submitted on October 31, 2008.

Respectfully submitted,

<u>/s/ Alex M. Schnell</u> Robert E. Fernandez, General Counsel Alex M. Schnell New York Independent System Operator, Inc.

November 4, 2008

ATTACHMENT A

Proposed Redlined Tariff Revisions Services Tariff, Attachment B, Section 3.6, and OATT, Attachment J, Section 5.0 New York Independent System Operator, Inc.Twelfth Thirteenth Revised Sheet No. 355FERC Electric TariffSuperseding Eleventh-Twelfth Revised Sheet No. 355Original Volume No. 2Attachment B

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

The ISO shall not permit Market Participants to schedule External Transactions

over the following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and
- 8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

Issued by:Elaine-D. Robinson, Dir. Reg. AffairsStephen G. Whitley, PresidentEffective: July 22November 19, 2008Issued on:July 21November 4, 2008

New York Independent System Operator, Inc.First-Second Revised Sheet No. 355.01FERC Electric TariffSuperseding Original-First Revised Sheet No. 355.01Original Volume No. 2Attachment B

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

IV. SALE AND AWARD OF TRANSMISSION CONGESTION CONTRACTS ("TCCs")

1.0 Overview of the Sales of TCCs

TCCs will be made available through both (i) the Centralized TCC Auction ("Auction") and Reconfiguration Auction, which will be conducted by the ISO; (ii) Direct Sales by the Transmission Owners, which will be non-discriminatory, auditable sales conducted solely on the OASIS in compliance with the applicable requirements and restrictions set forth in Order No. 889 <u>et seq</u>.; (iii) the conversion of transmission capacity associated with certain Existing Transmission Agreements ("ETAs") pursuant to Section 2A of Part IV of this Attachment B; and (iv) the award of Incremental TCCs pursuant to Section 2C of Part IV of this Attachment B.

 Issued by:
 Stephen G. Whitley, President
 Effective: November 19, 2008

 Issued on:
 October 16November 4, 2008
 Effective: November 19, 2008

 Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. ER07-521-000 and -001, issued April 16, 2008, 123 FERC ¶ 61,044 (2008).

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

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

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

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

Issued by: Elaine D. Robinson, Dir. Reg. AffairsStephen G. Whitley, President Effective: July 22 November 19, 2008 Issued on: July 21 November 4, 2008

New York Independent System Operator, Inc.Second Third Revised Sheet No. 472AFERC Electric TariffSuperseding First Second Revised Sheet No. 472AOriginal Volume No. 1Attachment J

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

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

Issued by: Elaine D. Robinson, Dir. Reg. AffairsStephen G. Whitley, President Effective: July 22November 19, 2008 Issued on: July 21November 4, 2008

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ATTACHMENT B

Proposed Clean Tariff Revisions Services Tariff, Attachment B, Section 3.6, and OATT, Attachment J, Section 5.0 The ISO will not schedule a Bilateral Transaction which crosses an Interface between the

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Capability of that Interface.

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

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

Second Revised Sheet No. 355.01 Superseding First Revised Sheet No. 355.01

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1.0 Overview of the Sales of TCCs

TCCs will be made available through both (i) the Centralized TCC Auction ("Auction") and Reconfiguration Auction, which will be conducted by the ISO; (ii) Direct Sales by the Transmission Owners, which will be non-discriminatory, auditable sales conducted solely on the OASIS in compliance with the applicable requirements and restrictions set forth in Order No. 889 <u>et seq</u>.; (iii) the conversion of transmission capacity associated with certain Existing Transmission Agreements ("ETAs") pursuant to Section 2A of Part IV of this Attachment B; and (iv) the award of Incremental TCCs pursuant to Section 2C of Part IV of this Attachment B.

Issued by:Stephen G. Whitley, PresidentIssued on:November 4, 2008

Effective: November 19, 2008

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- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
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- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

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

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

External Transactions at the Proxy Generator Buses that are associated with the Cross-

Sound Scheduled Line and Neptune Scheduled Line shall also be governed by Attachment N to

the ISO Services Tariff.

Issued by: Issued on: Stephen G. Whitley, President November 4, 2008

Effective: November 19, 2008

CERTIFICATE OF SERVICE

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

Dated at Rensselaer, New York this 4th day of November, 2008.

/s/ Alex M. Schnell

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



10 Krey Boulevard & Rensselaer, NY 12144

February 17, 2009

ELECTRONICALLY SUBMITTED

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

Re: New York Independent System Operator, Inc.'s 90 Day Report On Efforts to Develop Long-Term Solutions To Lake Erie Circulation and Inter-ISO/RTO Congestion Management Processes In Docket No. ER09-198-

Dear Secretary Bose:

In accordance with paragraph 20 and ordering paragraph "B" of the Federal Energy Regulatory Commission's ("Commission's") November 17, 2008 Order in Docket Nos. ER09-198-000 and 001 ("November Order")¹, the New York Independent System Operator, Inc. ("NYISO"), hereby submits this 90 Day Report On Efforts to Develop Long-Term Solutions To Lake Erie Circulation and Inter-ISO/RTO Congestion Management Processes ("Report"). Consistent with the Commission's instructions, this Report describes the NYISO's efforts to work toward developing a long-term solution to unscheduled, circulating power flows around Lake Erie (hereafter, for purposes of this report, "Loop Flows"), and to address the largely unrelated topic of implementing a congestion management regimen at the border between the New York Control Area ("NYCA") and the Control Area operated by PJM Interconnection, LLC ("PJM").

Loop Flows around Lake Erie were a concern decades before the NYISO came into existence. To date, no successful method of resolving them has been identified. The NYISO is not prepared to recommend a solution to Lake Erie Loop Flow in this Report. Rather, this Report focuses on describing the NYISO's efforts to begin discussions with its stakeholders, and with its neighboring ISOs and RTOs, to identify solutions that may ultimately permit the ISOs and RTOs around Lake Erie to adequately address or mitigate the impact of Lake Erie Loop Flows. Consistent with the Commission's instructions, this Report also addresses the NYISO's ongoing efforts to engage PJM and its stakeholders in discussions regarding the development of a joint congestion management process with PJM.

¹ New York Independent System Operator, Inc., 125 FERC ¶ 61,184.

I. Reporting Obligation

After encouraging the operation of the Michigan/Ontario phase angle regulators ("PARs") to align actual power flows with schedules at the border between the Midwest Independent System Operator, Inc. ("MISO") and the Independent Electricity System Operator of Ontario ("IESO"), paragraph 20 of the Commission's November Order instructed the NYISO to:

...work with its market participants, NERC, and neighboring RTOs to develop potential solutions to the loop-flow problem through a collaborative process. Moreover, while PJM states that it has had only limited success in discussing congestion management procedures, the Commission directs parties to continue to address these matters on a comprehensive basis. Accordingly, the Commission directs the NYISO, within 90 days of the date of this order, to file a status report on its progress in developing solutions to the loop flow problem, including an inter-RTO congestion management process.

Consistent with the quoted provisions of paragraph 20, ordering paragraph (B) of the November Order instructed the NYISO to "file a status report 90 days from the date of this order on the development of solutions to the loop flow problem and inter-RTO congestion management processes." This Report is submitted in compliance with the Commission's instructions.

II. Activities the NYISO Has Undertaken To Address Lake Erie Loop Flows and Related Stakeholder Concerns

A. Stakeholder Discussions

Since November of 2008, the NYISO has provided the following information and engaged in the following discussions with its stakeholders that are directly or indirectly related to Lake Erie Loop Flow concerns. In each instance where the discussions with stakeholders included a presentation by the NYISO, the NYISO includes a link to its presentation in the footnotes to this Report.

1. On November 3, 2008 the NYISO gave a presentation to its Market Issues Working Group ("MIWG") addressing a request by numerous stakeholders that the NYISO propose additional Tariff rules to clarify that violations of the Commission's regulations addressing electric market manipulation,² and/or violations of the Commission's market behavior rules³ that apply to jurisdictional sellers, also violate the NYISO's Tariffs. The

² 18 CFR § 1c.2 (2008).

³ 18 CFR § 35.41 (2008).

NYISO's presentation clarified the scope of the Commission's remedial authority in the context of discussing a Tariff revision proposed by a stakeholder.⁴

2. On December 16, 2008 the NYISO presented the first in a series of discussions on Long Term Solutions to Loop Flow Concerns to its MIWG members.⁵ The presentation provided numerous examples of various types of transactions that could have been, or were scheduled around Lake Erie. In discussing the examples, the NYISO explained (a) how each type of transaction appeared to the NYISO (which schedules and flows were visible to the NYISO), (b) how each type of transaction affected the NYCA before the Commission authorized the NYISO to preclude scheduling over the eight circuitous scheduling paths, and (c) how the NYISO priced the transactions using its existing pricing method.

3. On December 16, 2008 the NYISO also presented a report to its MIWG addressing the effectiveness of transaction scheduling in the NYISO's Real-Time Market at the Keystone Proxy Generator Bus that represents an interface between the NYCA and the PJM Control Area. This report was a follow-up on two earlier reports that the NYISO presented to the MIWG on September 5, 2008 and October 10, 2008, addressing the effectiveness of transaction scheduling in the NYISO's Real-Time Markets at the Sandy Pond Proxy Generator Bus that represents an interface between the NYCA and the ISO New England Control Area.⁶ The focus of this series of reports is to look at the ability of the NYISO's Real-Time Commitment ("RTC") software, which schedules External Transactions based on its expectation of conditions for the upcoming hour, to foresee real-time system conditions. The NYISO does not consider these presentations relevant to solving the problem posed by Lake Erie Loop Flows.⁷ However, a small number of the NYISO's stakeholders have taken the position that these presentations may inform the NYISO's efforts to develop a long-term solution to Lake Erie Loop Flows. The NYISO plans to discuss the proposal advocated by these stakeholders at its March MIWG meeting.

⁴ http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-11-03/MIWGpresent.pdf

⁵ http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-12-16/scheduling_modeling_practices_lt_solutions.pdf

⁶ http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-09-05/RT_Rules_Assessment_RTC_RTD.pdf

http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-10-10/Real-Time_Rules_Assessment.pdf

http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-12-16/Real-Time_Rules_Assessment_MIWG_-_2008-12-16_rtc_rtd_v3.ppt

⁷ The NYISO's analysis has not identified Loop Flows as a significant contributor to divergences between RTC External Transaction schedules and real-time system conditions. The NYISO's analysis indicates that the major contributors to such divergence are unexpected real-time events that are difficult or impossible to forecast, such as in-hour transaction curtailments, facility losses or thunderstorm alerts.

4. On January 27, 2009 the NYISO provided to stakeholders its first Balancing Market Congestion Residual Report covering the month of December 2008. The report is included as the last three pages of the NYISO President's Report for January 2009.⁸ The report identifies the causes of certain categories of uplift costs affecting the NYCA. Balancing market congestion residuals are the difference between the congestion monies collected and disbursed by the NYISO for financial settlement of the Real-Time Market. "Positive" balancing market congestion residual values indicate an under-collection and primarily reflect the cost of the resources that are needed in real-time when the transfer capability that is available in real-time is less than was expected in the Day-Ahead Market. The report is prepared by the newly constituted Operations Analysis & Services Group in the NYISO's Operations Department that is tasked with daily review and evaluation of day-ahead and real-time market outcomes. including review of uplift charges, to identify unusual or inefficient market outcomes. The Balancing Market Congestion Residual Report was created in response to stakeholder requests for greater transparency regarding the causes of uplift. The second report, covering January 2009, will be provided to the NYISO's Management Committee in time for its February 25, 2009 meeting.

5. On February 6, 2009 the NYISO presented the second in a series of discussions on Long Term Solutions to Loop Flow Concerns to its MIWG members.⁹ The second presentation examined the potential benefits of changing the NYISO's pricing method for External Transactions to contract sink pricing, a change that the NYISO was asked to consider by certain of its stakeholders.

6. On February 6, 2009 the NYISO also returned to the MIWG to present proposed Tariff revisions that were developed at the request of its stakeholders to clarify that violations of the Commission's regulations addressing electric market manipulation and violations of the Commission's market behavior rules that apply to jurisdictional sellers, also violate the NYISO's Tariffs.¹⁰ The NYISO received comments from its stakeholders regarding its proposed Tariff revisions and plans to return to its stakeholders with a modified proposal after considering the comments it received.

The above list of Lake Erie Loop Flow-related activities indicates that the NYISO is diligently working to identify opportunities to better manage the Lake Erie Loop Flow problem.

⁸ http://www.nyiso.com/public/webdocs/committees/mc/meeting_materials/2009-01-27/Presidents MC Rpt .01.27.09.pdf

⁹ http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-02-06/Scheduling_and_Modeling_Practices.pdf

¹⁰ http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-02-06/Tariff_Remedy.pdf

B. Scheduled Meeting with PJM and its Market Monitor to Discuss External Pricing and Scheduling Issues

In addition to the discussions that occurred in the NYISO's stakeholder process that are described above, in March the NYISO (including representatives from both its internal Market Monitoring Department and its Market Advisor) has scheduled a face-to-face meeting with PJM and its Market Monitor to discuss the benefits and detriments of various possible methods of pricing and scheduling External Transactions. Once the NYISO and PJM are able to discuss and, hopefully, reach agreement regarding the benefits and detriments of various alternatives for external transaction pricing and scheduling, the NYISO plans to invite all of the ISOs and RTOs that surround Lake Erie, plus ISO New England, to a meeting to discuss inter-Control Area transaction pricing and scheduling practices.¹¹ In order to keep its meetings with neighboring ISOs and RTOs tightly focused, the NYISO has not yet attempted to schedule a meeting that both the ISOs/RTOs and their stakeholders are invited to attend. The NYISO anticipates scheduling broader meetings that include representatives of both its neighboring ISOs/RTOs and interested stakeholders in the third quarter of this year.

III. Implementation of a Joint NYISO/PJM Congestion Management Regime Will Not Solve the Lake Erie Loop Flow Problem

On page 4 of the Comments that PJM submitted in Docket No. ER09-198-001 on November 10, 2008 PJM suggested that the coordinated congestion management proposal it is in the process of negotiating with the NYISO presents a "comprehensive solution" to address unscheduled circulating power flows around Lake Erie. PJM's suggestion vastly overstated both the scope and purpose of its coordinated congestion management proposal. The congestion management proposal that PJM is discussing with the NYISO is limited to redispatching internal NYCA generation or PJM Control Area generation to address power flows affecting transmission constraints in the neighboring (other) Control Area. While redispatching New York generation can, under some circumstances, relieve transmission congestion in PJM's Control Area (or vice-versa), the scope of relief that is provided under PJM's congestion management proposal would be limited to relieving congestion on specified transmission facilities. The congestion management proposal is neither designed nor intended to address unscheduled power flows that result from interregional transaction scheduling around Lake Erie. That said, the NYISO agrees with PJM that there are market efficiencies to be gained by implementing a joint congestion management proposal and the NYISO is working with PJM to develop a mutually acceptable method of implementing congestion management at the NYCA/PJM Control Area border.

¹¹ Members of the NYISO's internal Market Monitoring Department and other members of the NYISO staff have informally discussed inter-Control Area transaction scheduling and pricing issues with employees of ISOs and RTOs other than PJM since the Commission issued its November Order.

IV. NYISO Efforts to Work with PJM to Develop a Joint Congestion Management Process

Although the NYISO does not expect that the development and implementation of a joint congestion management process with PJM presents a viable long-term solution to the Lake Erie Loop Flow problem, implementing a joint congestion management process could benefit both the New York and PJM Control Areas. The NYISO is working with PJM to develop a mutually acceptable congestion management process and has engaged its stakeholders in discussions regarding the parties' negotiations.

1. On December 12, 2008 NYISO representatives met via teleconference with PJM representatives to discuss how settlements associated with a joint congestion management protocol would work, as well as to further discuss the parties' differing views on the concept of entitlements to use the neighboring transmission system. At the meeting, PJM and the NYISO agreed that additional data on market flows was necessary to inform the entitlements discussion. A follow-up meeting was proposed to discuss in greater detail the data elements needed to perform market flow calculations.

2. An overview of the concepts involved in the NYISO/PJM Congestion Management Process was presented to the NYISO's MIWG on December 16, 2008.¹² It described the procedure that the NYISO and PJM are in the process of negotiating, provided an example of how the process might work, and identified "sticking points" in the ongoing negotiations.

3. On February 4, 2009 the NYISO met via teleconference with PJM representatives to discuss the method and technologies that PJM and the MISO use to calculate market flow, which is an essential element of their joint congestion management process. The NYISO and PJM representatives reviewed the data elements PJM uses and the reasons that PJM and MISO rely on particular data elements to determine the market flow. A timeline for scheduling a series of subsequent meetings was also discussed. Issues that the NYISO is following up on after the meeting include determining the methodology for the NYISO/PJM market flow calculation, and technical issues related to calculation of the market flow and storing the necessary data. The NYISO has agreed to schedule a follow-up call with PJM next month to discuss sharing of data and whether any Tariff revisions will be necessary to permit the necessary data sharing arrangements.

4. On February 12, 2009 the NYISO held a Technical Conference for its stakeholders at its facility in Rensselaer, New York, in which representatives of PJM, the Midwest Independent Transmission System Operator ("MISO"), IESO and ISO-New England

¹² http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2008-12-16/MIWG_CongestionMgtProcess_121608.pdf

participated. The Technical Conference included a presentation by PJM and MISO representatives on how their congestion management process works.¹³ The NYISO then gave a presentation describing the congestion management process that is being developed in its negotiations with PJM.¹⁴ The NYISO's presentation described the primary sticking points in the parties' negotiations. Stakeholders were given the opportunity to pose questions to representatives of all participating ISOs and RTOs. A primary purpose of the technical conference was to educate the NYISO's stakeholders on the congestion management process, and on the areas where the NYISO and PJM were having difficulty reaching agreement in their negotiations.

As is clear from the above list of activities, the NYISO is participating in earnest in technical discussions and negotiations with PJM to develop a mutually acceptable congestion management process that is likely to benefit both the New York and PJM Control Areas.

V. Service

The NYISO will electronically send a copy of or link to this filing to every party included on the Secretary's official service list in Docket Nos. ER08-1281-000 and ER09-198-000, to the official representative of each of its Customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the electric utility regulatory agencies of New Jersey and Pennsylvania. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com. The NYISO will also make a paper copy available to any interested party that requests one. To the extent necessary, the NYISO requests waiver of the requirements of the Commission's Regulations to permit it to provide service in this manner.

