

Northeast ISOs Seams Resolution Report History of Seam Issues Resolution

2004 – Open Projects

P8b Projected 2004 (orig. Projected 2003) – FACILITATED CHECKOUT

- NYISO, ISO-NE, PJM, IMO, HQ & MISO have been participating in the specification of the FCO communication protocol. Pilot implementation with ISO-NE has been successful and demonstrated ISO-NE and NYISO capability to exchange transaction data in real-time.
- IMO is now able to access NYISO transaction data in real-time as well; the IMO is working on implementation of the software, with expected completion in the third quarter of 2004.
- HQ planning to implement FCO by end of the third quarter of 2004.
- FCO is expected to be fully functional between NYISO, ISO-NE, IMO and HQ by the end of 2004.

P8c Projected 2004 – NY E-TAGGING

- NYISO is implementing automated tools to improve communication and updates of NYISO transaction schedules with the E-Tag system.
- Automation is providing direct benefits to other control areas, such as PJM, that are linking their systems to the E-Tag system for transaction scheduling inputs.
- Allows automated response on incoming E-Tag requests and automated updates for bid / schedule changes to the E-tag system resulting from the hour-ahead evaluation, checkout and curtailments.
- Phase II will provide enhanced tools for Market Participants to create NYISO bids from E-Tag profiles or vice-versa.
- Phase I development (operations automation) is complete and was deployed on April 25, 2004.
- NYISO and PJM are working on additional enhancements and business rules for market participants.

P10 1st Quarter 2005 (orig. Projected 2003) – EXPANSION OF REGIONAL RESERVE SHARING – NPCC will coordinate the implementation of a 100 MW reserve sharing pilot among NPCC members and PJM to improve regional reserve market efficiency. NPCC committees have approved revised policies to permit the reserve sharing pilot project; The NPCC Reserve Assistance Procedure is anticipated to be approved by the NPCC Reliability Coordinating Committee in November 2005. The revised project schedule looks to implement reserve sharing in Q1-2005.

P11 1st Quarter 2004 (Complete) - HARMONIZE NEW YORK DEMAND RESPONSE PROGRAMS WITH ISO-NE – NYISO Demand Response staff have met several times with their counterparts in PJM and New England during 2003 and 2004 and determined that much harmonization has occurred since the original recommendations. For example:

- All three ISOs have similar emergency programs called under very similar system conditions with similar or identical price floors (\$500 in NYISO and PJM, \$500 or \$350 in ISO-NE)
- All three ISOs have programs under which Demand Response can obtain ICAP credit by virtue of participation in an emergency/reliability program
- All three ISOs have, or plan to have, planning processes that will, in general terms, allow Demand Response to compete alongside transmission and generation alternatives to meet economic/congestion needs.
- All three ISOs have adopted Small Customer Aggregation programs that allow small customers lacking interval meters to participate in their demand response programs.
- All three ISOs presently allow on-site generation to participate in their emergency DR programs.
- ISO-NE and PJM presently allows on-site generation to participate in their economic DR programs. NYISO does not presently allow on-site generation to participate in its economic program. As NYISO

was developing the planned extension to that program, neither NYISO nor a significant number of its Market Participants support allowing on-site generation to participate. Accordingly, this prohibition is intended to remain.

- All three ISOs have, or are seeking participant/FERC approval of fundamentally similar day-ahead demand response programs.
- All three ISOs are in fundamental agreement that DR has a role to play in providing ancillary services such as reserves and that DR should be appropriately integrated into each ISO's ancillary service markets. While it is unlikely that this will take place in the next year, each ISO intends to work with its market participants toward this common end.

The primary objectives of this initiative have been achieved; this issue is considered complete.

