

December 22, 2011

**Submitted Electronically**

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 Compliance Notice;  
Docket No. ER08-1281-\_\_\_\_

Dear Ms. Bose:

The New York Independent System Operator, Inc. ("NYISO") submits this Compliance Notice ("Notice") to confirm its timely development of new interface pricing software to comply with paragraphs 27 and 31 of the Federal Energy Regulatory Commission's ("Commission's") December 30, 2010 *Order on Rehearing and Compliance* that was issued in Docket No. ER08-1281-000, *et al.* ("December Order")<sup>1</sup> as modified by paragraph 15 of the Commission's July 1, 2011 *Order on Rehearing* ("July Order").<sup>2</sup>

**I. LIST OF DOCUMENTS SUBMITTED**

The NYISO submits the following documents:

1. this filing letter;
2. a September 16, 2011 presentation to the NYISO's Market Issues Working Group entitled *Interface Pricing*, explaining the interface pricing method that the NYISO developed to comply with the December and July Orders ("Attachment I"); and
3. a June 2, 2010 presentation to the NYISO's Business Issues Committee entitled *Broader Regional Markets, Interface Pricing Revisions*, proposing an interface pricing method to comply with the December and July Orders ("Attachment II").

---

<sup>1</sup> *New York Independent System Operator, Inc.*, 133 FERC ¶ 61,276 (2010).

<sup>2</sup> *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,011 (2011).

## II. OVERVIEW

Consistent with (a) the proposed compliance method described in the NYISO's January 31, 2011, Request for Rehearing in Docket No. ER08-1281-007, and (b) the NYISO's discussions with its stakeholders,<sup>3</sup> the NYISO has developed and deployed software that is capable of implementing two distinct methods of pricing and scheduling ("Scheduling Modes"). If actual power flows through the New York Control Area ("NYCA") are expected to closely conform to scheduled power flows, the NYISO's pricing and scheduling will incorporate that expectation. If the NYISO expects significant unscheduled power flows, the NYISO's pricing and scheduling will anticipate and account for those unscheduled power flows. In both Scheduling Modes, the established prices will be consistent with the expected location of power delivery and the value of delivery at those locations.

Frequent transitions between the two Scheduling Modes would produce inconsistent and unpredictable prices and schedules, to the detriment of the interconnected markets. Instead of resolving seams, frequent changes to the assumptions used to determine prices and schedules could create a new "seam" between markets. For this reason, the NYISO will ordinarily determine the Scheduling Mode it will employ on a quarterly basis. The NYISO will review historical data on unscheduled power flows and will take into consideration significant changes in system topology<sup>4</sup> to determine which Scheduling Mode to employ for an upcoming quarter.<sup>5</sup>

In order to promote certainty and transparency, the NYISO will communicate to its Market Participants and to neighboring Balancing Authorities the Scheduling Mode it intends to employ in an upcoming quarter in advance of the start of the new quarter. If actual power flows diverge significantly from the NYISO's expectations, or if system conditions change dramatically, in a manner that suggests that the Scheduling Mode that the NYISO selected is likely to produce inappropriate prices and schedules for a significant period of time, the NYISO may switch the Scheduling Mode it employs for the remainder of that quarter. The NYISO will provide as much advance notice to its Market Participants and to neighboring Balancing Authorities as is practicable, should it determine that changing Scheduling Modes would significantly improve the conformance of the power flow assumptions used to develop the NYISO's prices and schedules with the actual flow of power the NYISO is observing.

---

<sup>3</sup> See Attachments I and II.

<sup>4</sup> For example, there may be a change in unscheduled power flows when the Midwest Independent Transmission System Operator, Inc. ("MISO") and Independent Electricity System Operator of Ontario ("IESO") begin operating phase angle regulators ("PARs") to better conform actual power flows to scheduled power flows at their common border.

<sup>5</sup> The NYISO intends to rely on historical power flow information to make its determination. If the NYISO finds that past data for similar time periods (e.g., data addressing historical unscheduled power flows during the same quarter or season in a prior year or years) produces a more accurate prediction than using more current "rolling" data, the NYISO may instead rely on power flow data for prior like periods.

