

April 10, 2012

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. Submission of Presentation and Talking Points for Requested Technical Conference;
Docket No. ER08-1281-010

Dear Ms. Bose:

Consistent with the representations in its April 3, 2012 *Motion for Leave to Respond and Response*, the New York Independent System Operator, Inc. (“NYISO”) submits the attached presentations for discussion at the Technical Conference that the NYISO has asked the Commission to schedule in the above Docket.

The NYISO submits the following documents:

1. this transmittal letter;
2. The NYISO’s technical conference presentation (“Attachment I”);
3. Dr. David Patton’s technical conference talking points, presented on behalf of Potomac Economics, the NYISO’s external Market Monitoring Unit (“Attachment II”); and
4. PJM Interconnection, LLC’s technical conference talking points (“Attachment III”).

As the NYISO explained in its March 30, 2012 *Request to Convene On-the-Record Technical Conference* (“Request”), the NYISO seeks an opportunity to discuss the attached presentations with Commission Staff and to obtain Commission Staff guidance regarding the NYISO’s compliance proposal.

The NYISO respectfully requests that the Commission (i) convene the technical conference that the NYISO's Request asked the Commission to convene, and (ii) grant the NYISO an extension of time to permit the NYISO to submit its compliance filing 30 days after the requested technical conference is held.

Respectfully submitted,

/s/ Alex M. Schnell
Robert E. Fernandez, General Counsel
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 10th day of April, 2012.

/s/ Joy A. Zimmerlin
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ATTACHMENT I

Interface Pricing **Presentation For Technical Conference**

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

Interface Pricing

Robert Pike

Director of Market Design

New York Independent System Operator

FERC Technical Conference

April __, 2012



Topics Addressed

- ◆ **Purpose of Presentation**
- ◆ **NYISO Will Submit Proposed Tariff Revisions**
- ◆ **Goal of Interface Pricing**
- ◆ **NYISO Will Use Non-Conforming Mode**
- ◆ **Explanation of Non-Conforming Mode**
- ◆ **Discuss Need for and Benefits of Path Validation**

Purpose of Presentation

- ◆ **The NYISO requested this technical conference to seek guidance from Commission Staff regarding whether a NYISO compliance filing that includes the elements described in this presentation will satisfy the requirements of the Commission's March 15 Order in Dkt. ER08-1281-010**

Tariff Filing

- ◆ **The NYISO understands that FERC expects it to submit Tariff revisions to incorporate the interface pricing rules into the NYISO's Tariffs**
- ◆ **NYISO is not seeking guidance regarding the Commission's instruction to submit Tariff revisions, and intends to submit proposed Tariff rules in its compliance filing**

Conceptual Agreement

- ◆ **The goal of ISO/RTO interface pricing is to set prices and determine schedules in a manner that is consistent with how power actually flows.**
 - **Use network impedance based distribution factors**
 - **Incorporate system topology changes (outages)**
 - **Use tag-based source/sink identification**
- ◆ **Different market designs require different implementations to achieve this common goal.**

Non-Conforming Mode

- ◆ **NYISO's Tariff revisions will propose to implement non-conforming mode**
 - **NYISO is discussing the appropriate method of reflecting the operation of the Ontario/Michigan PARs with PJM and MISO**
 - If the Ontario/Michigan PARs successfully conform actual power flows to schedules, the non-conforming mode will not accurately reflect expected or actual power flows
 - NYISO may propose to use a “sliding scale” approach, rather than the binary conforming/non-conforming modes

Non-Conforming Mode

◆ How it works

- *Distribution factors are used to determine interface prices based on the current or forecast topology of the transmission system, including forced and scheduled transmission outages*
- *Evaluate expected power flows based upon a proxy bus model representation of injections / withdrawals*

Non-Conforming Mode

◆ How it works

- *Does not directly use actual telemetered flows in the determination of prices*
 - Where necessary to align prices with actual flows, NYISO weights specific line flows in the development of proxy bus prices
 - NYISO and PJM both use expected power flows in their pricing
- *NYISO uses the source/sink from the NERC tag to define the source/sink area of a transactions and to represent the distribution of power flows*

Path Validation

- ◆ **Validates that the bidding/scheduling entity has represented the transaction to the NYISO in the manner that is consistent with both the NERC e-Tag information, and how the power will actually flow**
 - *Tag tells NYISO where the power is flowing from/to, just as it does for PJM.*
 - *Tag information that exactly matches the NERC e-Tag must be provided to the NYISO at the time a bid is submitted, including the source and sink balancing authorities*
 - *Based upon the source/sink balancing authorities provided NYISO validates that the bidder has presented the transaction in a manner consistent with how the power will actually flow*

Path Validation

- ◆ **The NYISO invalidates the bid/offer for any transaction when the tag and the bid are not aligned**
 - **This requirement places the responsibility on the MP to provide a valid bid and representative source/sink**
 - **Prevents mismatches between scheduling and pricing**

Benefits of Path Validation

◆ Operational Benefits

- Enhances regional reliability by promoting consistency in expectation of flows, alignment of contract and physical paths, and discourages unnecessary loop flow
- Facilitates accurate NERC directed interregional coordination and checkout
 - If NYISO, IESO, MISO and PJM all agree that 70-80% of power circuitously scheduled from New York to serve load in PJM flows over the direct interties between the two Balancing Authorities, it would not make sense for NYISO to coordinate its review of the reliability impacts of such a circuitously scheduled NYISO to PJM transaction with IESO