- P12 3rd Quarter 2004 (Orig. Date 2003) – NY REAL-TIME SCHEDULING (RTS) IMPLEMENTATION AND NY SMD 2.0** – Real-Time Scheduling (RTS) is a major portion of the overall *NY SMD 2.0* and involves developing new real-time commitment (RTC) and dispatch (RTD) software in place of the current hour-ahead commitment and real-time dispatch modules. *NY SMD 2.0* incorporates a number of “Best Practice” improvements from New York; includes all key features of FERC SMD. The RTS time frame extends from 5 minutes in the future to 2½ hours in the future. Commitment and decommitment decisions are made every 15 minutes by the real-time commitment (RTC) process. Decisions to adjust the output of internal energy suppliers (dispatch) are made every 5 minutes by the real-time dispatch (RTD) process, as is the calculation of energy and ancillary services prices. In-day Pre-scheduling will address real-time ICAP recall requirements for capacity emergencies by providing comparable treatment to ICAP suppliers with firm tie line reservations. Factory Acceptance Testing is on schedule and nearing completion. Market Trials and Market Participant User Training are in-progress.
- P14 Projected 2004 – NY-HQ-ISONNE HVDC Interconnections** - Evaluate methods to improve regional coordination to enhance and maximize utilization of NY-HQ-ISONNE HVDC interconnections. This is a joint project lead by ISO-NE and HQ TransÉnergie to update the methodology and procedures for scheduling of the Phase II HVDC interconnection between New England and Quebec. Initial efforts were focused on use of the IDC as a possible tool to forecast availability of Phase II above the 1200 MW limit, however the parties have concluded that the IDC in its current form would not be suitable. ISO-NE is continuing to evaluate current data available from NY and PJM for forecasting availability of Phase II. PJM and NYISO staffs have been participating in monthly conference call meetings and continue to support this effort.
- P15 Projected 2004 (Orig. Date 2003 but changed as a result of SMD NOPR) - REGIONAL RESOURCE ADEQUACY MODEL (RAM) GROUP** - The Regional Resource Adequacy Model (RAM) Working Group (formerly the JCAG Working Group) was set up to develop longer-range UCAP markets in NY, PJM and ISO-NE than currently exist. The RAM Working Group developed initial recommendations in mid-2002. The work plan was reassessed in light of the SMD NOPR and the ISOs/RTOs filed joint comments addressing resource adequacy on January 10, 2003. The comments described a central market-based resource adequacy framework, which is consistent with the goals of the SMD NOPR. NERA was selected to analyze the proposed central resource adequacy market design, and presented their final report at the February 26 regional RAM meeting. A NYISO status report was filed with FERC on February 27, 2004. The broad range of concerns raised by stakeholder groups in each ISO/RTO make it unlikely that all of the ISO/RTOs will adopt the RAM proposal as it is currently formulated. It is anticipated that this effort may lead, instead, to enhancements in the capacity markets in each region. In enhancing their existing markets, the ISO/RTOs have committed to maintain the same product (UCAP) to enable trade between regions to occur and to identify and remove any remaining barriers to the trading of capacity between regions. Each region has Resource Adequacy/ICAP working groups looking at this issue. No plans have yet been established as yet to change the markets in any of the ISOs. The NYISO has submitted a hybrid proposal to its stakeholders for consideration which incorporates a forward capacity market for procurement of a portion of its future resource requirements.
- The NYISO plans to further develop this hybrid proposal with its stakeholders during the third quarter of 2004 and will coordinate with the PJM and ISO-NE efforts in their respective regions.
 - The NYISO will bring any resulting proposal back to the RAM Group for discussion by the end of 2004. It is expected that the NYISO hybrid proposal will be considered along with RAM and other

proposals brought forth by ISO stakeholders. Although it is unclear what design may finally emerge from this process, a key requirement imposed on the development process is to ensure that any proposal finally accepted is compatible with the New York market.

- On March 1, 2004, ISO-NE filed a locational capacity market with the Commission. The design of this market was based strongly on the extant design developed by NYISO. On June 2, 2004, the Commission issued an order directing that the proposed locational capacity market be implemented on January 1, 2006 subject to the resolution of specific issues at hearing.
- The Partial Unit ICAP Sales project (#4 below) will also improve the ability to trade capacity between regions.
- PJM staff will introduce an initial proposal for the Reserve Adequacy Construct at the Market Implementation Committee meeting on June 30th.

P18 Projected 2005 (orig. Projected 2004) – VIRTUAL REGIONAL DISPATCH – NYISO and ISO-NE have documented a technical definition of a virtual regional dispatch process and will proceed with further stakeholder meetings to finalize the technical definition and to work towards a joint stakeholder acceptance of the proposal.

- Phase 1 - Development and Implementation of a VRD Pilot Program as soon as practicable with a target date of the fourth quarter of 2004. The Pilot Program would be a limited test of VRD to verify that the VRD method can in fact be used to converge prices. The ISOs will work with stakeholders and will consider alternative approaches in developing the Pilot Program concept and will file any rule changes with the Commission needed to support the pilot.
- Phase 2 - Review of Pilot Program and Potential Initial Implementation of VRD. NYISO, ISO-NE and stakeholders will review the results of the pilot program and consider development of an initial VRD implementation in mid-2005. This initial implementation will have the objective of obtaining as many of the efficiency gains of VRD as possible, recognizing that other key projects (RTS in New York and Ancillary Service Markets in New England) limit the resources available to implement VRD. The market advisor has noted that most of the efficiency gains are produced under shortage conditions in one market or the other. If it is found to be feasible for both the market and the electric system operation, initial deployment of VRD may focus on these shortage periods. If such periodic VRD operation is not found to be feasible on a production basis, 2005 efforts may focus on further testing of the VRD processes during such shortage conditions, or other alternatives to improve the use of the interface.
- Phase 3 - Review of Initial Implementation and Evaluation of Whether Expanding VRD is Warranted. This review and decision will be considered by the ISOs with stakeholders in early 2006.

P19 Q4 2004 (orig. Projected 2004) – PARTIAL UNIT ICAP SALES – ISO-NE's SMD 1.0 does not support the sale of UCAP to external control areas from portions of units. The Commission has directed that this functionality be added. ISO-NE is considering several options for resolving this issue including potential solutions that could be implemented with a resource adequacy mechanism by December 2004.

- ISO-NE will prepare a proposal for discussion with the Markets Committee ("MC") no later than the August 2004 MC meeting.
- A final proposal will be presented to the MC for vote at the September 2004 meeting, and to the Participants Committee ("PC") for a vote at the October 2004 PC meeting.
- This will support a filing at the Commission in October for a December 2004 implementation date.