### **III. SCHEDULING MODES**

If actual power flows through the NYCA are expected to closely conform to scheduled power flows, the NYISO will employ a Scheduling Mode that incorporates the NYISO's expectation that power flows will closely match schedules. The NYISO will commit, dispatch and price generation and interchange transactions in its Day-Ahead Security Constrained Unit Commitment ("SCUC"), and in its Real-Time Commitment ("RTC") and Real-Time Dispatch ("RTD") by computing each resource's incremental impacts on the New York State Transmission System ("NYSTS") assuming that scheduled flows will be consistent with their contract path.

If actual power flows through the NYCA are not expected to conform to scheduled power flows, the NYISO will employ a Scheduling Mode that anticipates and accounts for the expected deviation between actual and scheduled power flows. SCUC, RTC and RTD will be configured to represent the incremental power distribution around Lake Erie when computing each resource's incremental impacts on the NYSTS. In other words, all generator, load and proxy generator bus shift factors and delivery (penalty) factors will be computed in a manner that reflects the expected deviation of scheduled flows from their contract path. This Scheduling Mode is expected to produce pricing results that are similar to the results produced by the external interface pricing methods that PJM Interconnection, LLC ("PJM") and the MISO currently employ. However, this Scheduling Mode is expected to produce less appropriate results than the Scheduling Mode described above when actual power flows closely conform to scheduled power flows. It is the NYISO's expectation that when actual power flows closely conform to scheduled power flows, PJM's and MISO's prices and schedules will appropriately reflect such conformity.

### **IV. CONCLUSION**

The NYISO hereby informs the Commission that it has timely developed and deployed new software capability to comply with the interface pricing requirement set forth in the Commission December and July Orders.

Respectfully submitted,

/s/ Alex M. Schnell

Alex M. Schnell

New York Independent System Operator, Inc.

**CERTIFICATE OF SERVICE**

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

Dated at Rensselaer, New York this 22<sup>nd</sup> day of December, 2011.

/s/ Joy A. Zimmerlin

Joy A. Zimmerlin  
New York Independent System Operator, Inc.  
10 Krey Boulevard  
Rensselaer, NY 12144  
Tel: (518) 356-6207  
Fax: (518) 356-7678  
E-mail: [jzimmerlin@nyiso.com](mailto:jzimmerlin@nyiso.com)