Benefits of Path Validation

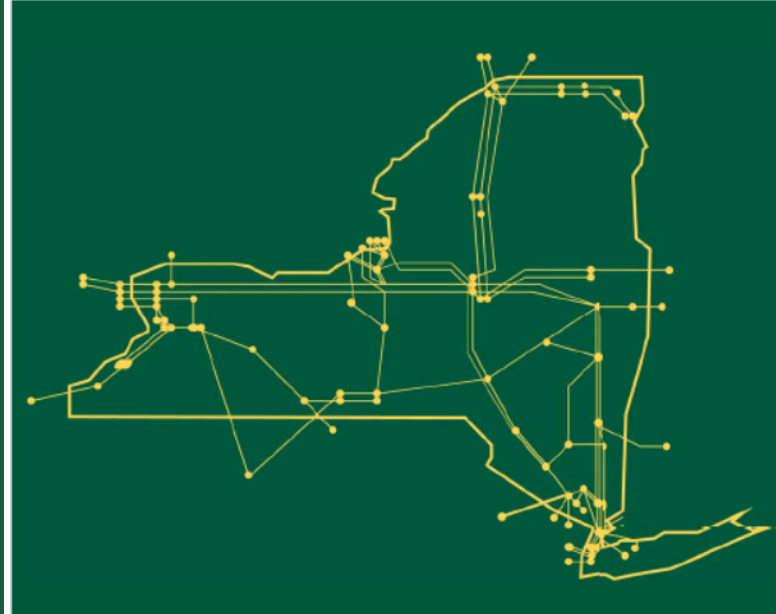
◆ **Market Benefits**

- **Improves consistency between the scheduling path and actual flows**
- **Facilitates NYISO's economic evaluation of transaction schedules by permitting consistent evaluation and pricing of ramp, ATC/TTC and congestion**
 - **NYISO's economic evaluation of ATC, ramp limitations and congestion are performed simultaneously**
 - **PJM separates into scheduling path reservations (ATC/ramp) and expected power flows (congestion)**

Benefits of Path Validation, Cont.

- **Facilitates NYISO's economic evaluation of transaction schedules by permitting consistent evaluation and pricing of ramp, ATC/TTC and congestion (cont.)**
 - **To facilitate simultaneous evaluation of ramp, ATC/TTC and congestion, NYISO requires that the scheduling path be consistent with expected power flows, as defined by the NERC tag**
 - **The resulting LBMPs reflect the transactions that have been awarded and how the power is expected to flow**

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

Interface Pricing **Talking Points for Technical Conference**

**Presented by: Dr. David Patton,
President
Potomac Economics, Ltd.
External Market Monitoring Unit for the
New York Independent System Operator, Inc.**

TALKING POINTS FOR TECHNICAL CONFERENCE ON NYISO PROXY BUS PRICING

David B. Patton, Ph.D.
NYISO Market Monitoring Unit
April 10, 2012

Proxy Bus Pricing in the NYISO market design

- NYISO's market design is unique in that it utilizes an economic evaluation to schedule transactions, which includes allocating ramp and pricing congestion at its external interfaces.
- However, this uniqueness is beneficial and should not interfere with the external interface pricing ("proxy bus pricing").

Economic Principles Governing Proxy Bus Pricing

- Proxy bus pricing will affect how market participants schedule imports, exports, and wheels.
- To facilitate efficient scheduling, proxy bus pricing should be consistent with the *expected* flows that will result from the schedule.

Practical Issues that Affect External Pricing and Scheduling Rules

- The source and sink of the power are important determinants of how the power will flow, but there are substantial uncertainties caused by the following two factors.
 - The source and sink are defined on a control area basis (because the marginal injection or withdrawal may produce a very different flow effect than the control area average); and
 - Transactions may be linked to other transactions that affect the ultimate source or sink (a recognized issue).
 - Nonetheless, proxy bus pricing based on the scheduled source/sink is consistent with the economic principle.
- However, even though the pricing may be based on the scheduled source/sink, the scheduled path cannot reasonably be ignored for two reasons.
 - First, the RTOs must still manage external interface and ramp capability, which is affected by the path over which the transaction is scheduled.
 - Second, Phase Angle Regulators ("PARS") can cause the expected power flows associated with two transactions with identical sources and sinks, but different paths, to be very different.
 - Hence, the NYISO's path validation is reasonable and does not conflict with source/sink proxy bus pricing. Removing it would not provide any economic benefit.
- Because PARs affect the power flows throughout the eastern interconnect, the proxy bus pricing regime should reflect these effects to be consistent with the economic principle described above.
 - For example, when the OH/MI PARs are operational and significantly affecting the flows around Lake Erie, those effects should be reflected in NYISO's proxy bus prices.
 - Likewise, because the scheduled path for a transaction may alter the PAR settings, NYISO should consider how to incorporate the path information in its proxy bus pricing rather than relying solely on the source and sink for the transaction.

ATTACHMENT III

Interface Pricing **Talking Points for Technical Conference**

Presented by: PJM Interconnection, LLC

PJM's Technical Conference Talking Points

- Role of NERC e-Tag in PJM's external transaction evaluation process
 - Modeling of injections and withdrawals in market software
 - Day-Ahead
 - Real-Time
- Proxy Buses
 - Detailed explanation of how PJM calculates interface prices
 - How PJM selects and uses proxy buses to price interchange transactions to/from external balancing authorities
 - How the proxy bus prices reflect the value of the energy associated with interchange transactions to the PJM market