¹³ http://www.nyiso.com/public/webdocs/committees/bic_icapwg/meeting_materials/2009-02-12/PJM_MISO_NYSIO_Stakeholder_Meeting_Marekt_to_Market_Overview.pdf

¹⁴ http://www.nyiso.com/public/webdocs/committees/bic_icapwg/meeting_materials/2009-02-12/Congestion_Management_Process_21209.pdf

VI. Conclusion

The NYISO respectfully requests that the Commission accept this Report as satisfying the requirements set forth in the Commission's November Order.

Respectfully submitted,

<u>/s/ Alex M. Schnell</u> Alex M. Schnell New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 aschnell@nyiso.com 518-356-8707

February 17, 2009

CERTIFICATE OF SERVICE

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

Dated at Rensselaer, New York this 17th day of February, 2009.

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

124 FERC ¶ 61,174 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman; Suedeen G. Kelly, Marc Spitzer, Philip D. Moeller, and Jon Wellinghoff.

New York Independent System Operator, Inc. Docket No. ER08-1281-000

ORDER ACCEPTING TARIFF SHEETS

(Issued August 21, 2008)

1. On July 21, 2008, New York Independent System Operator, Inc. (NYISO) filed under section 205 of the Federal Power Act,¹ proposed revisions to its Open Access Transmission Tariff (OATT) and its Market Administration and Control Area Services Tariff (Services Tariff) under the "exigent circumstances" provisions of section 19 of its Independent System Operator Agreement (ISO Agreement). The revised tariff sheets preclude the scheduling of flows over eight different transmission paths for which there are more direct routing options.

2. As discussed below, the Commission accepts the proposed tariff sheets to be effective from July 22, 2008 through November 18, 2008.²

I. <u>Background</u>

3. NYISO asserts that beginning in January 2008, an increasing number of transactions were scheduled by a small number of market participants around Lake Erie so that they would supposedly exit NYISO, be wheeled through the Independent Electricity System Operator of Ontario (IESO) and the Midwest Independent

¹16 U.S.C. § 824d (2006).

² The Commission also notes that, as discussed more fully below, its Office of Enforcement is currently investigating the scheduling of flows over the circuitous paths that are addressed in the instant order.

Transmission System Operator (MISO), and sink in PJM Interconnection, L.L.C. (PJM).³ In fact, however, approximately 80 percent of the power flowed over the common border between NYISO and PJM.⁴ NYISO determined that a small number of market participants were scheduling transactions in these circuitous routes around Lake Erie to take advantage of differences in the way regional transmission organizations (RTOs) price transactions that exit their systems. NYISO asserts that, by scheduling the NYISO-IESO-MISO-PJM route, rather than the more direct NYISO-PJM route, these market participants were able to take advantage of the relatively lower market clearing prices at NYISO's western border and avoid the relatively higher market price at the congested NYISO-PJM border. For example, for one hour on May 26, 2008, the market clearing price at the NYISO-IESO proxy generator bus was \$80/MWh while the price at the NYISO/PJM proxy generator bus was \$100/MWh, a difference of \$20/MWh.⁵

4. NYISO points out that because the RTOs have not implemented technologies to control how the power flows, the power actually flows over the path of least resistance rather than the scheduled path and therefore the circuitous scheduling is causing market distortions and increasing congestion and uplift costs.⁶ NYISO asserts that one of the factors contributing to the increases in congestion costs is the different methods by which the RTOs price external transactions. For example, NYISO states that it prices imports, exports and wheels by using the marginal costs of energy at the proxy generator buses associated with the scheduled route over its systems. NYISO states that it does not rely on the North American Electric Reliability Corporation (NERC) tag data in determining marginal costs and the associated prices to be paid or charged for external transactions on its system. Thus, NYISO states that it may charge different prices for transactions that

³ The number of transactions increased from almost nothing in January 2008 to more than 1,000 MW in some hours in April 2008 and more than 2,000 MW in some hours in May and June 2008. NYISO Filing at 10.

⁴ NYISO Filing at 7.

⁵ This rate difference is based on NYISO's study of the impact of the circuitous scheduling for one hour on May 26, 2008. In this study, NYISO explains that it re-ran its real-time markets software, using actual market conditions and assumed that transactions actually flowed as scheduled. NYISO Filing at 17-18.

⁶ Under NYISO market rules, all resources that are committed by NYISO and/or instructed by NYISO to produce energy are guaranteed to receive at least enough revenue to cover their full as-bid costs. To the extent that revenues from marginal locational prices do not fully cover such as-bid costs, the resource will receive an additional payment from NYISO. This additional payment is known as an uplift or a bid production guarantee payment.

source in NYISO and sink in PJM depending on whether the scheduled path is NYISO-IESO-MISO-PJM (in which case, NYISO will charge the locational marginal price for the IESO proxy generator bus) or the direct path of NYISO-PJM (in which case, NYISO will charge the locational marginal price for the PJM proxy generator bus).

5. On the other hand, NYISO states that PJM relies on NERC tag data and utilizes the original source and the ultimate sink to identify the transaction -- not the route of the transaction. Therefore, under PJM's methodology, transactions that identify NYISO as the source and PJM as the sink receive the same price under PJM's tariff whether they are scheduled to take the direct NYISO-PJM route or the circuitous NYISO-IESO-MISO-PJM route. NYISO asserts that because of these different methods for pricing external transactions, if the cost of scheduling energy from NYISO through IESO and MISO to PJM is less than the difference between the marginal costs of energy at NYISO's proxy generator buses at IESO and PJM, arbitrage opportunities exist.

6. NYISO asserts that an additional factor that contributes to the increases in congestion costs in New York is that NYISO's real-time market software continually dispatches generating resources located in New York in response to actual power flows and real-time transmission constraints. However, NYISO states that it incurs additional congestion costs when actual power flows include unscheduled power flows, such as when actual power flows move directly from NYISO to PJM, although the scheduled flow is NYISO-IESO-MISO-PJM. The unscheduled flows exacerbate west-to-east constraints in New York, thereby increasing congestion costs.⁷

7. NYISO explains that it performed a number of studies to substantiate that scheduled paths for service were indeed different from the actual paths of the power and to quantify the financial impact of the unscheduled flows. First, NYISO states that it determined a statistical correlation between the scheduling of NYISO-IESO-MISO-PJM transactions and actual flow of power from NYISO to PJM. Then, NYISO's Operations Department and its Market Monitor studied the impact of the unscheduled NYISO-PJM flow on congestion costs in New York.⁸ NYISO states that it determined, *inter alia*, that its real-time production costs would have been reduced by \$52,000 for the selected hour had scheduled transactions and actual flows been more accurately aligned.⁹ NYISO

⁷ NYISO Filing at 7-8.

⁸ NYISO (a) calculated interchange transfer distribution factors between NYISO and PJM, (b) determined the impact that the scheduling of transactions from NYISO's IESO proxy generator bus to PJM, and (c) re-ran its real-time market software to simulate actual market conditions and the actual flow of power. NYISO Filing at 17.

⁹ NYISO Filing at 17.

asserts that almost 800,000 of real-time production costs for 15 hours on that selected day were attributable to the circuitous scheduling.¹⁰

II. <u>NYISO's Proposed Tariff Changes</u>

8. In order to alleviate the impacts of circuitous scheduling, NYISO has submitted revised tariff sheets to preclude the scheduling of external transactions over the following eight "Scheduling Paths:"

- External transactions that (a) exit the New York Control Area (NYCA) at NYISO's proxy generator bus that represents the interface between the NYCA and the control area operated by IESO, and (b) sink in the control area operated by PJM;
- External transactions that (a) exit the NYCA at NYISO's proxy generator buses that represent the NYCA's common border with PJM, and (b) sink in the IESO;
- External transactions that (a) enter the NYCA at the proxy generator buses that represent the NYCA's common border with PJM, and (b) source from IESO;
- External transactions that (a) enter the NYCA at the proxy generator bus that represents the NYCA's interface with IESO, and (b) source from PJM;
- Wheels through the NYCA that (a) enter the NYCA at the proxy generator buses that represent the NYCA's common border with PJM, and (b) sink in the control area operated by MISO;
- Wheels through the NYCA that (a) exit the NYCA at the proxy generator buses that represent the NYCA's common border with PJM, and (b) source from MISO;
- Wheels through the NYCA that (a) enter the NYCA at the proxy generator bus that represents the NYCA's interface with the IESO, and (b) sink in MISO; and,
- Wheels through the NYCA that (a) exit the NYCA at the proxy generator bus that represents the NYCA's interface with IESO, and (b) source from MISO.

9. NYISO requests waiver of the 60-day prior-notice requirement to implement its proposed revisions effective July 22, 2008.

¹⁰ NYISO Filing at 18.

10. NYISO recognizes that its proposed temporary tariff changes will not eliminate all loop-flow issues. Rather, NYISO states that its actions here will reduce unscheduled power flows until there are adequate operational controls in place, such as phase angle regulators (PARs), to ensure that actual and scheduled flows are closely aligned. Further, NYISO asserts that, until permanent improvements to its bid valuation software are deployed, NYISO will manually screen real-time market bids for transactions over the eight paths. In addition, NYISO will assess "financial impact charges" for transactions scheduled over the eight paths.¹¹

11. NYISO requests that, if its proposed tariff revisions are accepted for filing to be effective July 22, 2008, the Commission also grant limited waiver to excuse possible imperfect implementation of the proposed scheduling prohibitions for (a) day-ahead and real-time market bids that have already been validated, (b) day-ahead wheels through the NYCA, and (c) real-time external transactions scheduled over impermissible scheduling paths identified by the instant filing that NYISO does not timely identify in its best efforts review of real-time market bids. NYISO states that a limited waiver until September 16, 2008, the day it intends to implement certain software changes, is necessary to excuse possible imperfect implementation of the prohibited transactions until then.

12. Subsequently, on July 31, 2008, NYISO filed a report on the first seven operating days following the prohibition of scheduling paths on the eight circuitous paths identified above. NYISO states that the average hourly flow for the first three weeks of July was 457 MW in a clockwise direction around Lake Erie, whereas for the fourth week, the average hourly flow was 67 MW in a counterclockwise direction around Lake Erie. NYISO states that the change in direction has reduced the loop-flow problem. NYISO reiterates that it does not expect the preclusion of the eight paths to eliminate loop-flows. Rather, its goal is to reduce the problem until there are adequate operational controls in place to ensure that actual and scheduled flows around Lake Erie are closely aligned.

III. Notice, Interventions And Protests

13. The Commission issued notice of NYISO's filing with interventions, comments and protests due on or before August 1, 2008.

14. Motions to intervene were filed by American Public Power Association; Blue Ridge Power Agency; Dynegy Power Marketing Inc., Dynegy Northeast Generation, Inc., and Sithe/Independence Power Partners, L.P.; Exelon Corporation; FPL Energy, LLC; Mirant Energy Trading, LLC, Mirant New York, LLC, and Mirant Bowline, LLC;

¹¹ NYISO Filing at 24.

MISO; New England Conference of Public Utilities Commissioners, Inc.; New England Power Pool Participants Committee; Ontario Power Generation Inc.; PSEG Companies; New York Association of Public Power; NRG Power Marketing, LLC, Arthur Kill Power LLC, Astoria Gas Turbine Power LLC, Dunkirk Power LLC, Huntley Power LLC, and Oswego Harbor Power LLC; and Reliant Energy, Inc.

15. Interventions with comments or requests for investigation were filed by AES Energy, L.P.; Alcoa Inc.; American Municipal Power – Ohio, Inc. (AMP-Ohio); Citigroup Energy Inc.; DC Energy, LLC (DC Energy);¹² Financial Institutions Energy Group (Financial Group); IESO; ISO New England; National Energy Marketers Association; Neighboring States;¹³ New York Association of Public Power; New York Municipal Power Agency¹⁴ and Municipal Electric Utilities Association of New York¹⁵ (NYMPA/MEUA); New York Public Service Commission; New York State Consumer Protection Board; New York Transmission Owners (TOs); Pepco Energy Services, Inc. (Pepco); PJM; Public Utility Law Project of New York, Inc. (Law Project); and Shell Energy North America (US), L.P. (Shell).

16. Motions to intervene and protests were filed by Independent Power Producers of New York, Inc. (IPPNY) and Multiple Intervenors.¹⁶ These two protests do not object to

¹² DC Energy performed its own analysis of the correlation of the scheduled and actual flows from July 1, 2007 through June 30, 2008. It states that is empirical analysis corroborates NYISO's analyses.

¹³ The "designated bargaining agents" for each of the neighboring states for purposes of dealing with the New York Power Authority are Allegheny Electric Cooperative, Inc. (Pennsylvania), the City of Cleveland (Ohio), Connecticut Municipal Electric Energy Cooperative (Connecticut), Massachusetts Municipal Wholesale Electric Company (Massachusetts), Pascoag Utility District (Rhode Island), Public Power Association of New Jersey (New Jersey) and the Vermont Department of Public Service (Vermont).

¹⁴ NYMPA is a joint action agency comprised of 36 municipally-owned electric utilities throughout New York State with a statutory obligation to serve their electric customers.

¹⁵ MEUA is an unincorporated association of 40 municipal electric utilities in New York State who are engaged in the distribution and sale of electricity.

¹⁶ Multiple Intervenors is an unincorporated association of over 50 large industrial, commercial and institutional energy consumers with manufacturing and other facilities located throughout New York State.

NYISO's proposed tariff changes. Rather, IPPNY supports a different method for addressing future market flaws, while Multiple Intervenors object to NYISO's failure to request retroactive relief for consumers who have been forced to bear the brunt of the costs associated with these transactions.

17. International Transmission Company (ITC) filed an untimely motion to intervene.

IV. Discussion

A. <u>Procedural Issues</u>

18. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the unopposed timely-filed interventions serve to make the entities that filed them parties and ITC's motion to intervene out-of-time is granted. Granting late intervention at this stage of the proceeding will not disrupt this proceeding or place additional burden on the existing parties.

B. <u>Proposed Interim Tariff Changes</u>

19. NYISO proposes to preclude the scheduling of transactions over eight different transmission paths as an interim measure designed to reduce congestion-related costs associated with circuitous external transactions. Parties to the instant proceeding either support NYISO's filing or do not object to NYSIO's prohibiting the scheduling over certain paths in order to reduce congestion-related costs. NYISO states that section 19.01 of the ISO Agreement empowers the NYISO Board to direct NYISO to submit a section 205 filing that expires no later than 120 days after it is filed with the Commission without the concurrence of the NYISO's Management Committee, when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures."¹⁷

(continued)

¹⁷ Specifically, section 19.1 of the ISO Agreement states that:

the ISO Board may submit to the Commission a proposed amendment to the ISO OATT, the ISO Services Tariff or the ISO Agreement under section 205 of the FPA, without the concurrence of the Management Committee, under the following circumstances: the ISO Board certifies that (1) the proposed amendment is necessary to address exigent circumstances related to the reliability of the NYS Power System or to address exigent circumstances related to an ISO Administered Market; and (2) the urgency of the situation justifies a deviation from the normal ISO governance procedures. Any proposed amendment submitted unilaterally by the ISO

20. In the Commission's view, expeditious action is required to resolve the issues raised by NYISO, and no party objects to NYISO's filing on procedural grounds. Accordingly, the Commission finds that NYISO's use of the exigent circumstances provision of section 19 of the ISO Agreement was appropriate under the circumstances described in the filing. Further, based upon the information provided, the Commission finds that the proposed tariff changes appear to be necessary to temporarily alleviate congestion-related costs, and are just and reasonable and not unduly discriminatory. Moreover, they have not been shown to be unjust, unreasonable, unduly discriminatory or preferential or otherwise unlawful. Accordingly, the Commission accepts the tariff revisions, effective July 22, 2008 through November 18, 2008.

21. NYISO also requests that the Commission grant limited waiver to excuse possible imperfect implementation of the proposed scheduling prohibitions. The Commission finds good cause to grant limited waiver of the provisions of the revised tariff sheets until September 16, 2008, as may be necessary, to excuse possible imperfection of implementation of the scheduling prohibitions as requested herein by NYISO.

22. NYISO notes that the quoted language from section 19 of the ISO Agreement reveals that any proposed amendment submitted unilaterally by the ISO shall contain an expiration date of no later than 120 days after it is filed with the Commission unless the NYISO Management Committee ratifies the filing during the 120-day period. The section also gives authority to the ISO Board to call a special meeting of the Management Committee to request its concurrence in the proposed revisions at issue here. NYISO requests that if its Management Committee does not ratify the instant filing, which was filed pursuant to the exigent circumstances provisions of the ISO Agreement, then the Commission should act under section 206 of the FPA to permit the revised tariff sheets to become effective on a permanent basis.

23. NYISO should first follow the requirements of its ISO Agreement and bring this matter before the Management Committee for its ratification, and provide a status report to the Commission on or before September 12, 2008, that informs us of the status of the

shall contain an expiration date of no later than one hundred and twenty (120) days after it is filed with FERC and shall expire no later than one hundred twenty (120) days after it was filed with FERC, unless the Management Committee files with FERC a written concurrence with the proposed amendment within the one hundred and twenty (120) day period or FERC approves the proposed amendment under the just and reasonable standard under section 206 of the FPA. The ISO Board shall have the authority to call a special meeting of the Management Committee to request its concurrence in a proposed amendment.

discussions with the Management Committee. The Commission reserves the right to undertake further consideration of the tariff revisions at issue here under section 206 of the FPA.

24. In its filing, NYISO also recommends several actions to the Commission to further address the Lake Erie loop-flow problem. For example, NYISO recommends that the Commission encourage the commissioning and operation of the Ontario-Michigan phase angle regulators. NYISO states that three of the four Ontario-Michigan PARs are already in place and capable of operation. However, NYISO notes that they have been in "by-pass" mode since the beginning of 2006. The fourth PAR, which initially failed, is expected to be in operation by the summer of 2009. NYISO contends that placing these PARs in service will help mitigate the Lake Erie loop-flow problem. Intervenors support NYISO's suggestion that PARs at the Ontario-Michigan border should be commissioned and placed in service as soon as possible. They note that this will help ensure that scheduled paths more closely follow actual paths. However, as Financial Group notes, the better coordination of PARs may not, by itself, sufficiently address the loop-flow issue. The Commission encourages the parties responsible for operating the Ontario-Michigan PARs to place the three operational PARs in service as soon as practical.