## **ATTACHMENT I**

### ***Interface Pricing***

**Presentation to Market Issues Working Group**

**Presented by: Michael DeSocio,  
Market Products Specialist  
New York Independent System Operator, Inc.**

# Interface Pricing

**Mike DeSocio**

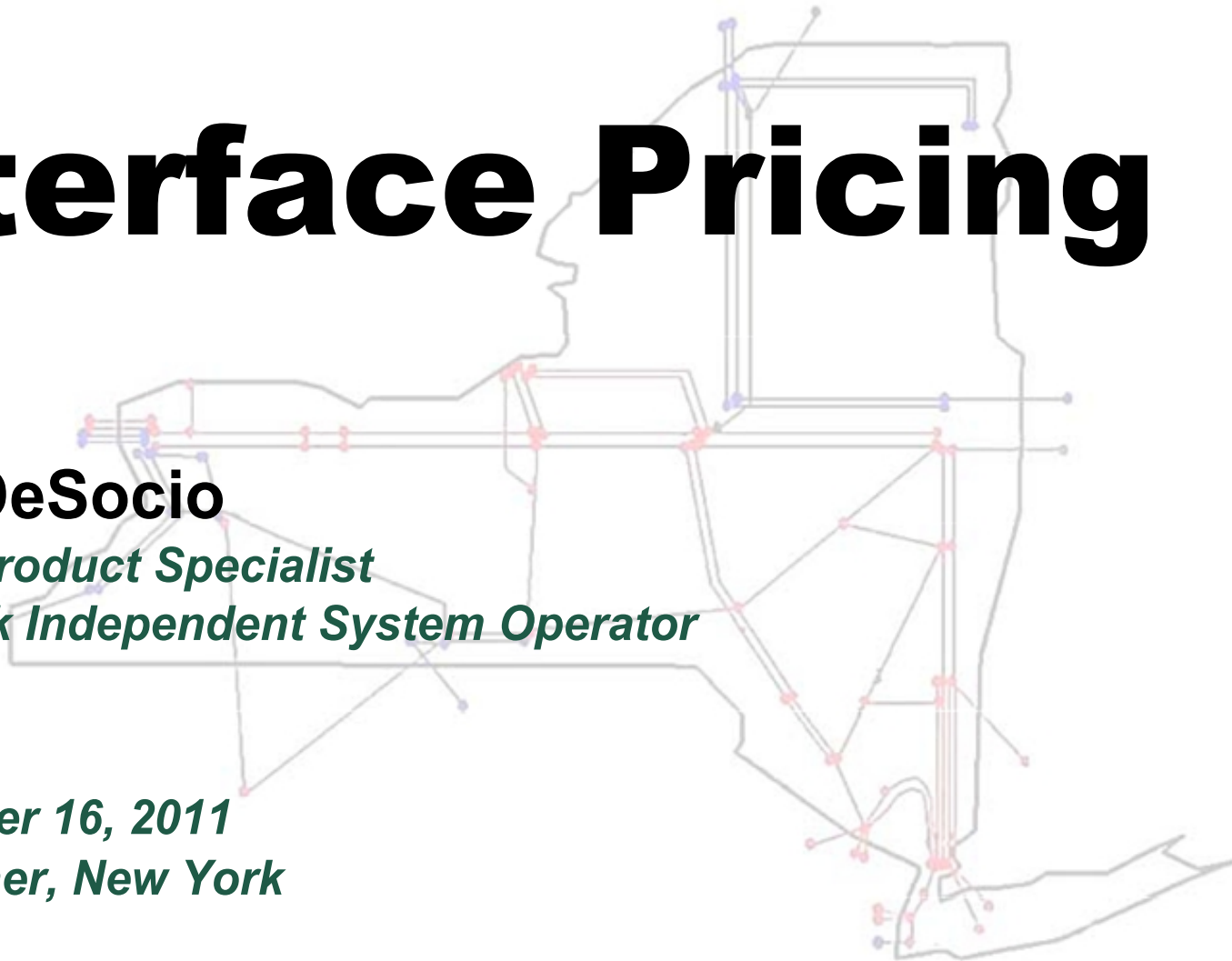
*Market Product Specialist*

*New York Independent System Operator*

**MIWG**

*September 16, 2011*

*Rensselaer, New York*



# Agenda

- ⑩ Interface Pricing Concept Review
- ⑩ Examples
- ⑩ Path Validations
- ⑩ Implementation Timeline
- ⑩ Next Steps

# Interface Pricing Concept

- ⑩ When the Michigan-Ontario control devices are not available, or are not effectively managing loop flows around Lake Erie, the NYISO will:
- Apply interface pricing that will represent the incremental power distribution around Lake Erie reflecting the inability of the control devices to control power flows around Lake Erie
    - Michigan - Ontario interface will represent incremental power distribution