25. NYISO also recommends that the Commission should (a) grant market monitors enhanced access to NERC tag data and (b) permit market monitors for different RTOs to share bidding and scheduling information related to external transactions. NYISO asserts that that the inability of market monitors to share confidential information with each other impeded its efforts to try to identify and resolve the loop-flow issue. Therefore, NYISO recommends that the Commission grant the market monitors for NYISO, IESO, PJM, MISO, and ISO-New England unrestricted access to NERC tag data, as well as external transaction bids and schedule data. NYISO adds that the sharing of confidential information should only be permitted if there are appropriate tariff protections in place to ensure that confidential information is accorded the appropriate protection.

26. A number of parties support NYISO's suggestion that market monitors be given better access to NERC tag information, and bidding and scheduling information. However, several parties, such as Shell, are concerned about safeguarding the confidentiality of data. IESO suggests that the Commission consider using the confidentiality provisions of its 2004 Agreement with NYISO as a model.

27. Several parties note that a long-term resolution to the instant scheduling problem needs to be developed. Financial Group notes that the ideal long-term solution may be to use consistent rules for pricing external transactions across the different RTO markets to prevent unfair arbitrage. Shell and IPPNY concur that a collaborative process of market participants working together is the best process. One solution that IPPNY proffers is to eliminate pancaked transmission charges between NYISO and PJM.

28. The Commission is concerned by the suggestion that its market monitoring rules may preclude prompt identification and resolution of possible market manipulation. The Commission cannot address this issue in the context of the exigent circumstances filing before us. However, NYISO should continue to work with its market participants, NERC, and neighboring RTOs to develop potential solutions to this issue. In addition, the Commission agrees that long-term solutions to the loop-flow problem should be worked out through a collaborative process where all such issues may be fully considered.

C. Office Of Enforcement Investigation

29. In the instant proceeding, numerous parties request that the Commission instigate an investigation of the "anomalous transactions," "gaming," "manipulation," or "malfeasance" which are alleged to have taken place between January 1, 2008 and July 22, 2008.¹⁸ Parties also request that the Commission utilize its remedial authority to sanction the behavior, recompense injured entities, and prevent re-occurrence of the conduct in question.¹⁹ The remedies recommended include reimbursement of costs to generators and consumers, retroactive refunds, disgorgement of profits, and the revocation of market-based rates for those market participants who profited by circuitous scheduling.

30. NYISO contends that circuitous scheduling is not a violation of its tariff. On the other hand, Multiple Intervenors contend that NYISO's tariff has been violated because NYISO's mitigation measures apply to any conduct that causes or contributes to a material change in any price associated with NYISO administered markets including uplift costs. Law Project recommends that the Commission investigate whether NYISO's rates, terms and conditions are unjust and unreasonable insofar as they do not (a) expressly prohibit gaming, (b) fail to provide for the disgorgement of profits from

¹⁹ See Revised Policy Statement on Enforcement, 123 FERC ¶ 61,156, at P 41 (2008) noting (Available remedies and sanctions include civil penalties for violations of Parts I and II of the FPA; disgorgement of unjust profits; and compliance plans and various other forms of non-monetary relief.).

¹⁸ Neighboring States contend that it began to notice growing congestion charges in 2007. Further, Neighboring States suspects that circuitous scheduling may not be the problem, or may only be part of the problem. Therefore Neighboring States recommends that the Commission begin its investigation with 2006 data.

unreasonable rates established as a result of gaming, and (c) fail to provide for the correction of clearing prices which are set artificially high due to gaming.

31. Several parties request that the Commission order NYISO to report on various issues. For example, Pepco requests that NYISO be instructed to provide further explanation to address the issues implicated by its filing. AMP-Ohio requests that NYISO be required to make monthly reports on the extent to which the termination of the eight circuitous paths reversed the congestion-related costs. TOs request that the Commission require NYISO to provide a detailed written report on, *inter alia*, the financial impact by load zone of various charges, the impact on reliability, and actions taken by NYISO to resolve issues.

32. The Commission's Office of Enforcement began a non-public investigation under Part 1b of the Commission's regulations in May of this year into the scheduling of flows over the circuitous paths such as those that are addressed in the instant order. The Commission will determine what further action may be appropriate with respect to the above described claims after it considers the results of the staff investigation. We also will not require NYISO to file reports beyond those directed above, as such issues are more appropriately addressed in the investigation.

The Commission orders:

(A) NYISO's revised tariff sheets are accepted for filing, effective July 22, 2008 through November 18, 2008.

(B) The Commission finds that good cause exists to waive the prior notice requirement to permit the revised tariff sheets to become effective July 22, 2008.

(C) The Commission also finds good cause to grant limited waiver of the provisions of the revised tariff sheets until September 16, 2008, as may be necessary, to excuse possible imperfection of implementation of the scheduling prohibitions for (a) validated day-ahead and real-time market bids, (b) day-ahead wheels through the NYCA, and (c) real-time external transactions scheduled over the subject scheduling paths identified by the instant filing that NYISO did not identify on a timely basis; subject to the findings and actions resulting from the investigation identified above.

(D) NYISO is directed to file a status report on or before September 12, 2008, that informs us of the status of the discussions with the Management Committee concerning its ratification of the instant filing.

By the Commission.

(SEAL)

Kimberly D. Bose, Secretary.

125 FERC ¶ 61,184 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman; Suedeen G. Kelly, Marc Spitzer, Philip D. Moeller, and Jon Wellinghoff.

New York Independent System Operator, Inc.

Docket Nos. ER09-198-000 ER09-198-001

ORDER ACCEPTING TARIFF SHEETS

(Issued November 17, 2008)

1. On October 31, 2008, as amended on November 4, 2008, the New York Independent System Operator, Inc. (NYISO) filed tariff sheets to preclude the scheduling of flows over eight different transmission paths for which there are more direct routing options.¹ NYISO requests waiver of the 60-day prior notice requirement to permit NYISO's proposed tariff sheets to become effective on November 19, 2008. As discussed below, the Commission will accept the instant tariff sheets as proposed.

Background

2. On July 21, 2008, in Docket No. ER08-1281-000, NYISO filed tariff sheets to implement proposed revisions to its Open Access Transmission Tariff (OATT) and its Market Administration and Control Area Services Tariff (Services Tariff) under the "exigent circumstances" provisions of its Independent System Operator Agreement (ISO Agreement).² NYISO asserted that since January 2008, an increasing number of

¹ On October 31, 2008, in Docket No. ER09-198-000, NYISO filed Second Revised Sheet No. 122. Subsequently, on November 4, 2008 in Docket No. ER09-198-001, NYISO filed Thirteenth Revised Sheet No. 355, Second Revised Sheet No. 355.01, Eleventh Revised Sheet No. 472, Third Revised Sheet No. 472A.

² Section 19.01 of its ISO Agreement empowers the NYISO Board to direct NYISO to submit a section 205 filing that expires no later than 120 days after it is filed with the Commission without the concurrence of the NYISO's Management Committee, when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures."

transactions had been scheduled by a small number of market participants around Lake Erie so that they would supposedly exit NYISO, be wheeled through the Independent Electricity System Operator of Ontario (IESO) and the Midwest Independent Transmission System Operator (MISO), and sink in PJM Interconnection, L.L.C. (PJM). NYISO stated that the market participants scheduled their transactions in this manner in order to take advantage of differences in the way regional transmission organizations (RTOs) price transactions that exit their systems. However, NYISO stated, approximately 80 percent of the power actually flowed over the common border between NYISO and PJM, because power flows over the path of least resistance rather than the scheduled path. As a result, the circuitous scheduling caused market distortions and congestion and uplift costs.

3. NYISO, therefore, submitted tariff sheets to temporarily preclude the scheduling of flows over eight different transmission paths for which there are more direct routing options.³ NYISO stated that its proposed temporary tariff changes would not eliminate all loop-flow issues, but that the tariff prohibition would function as an interim measure designed to reduce congestion-related costs associated with circuitous external transactions. NYISO also recommended that the Commission address the Lake Erie loop-flow problem by encouraging the commissioning and operation of the Ontario-Michigan phase angle regulators.

³ NYISO's revised temporary tariff sheets preclude the scheduling of external transactions over eight separate "Scheduling Paths." These paths include: external transactions that (a) exit the New York Control Area (NYCA) at NYISO's proxy generator bus that represents the interface between the NYCA and the control area operated by IESO, and (b) sink in the control area operated by PJM. The subject paths also include external transactions that (a) exit NYCA at NYISO's proxy generator buses that represent the NYCA's common border with PJM, and (b) sink in IESO. Further, these paths include external transactions that (a) enter NYCA at the proxy generator buses that represent NYCA's common border with PJM, and (b) source from IESO or external transactions that (a) enter NYCA at the proxy generator bus that represents NYCA's interface with IESO, and (b) source from PJM; paths that wheel through the NYCA by (a) entering the NYCA at the proxy generator buses that represent NYCA's common border with PJM, and (b) sink in the control area operated by MISO; or wheels through NYCA that (a) exit the NYCA at the proxy generator buses that represent NYCA's common border with PJM, and (b) source from MISO; also wheels through the NYCA that (a) enter the NYCA at the proxy generator bus that represents the NYCA's interface with IESO, and (b) sink in MISO; and, lastly wheels through the NYCA that (a) exit the NYCA at the proxy generator bus that represents the NYCA's interface with IESO, and (b) source from MISO.

4. On August 21, 2008, the Commission accepted the tariff sheets submitted by NYISO under the exigent circumstance section of its ISO agreement to be effective on July 22, 2008, for a 120 day period terminating November 18, 2008.⁴ The Commission also stated that NYISO should continue to work with its market participants, North American Electric Reliability Corporation (NERC), and neighboring RTOs to develop potential solutions to this issue. Moreover, the Commission stated that its Office of Enforcement had initiated a non-public investigation under Part 1b of the Commission's regulations into the scheduling of flows over the circuitous paths and that the Commission would determine what further action may be appropriate with respect to the above described-claims after it considered the results of the staff investigation.

Proposal

5. In the instant filing, as amended, NYISO states that it has submitted tariff sheets that contain the same language (with two minor differences) as that included in its July 21, 2008 "exigent circumstances" filing previously accepted by the Commission. As justification for its instant filing, NYISO states that it incorporates its July 21, 2008 filing by reference.⁵

6. The first difference from the July filing concerns Second Revised Sheet No. 122. NYISO states that, at the request of its market participants and its Management Committee, it proposes to change the language contained on this sheet from that previously accepted on a temporary basis by the Commission in its August 21, 2008 order. NYISO states that currently section 15.1 of its OATT contained on this sheet states that it is not required to make transmission service available to a transmission customer "if its Tariffs provide to the contrary." NYISO states that it has agreed with its market participants that such language is not necessary for it to possess adequate authority to reject requests to schedule external transactions or to curtail external transactions in accordance with its Tariffs.

⁴ New York Independent System Operator, Inc., 124 FERC ¶ 61,174 (2008) (August 21 Order).

⁵ NYISO states that it worked with its stakeholders to obtain Management Committee ratification of the tariff revisions that it filed under exigent circumstances on July 21, 2008 and that the Commission's August 21, 2008 order permitted to become temporarily effective. NYISO asserts that on September 25, 2008 its Management Committee ratified the proposed tariff sheets and on October 21, 2008 its Board of Directors authorized it to act to effectuate the Management Committee's ratification of these tariff revisions. November 4 Transmittal letter at 4-5; October 31 Transmittal letter at 8. 7. The second difference from the July filing, NYISO states, concerns Thirteenth Revised Tariff Sheet No. 355.01 of Attachment B to NYISO's Market Services Tariff, and reflects a pending tariff revision that is not related to NYISO's July 21, 2008 filing in Docket No. ER08-1281-000. NYISO states that this pending tariff revision was submitted by NYISO on October 16, 2008 to comply with the Commission's order in Docket No. ER07-521-000. In that proceeding, NYISO was required to establish detailed rules governing the awarding of incremental transmission congestion contracts for customers that construct or fund new transmission facilities or transmission upgrades.⁶

8. NYISO asserts that, until there are adequate operational controls in place to ensure that actual and scheduled flows around Lake Erie are reasonably closely aligned, or until NYISO, working with its market participants and neighboring ISOs and RTOs is able to develop an alternative solution, the tariff prohibition against scheduling power via the eight circuitous Scheduling Paths identified in NYISO's July 21, 2008 filing,⁷ is necessary to avoid an increase in circuitous power flows around Lake Erie and a resumption of the undesirable market impacts described in its July 21, 2008 filing.⁸ For example, in its July 21, 2008 filing, NYISO pointed out that its real-time market software continually dispatches generating resources located in New York in response to actual power flows and real-time transmission constraints. However, NYISO states that it incurs additional congestion costs when actual power flows include unscheduled power flows, such as when actual power flows move directly from NYISO to PJM, although the scheduled flow is NYISO-IESO-MISO-PJM. It asserted that these unscheduled flows exacerbate west-to-east constraints in New York, and thereby increase congestion costs.⁹

⁷ See supra note 3.

⁸ As noted by the August 21 order:

NYISO recognizes that its proposed temporary tariff changes will not eliminate all loop-flow issues. Rather, NYISO states that its actions here will reduce unscheduled power flows until there are adequate operational controls in place, such as phase angle regulators (PARs), to ensure that actual and scheduled flows are closely aligned. 124 FERC ¶ 61,174 at P10. *See also* October 31 Transmittal letter at 4.

⁹ NYISO July 21 Filing at 7-8.

⁶ See New York Independent System Operator, Inc., 123 FERC ¶ 61,044 (2008).

Notice, Interventions and Protests

9. The Commission issued notice of NYISO's filings, with interventions and protests due on or before November 10, 2008. No party filed in opposition to NYISO's proposal. The New York Transmission Owners filed comments in support of the proposal.

10. PJM filed comments in support of NYISO's proposal but is concerned that NYISO and its stakeholders have made insufficient progress in addressing broader inter-RTO issues such as congestion management, joint planning, cross-border cost allocation, and the elimination of rate pancaking. PJM states that it supports a congestion management process which would allow either RTO to manage congestion with the most appropriate resources which includes redispatch and settlements similar to the fully coordinated congestion management process in the Joint Operating Agreement between PJM and MISO. Therefore, PJM recommends that acceptance of NYISO's proposal be conditioned upon development of a congestion management process between PJM and NYISO within twelve months, that NYISO and PJM file periodic reports of the status of their efforts, and that the Commission appoint technical staff to help develop the process.

11. The Independent Market Monitor for PJM states that NYISO's proposal is acceptable. However, it contends that NYISO failed to explain why NYISO prohibits specific transactions rather than an approach applicable to all transactions and an approach that recognizes actual power flows. The Independent Market Monitor recommends that the revised tariff sheets be conditioned upon NYISO developing a more complete solution to interface pricing, congestion management and transmission planning at the NYISO-PJM interface, within a defined time frame.

12. The New York Municipal Power Agency and the Municipal Electric Utilities Association of New York State (New York Municipals) filed in support of NYISO's proposal. In addition, they requested that NYISO adopt a monitoring plan to ensure that future problems that unreasonably increase consumers' costs or affect system reliability are quickly identified and remedied. They also note that they are working through the NYISO stakeholder process to persuade NYISO to adopt such a monitoring and reporting program.

13. The FirstEnergy Companies suggest that the Commission allow affected stakeholders to investigate the physical scope of the Lake Erie loop flows and seek alternative resolution of their impacts. Alcoa Inc. also urges that investigations of the market dysfunctions continue.

Discussion

Procedural Issues

14. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the unopposed timely-filed interventions serve to make the entities that filed them parties. Further, granting late intervention at this stage of the proceeding will not disrupt this proceeding or place additional burden on the existing parties.

Commission Determination

15. The Commission will accept NYISO's instant tariff sheets, because such tariff sheets (with two minor differences) address the same problem in the same manner as the tariff sheets accepted on a temporary basis by the August 21, 2008 Order. NYISO's instant tariff sheets preclude the scheduling of transactions over eight different transmission paths. The Commission concurs with NYISO that, for each of the eight paths over which NYISO is foreclosing scheduling, there is a more direct scheduling path available to market participants.¹⁰ In addition, the Commission finds that NYISO has adequately justified that its filing was necessary to alleviate unnecessary congestion-related costs. For example, NYISO states that, for the first 21 days of July 2008, average hourly Lake Erie circulating power flows were 457 MW in a clockwise direction, which exacerbate congestion in NYISO. Following NYISO's implementation of the eight-path prohibition, average hourly Lake Erie circulating power flows between July 23, 2008 and October 20, 2008 were 127 MW in a counter-clockwise direction, which do not negatively impact congestion in NYISO.¹¹

¹¹ October 31 Transmittal letter at 4 (from October 1 through October 30, 2008, hourly flows averaged approximately 200 MW in a counter-clockwise direction); *see also* 124 FERC ¶ 61,174 at P 12 (for the first week following the implementation of the (continued...)

¹⁰ NYISO states, for example, that although it proposes to preclude market participants from scheduling Exports to the PJM Control Area at NYISO's Proxy Generator Bus that represents the NYCA's Interface with IESO, NYISO will still permit market participants to schedule Exports to the PJM Control Area at NYISO's Proxy Generator Buses that represent the common border between the NYCA and the PJM Control Area. Similarly, NYISO states, although the NYISO proposes to prohibit the wheeling of power sourcing at the PJM Control Area through the NYCA (and IESO Control Area) with the MISO as its destination, market participants will still be able to sell power directly from PJM to the MISO by scheduling a transaction between those two RTOs at their common borders. October 31 Transmittal letter at 3-4.

16. Further, as to the tariff sheets reflecting minor differences from those accepted by the August 21, 2008 Order, the Commission accepts Second Revised Sheet No. 122. Currently, section 15.1 of NYISO's OATT contained on this sheet states that NYISO is not required to make transmission service available to a transmission customer "if its Tariffs provide to the contrary." The Commission agrees with NYISO that this language is superfluous and should be removed, and that NYISO possesses adequate authority to reject requests to schedule external transactions, or to curtail external transactions in accordance with its tariffs.

17. Second, NYISO states that Second Revised Tariff Sheet No. 355.01 of Attachment B to NYISO's Market Services Tariff reflects a pending tariff revision that is not related to NYISO's July 21, 2008 filing in Docket No. ER08-1281-000 but that it was originally filed to comply with the Commission's order on rules governing the awarding of incremental transmission congestion contracts in Docket No. ER07-521-000. The Commission accepts Second Revised Tariff Sheet No. 355.01, subject to our action in Docket No. ER07-521-000.

18. The Commission finds that good cause exists for the Commission to grant the requested waivers and to permit the instant tariff sheets to become effective November 19, 2008 as requested.

19. The Independent Market Monitor argues that the Commission should expressly condition its approval of the instant filing on a requirement that NYISO work with PJM to develop a more complete solution for interface pricing, congestion management and regional planning. PJM, for its part, argues that the Commission should condition its approval based on a requirement that NYISO develop a congestion management process between PJM and NYISO within 12 months, that NYISO and PJM file periodic reports of the status of its efforts, and that the Commission appoint technical staff to develop the process. New York Municipals request that NYISO be required to adopt a monitoring plan to ensure that future problems that unreasonably increase consumers' costs or affect system reliability are quickly identified and remedied.

20. The Commission understands the need for a long-term comprehensive solution to these issues. As indicated in its August 21, 2008 Order, the Commission continues to encourage the parties responsible for operating the Ontario-Michigan PARs to place the three operational PARs in service as soon as practical. Moreover, the Commission directs NYISO to work with its market participants, NERC, and neighboring RTOs to develop

interim tariff sheets prohibiting the circuitous scheduling, the average hourly Lake Erie circulating power flows was 67 MW in a counter-clockwise direction).

potential solutions to the loop-flow problem through a collaborative process. Moreover, while PJM states that it has had only limited success in discussing congestion management procedures, the Commission directs parties to continue to address these matters on a comprehensive basis. Accordingly, the Commission directs the NYISO, within 90 days of the date of this order, to file a status report on its progress in developing solutions to the loop flow problem, including an inter-RTO congestion management process.

21. Alcoa Inc. states that the Commission should investigate the continuing market dysfunctions. FirstEnergy Companies request that the Commission allow stakeholders to investigate the physical scope of the Lake Erie loop flows. As the Commission declared in its August 21, 2008 Order, in May of this year its Office of Enforcement began a non-public investigation under Part 1b of the Commission's regulations into the scheduling of flows over circuitous paths such as those that are addressed in the instant order. This investigation is ongoing and, as set forth by the August 21, 2008 Order, the Commission will determine what further actions may be appropriate after it considers the results of the staff investigation.

The Commission orders:

(A) The tariff sheets listed in Footnote No. 1 are hereby accepted, to be effective November 19, 2008, subject to the outcome of Commission action in Docket No. ER07-521-000, as discussed in the body of this order.

(B) The Commission directs NYISO file a status report 90 days from the date of this order on the development of solutions to the loop flow problem and inter-RTO congestion management processes.

By the Commission.

(SEAL)

Kimberly D. Bose, Secretary.

126 FERC ¶ 61,068 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Acting Chairman; Suedeen G. Kelly, Marc Spitzer, and Philip D. Moeller.

New York Independent System Operator, Inc.

Docket No. ER08-1281-001

ORDER ON CLARIFICATION

(Issued January 28, 2009)

1. On August 21, 2008, the Commission accepted tariff sheets filed by the New York Independent System Operator, Inc. (NYISO) that, as an interim measure through November 18, 2008, precluded the scheduling of flows over eight different transmission paths for which there are more direct routing options.¹ On September 4, 2008, the New York Municipal Power Agency and Municipal Electric Utilities Association of New York (New York Municipals) requested clarification or, in the alternative, rehearing of the August 21, 2008 Order. Subsequently on September 22, 2008, the Long Island Power Authority, Central Hudson Gas & Electric Corporation, New York Power Authority, and Niagara Mohawk Power Corporation (Indicated Transmission Owners) also requested clarification of the Commission's August 21, 2008 Order. The Commission will grant in part and deny in part the requested clarifications as discussed below.

Background

2. On July 21, 2008, NYISO filed tariff sheets to implement proposed revisions to its Open Access Transmission Tariff (OATT) and its Market Administration and Control Area Services Tariff (Services Tariff) under the "exigent circumstances" provision of its Independent System Operator Agreement (ISO Agreement).² That provision of the ISO Agreement empowers the NYISO Board to direct NYISO to submit a Federal Power Act

² ISO Agreement § 19.01s.

¹ New York Independent System Operator, Inc., 124 FERC ¶ 61,174 (2008). (August 21, 2008 Order).

(FPA) section 205³ filing without the concurrence of the NYISO's Management Committee in certain specified exigent circumstances, but states that such filing must expire no later than 120 days after it is filed with the Commission unless the Management Committee files a concurrence within the 120 day period. NYISO asserted that, since January 2008, an increasing amount of transactions had been scheduled by market participants around Lake Erie so that they would supposedly exit NYISO, be wheeled through the Independent Electricity System Operator of Ontario (IESO) and the Midwest Independent Transmission System Operator (MISO), and sink in PJM Interconnection, L.L.C. (PJM). However, NYISO stated that, in fact, approximately 80 percent of the power flowed over the common border between NYISO and PJM. NYISO stated that several market participants were scheduling transactions in these circuitous routes around Lake Erie to take advantage of differences in the way regional transmission organizations (RTOs) price transactions that exit their systems. NYISO stated that for a variety of reasons this type of scheduling caused market distortions and congestion and uplift costs. NYISO stated that its proposed tariff changes would not eliminate all loop-flow issues but that they would reduce unscheduled power flows.

3. On August 21, 2008, the Commission accepted the tariff sheets submitted by NYISO under the exigent circumstances provision of its ISO Agreement to be effective July 22, 2008, for a 120 day period terminating November 18, 2008.⁴ The Commission also required NYISO to file a report by September 12, 2008, providing the status of the discussions with the Management Committee concerning its ratification of the filing.⁵ The Commission also reserved the right to undertake further consideration of the tariff revisions at issue in the filing under FPA section 206.⁶ Moreover, the Commission stated that its:

Office of Enforcement began a non-public investigation under Part 1b of the Commission's regulations in May of this year into the scheduling of flows over the circuitous paths such as those that are addressed in the instant order. The Commission will determine what further action may be appropriate with respect to the above described claims after it considers the results of the staff investigation. We also will not require NYISO to file

³ 16 U.S.C. § 824d (2006).

⁵ *Id.* P 23.

⁶ 16 U.S.C. § 824e (2006).

⁴ August 21, 2008 Order, 124 FERC ¶ 61,174 at P 20.

reports beyond those directed above, as such issues are more appropriately addressed in the investigation.⁷

4. Subsequently, on October 31, 2008 in Docket No. ER09-198-000, as amended on November 4, 2008 in Docket No. ER09-198-001, NYISO filed tariff sheets to preclude the scheduling of flows over the same eight circuitous transmission paths. NYISO stated that these tariff sheets contained the same language as that accepted by the Commission for an interim period in its August 21, 2008 Order. The primary difference between NYISO's July 21, 2008 filing and its October 31, 2008 filing is that the latter filing was not made pursuant to the "exigent circumstance" provision of NYISO's ISO agreement and, therefore, NYISO was not required to propose that the tariff sheets be terminated after 120 days. Therefore, NYISO proposed that the tariff sheets take effect on November 19, 2008 upon the termination of those tariff sheets as proposed on November 17, 2008.⁸ The Commission also required that NYISO file a status report on its progress in developing solutions to the loop flow problem, including an inter-RTO congestion management process within 90 days of the Commission's order.⁹

5. In addition, the Commission noted that:

its Office of Enforcement began a non-public investigation under Part 1b of the Commission's regulations in May of this year into the scheduling of flows over the circuitous paths such as those that are addressed in the instant order. This investigation is ongoing and as set forth by the August 21, 2008 Order, the Commission will determine what further actions may be appropriate after it considers the results of the staff investigation.¹⁰

Request for Clarification of the August 21, 2008 Order

6. New York Municipals request clarification of the Commission's statement that it "will not require NYISO to file reports beyond those directed [in the August 21, 2008

⁸ New York Independent System Operator, Inc., 125 FERC ¶ 61,184, at P 15, 18 (2008) (November 17, 2008 Order).

⁹ *Id.* P 20.

¹⁰ Id. P 21.

⁷ August 21, 2008 Order, 124 FERC ¶ 61,174 at P 32.

Order], as such issues are more appropriately addressed in the investigation." New York Municipals request clarification that this sentence is limited only to the specific reverse flow problem identified in the July 21, 2008 Exigent Circumstances Filing and that this sentence does not relieve NYISO of its obligation to investigate and report on any unexplained increases in its congestion and uplift costs.

7. On September 19, 2008, NYISO responded to the New York Municipals' request. NYISO states that the relief that New York Municipals seek is outside the scope of Docket No. ER08-1281-000 and should be denied. NYISO states that the New York Municipals do not contest the Commission's substantive determination in this proceeding and that none of the topics or arguments contained in their request has anything to do with whether or not the tariff revisions that the NYISO proposed and the Commission accepted in this proceeding are just and reasonable. NYISO states that the Commission clearly explained that the Office of Enforcement is conducting a non-public investigation of the behavior described in the NYISO's July 21, 2008 exigent circumstances Filing and that it will "determine what further actions may be appropriate with respect to the above described claims after it considers the results of the staff investigation."

8. The Indicated Transmission Owners also request clarification of the August 21, 2008 Order. They point out the Commission stated that, with respect to its announced non-public investigation into the scheduling of flows over circuitous paths, the Commission "will determine what further action may be appropriate with respect to the above described claims after it considers the results of the staff investigation.^{3, 11} The Indicated Transmission Owners state that, as customers of NYISO and as utilities serving consumers in New York who may have ultimately been harmed by the conduct under investigation, they seek to clarify that disgorgement of profits back to NYISO customers by malfeasant parties is a remedy that will be fully considered by the Commission. Further, they request that the Commission provide further disclosure of the conduct under investigation so that the amount of profits to be disgorged may be calculated. The Indicated Transmission Owners assert that their request is not intended to seek that the Commission pre-determine any outcome of its investigation, but rather solely to resolve any ambiguity over whether, should market manipulation or other violations of law, regulation or tariff be found, disgorgement of profits back to NYISO customers is an appropriate remedy.

Discussion

9. The Commission grants in part and denies in part the requests for clarification or rehearing of the August 21, 2008 Order.

¹¹ Citing August 21, 2008 Order, 124 FERC ¶ 61,174 at P 32.

10. First, in response to the New York Municipals' request, the Commission clarifies that its statement in the August 21, 2008 Order that NYISO would not be required to make additional reports was limited to any reports the Commission might require in the Docket No. ER08-1281-000 exigent circumstances proceeding, and was not intended to excuse NYISO from filing other reports that NYISO is otherwise required to file. In this regard, when NYISO made its subsequent filing in Docket No. ER09-198-000 to extend the scheduling limitations originally imposed in the exigent circumstances proceeding, the New York Municipals requested that NYISO be required to adopt a monitoring plan to ensure that future problems that unreasonably increase consumers' costs or affect system reliability are quickly identified and remedied. In addition, NYISO's Independent Market Monitor and PJM in Docket No. ER09-198-000 asked that the Commission require that NYISO work with PJM and others to develop a congestion management process between PJM and NYISO. In response, the Commission stated that it understood the need for a long-term comprehensive solution to these issues. The Commission accordingly directed NYISO in that proceeding to work with its market participants and others to address these matters on a comprehensive basis, and the Commission required NYISO to file a status report within 90 days on its progress in developing solutions to the loop flow problem, including an inter-RTO congestion management process.¹² Given this clarification the Commission need not address New York Municipals' alternative request for rehearing.

11. Second, the Commission denies the Indicated Transmission Owners' request for clarification. In both the August 21, 2008 and November 17, 2008 Orders, the Commission stated that its Office of Enforcement is conducting a non-public investigation into the scheduling of flows over circuitous paths and that the Commission will determine what further action may be appropriate after it considers the results of the staff investigation. The Commission, contrary to the request of the Indicated Transmission Owners, sees no reason to opine at this time as to what remedies, if any, may ultimately be appropriate.

¹² November 17, 2008 Order, 125 FERC ¶ 61,184 at P 20.

The Commission orders:

The Commission grants in part and denies in part the requests for clarification or rehearing of its August 21, 2008 Order in the above-captioned docket, as discussed in the body of this order.

By the Commission. Commissioner Kelliher is not participating.

(SEAL)

Kimberly D. Bose, Secretary.

10 Krey Boulevard & Rensselaer, NY 12144



BY HAND

March 9, 2009

Anthony J. Como, Director, Siting and Permitting Office of Electricity Delivery and Energy Reliability (OE-20) U.S. Department of Energy 1000 Independence Ave., SW Washington, D.C. 20585

> Re: Comments of the New York Independent System Operator, Inc. in Support of International Transmission Company's Application to Amend Presidential Permit. OE Docket No. PP-230-4

Dear Mr. Como:

I am writing on behalf of the New York Independent System Operator, Inc. ("NYISO") to express the NYISO's support for International Transmission Company's ("ITC Transmission's") application to amend its Presidential permit to permit it to replace its failed Bunce Creek Station 675 MVA phase-shifting transformer with two 700 MVA phase shifting transformers that will be connected in series. The construction, installation, interconnection and operation of the new phase shifting transformers will make it possible to better align actual power flows with scheduled power flows at the points of interconnection between the transmission facilities that are owned by ITC Transmission and the transmission facilities that are owned by Hydro One Networks Inc. ("Hydro One"); in other words, at the border between the State of Michigan and the Province of Ontario.

For decades, Control Areas around Lake Erie have been subject to significant, unscheduled, unpredictable circulating power flows that, at times, have adverse reliability and market impacts.¹ Operation of phase-shifting transformers at the border between Michigan and Ontario will permit the Control Areas operated by the Midwest Independent Transmission System Operator, Inc. and the Control Area operated by the Independent Electricity System Operator of Ontario to better align the actual interchange of electricity with scheduled interchanges. Better conforming actual to scheduled interchange at the Ontario/Michigan border

¹ See, e.g., the NYISO's July 21, 2008 filing in Federal Energy Regulatory Commission Docket No. ER08-1281-000.

Anthony J. Como, Director March 9, 2009 Page 2

will reduce unscheduled power flows in *all* of the Control Areas that surround Lake Erie, including the Control Area that the NYISO operates. The NYISO anxiously awaits the effective operation of the phase-shifting transformers to better conform actual power flows to scheduled power flows and respectfully requests that the Department of Energy promptly grant ITC Transmission's request to amend its Presidential permit.

Respectfully submitted,

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

cc: James Frankowski John R. Staffier



Process Review:

Enterprise-wide Critical Issue Resolution

Stephen G. Whitley President and CEO August 27, 2008 Management Committee Meeting



Process Review: Enterprise-wide Critical Issue Resolution

- The NYISO staff did an outstanding job of implementing a sound resolution to the Lake Erie Loop flow Circuitous Scheduling Issue
 - Market Participants have filed many supportive comments to the FERC
 - Dr. David Patton has commented that he did not believe that NYISO could have conducted its investigation, analysis and mitigation of this highly complex set of circumstances any more quickly or diligently
- We want to learn from this experience and identify process improvements that can reduce the cycle time on complex problems like this in the future



How to Expedite Issue Resolution, Analysis and Deployment of Solutions based on a Review of Lake Erie Loop Flow Issue

- Purpose:
 - To develop proactive process improvements that will reduce cycle time in the deployment of solutions relative to exigent power system and market conditions such as the Lake Erie Loop Flow problem
- Scope:
 - The team reviewed the timelines of events, complexity of the issue, and existing process maps and controls across the enterprise
 - The problem solving process was reviewed in the following segments – Issue Identification; Analysis; Design Issue Resolution; Monitor/Test Resolution and Implementation of Resolution

3



Findings

- The Lake Erie Loop Flow problem (Jan 08 July 08) was an evolving and complex power system and market monitoring problem
- Loop flows on the AC bulk power system are complex and can occur by single or combinations of events that can happen inside or external to the NY Control Area
 - Transmission outages
 - Generation outages
 - Changes in generation dispatch patterns
 - Changes in system demand
 - Changes in inter-area transactions



5

Findings (continued)

- When loop flow problems grow to the point of causing reliability problems, the System Operators can invoke the NERC "TLR" process to curtail transactions
- The NYISO MMU identified the Lake Erie Loop Flow issue long <u>before</u> it became a reliability issue – by monitoring "uplift increases" in daily market operations
- To this day, the NYISO staff has not found an area of <u>non-compliance</u> with NERC/NPCC standards or NYISO market rules relative to the "circuitous scheduling" around Lake Erie



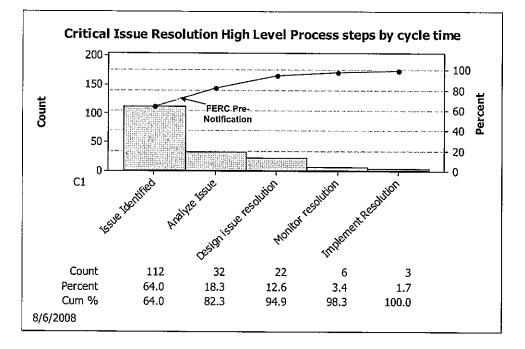
6

Findings (continued)

- Loop flows were not unusual in the first three months, so the issue did not raise significant concerns
 - This period was the longest single block of time used in the process (110 of 180 days)
- Because of restrictive data sharing agreements between all ISO MMUs, data acquisition was a barrier in the issue identification and analysis portion of the problem solving process



Process Cycle Time



7



<u>Action Plan – Process Improvements</u>

<u>What</u>		<u>Who</u>	<u>When</u>
1.	Establish Daily Post Operations Process at PCC Identify and analyze changes in topology, power flows, generation patterns internal to NY and adjacent control areas Compare findings with Market outcomes Coordinate with Internal and External MM units 	Rick Gonzales	4Q 08
2.	 Develop "granular" reporting on the amount and cause of uplift and present to MPs at MC meeting Improve this reporting analysis on an ongoing basis based on feedback from participants. Post "actual flows" on the NYISO Zone Map 	Rick Gonzales	3Q 08
3.	 Develop internal procedure to establish "swat team" for critical issue response to include establishment of Project Manager Regulatory Plan Communications Plan Establishment of timetables/deliverables 	Wayne Bailey	4Q 08

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Action Plan - Data Acquisition

	What	<u>Who</u>	<u>When</u>
1.	 Establish data acquisition improvement plan with other RTO's Follow-up "Exigent" filing to FERC with ratification by MC for 205 to ensure data acquisition improvements are achieved Identify other barriers to routine exchange of MMU data including transaction data Modify RTO data confidentiality agreements accordingly Explore increased coordination with Potomac Economics in areas that we lack data 	Nicole Bouchez/Rob Fernandez/Alex Schnell	4Q 08
2.	Expand "Datamart" project to satisfy MMU requirements	Rich Dewey	4Q 08

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Action Plan - Tools

	<u>What</u>	<u>Who</u>	<u>When</u>
1.	Identify additional tools needed for System Operations and MMU to assist in identification of anomalies in power system and market behavior – such as	Rick Gonzales/ Nicole Bouchez	4Q 08
	Case comparison – generation dispatch, transmission topology Uplift analysis Inter area scheduling analysis		



Additional Tariff Remedies/FERC Remedial Authority

Alex Schnell Office of General Counsel New York Independent System Operator

Market Issues Working Group November 3, 2008



The Issue

- The NYISO invited stakeholders to suggest amendments to its Tariffs to provide additional protection against market manipulation and/or economically inefficient market outcomes.
- In response to its invitation, the NYISO has received a proposal.
- The NYISO appreciates the receipt of the proposal, and believes it can foster helpful discussion.