# Interface Pricing Concept

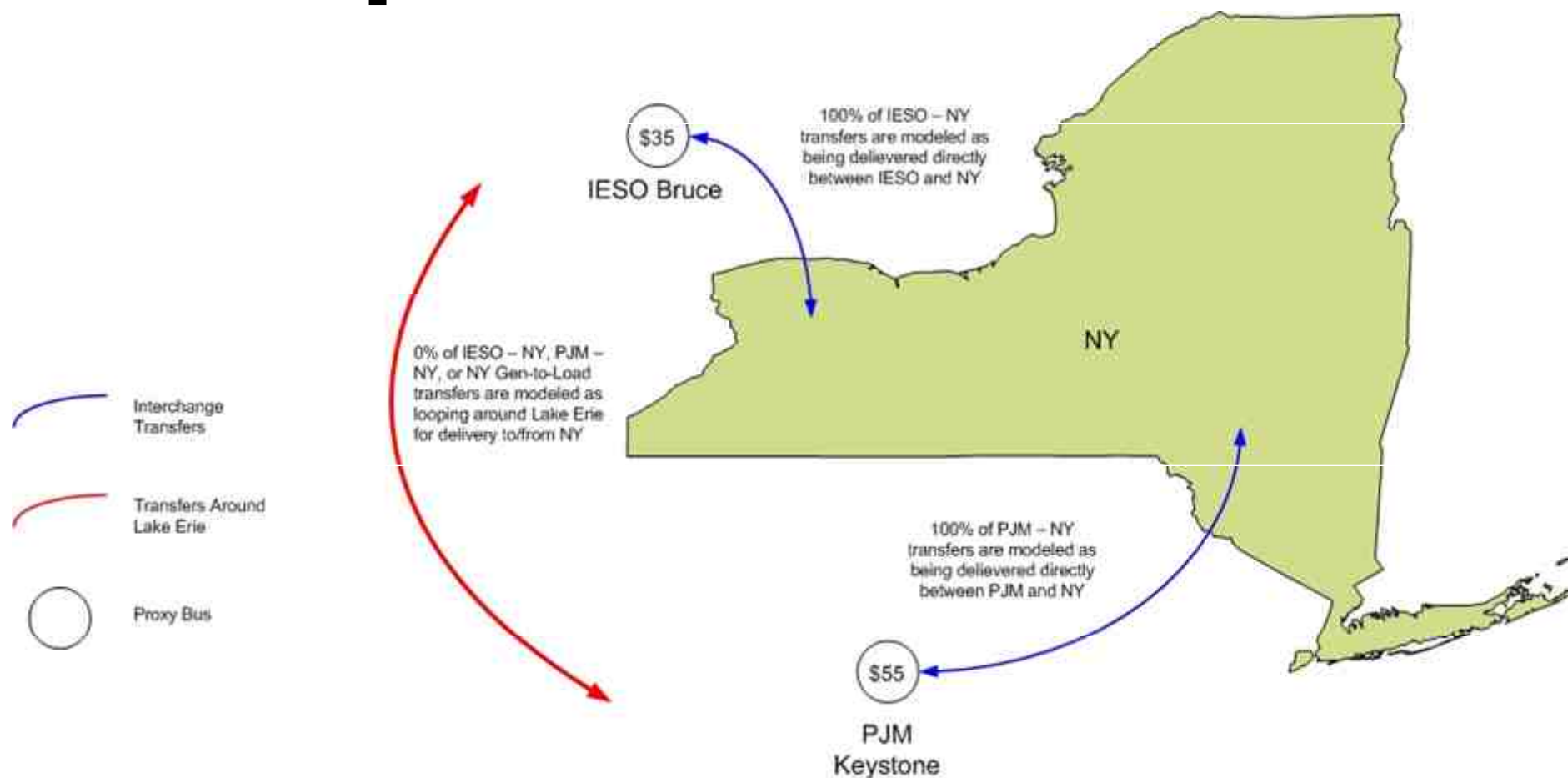
⑩ If the Michigan-Ontario control devices are installed and demonstrate the ability to adequately manage loop flows around Lake Erie, the NYISO will:

- Apply interface pricing that will represent the incremental power distribution around Lake Erie reflecting the operation of control devices to control power flows around Lake Erie