 Notwithstanding anything to the contrary in the ISO Tariffs, a violation, by a Market Participant, of the Commission's anti-manipulation rule, as set forth in 18 C.F.R. § 1c.2, shall constitute a violation of the ISO Tariffs. If the ISO identifies conduct by a Market Participant which, in the ISO's reasonable judgment, may violate 18 C.F.R. § 1c.2, then the ISO shall promptly notify the Commission of such conduct and request that the Commission establish a refund effective date coincident with the date on which the ISO provides such notice to the Commission.



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The Stakeholder Proposal (cont'd)

The proposal is designed to accomplish two goals:

- 1. It makes a violation of FERC's Anti-Manipulation Rule a violation of the NYISO Tariff; and
- 2. It establishes a refund effective date based on the date of the NYISO's request to FERC.

The proposal is not designed to address economically inefficient activities that do not violate the Commission's regulations that prohibit manipulation of the electric energy markets.



Proposal is Springboard for Additional NYISO Review

- This proposal provides a helpful starting point for examining what authority the NYISO and FERC have, and what additional tools may assist the detection of and remediation of, market manipulation.
- Based on the proposal it received, the NYISO asked counsel to analyze the Market Services Tariff and FERC precedent addressing refund authority.
- In this presentation the NYISO provides its findings.



Review of FERC's Remedial Authority



FPA Section 206

- A Section 206 complaint (by an aggrieved party or FERC) is a tool to be utilized where existing tariff/rate provisions are viewed as unjust and unreasonable
 - Remedy (such as a lowered rate) is applied prospectively from date the complaint is filed, once a finding is made that the existing rate is unjust and unreasonable.
 - Section 206 is "premised on notice to sellers that rates may be changed and that refunds for rates charged after a certain date may be subjected to refund." Lockyer v. British Columbia Power Exchange Corp., 125 FERC ¶ 61,016 at P 38 (2008).
 - " "Refund effective date" is established as a "stake in the ground" so that if FERC finds rate unjust and unreasonable, FERC can change the rate prospectively and order refunds for the difference in rates from the refund effective date to the date of FERC's finding on the complaint.

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FPA Section 222 Anti-Manipulation Rule

- Section 222 of the FPA provides the statutory basis for FERC's Anti-Manipulation Rule.
- Section 222 does not provide a private right of action.
- But FERC can order Anti-Manipulation rule violators to:
 - Disgorge unjust profits pursuant to FPA Section 309.
 - Pay a civil penalty pursuant to FPA Section 316A.



FPA Section 309

- FPA Section 309 equitable remedies are available for violations of the Commission's regulations or the NYISO's Tariffs. Authority includes requiring disgorgement of unjust profits.
 - See Towns of Concord v. FERC, 955 F.2d 67, 73 (D.C. Cir. 1992) (noting that the "necessary and appropriate" powers of Section 309 allow FERC to order refunds of amounts "improperly collected in excess of the filed rate").
 - FERC may "take steps to remedy any violations" of "RTO/ISO market rules or Commission orders or tariffs, or any prohibited market manipulation," including "disgorgement of profits and refunds to customers." Order No. 697 at PP 5 & 964.
 - FERC has ordered disgorged profits to be paid to the injured parties. See, e.g., El Paso Elec. Co., 108 FERC ¶ 61,071 at P 35 (2004) (directing Enron to disgorge profits into dedicated fund in proceeding to "determine a mechanism to fairly distribute monies to customers harmed by the various practices at issue").
 - FERC's authority to apply an equitable remedy under Section 309 of the FPA is not tied to any refund effective date.

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FPA Section 316A Civil Penalties

- FERC's authority to impose civil penalties arises under Section 316A of the FPA.
 - As amended by EPAct 2005, there is no "refund effective date" or other temporal limitation applied to civil penalties that are determined pursuant to Section 316A of the FPA.
 - FERC views penalties collected as generally going to the U.S. Treasury. See, e.g., Order No. 697 at PP 5 & 964.
 - Other federal agencies at times may have ordered penalties collected to be paid as restitution to harmed private parties; FERC might consider this approach



Outside the Section 206 Complaint Context, FERC's Authority is Not Limited by the "Refund Effective Date"

"[W]hile section 206 of the FPA does not permit the Commission to establish just and reasonable rates prior to the refund effective date established under section 206, the Commission clearly has the authority to order disgorgement of profits associated with ... violation of a Commission rule, order, regulation, or tariff on file. Therefore, the Commission may use disgorgement of unjust profits where appropriate, including to remedy a violation of the new anti-manipulation regulations."

 Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations, 114 FERC ¶ 61,165 at P 32 (2006); see also id. at n.60.



Considering Proposed Remedial Measure in Light of FERC's Existing Authority and the Provisions of the NYISO's Tariffs

FERC Rule Violation = NYISO Tariff Violation

 The NYISO's Market Services Tariff requires Customers to comply with FERC regulations:

> "All Customers shall comply with all applicable federal, state and local laws, regulations and orders, including orders from the ISO."

- Market Services Tariff § 4.1.6.
- Thus a violation of FERC's regulations (including the antimanipulation rule) would arguably violate section 4.1.6 of the NYISO's Market Services Tariff, if and when FERC makes the necessary prerequisite finding.



"Refund Effective Date" Concept is Tied to Section 206

- The Refund Effective Date concept is not a perfect fit if the goal is to remedy a violation of a FERC rule or of the NYISO's Tariffs.
- As noted above, "refund effective dates" are of relevance solely in Section 206 complaint proceedings where FERC considers whether existing rates are unjust or unreasonable.
 - FPA Section 206 prohibits FERC from ordering refunds for charges imposed pursuant to the existing (challenged) rate prior to the refund effective date.
 - Example: FERC determines that the NYISO's filed rate is no longer just and reasonable and changes it. FERC may not order refunds for charges/payments that occurred in accordance with the NYISO's filed rate before the refund effective date.



Potential for Incomplete Relief

- The inclusion in the proposal of the concept that NYISO would request a "refund effective date" could be read to imply that the NYISO would be asking FERC to apply less than its full array of tools, or for a prospective timeframe only
 - The stakeholder proposal would require NYISO to request FERC to set a refund effective date "coincident" with the NYISO's request.
 - Thus, a focus on establishment of a refund effective date ignores the availability of relief (under Section 309, 222/318A) for past periods of manipulation



Conclusion

What does this mean?

- 1. A Market Participant that violates FERC's Anti-Manipulation Rule also, arguably, violates the NYISO Tariff.
- 2. FERC has the authority to order disgorgement, restitution or impose penalties for Anti-Manipulation Rule violations whenever they occur. FERC can direct disgorged profits to victims.



Additional Stakeholder Input Requested

- In light of this presentation addressing FERC's remedial authority, what do the Market Participants want the new/additional remedies to accomplish?
- What types of approaches merit consideration?



Discussion



Additional Tariff Remedies/FERC Remedial Authority

Alex Schnell Office of General Counsel New York Independent System Operator

> Market Issues Working Group February 6, 2009



Summary of Discussions

- The NYISO invited stakeholders to suggest amendments to its Tariffs to provide additional protection against market manipulation and/or economically inefficient market outcomes.
- In response to its invitation, the NYISO received a stakeholder proposal that was discussed at the November 3 MIWG meeting.
- At that meeting, the NYISO discussed FERC's remedial authority under Sections 206, 222, 309 and 316A of the Federal Power Act (FPA).



- A FPA Section 206 complaint (by an aggrieved party or FERC) is a tool to be utilized where existing tariff/rate provisions are viewed as unjust and unreasonable. Any remedy (such as a lowered rate) is applied prospectively from date the complaint is filed, once a finding is made that the existing rate is unjust and unreasonable.
- FPA Section 222 provides the statutory basis for FERC's regulations addressing market manipulation. Remedial authority is contained in Sections 309 and 316A of the FPA.
- FPA Section 309 equitable remedies are available for violations of FERC's regulations or the NYISO's Tariffs. Authority includes requiring disgorgement of unjust profits and requiring refunds. Refunds are not tied to an effective date.
- Section 316A of the FPA authorizes FERC to impose civil penalties. There is no "refund effective date" that applies to these civil penalties.



FERC Rule Violation = NYISO Tariff Violation

 The NYISO's Market Services Tariff requires Customers to comply with FERC regulations:

"All Customers shall comply with all applicable federal, state and local laws, regulations and orders, including orders from the ISO."

- Market Services Tariff § 4.1.6.
- Thus a violation of FERC's regulations (including the antimanipulation rule) already violates section 4.1.6 of the NYISO's Market Services Tariff.
- On the following slide, the NYISO proposes revisions to Section 4.1.6 of the Market Services Tariff to address concerns identified by Market Participants at the November 3 MIWG meeting.

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Proposed Revisions to Section 4.1.6 of the Market Services Tariff

 The NYISO proposes to add language following the last sentence of Section 4.1.6 of its Market Services Tariff (Sheet No. 87.01):

All Customers shall comply with all applicable federal, state and local laws, regulations and orders, including orders from the ISO. Violations of applicable laws, regulations and orders (including orders from the ISO) that could reasonably be expected to, or that do, in fact, adversely impact: (i) any of the markets that the ISO administers, or (ii) the reliability of electric service, shall also constitute violations of the NYISO's Tariffs. This Section 4.1.6 shall not be read as independently empowering the NYISO to provide a remedy for Customer violations of the NYISO's Tariffs.



First New Sentence Clarifies Scope of Applicable Violations

- Proposed new first sentence: "Violations of applicable laws, regulations and orders (including orders from the ISO) that could reasonably be expected to, or that do, in fact, adversely impact: (i) any of the markets that the ISO administers, or (ii) the reliability of electric service, shall also constitute violations of the NYISO's Tariffs."
- The new sentence clarifies the existing single sentence of § 4.1.6.
- For example, an MP's violation of OSHA regulations should not be considered a NYISO Tariff violation.

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Second New Sentence Recognizes Respective NYISO and FERC Roles

- Proposed new second sentence: "This Section 4.1.6 shall not be read as independently empowering the NYISO to provide a remedy for Customer violations of the NYISO's Tariffs."
- That is, FERC must ultimately determine Customer violations and remedies (unless NYISO remedial authority has been accepted by FERC and is "built into" into NYISO Tariff elsewhere).



Discussion



Inter-Market Transaction Monitoring

Kimberly Sebben Supervisor - Monitoring, Analysis & Reporting New York Independent System Operator Energy Intermarket Surveillance Group Conference Saratoga Springs, NY September 15, 2008



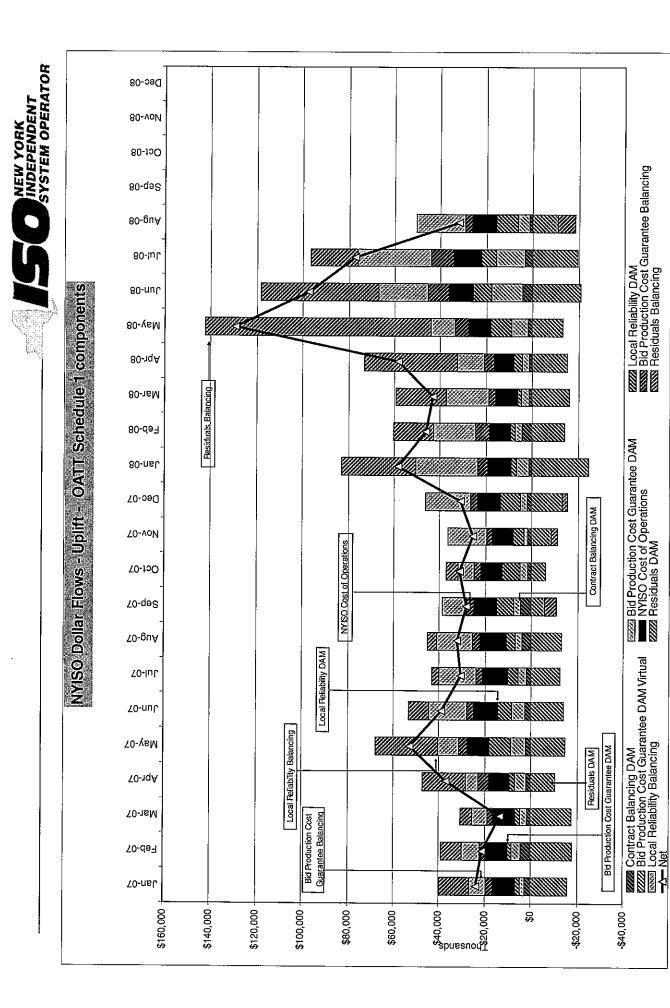
Issue Identification

- Fransactions, and the method that PJM and the MISO NYISO discovered a "seam" between the method that The Market Monitors from IESO, PJM, MISO and the NYISO and IESO use to price External use to price External Transactions.
- This is providing inefficient scheduling incentives that are resulting in increasing levels of inefficient transactions.
- (indirect) paths around Lake Erie is adversely affecting the operation of the NYISO-Administered markets and therefore NYISO foreclosed scheduling over the eight The scheduling of transactions over circuitous identified scheduling paths.



Justification

- are able to more closely conform actual power flows to Until such time as the Control Areas around Lake Erie scheduled power flows, actual power flows will bear little relation to scheduled flows over the eight identified Scheduling Paths.
- flows) has increased and is exacerbating west-to-east The difference between scheduled and actual flows over the eight paths (known as circulation or loop congestion in the NYCA.
- unscheduled power flows that exacerbate internal NYCA The NYISO incurs additional congestion related costs (including uplift) when actual power flows include west-to-east transmission constraints.



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2222 Local Reliability DAM 2000 Bid Production Cost Guarantee Balancing 2000 Residuats Balancing

Bid Production Cost Guarantee DAM NYISO Cost of Operations Residuals DAM

Results & Lessons Learned	 Results of prohibition of the 8 scheduling paths Since July 22, 2008 no one has attempted to use any of the eight prohibited scheduling paths. 	 Loop Flow and Uplift have responded consistent with our expectations. 	 Permanent Tariff approval process underway FERC investigation announced. 	Lesson Learned	 The Market Monitors need to find a way to share bidding and scheduling information related to external transactions. 	 Need access to data in a timely and consistent manner.
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Appendix

	Prohibited Transaction "Scheduling Paths" 1. External Transactions that (a) exit the New York Control Area ("NYCA") at the NYISO's Proxy Generator Bus that represents the Interface
	between the NYCA and the Control Area operated by Ontario's Independent Electric System Operator ("IESO"), and (b) sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
С	External Transactions that (a) exit the NYCA at the NYISO's Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area, and (b) sink in the IESO Control Area;
ю.	External Transactions that (a) enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the PJM Control Area, and (b) source from the IESO Control Area;
4.	External Transactions that (a) enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the IESO Control Area, and (b) source from the PJM Control Area;
	portuitan

Continued...



"Scheduling Paths" (Cont.) **Prohibited Transaction**

- Generator Buses that represent the NYCA's common border with the Midwest Independent Transmission System Operator, Inc. ("MISO"); PJM Control Area, and (b) sink in the Control Area operated by the Wheels Through the NYCA that (a) enter the NYCA at the Proxy ഹ.
- Generator Buses that represent the NYCA's common border with the PJM Control Area, and (b) source from the MISO Control Area; Wheels Through the NYCA that (a) exit the NYCA at the Proxy <u>ن</u>
- Generator Bus that represents the NYCA's Interface with the IESO Wheels Through the NYCA that (a) enter the NYCA at the Proxy Control Area, and (b) sink in the MISO Control Area; and 2.
- Generator Bus that represents the NYCA's Interface with the IESO Wheels Through the NYCA that (a) exit the NYCA at the Proxy Control Area, and (b) source from the MISO Control Area. ω.



electricity grid, administers the state's wholesale electricity markets, and provides corporation that began operations in 1999. The NYISO operates New York's bulk The New York Independent System Operator (NYISO) is a not-for-profit comprehensive reliability planning for the state's bulk electricity system.

www.nyiso.com



Lake Erie Loop Flow Mitigation

A report from the New York Independent System Operator

November 2008

Executive Summary

The purpose of this report is to summarize a recent issue affecting New York's wholesale electricity markets, and describe its identification and remediation. The issue, relating to a phenomenon known as "Lake Erie loop flow," occurred during the first half of 2008.

Electricity is bought and sold, both in organized markets and elsewhere, using scheduled delivery routes. However, the electricity itself follows routes ordained by the laws of physics, which are not necessarily identical to the paths set by the buyers, the sellers, or the operators of the grid. When the actual electricity path differs from the routes scheduled for it, the departure is known as "loop flow." Loop flows occur in all interconnected transmission systems as the flow of electricity follows physical laws across the continent. Loop flows can incur unnecessary costs when certain transactions cause the relationship between the scheduled route and the actual route to change and that is what occurred in New York during the first half of 2008.

Unexplained changes in the expected levels of Lake Erie loop flow were observed by the New York Independent System Operator ("the NYISO") during that time frame. The NYISO's investigation of these changes required consultation and coordination among the NYISO and the operators of neighboring grid systems. The NYISO also advised regulatory authorities of the matter.

Once the causes of the problem were identified, the NYISO had to determine whether it had authority to eliminate the problem and possibly penalize those who had profited from it. Since the NYISO is not an arm of government it does not, on its own, have the authority to stop the behavior or levy penalities. The Federal Energy Regulatory Commission ("FERC") has powers enacted by Congress to determine whether parties have engaged in impermissible market behavior and, if so, to fashion remedies to address the consequences of such behavior.

While the NYISO could not remedy the effects of the transactions that had already occurred, it quickly developed revisions to its tariff to prevent the problem from continuing. The NYISO used emergency procedures to file the changes with the FERC and immediately began enforcing the new rules, which were expeditiously approved and subsequently made permanent by the FERC. The FERC also announced that its Enforcement Division was performing a non-public investigation of the matter.

The NYISO's emergency actions successfully addressed this unnecessary expense to its markets and currently remain in effect. The NYISO also undertook an internal evaluation of potential improved measures and immediately moved to implement the identified improvements.

The incident raises issues as to whether the NYISO's authority should be expanded to enable it to cope more flexibly with unanticipated conduct that reduces the efficiency of the markets. The NYISO and its Market Participants are currently exploring changes that may be legally viable in light of FERC's inability to grant its congressionally authorized enforcement authority to a non-governmental entity.

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1. Purpose

This report describes the actions taken by the New York Independent System Operator (the "NYISO") during the first half of 2008. In summary:

- a. The NYISO sought to determine why unscheduled power flows circulating over the transmission facilities that surround Lake Erie ("loop flows") had changed direction and were increasing in volume.
- b. Once the NYISO determined that the scheduling of significant volumes of external transactions via indirect/circuitous paths around Lake Erie was the primary cause of the change, to implement a remedy that addressed the cause of the change in Lake Erie loop flows.

This report also describes the effectiveness, to date, of the remedy implemented by the NYISO and estimates the wholesale cost impact of the scheduling of external transactions via indirect/circuitous scheduling paths from January 1 through July 22, 2008.

2. Issue Summary

Actions taken by the NYISO have proven extremely successful in ending certain energy transactions that had added to wholesale electricity costs. The NYISO's ban on those transactions, and related actions, are now saving consumers millions of dollars.

The bulk power transmission facilities that surround Lake Erie have been subject to unpredictable and volatile loop flows for more than 40 years. Lake Erie loop flows routinely change direction over the course of a day and their direction and magnitude of flows can vary by 1000 MW or more in a single day. Due to the variability of Lake Erie loop flows, it takes time to determine if and when a significant and sustained change in the pattern of loop flows has occurred.

Earlier this year, the NYISO observed that the direction in which Lake Erie loop flows, on average, travel had reversed, and that the magnitude of Lake Erie loop flows was steadily increasing. Working with its neighboring grid operators to investigate this phenomenon, the NYISO identified unusual transaction scheduling behavior at its interfaces with PJM Interconnection, LLC ("PJM") and the Ontario Independent Electricity System Operator ("IESO") as the likely cause.

A small group of market participants were scheduling increasingly significant volumes of power (primarily) from New York to PJM via a circuitous or indirect path around Lake Erie, rather than scheduling the power directly from New York to PJM at the common border between the two control areas. This

scheduling of external transactions via indirect/circuitous paths exacerbated Lake Erie loop flows and significantly increased certain wholesale power costs in New York.

The NYISO worked quickly to develop a remedy to the behavior it had observed and, on July 22, 2008, the NYISO began precluding the scheduling of external transactions via indirect/circuitous paths around Lake Erie. The NYISO implemented its ban one day after it submitted an emergency filing to the Federal Energy Regulatory Commission ("FERC"). FERC temporarily accepted the NYISO's filing on August 21, 2008, and ordered the changes be made permanent on November 17, 2008.

The temporary ban that the NYISO implemented on July 22, 2008 has proven extremely effective in practice. It has, on average, both reduced the magnitude and reversed the direction of Lake Erie loop flows. With the approval of its stakeholders and Board of Directors, the NYISO has asked FERC for permission to continue to preclude the scheduling of external transactions around Lake Erie via circuitous scheduling paths.

On August 21, FERC announced that its Office of Enforcement is conducting a non-public investigation of the scheduling practices that the NYISO banned on July 22, 2008. FERC must determine whether the market participants that scheduled the external transactions via circuitous paths around Lake Erie violated its prohibition against manipulation of electric energy markets and whether the economic beneficiaries of these transactions will be required to provide refunds.

An evaluation of the financial impact of the circuitous transaction scheduling conducted by the NYISO, with the assistance of its Independent Market Advisor, estimates the costs of the indirect transaction scheduling to have been up to \$96 million.

To improve its ability to quickly identify new market issues, the NYISO has created a new group within its Operations Department that is assigned to monitor and identify unusual market outcomes. The NYISO is also implementing a state-of-the-art data storage and retrieval system for its Market Monitoring Unit. From a regulatory perspective, the NYISO is working with its stakeholders to identify remedies, which it could add to its tariffs, that would permit the NYISO to better or more quickly address any market inefficiency or market manipulation it identifies.

Finally, consistent with FERC's August 21, 2008 Order, the NYISO is working with its stakeholders, and also plans to engage neighboring Control Areas in an effort to develop more comprehensive solutions to address Lake Erie loop flow.

3. Loop Flows

"Loop flows" occur when the path over which power physically flows does not correspond to the path over which the power was scheduled to flow. Loop flows are difficult to predict and control. Electricity flowing between a generator and a consumer travels via the path of least resistance. Grid operators (ISOs and RTOs) must carefully balance power supplied to the system with power used by customers so that transmission lines are not overloaded and customers are served reliably.

The Lake Erie loop flow occurs on the roughly 1,000 miles of interconnected bulk power transmission lines that surround Lake Erie. These transmission lines run through the states of New York, Pennsylvania, Ohio, Michigan and the Canadian province of Ontario, and traverse the jurisdictions of several grid operators, including the NYISO, PJM, IESO, and Midwest Independent Transmission System Operator, Inc. ("MISO").

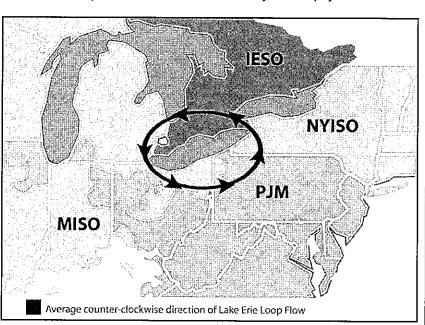
Loop flows on the bulk power system are complex and ordinarily occur as the result of a combination of factors, including:

- Scheduling of energy transactions between the areas controlled by grid operators
- Scheduling electricity supply within each grid operator's system
- Demand for electricity within each grid operator's system
- Transmission outages
- Generation outages

Loop flows occur in all interconnected transmission systems, as the flow of electricity follows physical

laws. Loop flow around Lake Erie is a longstanding and expected phenomenon. Lake Erie loop flows may present an operational concern depending on the magnitude of the loop flow and operation circumstances affecting the grid operators adjacent to the Lake.

Over the past several years, Lake Erie loop flows have, on average, occurred in a counter-clockwise direction. However, the general



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direction of loop flows reversed in late December of 2007. Loop flows traveled in a clockwise direction with increasing intensity until the NYISO implemented a prohibition against the scheduling of external transactions via circuitous scheduling paths on July 22, 2008. Clockwise loop flows tend to aggravate west-to-east transmission constraints in New York, contributing to increased congestion and wholesale electricity costs in New York. Counter-clockwise loop flows tend to decrease electricity costs in New York, but may have the opposite effect in other markets. For this reason, minimizing Lake Erie loop flows is an acknowledged goal of all of the grid operators that surround Lake Erie.

4. Issue Identified

In the early months of 2008, the NYISO observed that the direction in which Lake Erie loop flows travel, on average, had reversed, and that the magnitude of Lake Erie loop flows was steadily increasing.

Since loop flows around Lake Erie involve power system conditions over a widespread area involving multiple neighboring power systems with different market rules, a large amount of data was needed to conduct the analysis. The necessary data was ultimately obtained through the cooperation of the neighboring grid operators.

After gaining access to and analyzing the necessary data, the NYISO, MISO, PJM and IESO market monitors identified the primary contributor – a change in inter-control area transaction scheduling behavior. This behavior was directly related to the changed direction of "Lake Erie loop flow", and was creating congestion and causing market inefficiencies in New York.

Even though the scheduling of external transactions between control areas via circuitous or indirect "contract paths" was not prohibited in the eastern interconnection prior to July 22, 2008, the impact of these schedules on the NYISO's markets focused attention on the incentives that led to the inefficiency of scheduled power via a path over which the electricity was not expected to flow. Once the market inefficiency was identified, the NYISO quickly acted to prohibit the use of certain energy transaction scheduling paths.

5. Certain Transactions Banned

The NYISO submitted tariff revisions that proposed to prohibit the scheduling of external transactions via eight specifically identified paths that were being used, or that could be used, to schedule power to flow indirectly or circuitously between adjacent control areas. By restricting these paths, the NYISO effectively precluded the scheduling of many transactions that could create a significant divergence between scheduled and actual power flows. Under the new rules, power could still be scheduled directly between adjacent control areas.

The NYISO submitted its proposed tariff revisions for expedited consideration by FERC on July 21, 2008 and implemented its proposed new rules on July 22, in advance of receiving FERC's approval. On August 21, FERC temporarily accepted the tariff revisions proposed by the NYISO to preclude the scheduling of power through New York via eight paths. The NYISO, on October 31, requested that FERC permit the ban to remain in place until a better solution is developed and implemented. FERC approved this request on November 17, 2008.

The NYISO asked FERC to approve the changes on an expedited basis because the occurrence of these transactions was increasing transmission congestion costs and, thus, raising wholesale electricity costs in New York.

BANNED TRANSACTIONS The following are the eight paths banned by the NYISO: 382 NYISO to IESO to MISO to PJM NYISO to PJM to MISO to IESO. IESO to MISO to PJM to NYISO PJM to MISO to IESO to NYISO PJM to NYISO to IESO to MISO. MISO to IESO to NYISO to PJM MISO to PJM to NYISO to IESO IESO to NYISO to PJM to MISO Participants in the New York wholesale. electricity markets are no longer able to schedule transactions via these paths." Each precluded path has a corresponding direct path that may be used to move powerbetween control areas in the region.

With the prohibition of certain paths, NYISO acted to ensure that, prospectively, entities that schedule external transactions pay the costs associated with the transactions they schedule, rather than passing a portion of the costs on to other market participants.

6. Effects of the Ban

Analysis of power flows following enactment of the NYISO's new rules on July 22, 2008 showed significantly better convergence between scheduled energy transactions and actual power flows around Lake Erie and, in turn, reduced levels of Lake Erie loop flows.

The NYISO has been providing updated data on the loop flows in regular reports to its market participants. For the first 21 days of July 2008, average hourly Lake Erie loop flows were 457 MW in a clockwise direction. Following the NYISO's implementation of the eight-path prohibition on July 22, 2008, average hourly Lake Erie loop flows from July 23, 2008 to October 31, 2008 were 121 MW in a counter-clockwise direction. Since the ban was enacted, the direction of loop flows has reversed and the magnitude of Lake Erie loop flows has significantly decreased. As previously noted, counter-clockwise loop flows tend to reduce west-to-east congestion in New York.

7. Estimated Financial Impact

Market participants that scheduled external transactions via indirect, circuitous paths did not bear all of the costs associated with scheduling their transactions. Instead, the costs were socialized across market participants. These transaction scheduling outcomes were inefficient and undesirable.

The NYISO's Independent Market Advisor, Dr. David Patton, worked with NYISO Staff to develop an estimate of the cost to the markets of these transactions covering the period from January 1, 2008 to July 22, 2008, when the NYISO ban took effect.

Dr. Patton estimates that up to \$96 million in system-wide "uplift" (costs shared among all market participants) resulted from the scheduling of external transactions via circuitous paths around Lake Erie.

To put the market impact of these transactions into perspective, the \$96 million in additional costs represent about 1% of the \$7.8 billion in activity that took place in the NYISO wholesale electricity markets between January 1 and July 22, 2008. During that time period, the average cost of wholesale electricity was roughly \$108 per megawatt-hour (MWh), of which approximately \$1.25/MWh can be attributed to the costs of the circuitous transactions.

The \$96 million is an estimate of the measurable costs caused by these transactions, which were not borne by the market participants engaged in the transactions. Since these costs were not paid by those who scheduled the external transactions that caused them, the costs were instead spread across all market participants and, presumably, passed on to consumers. However, given the diverse methods those serving consumers purchase their power and the lag in the pass-through of costs to the retail customer, it is unclear how much of this amount consumers may have actually paid.

8. Next Steps

NYISO

Stakeholders in the NYISO's shared governance system have approved the NYISO's proposal to continue the ban on scheduling external transactions via the eight circuitous scheduling paths that are described in this paper until a more effective solution can be developed and implemented. The NYISO recently submitted a request to the FERC for permission to continue the ban.

In addition to seeking authority to extend the existing ban against scheduling external transactions via indirect, circuitous paths around Lake Erie, the NYISO has taken the following actions:

 The NYISO has established a permanent monitoring and analysis group at its Power Control Center to provide enhanced daily scrutiny of the markets, both within New York and with surrounding systems to promptly identify inefficient market outcomes and to coordinate issues with the NYISO's Market Monitoring Department. The NYISO has developed a daily post-operations review and report that provides a more granular and transparent view of certain wholesale electricity costs and identifies the operational reasons for the changes in certain uplift costs, initially focusing on transmission congestion costs. Based on this daily review, a report will be developed and presented to the NYISO's market participants on a monthly basis.

The NYISO is also:

- Promoting ways to better coordinate monitoring efforts with neighboring grid operators to enhance regional coordination of market monitoring efforts
- Evaluating possible tariff changes to permit it to more quickly address inefficient market outcomes

FERC Investigation

There have been numerous requests for FERC to investigate possible market manipulation by the entities that scheduled external transactions over circuitous scheduling paths. FERC has announced that it initiated a non-public investigation.

Whether there has been a violation of law that requires refunds is a determination that only FERC can make. FERC has primary jurisdiction to determine if there was a violation of its anti-manipulation and market behavior rules. There is no private cause of action under the anti-manipulation rules.

In addition, if FERC determines that refunds are necessary, the amount and allocation of any such refunds are within FERC's purview. FERC is not bound by the estimate of wholesale market impacts developed by the NYISO's Independent Market Advisor and may be required or chose to base its decision on a different measure of market impact.

Ontario-Michigan Phase Angle Regulators

In order to minimize Lake Erie circulation, the Control Areas around Lake Erie need to improve their ability to correlate actual and scheduled power flows. For more than three years, the NYISO has anticipated the commissioning of four Phase Angle Regulators ("PARs") at the Michigan/Ontario boundary. A PAR is an electrical device that can redirect power from one circuit to another. The NYISO expects that the operation of the Michigan/Ontario PARs will enable the MISO and IESO to better align their actual Control Area interchange power flows with the scheduled interchange, thereby reducing Lake Erie loop flows.

Three of the four Michigan/Ontario PARs are already in place and capable of operation. The fourth PAR failed and is in the process of being replaced. It is the NYISO's understanding that the fourth PAR is

expected to be in place and operational by 2010. However, an agreement addressing the operation of the Michigan/Ontario PARs still needs to be negotiated. The NYISO has encouraged FERC to take an active interest in the commissioning of the Michigan/Ontario PARs and in ensuring the timely negotiation of an operating agreement, so that the PARs are placed in operation and are operated to mitigate Lake Erie circulation as soon as possible.

When fully operational, the PARs are expected to help align the actual power flows with the corresponding level of scheduled transactions between the IESO and MISO, reducing the impact of Lake Erie loop flows on the New York bulk electricity grid and wholesale electricity markets.

9. Appendices

NYISO July 21, 2008 Filing

Potomac Economics Estimate

Status Report: Lake Erie Loop Flow Mitigation, Management Committee, Stephen G. Whitley, October 29, 2008

Appendix A

NYISO July 21, 2008 Filing



10 Krey Boulevard & Rensselaer, NY 12144

July 21, 2008

BY HAND DELIVERY

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

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

Dear Secretary Bose:

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

¹ 16 U.S.C. § 824d (2007).

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

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

The NYISO submits this filing pursuant to Section 205 of the Federal Power Act³ under exigent circumstances at the direction of the NYISO Board. Section 19.01 of the ISO Agreement empowers the NYISO Board to direct the NYISO to submit a Section 205 filing that expires no later than 120 days after it is filed with the Commission without the concurrence of the NYISO's Management Committee⁴ when the Board concludes that "exigent circumstances" relating to "the reliability of the NYS Power System" or "an ISO-Administered market" exist and the "urgency of the situation justifies a deviation from the normal ISO governance procedures."⁵ The Board concluded that exigent circumstances exist in this instance because a relatively small number of Market Participants are scheduling transactions over circuitous Scheduling Paths around Lake Erie to take advantage of a "seam" between the methods that are used by the organized markets in the Eastern Interconnection to price External Transactions.⁶ While the NYISO has not identified any violations of any provision of its existing Tariffs or market rules, the scheduling of transactions over circuitous paths around Lake Erie is adversely affecting the operation of the ISO-Administered markets.

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

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

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

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

⁶ External Transactions include Imports, Exports and Wheels Through.

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

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

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

I. Description of Proposed Tariff Revisions and Justification

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

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

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

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

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

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

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

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

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

¹² See Section V.B. of this filing letter.

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

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

Since January of this year a significant volume¹³ of External Transactions have been scheduled over two of the eight Scheduling Paths described above¹⁴ by a small subset of Market Participants that appear to be responding to an inefficient incentive resulting from differences between the External Transaction pricing and settlement rules of the ISOs and RTOs that surround Lake Erie. The NYISO and IESO price External Transactions based on the path over which an External Transaction is scheduled into or out of their respective Control Areas.¹⁵ The NYISO separately prices each of its Proxy Generator Buses, and Import and Export transaction Bids are economically evaluated at each Proxy Generator Bus in the NYISO's market evaluation. All Import and Export transactions scheduled by the NYISO that source from, or sink to, a particular external Proxy Generator Bus in a particular hour are paid (Imports) or pay (Exports) the same Locational Based Marginal Price ("LBMP").¹⁶ The NYISO does not consider the originating source of an Import or the ultimate sink of an Export, specified in the North American Electric Reliability Corporation ("NERC") Tag supporting an External Transaction, when determining the LBMP the Transaction receives or pays. It is NYISO's understanding that IESO's method of pricing External Transactions is similar to the NYISO's.¹⁷

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

²¹ See Section V.B. of this filing letter,

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

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

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

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

²³ Again, it is possible to exceed the Control Area interchange limit in one direction when there are "counterflow" External Transactions scheduled in the opposite direction.

²⁴ A description of the study that the NYISO's Operations Department prepared is set forth in Section V.B. of this filing letter.