# Interface Pricing Concept

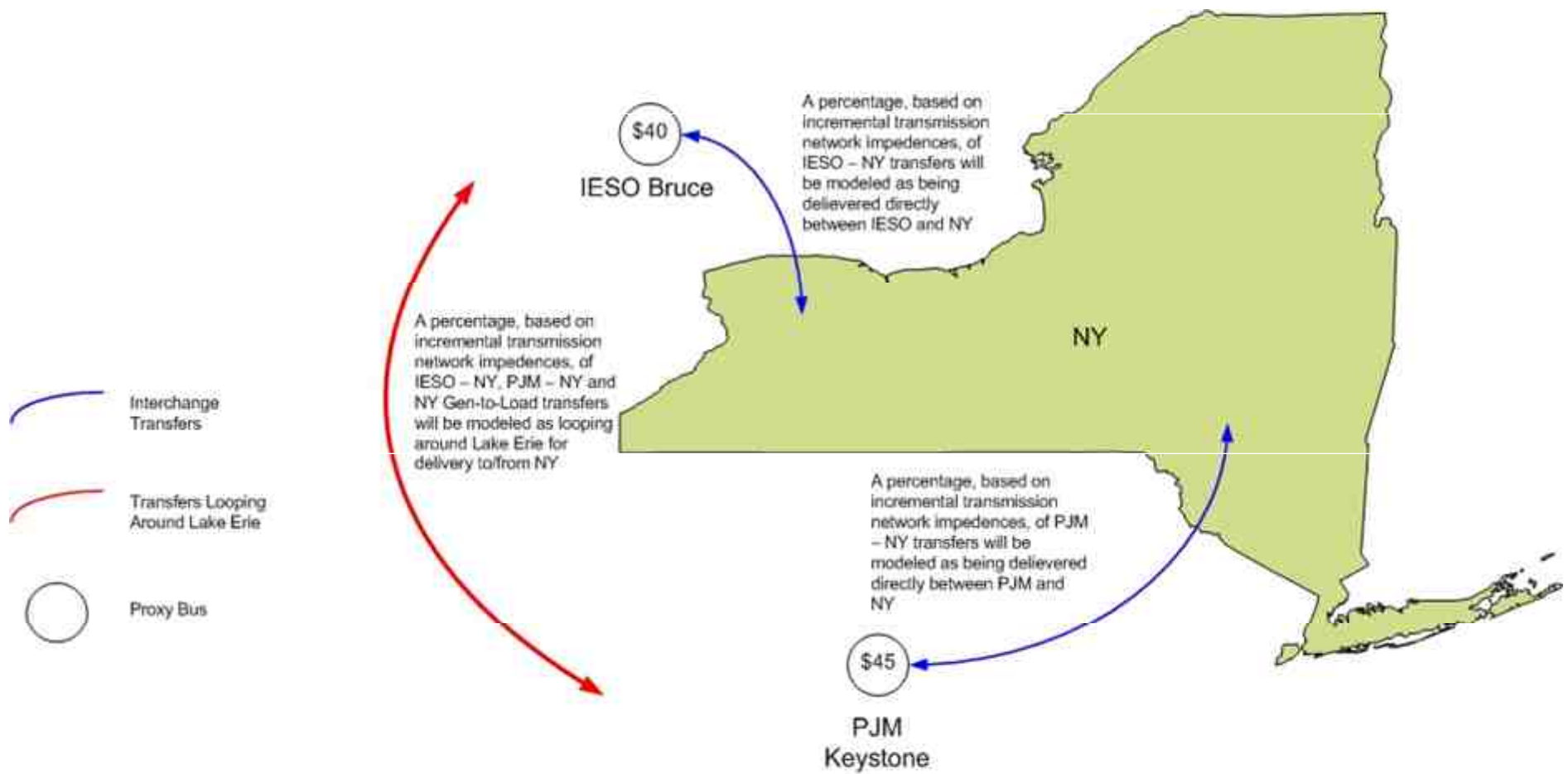
- ⑩ Regardless of the installation of control devices to control loop flows around Lake Erie, the NYISO will:
- Maintain the ability to impose Lake Erie Circulation onto the power flows to ensure accurate determination of network constraints
  - Maintain consistency in treatment between external transactions and internal resources for both scheduling and pricing decisions

# Example - Current Method



Prices do not reflect impacts of energy looping around Lake Erie

# Example - New Method



Prices reflect impacts of energy looping around Lake Erie

# Path Validations

- ⑩ The NYISO will maintain the existing rules that preclude the circuitous scheduling of transactions
  