²⁵ A description of the Study that the NYISO's Market Advisor prepared is set forth in Section V.C. of this filing letter.

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

II. Documents Submitted

1. This filing letter;

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

4. Redlined revised tariff sheets depicting the changes that the NYISO proposes to make to Section 15.1 of the NYISO's OATT, Section 5.0 of Attachment J to the OATT and Section 3.6 of Attachment B to the NYISO's Services Tariff ("Attachment C").

III. Copies of Correspondence

Communications regarding this proceeding should be addressed to:

Robert E. Fernandez General Counsel Elaine D. Robinson Acting Vice President of External Affairs *Alex M. Schnell New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 Tel: (518) 356-8707 Fax: (518) 356-7678 aschnell@nyiso.com

*Person designated for receipt of service.

IV. Reasons and Basis for this Filing

A. Background

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

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

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

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

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

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

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

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

http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2007-01-17/MIWG_PJM_Proxy_Pricing_11707.pdf

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

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

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

The NYISO Board determined that exigent circumstances justify the submission of the attached Tariff revisions because the scheduling of External Transactions via circuitous Scheduling Paths around Lake Erie appears to be increasing Lake Erie circulation,³⁰ exacerbating congestion on the New York transmission grid without paying the full cost of that congestion³¹ and increasing the overall cost to serve load in New York.³² Unless something is done to end the scheduling of these transactions (or until it is possible to ensure better convergence between the physical and scheduled paths of these transactions), their scheduling will continue to adversely affect the operation of the NYISO markets. Unless the NYISO's proposed Tariff revisions are accepted for filing, the NYISO expects these transactions over at least one of the Scheduling Paths that the NYISO proposes to prohibit have obtained firm transmission reservations in neighboring control areas to support the continued scheduling of these transactions.

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

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

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

³² See Sections V.B. and V.C. of this filing letter.

³⁰ See Sections V.A. and V.C. of this filing letter.

³¹ See Section V.B. of this filing letter.

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

In paragraph two of its Guidance Order the Commission sets forth three criteria that must be satisfied in order for a Tariff revision addressing an identified tariff or rule flaw³³ to qualify for expedited consideration by the Commission. First, the concern must materially adversely impact the market due to (in this case) unanticipated actions by Market Participants. Studies performed by the NYISO's Operations Department and its Market Advisor that are described in Sections V.B. and V.C. of this filing letter indicate that the scheduling of External Transactions around Lake Erie from the NYISO's IESO Proxy Generator Bus, through IESO and MISO, to the PJM Control Area has caused significant additional, incremental, clockwise Lake Erie circulation and caused the NYISO to incur significant additional redispatch costs to address congestion that are reflected in both LBMPs and uplift paid by NYISO customers.³⁴ The studies described in this filing letter do not account for the harm that additional Lake Erie circulation causes to the NYISO's neighboring markets. The NYISO believes this filing adequately identifies a material adverse impact to the markets it administers.

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

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

³⁴ See Section V.C. of this filing letter.

³⁵ See Section V.A. of this filing letter.

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

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

V. Studies Supporting Proposed Tariff Revisions

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

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

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

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

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

exit the NYISO at the OH_LOAD_BRUCE proxy bus and that identified PJM as the Receiving Control Area ("RCA").

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

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

CORREL

🖽 Show All

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

Syntax

CORREL(array1,array2)

Array1 is a cell range of values.

Array2 is a second cell range of values.

Remarks

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

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

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

The equation for the correlation coefficient is:

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

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

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

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

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

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

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

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

Bus scheduled to sink in the PJM Control Area had in a particular Real-Time Market hour. Both studies use real-time data from the May 26, 2008 market day. May 26, 2008 was selected for several reasons. First, for fifteen hours on May 26 significant volumes³⁷ of NYISO to PJM transactions were scheduled to exit the NYISO at its IESO Proxy Generator Bus and flow over a circuitous Scheduling Path around Lake Erie. Second, there were no significant³⁸ transmission system facility outages that impacted congestion³⁹ or thunderstorm alerts on May 26, 2008, so it is possible to look at the impact that the scheduling of circuitous transactions had on congestion in the New York Control Area and on Real-Time Market congestion redispatch costs in relative isolation.

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

The Operations Department's second study indicated that the ISO would experience a reduction in Real-Time Market Bid Production Costs⁴¹ of \$52,000 for HB20 on May 26 if schedules and flows were more accurately aligned. Assuming the same cost impact in all fifteen hours that had in excess of 2000MW of External Transactions scheduled from the NYISO's

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

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

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

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

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

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

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

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

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

In addition to preparing the studies described above, the NYISO's Operations Department provides the following brief explanation of why clockwise Lake Erie circulation exacerbates congestion on the New York State Transmission System ("NYS Transmission System"). Power generally flows from west to east, and from north to south over the NYS Transmission System to serve load centers in and around New York City. From the NYISO's perspective, when Lake Erie circulation is flowing in a "clockwise" direction it enters the NYCA from the IESO Control Area and flows from west to east, in the same direction and over the same facilities⁴³ as the prevailing flow of Energy that has been scheduled to serve NYCA Load. In doing so, the Lake Erie circulation power flow uses valuable NYS Transmission System capacity, and contributes to congestion in the NYCA. However, Lake Erie circulating power

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

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

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

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

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

• New York to Ontario;

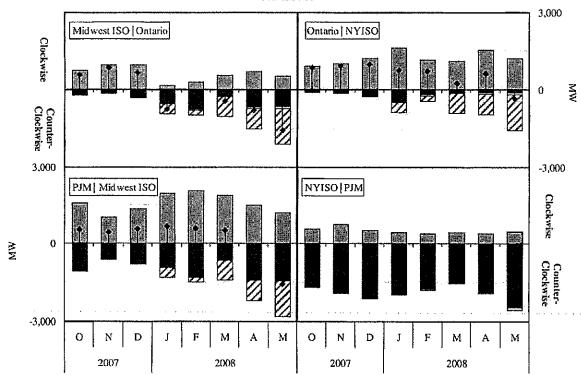
Ontario to Midwest ISO;

• Midwest ISO to PJM; and

• PJM to New York.

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

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



Interchange around Lake Erie by All Participants All Hours

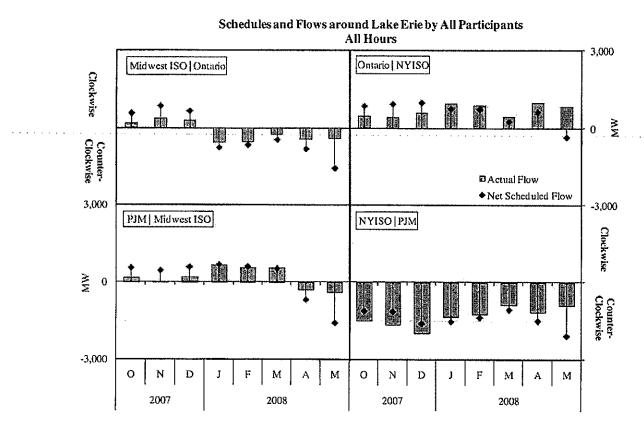
The above chart shows that the circuitous scheduling began in January 2008 and grew steadily over the year to a monthly peak in May 2008 of almost 1500 MW, on average, per hour. Also, note that the cross-hatched segment of the graph identifies the same quantity of circuitously scheduled MW at the NYISO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

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

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

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

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



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

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

VI. Description of Proposed Tariff Changes

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

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

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

VII. Implementation Plan

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

1. NYISO Bid Validation Screen

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

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

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

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

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

2. NYISO Temporary Manual Screening of Wheels Through

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

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

⁴⁷ Removal of scheduled Transactions via the inter-Control Area check-out process will occur on a bestefforts basis, subject to operational considerations.

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

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

3. Handling of Previously Validated Bids

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

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

4. Financial Impact Charges

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

B. Explanation of Prohibited Scheduling Paths

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

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

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

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

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

C. Request for Prospective Limited Tariff Waiver

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

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

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

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

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

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

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

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

Three of the four Michigan/Ontario PARs are already in place and capable of operation. However, they have been operated in "by-passed mode" since the beginning of 2006.⁴⁹ The fourth PAR failed and is in the process of being replaced. It is the NYISO's understanding that the fourth PAR is expected to be in place and operational by Summer of 2009.⁵⁰ However, an agreement addressing the operation of the Ontario/Michigan PARs still needs to be negotiated. One of the "Key Findings" of the NERC 2007 Long Term Reliability Assessment was that "[PARs] intended to resolve loop flow issues occurring through the Canadian system (Ontario) have been in place since the beginning of 2006, but they are still not being actively used to manage loop flows due to protracted negotiations among the parties.... The agreement for the operation of the Michigan – Ontario PARs should be finalized."⁵¹ Similarly, PJM and MISO discussed Lake Erie circulation in their *Investigation of Loop Flows Across Combined Midwest ISO and PJM Footprint* in May of 2007. PJM and MISO's recommendations included a recommendation in which IESO and NYISO joined, stating that the four ISOs/RTOs "recommend the commissioning of the Michigan-Ontario PARs as soon as possible to mitigate the loop flow around the Lake Erie Loop."⁵²

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

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

As explained in Section IV.A. of this filing letter, the NYISO, PJM, IESO and MISO Market Monitors worked together to determine why Market Participants were scheduling everincreasing volumes of External Transactions over circuitous Scheduling Paths around Lake Erie. The Commission jurisdictional Market Monitors inability to share confidential information with each other impeded and slowed their efforts. The Commission should consider granting all of the Market Monitors⁵³ unrestricted access to NERC Tag data and should consider permitting the

⁴⁹ NERC 2007 Long Term Reliability Assessment at p. 160 (October 25, 2007). Link: ftp://ftp.nerc.com/pub/sys/all_updl/docs/pubs/LTRA2007.pdf

⁵¹ NERC 2007 Long Term Reliability Assessment, Key Findings, at p. 19.

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

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

⁵⁰ Id. at 173.

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

IX. Requested Effective Date and Request for Expedited Commission Action

For the reasons explained in Section IV.C. of this filing letter, and in accordance with Section 35.11 of the Commission's Regulations, the NYISO requests waiver of the 60-day prior notice period set forth in Section 205(d) of the Federal Power Act and Section 35.3 of the Commission's Regulations⁵⁴ and permit its proposed Tariff revisions to become effective on July 22, 2008. The NYISO also requests that the Commission shorten or waive the comment period in order to permit it to act on the NYISO's filing as expeditiously as possible.

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

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

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

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

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

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

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

XI. Stakeholder Concerns and NYISO Stakeholder Process

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

XII. Service

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

XIII. Conclusion

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

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

Respectfully submitted,

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

July 21, 2008

ATTACHMENT A

Supporting Affidavits Of

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

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UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. Docket No. ER08-____

AFFIDAVIT OF RICARDO T. GONZALES

I. Qualifications and Purpose

1.

My name is Ricardo T. Gonzales. I am the Vice President of Operations for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include the reliable operation of the New York Control Area transmission system, in compliance with all applicable NERC, NPCC, and NYSRC reliability rules and standards, the operation of the ISO Day-Ahead and Real-Time wholesale Energy Markets and validating the Energy Markets' prices, and the operation of the NYISO Transmission Congestion Contract and Installed Capacity Markets, and other NYISO administered markets.

- I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
- The NYISO Operations and Planning Department Staffs, acting at my direction, prepared the studies described in Section V.B. of the Exigent Circumstances
 Filing.

- The descriptions of the studies that the NYISO Operations Department prepared, including the results described in the Exigent Circumstances Filing, are accurate.
- 5. The underlying studies were conducted using reasonable assumptions and are reliable to the best of my information, knowledge and belief.
- 6. The explanation of the impact Lake Eric circulation power flows in the

"clockwise" direction have on congestion in the New York Control Area that is set forth in Section V.B. of the Exigent Circumstances Filing is accurate.

ATTESTATION

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

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

July 21, 2008

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

Notary Public

wy York J. Stel. Notary . County Qualif 17 P. -1.0 No. Commission Expires Warch 21, 20 _/

My commission expires: March 21, 2010

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. Docket No. ER08-___-

AFFIDAVIT OF DR. NICOLE BOUCHEZ

I. Qualifications and Purpose

1.

My name is Dr. Nicole Bouchez. I am the Manager of Market Monitoring for the New York Independent System Operator, Inc. ("NYISO"). My responsibilities include administering Attachment H of the NYISO OATT and the NYISO's Market Monitoring Plan. I have worked as an Energy Economist for five years. I hold a Ph. D. and M.A. in International Economics from the University of California, Santa Cruz and a B.A. in Economics and International Relations from the University of California, Davis.

- I have assisted the NYISO's efforts to prepare its July 21, 2008 Exigent
 Circumstances Filing Requesting Authority to Amend its Tariffs to Preclude the
 Scheduling of Certain External Transactions ("Exigent Circumstances Filing").
- The NYISO Market Monitoring Department Staff, acting at my direction, prepared the correlation study described in Section V.A. of the Exigent Circumstances Filing.

4. The descriptions of the study that the Market Monitoring Department prepared,

including the results described in the Exigent Circumstances Filing, are accurate.

The underlying study was conducted using reasonable assumptions and is reliable

to the best of my information, knowledge and belief.

ATTESTATION

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

Nicole Bouchez

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

July 21, 2008

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

Notary Public

5.

DIANE L. EGAN Notary Public, State of New York Qualified in Schenectady County No. 4924890 Commission Expires March 21, 20 <u>J</u>D

arch 21, 2010 My commission expires:

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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

AFFIDAVIT OF DAVID B. PATTON

I. Qualifications and Purpose

1.

2.

З.

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

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

ATTESTATION

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

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

July 21, 2008

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



Commonwealth of Virginia Georgia L. McCollam-Notary Public Commission No. 324948 My Commission Explose \$2342010

ALCA Mar

Notary Public

My commission expires: 5-31-2010

ATTACHMENT B

.

Proposed Tariff Revisions (clean version)

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

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

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

15.0

Service Availability

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

Issued by: Issued on: Elaine D: Robinson, Dir. Reg. Affairs July 21, 2008 Effective: July 22

July 22, 2008

New York Independent System Operator, Inc. FERC Electric Tariff Original Volume No. 1 Attachment J Tenth Revised Sheet No. 472 Superseding Ninth Revised Sheet No. 472

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the

NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer

Capability of that Interface.

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

following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
 - External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");

Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;

Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

Issued by: Issued on:

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7.

Elaine D. Robinson, Dir. Reg. Affairs July 21, 2008 Effective: July

July 22, 2008

New York Independent System Operator, Inc. FERC Electric Tariff Original Volume No. 1 Attachment J Second Revised Sheet No. 472A Superseding First Revised Sheet No. 472A

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

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

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

Effective:

July 22, 2008

New York Independent System Operator, Inc. FERC Electric Tariff Original Volume No. 2 Attachment B Twelfth Revised Sheet No. 355 Superseding Eleventh Revised Sheet No. 355

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

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

following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and
- 8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

Issued by: Elain Issued on: July 2

Elaine D. Robinson, Dir. Reg. Affairs July 21, 2008 Effective: July 22, 2008

Original Sheet No. 355.01

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

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

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

1.0 Overview of the Sales of TCCs

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

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

July 22, 2008

ATTACHMENT C

Proposed Tariff Revisions (redlined version)

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

<u>First Revised Sheet No. 122</u> <u>Superseding Original Sheet No. 122</u>

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

15.0 Service Availability

15.1 General Conditions: <u>Unless its Tariffs provide to the contrary</u>, <u>Tthe ISO will</u> provide Firm and Non-Firm Point-To-Point

Issued by: William J. Museler, President<u>Elaine D. Robinson. Dir. Reg. Affairs</u> Effective: September July 122, 20008 Issued on: November July 210, 20008 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. RM99-12-000, issued March 31, 2000, 90 FERC ¶ 61,352 (2000). New York Independent System Operator, Inc.Ninth Tenth Revised Sheet No. 472FERC Electric TariffSuperseding Substitute Eighth NinthOriginal Volume No. 1Attachment J

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the

NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer

Capability of that Interface.

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

following eight scheduling paths:

- 1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
- External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO:
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

 Issued by:
 Mark S. Lynch, PresidentElaine D. Robinson, Dir. Reg. Affairs
 Effective: May July 202, 20078

 Issued on:
 July 201, 20078

 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER07 570-002, issued June 21, 2007.

New York Independent System Operator, Inc.First Second Revised Sheet No. 472AFERC Electric TariffSuperseding Original First Revised Sheet No. 472AOriginal Volume No. 1Attachment J

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

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

Reserved for future use.

Issued by: William J. Museler, President Elaine, D. Robinson, Dir. Reg. Affairs Effective: February July 422, 20058 Issued on: January July 281, 20058

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER04-230 900, et. al., issued February 11, 2004, 106 FERC ¶ 61,113 (2004).

New York Independent System Operator, Inc.Eleventh Twelfth Revised Sheet No. 355FERC Electric TariffSuperseding Substitute Tenth Eleventh Revised Sheet No. 355Original Volume No. 2Attachment B

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

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

- External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
- 2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
- 3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO:
- 4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PIM;
- 5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO"):
- 6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO:
- 7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and

8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

 Issued by:
 Mark S. Lynch, President Elaine D. Robinson, Dir. Reg. Affairs
 Effective: May July 202, 20078

 Issued on:
 July 201, 20078

 Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER07 570 002, issued

 June 21, 2007.

Original Sheet No. 355.01

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

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

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

1.0 Overview of the Sales of TCCs

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

Issued by: Issued on:	Elaine D. Robinson, Dir. Reg. July 21, 2008	Affairs	Effective	e: Ju	<u>ly 22, 2008</u>
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Appendix B

Potomac Economics Estimate



MEMORANDUM

то:	Nicole Bouchez
FROM:	David B. Patton Pallas LeeVanSchaick
DATE:	October 23, 2008
RE:	Estimating the Congestion and Loss Charges Not Borne by Circuitous Transactions

When transactions are scheduled from one RTO area to another via circuitous contract paths, physical flows occur that are not consistent with the scheduled contract paths. These inconsistencies are generally known as "loop flows". Since settlements are based on the contract path, not the physical flow, the settlements for a transaction scheduled on a circuitous path can be significantly different from the settlements for a transaction with the same source and sink scheduled on a direct path (i.e., the path most consistent with the physical flow of power between the source control area and sink control areas). Hence, the participant scheduling the circuitous transaction may not bear the full costs of the congestion and losses caused by its transaction. To the extent that loop flows contribute to congestion and losses, these costs must be recovered from NYISO customers through uplift charges.

The purpose of this memo is to present our estimates of the congestion and loss charges that were not borne by participants engaged in circuitous transactions in 2008. This memo discusses:

- The estimated loss and congestion charges that were not borne by the circuitous transactions and how these charges are estimated from Location-Based Marginal Prices ("LBMPs"); and
- The estimated allocation of these charges between the Day-Ahead and the Real-Time markets.

We have not estimated the *market impact* of the circuitous transactions because estimating *market impact* would require calculating a hypothetical market solution based on an alternate set of assumptions. This would require determining what transactions would have been scheduled each day if only direct paths had been available, developing assumptions regarding how other market participants would have changed their behavior,



determining how the NYISO's operations and modeling would have changed, and simulating new day-ahead and real-time market outcomes. Such simulations would be highly speculative and are outside the scope of the analysis described in this memo.

Estimating the Charges Not Borne by Circuitous Transactions

On July 21, the NYISO submitted an exigent circumstances filing to the FERC in order to prohibit scheduling on eight circuitous paths around Lake Erie. We identified two types of circuitous transactions (known as "Path 1" and "Path 5" transactions in the filing) that actually flowed between January 1 and July 22, 2008.^{1 2} The methodology for estimating the charges not borne by these transactions is as follows.

Path 1 – Transactions sourcing in the NYISO, wheeling through Ontario and the MISO, and sinking in PJM.

These transactions accounted for 92 percent of all circuitous transactions during the period. These transactions were charged to export from New York at the Ontario interface, although the power flowed primarily from the NYISO to PJM. Since Path 1 transactions were charged for exporting at the Ontario interface rather than the PJM interface, we estimated the charges not borne by Path 1 transactions as the difference between the LBMP at the PJM proxy bus and the LBMP at the Ontario proxy bus.³

Path 5 – Transactions sourcing in PJM, wheeling through the NYISO and Ontario, and sinking in the MISO.

These transactions accounted for only 8 percent of the circuitous transactions during the period. These transactions caused power to flow from PJM to the MISO as if they were scheduled directly from PJM to the MISO. However, these transactions were settled by the NYISO as a wheel from the PJM proxy bus to the Ontario proxy bus. When the LBMP at the Ontario proxy bus was lower than the LBMP at the PJM proxy bus, the settlement for the transaction was a payment to the participant. The payments to these transactions (which were funded by uplift charges to NYISO customers) were equal to the difference between the LBMP at the PJM proxy bus and the LBMP at the Ontario proxy bus.⁴

Since LBMPs have multiple components, it is straightforward to separate the estimated charges not borne by Path 1 and Path 5 transactions into congestion, loss, and energy components. Since the energy components of LBMPs are the same at all locations in the NYISO, the energy charges not borne by these transactions was \$0.

Day-Ahead versus Real-Time Charges

When transactions are scheduled on circuitous paths, it results in substantially larger amounts of loop flows than when transactions are scheduled on direct paths. Loop flows through the NYISO cause inconsistencies between the actual transfer capability of the NYISO and the transmission capability that is available to the NYISO market. These



inconsistencies result in residual charges (or revenues) to NYISO customers in the realtime market because loop flows use the NYISO transmission system without paying for congestion or losses.

To the extent that the NYISO is able to forecast loop flows prior to the Day-Ahead Market, the NYISO can adjust the amount of loop flow assumed in the Day-Ahead Market. Such adjustments reduce inconsistencies between available real-time transfer capability (i.e., capability not utilized by loop flows) and the transmission capability scheduled in the Day-Ahead Market. Hence, such adjustments reduce real-time uplift charges by shifting a portion of the effects of the loop flows into the Day-Ahead Market, thereby reducing the amount of day-ahead congestion and loss revenues collected by the NYISO for a given set of LBMPs.

The reduction in day-ahead congestion revenues results in uplift, because the NYISO's obligations to Transmission Congestion Contract ("TCC") holders are funded by dayahead congestion revenues. Reduced day-ahead loss revenues also increase uplift charges because day-ahead loss revenue is normally used to defray uplift charges.

When the NYISO began to adjust its assumptions in the day-ahead market to account for higher loop flows from circuitous transactions, it reduced the amount of day-ahead congestion and loss revenue collected by the NYISO. For our estimate of the charges not borne by circuitous transactions, we assumed the day-ahead revenue reduction was equal to the size of the adjustment (in megawatts) times the difference between the LBMP at the PJM proxy bus and the LBMP at the Ontario proxy bus.⁵ Correspondingly, we assumed the real-time congestion and loss uplift charges were reduced according to the size of the adjustment times the LBMP difference between the proxy buses.⁶

We estimated that a total of \$96 million in charges were not borne by circuitous transactions scheduled from January 1 to July 22, 2008. The allocation of these charges between the Day-Ahead Market and the Real-Time Market and between congestion and losses is as follows:

- \$25 million of Day-Ahead Congestion Revenue,
- \$19 million of Day-Ahead Loss Revenue,
- \$41 million of Balancing (i.e., Real-Time) Congestion Charges, and
- \$11 million of Balancing (i.e., Real-Time) Loss Charges.

Only the \$52 million that we estimate was associated with the Real-Time Market was collected through balancing residuals. Hence, the estimated charges not borne by circuitous transactions account for a relatively small share of the NYISO's balancing residuals during this period.



End Notes

- In order to identify circuitous transactions, we screened the NYISO transaction data (which includes NERC tag information about the sending and receiving control areas) for transactions that were scheduled with all four control areas adjacent to Lake Erie: the NYISO, PJM, the MISO, and IESO. Specifically, we screened for transactions that (i) sourced/sinked in the NYISO, flowed out-to/in-from IESO, and sinked/sourced in PJM; (ii) sourced/sinked in the NYISO, flowed out-to/in-from PJM, and sinked/sourced in IESO; or (iii) wheeled through the NYISO and where the source and sink control areas were either PJM and the MISO or the MISO and IESO.
- ² A portion of the Path 1 and Path 5 transactions were not included in our estimate. This included instances when a particular entity scheduled a counterflow transaction in the same hour as a Path 1 or Path 5 transaction, resulting in no net interchange with the NYISO.

For example, if an entity scheduled a transaction sourcing in the MISO, wheeling through Ontario, and sinking in the NYISO and a Path 1 transaction in a particular hour, the transaction sinking in the NYISO would be paid the LBMP at the Ontario proxy bus and the Path 1 transaction would pay the LBMP at the Ontario proxy bus, resulting in no net interchange for energy, losses, and congestion with the NYISO. In this example, the power flows resulting from the pair of transactions is equivalent to a direct path transaction sourcing in the MISO and sinking in PJM. Since the direct path transaction would not have any settlement with the NYISO and the pair of transactions had no net interchange with the NYISO, we excluded from our estimates Path 1 transactions when they were paired with counterflow transactions. In a similar manner, we excluded Path 5 transactions that were paired with counterflow transactions.

³ The charges not borne by Path 1 transactions are calculated as follows:

 $\begin{aligned} \text{Path 1 Charges} &= \text{MW} * (\text{LBMP}_{\text{PJMproxy}} - \text{LBMP}_{\text{OHproxy}}) \\ &= \text{MW} * (\text{ENERGY} + \text{LOSS}_{\text{PJMproxy}} + \text{CONGEST}_{\text{PJMproxy}} \\ &- \{\text{ENERGY} + \text{LOSS}_{\text{OHproxy}} + \text{CONGEST}_{\text{OHproxy}}\}) \\ &= \text{MW} * (\text{LOSS}_{\text{PJMproxy}} - \text{LOSS}_{\text{OHproxy}}) \\ &+ \text{MW} * (\text{CONGEST}_{\text{PJMproxy}} - \text{CONGEST}_{\text{OHproxy}}) \\ &+ \text{MW} * (\text{ENERGY} - \text{ENERGY}) \end{aligned}$

The charges not borne by Path 1 transactions can be broken into:

Path 1 Congestion Charges = MW * (CONGESTPJMproxy - CONGESTOHproxy)Path 1 Loss Charges = MW * (LOSSPJMproxy - LOSSOHproxy)Path 1 Energy Charges = \$0



The energy charges not borne by Path 1 transactions are \$0, because the energy components of the LBMPs are the same at all locations in the NYISO.

⁴ The wheeling charges to Path 5 transactions were generally negative (i.e., the wheel received a payment). As a result, these charges are funded by uplift to NYISO customers. These are calculated as follows:

 $\begin{aligned} \text{Path 5 Wheel Charges} &= \text{MW} * (\text{LBMP}_{\text{OHproxy}} - \text{LBMP}_{\text{PJMproxy}}) \\ &= \text{MW} * (\text{ENERGY} + \text{LOSS}_{\text{OHproxy}} + \text{CONGEST}_{\text{OHproxy}}) \\ &- \{\text{ENERGY} + \text{LOSS}_{\text{PJMproxy}} + \text{CONGEST}_{\text{PJMproxy}}\}) \\ &= \text{MW} * (\text{LOSS}_{\text{OHproxy}} - \text{LOSS}_{\text{PJMproxy}}) \\ &+ \text{MW} * (\text{CONGEST}_{\text{OHproxy}} - \text{CONGEST}_{\text{PJMproxy}}) \\ &+ \text{MW} * (\text{ENERGY} - \text{ENERGY}) \end{aligned}$

The wheel charges are uplifted to NYISO customers. These can be broken into:

Path 5 Congestion Charges = MW * (CONGEST _{PJMproxy} – CONGEST _{OHproxy}	
Path 5 Loss Charges	= MW * (LOSS _{PJMproxy} - LOSS _{OHproxy})
Path 5 Energy Charges	= \$0

The energy charges not borne by Path 5 transactions are \$0, because the energy components of the LBMPs are the same at all locations in the NYISO.

- ⁵ This assumes that the distribution of loop flows modeled across the power system in the day-ahead is the same as the actual distribution of loop flows across the system. However, in practice, the day-ahead pattern and the actual pattern are not identical.
- ⁶ Where "Reduction_MW" is the adjustment to loop flow estimate in the Day-Ahead Market, the value of impacted transmission capability at day-ahead market prices is equal to:

DA Congestion Revenue Reducti	ion = Reduction MW
	* $(CONG_{PJMproxyDA} - CONG_{OHproxyDA})$
DA Loss Revenue Reduction	= Reduction_MW
	* $(LOSS_{PJMproxyDA} - LOSS_{OHproxyDA})$

The adjustments in day-ahead loop flow estimate reduced the congestion and loss charges uplifted to NYISO customers in the balancing (i.e., real-time) market as follows:

Balancing (RT) Congestion Charge	s = (Transaction_MW - Reduction_MW)
	* (CONG _{PJMproxyRT} – CONG _{OHproxyRT})
Balancing (RT) Loss Charges	= (Transaction_MW - Reduction_MW) * (LOSS _{PJMproxyRT} - LOSS _{OHproxyRT})

Appendix C

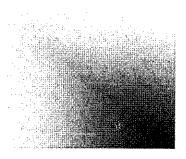
Status Report: Lake Erie Loop Flow Mitigation, Management Committee, Stephen G. Whitley, October 29, 200



Status Report: Lake Erie Loop Flow Phenomenon

Stephen G. Whitley President & CEO New York Independent System Operator

Management Committee October 29, 2008





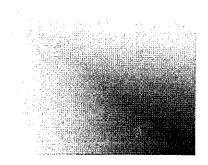
Background

- Following are highlights of a full report that will be released shortly.
- The NYISO observed behavior that was causing additional congestion and thereby inefficient market results and took remedial actions to end it.
 - This activity took significant effort because of its complexity, and the amount and type of data required that was outside NYISO's jurisdiction
 - The NYISO made an exigent circumstances §205 filing at FERC to prevent scheduling exports over circuitous paths
 - FERC approved
- Stakeholders in the NYISO's shared governance system have approved a proposal (in the form of a §205 filing to FERC) endorsing and making permanent the terms of the NYISO's original (Exigent Circumstances) filing.



Effect of NYISO Action

- The mitigating actions proposed by the NYISO have done an outstanding job of mitigating the immediate loop flow uplift issues.
 - The remedial actions were implemented July 22, 2008. Since then, total Real Time monthly residuals have declined from \$20.5 Million in July (and \$98.3 Million in May) to an over-collection (credit) of \$13.6 Million in September, 2008.
 - The 30 day average loop flow has changed from 500MW clockwise prior to the prohibition to 200MW counter clockwise as of October 22, 2008.





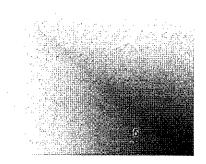
Further Actions being taken by NYISO

- The NYISO established an internal study group to propose a process to enable faster response to future problems of this type. An Action Plan was presented to the MC Meeting on August 27, 2008.
 - A permanent group has been established in the Operations organization to provide additional daily scrutiny of market outcomes; and in coordination with Market Monitoring, analysis to promptly identify inefficient market outcomes. This effort includes a daily "post operations" review of events within the NYCA and the surrounding control areas.
 - A granular report has been developed to identify the root causes of system uplift. This will enable quick identification of issues that may need attention. This report will be included in the NYISO Market Operation Report to be presented at BIC and MC.



Further Actions being taken by NYISO (cont.)

- The Northeast MMUs -- NYISO, ISO-NE, Monitoring Analytics for PJM, Potomac Economics for MISO, and IESO -- are working together to identify the types of information they require to effectively carry out their mandates and the rationale for this enhanced access. Nicole Bouchez is leading this IRC effort.
- The Market Monitoring Datamart Project is also identifying transactional data for inclusion in the next phases of the Market project. This will reduce the cycle time of the data collection and analysis efforts.





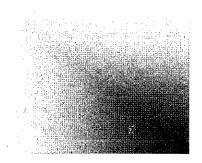
Analysis of the Impact of Loop Flows

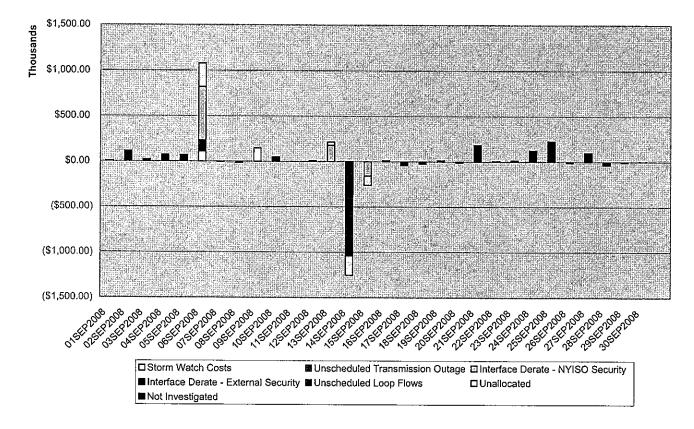
- NYISO, working with Potomac Economics, has analyzed the impact of loop flows from January – July 22, 2008. The analysis estimates that these transactions resulted in approximately \$96 million in costs that were caused by the scheduling of transactions via circuitous Scheduling Paths around Lake Erie, but not paid for by the scheduling entities from January to July, 2008. [Total uplift for this period was approximately \$290 million.]
- These additional costs were socialized among Market Participants.
- The estimate represents the difference in costs to the operation of the transmission system (such as congestion) caused by the transactions on circuitous paths compared to the costs that would have been charged if the transactions had been scheduled on direct paths. Details of methodology and calculation will be presented at the next MIWG meeting on November 3, 2008.



Analysis of the Impact of Loop Flows

- The \$96 million in additional costs represent about 1% of the \$7.8 billion in activity that took place in the NYISO wholesale electricity markets between January and July.
- The NYISO will support FERC in its investigation including, if appropriate, the development of remedies to protect market participants and to improve overall market efficiency.
- The NYISO will work with stakeholders to explore potential tariff changes to address similar issues in the future.





September 2008 Investigation of Balancing Market Congestion Residual

Prepared by NYISO Operations Analysis and Services, October 1, 2008

Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories

<u>Category</u> Storm Watch Costs	<u>Cost Assignment</u> Zone J	<u>Events Types</u> Thunderstorm Alert (TSA)	<u>Event Examples</u> TSA Activations
Unscheduled Transmission Outage	Statewide	Reduction in DAM to RTM transfer capability related to unscheduled transmission outage	Forced Line Outage, Forced AVR Outages
Interface Derate - NYISO Security	Statewide	Reduction in DAM to RTM transfer capability not related to transmission outage	Interface Derates due to RTM voltages
Interface Derate - External Security	Statewide	Reduction in DAM to RTM transfer capability related to External Control Area Security Events	TLR Events, External Transaction Curtailments
Unscheduled Loop Flows	Statewide	Changes in DAM to RTM unscheduled loop flows impacting NYISO Interface transmission constraints	DAM to RTM Clockwise Lake Erie Loop Flows geater than 500MW

Monthly Balancing Market Congestion Report Assumptions/Notes

Storm Watch Costs are identified as daly total uplift costs
 Only those days with \$ 150 K/HR or more are investigated
 Uplift costs associated with multiple event types are apportioned equally by hour

vent	Date (yyyymmdd)	Hours	ual exceeding +/- \$150K include September 6, 13, 14, 15 Description
	20080906		
2 °	20080906	18-21	Outage of Dunwoodie-Rainey 345 kV (#72)
	20080906	20-21	Outage of East Garden City 345/138 kV (#BK 1) and 345/345 kV (#PAR1)
	20080906		Derate Dunwoodie-Shore Road 345 kV (#Y50)
	20080906		Derate Dunwoodie-Shore Road 345 kV (#Y50) for I/o Sprainbrook-Dunwoodie 345 kV (#Y49)
	20080906	19-22	Derate Greenwood/Staten Island Load Pocket
	20080909	7-13	TSA
	20080913	• •	Derate East Garden City 345/138 kV (#BK 1)
	20080914	20-21	Outage of Marcy-Massena 765 kV (#MSU1) and Massena-Chateauguay 765 kV (#7040)
	20080914	0-8	Derate Mott Haven-Rainey 345 kV circuit (#Q11) for I/o Mott Haven-Rainey 345 kV (#Q12)
1.4.5			Derate New Scotland-Leeds 345 kV (#94) for tower I/o Marcy-Coopers Corners 345 kV (#2-41) with Fraser-
	20080915	7-20	Coopers Corners 345 kV (#33)
	20080915	7	St. Lawrence-Massena 230/230 kV (#PS34) PAR schedule affect on Marcy 765/345 Kv (#T1) limit