- ⑩ If control devices are installed and demonstrate the ability to adequately manage loop flows around Lake Erie, the NYISO will analyze the operation of the devices to determine if they obviate the need for path validations to prevent circuitous scheduling

# Implementation Timeline

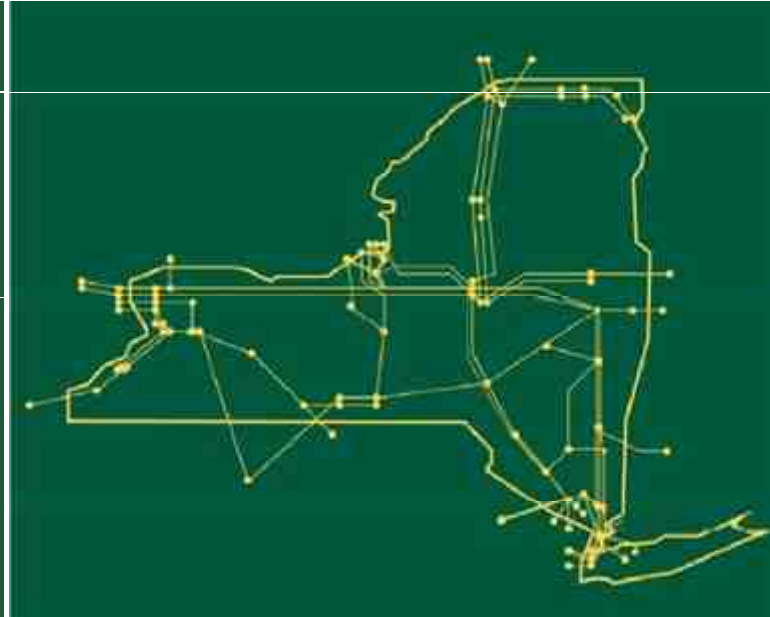
⑩ The NYISO is targeting Q4 2011 for the software implementation of Interface Pricing

⑩ The NYISO has reviewed the ISO Tariffs and determined that no tariff amendments appear necessary to implement Interface Pricing

# Next Steps

- ⑩ Deploy Software capabilities supporting Interface Pricing Q4 2011
- ⑩ The NYISO will continue to monitor the status of the Michigan - Ontario PAR activation and operation

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



[\*www.nyiso.com\*](http://www.nyiso.com)



## **ATTACHMENT II**

### ***Broader Regional Markets, Interface Pricing Revisions*** **Presentation to Business Issues Committee**

**Presented by: Robert Pike**  
**Director of Market Design**  
**New York Independent System Operator, Inc.**



# Broader Regional Markets Interface Pricing Revisions

**Robert Pike**

*Director, Market Design*

*New York Independent System Operator*

**BIC**

*NYISO - Krey Corporate Center*

*June 2, 2010*

# Objective

- ⑩ As part of the Broader Regional Market (“BRM”) initiative, NYISO agreed to complete a design concept for Interface Pricing Revisions (to be used prior to when the Michigan-Ontario PARs are to be in service) by 2nd Qtr 2010.
  - *Concepts were reviewed at the April 12th MIWG. No subsequent comments were received.*
- ⑩ Will be preparing a report for FERC in July to provide status updates on the various elements included in BRM.
- ⑩ NYISO wants to ensure it accurately reflects stakeholder agreement/concerns with these concepts.
- ⑩ Further stakeholder approvals will be required to implement any modifications.

# Recommendation

⑩ Today's discussion is focused on the alterations to the current pricing methodology for the existing network configuration, without the availability of PAR installations to minimize Lake Erie Loop Flow.

- *NYISO continues to work with the other ISOs to evaluate the appropriate method to utilize with the Ontario-Michigan PARs in service.*

# Proposal

## ⑩ Representation of physical power distribution

- *Reflect the physical distribution of power flows around Lake Erie based upon network topology.*

## ⑩ Path Validations

- *Maintain existing rules that preclude the circuitous scheduling of transactions.*

## ⑩ Proxy Bus Locations

- *Maintain use of PJM and IESO proxy buses.*
- *Validate network location for bus representations.*

# Representation of Network Flows

- ⑩ Reflect the incremental distribution of power flows around Lake Erie based upon network topology.
  - *Maintain existing allocation of power flows on the NYISO-PJM PARs. (Technical Bulletin 152 - PJM Proxy Bus Pricing and Scheduling)*
    - No incremental power flows will be reflected on the PAR controlled lines interconnecting the NYISO and PJM.
  - *Maintain ability to impose a Lake Erie circulation onto the power flows to ensure accurate determination of network constraints.*
- ⑩ Maintain consistency in treatment between external transactions and internal resources for both scheduling and pricing decisions.

# Path Validations

- ⑩ **Maintain existing rules that preclude the circuitous scheduling of transactions.**
  - *Circuitous path scheduling is not considered appropriate in the absence of the ability to conform actual flows to scheduled flows.*
  - *While tag-based settlement and path validations are intended to produce similar market responses, the NYISO believes a more rigorous implementation is achieved by maintaining the circuitous path prohibitions.*
- ⑩ **When available, monitor the ability of the IESO-MISO PARs to maintain actual flow to be consistent with scheduled interchange and the capability of the additional Broader Regional Markets solutions to obviate the need for the path validations.**

# Proxy Bus Locations

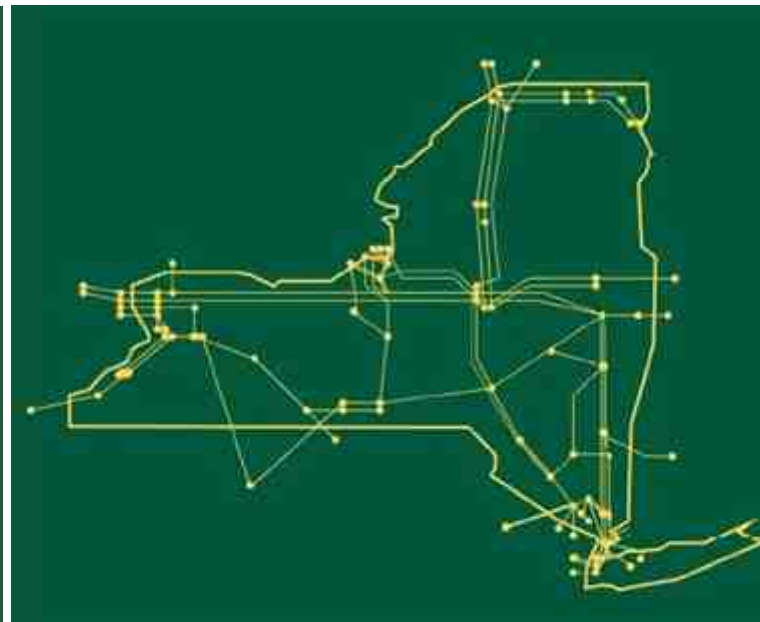
- ⑩ Due to the PAR controlled nature of the NYISO-PJM interface, the value of energy delivered from regions beyond PJM and IESO will be predominately defined by the delivery path through PJM or IESO to NYISO.
  - *For example, Midwest ISO power scheduled through PJM will have different impacts than Midwest ISO power scheduled through IESO.*
- ⑩ Evaluate the appropriate locations for the external proxy buses to align anticipated distribution of network power flows delivered from or through PJM or IESO.
- ⑩ NYISO is not recommending the establishment of additional proxy bus locations beyond PJM and IESO at this time.



# **Implementation Schedule**

- ⑩ Concept will require software development effort that cannot be completed in 2010**
- ⑩ Design and evaluation will continue during 2010 with necessary stakeholder reviews and approvals**
- ⑩ Incorporate effort into 2011 Budget Planning/Project Prioritization**
- ⑩ Monitor status of Ontario-Michigan PAR installation and implementation**

The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and conducts comprehensive planning for the state's bulk electricity system.



*[www.nyiso.com](http://www.nyiso.com)*