P20 Projected 2004 – ELIMINATION OF RATE PANCAKING – The elimination of export fees between ISO/RTO regions is an important objective of the FERC. The NYISO and ISO-NE have been working with their TOs and state regulators to accomplish this goal. During mid-2003, the NYISO and the New York

transmission owners developed principles for the elimination of export charges from the New York Control Area, subject to reciprocity. The New England transmission owners included similar provisions in the RTO-NE filing with FERC on October 31, 2003. On March 24, 2004, FERC's Order on RTO-NE was conditioned on the elimination of export fees between New York and New England by the end of 2004. In April 2004, an agreement in principle was achieved among ISO-NE, the NYISO, New York and NE state regulators calling for the elimination of export fees between the regions on or before December 2004.

- ISO-NE has made a compliance filing with the FERC on June 22, 2004 wherein ISO-NE commits to complying with the directive to eliminate Through and Out charges between New England and New York by December 22, 2004.
- NYISO has filed tariff modifications with FERC on June 21, 2004 for the elimination of export fees on transactions to New England, subject to reciprocity, on the same date that FERC approves equivalent tariff provisions for New England eliminating export fees to New York.

PJM and MISO posted the transmission owners' four long-term pricing proposals. Stakeholder meetings on the proposals are scheduled for July 12, August 12, and September 13, 2004, in preparation for filings on regional pricing by October 1, 2004.

P21 Projected 2004 – NY GENERATOR ATTRIBUTES TRACKING (GAT) SYSTEM – Green power suppliers need consistent rules and trading platforms to permit consistent tracking and trading of green power attributes across the ISOs. NY is working with market participants to determine the suitability of adapting the New England Generator Information System (GIS) to New York markets. The IMO is currently looking at a tracking system, although direction from government (via legislation) will be required prior to any implementation. PJM has a group specifying a system supporting its state initiatives. The NYISO has been actively participating in the NY Dept. of Public Service hearings on a Renewable Portfolio Standard, where attributes trading is identified as a necessary and desirable condition. Further progress on developing a GAT in New York awaits a policy decision on the proposed Renewable Portfolio Standard by the New York State Public Service Commission. Such a decision is expected by mid-2004. (April 2003)

P22 Projected 2004 – NY-NE COORDINATION FOR THE CROSS SOUND CABLE (CSC) PROJECT – Project merged with P24.

P23 Projected 2004-2006 –COORDINATION OF INTERREGIONAL PLANNING — In January 2003, a Liaison Task Force was formed including all NPCC members as well as PJM to develop ways to improve the coordination of planning for the Northeast region. In December 2003 the ISOs achieved agreement on a draft protocol for the coordination of planning in the Northeast region. During the first quarter of 2004, ISO-NE, NYISO and PJM solicited stakeholder input which was generally supportive of moving ahead with the protocol.

- The ISOs have developed a draft coordinated planning protocol document, incorporated stakeholder input and plan to finalize the protocol document by mid-2004. This document provides the basis for standardizing data and information exchanges, developing a coordinated plan, and initiating a joint stakeholder process.
- The initial scope of work, to be implemented by Fall 2004, includes better coordination of information sharing by harmonizing the timing, development and exchange of data bases and modeling assumptions used in planning analysis, addressing cost allocation issues, the establishment of standardized confidentiality agreements and building upon joint planning activities already under way.
- The intermediate term goal is to develop and issue an initial coordinated system plan by the end of 2004 which will cover the New York and New England region.

- A longer-term goal, planned for implementation in 2005, is the implementation of a region-wide planning process which would include a region-wide coordinated plan. This region-wide planning process would be supplemental to each ISO or RTO's individual and more detailed transmission planning process.

P24 CROSS-BORDER CONTROLLABLE LINE SCHEDULING – NYISO software will be designed or modified to model Controllable Lines across control areas through an external proxy bus, providing market participants with the ability to bid to or from the new proxy bus in the Day-Ahead Market and schedule transactions in real-time. NYISO and ISO-NE operators will have the ability to monitor a Controllable Line and curtail transactions on the line. Deployment of this project will be dependent upon the successful deployment of the NYISO Standard Market Design (SMD2) project. This item has been merged with P22 and will include changes necessary for NY-NE coordination for the Cross Sound Cable (CSC) project.

- Complete stakeholder review in third quarter of 2004.
- Implementation scheduled for June 2005.

Issues Under Discussion

Issues that have been brought to the attention of the ISOs but have either not yet resulted in a specific initiative or the initiative has not been approved as a project by the stakeholder process (Date the issue was added to the list is shown at end of each item). Issues may be consolidated, deleted, or moved to the project list as they are more fully considered among the ISOs and stakeholders.

- I1 INTERNAL CONTROLLABLE LINE SCHEDULING (NY internal controllable lines)** – The concept of operations for general methodology to schedule HVDC controllable lines within NY borders has been drafted and approved by NY Stakeholders at the May 19, 2004 Business Issues Committee meeting. (Oct. 2002).
- I2 MULTIPLE PROXY BUSES FOR FREE-FLOWING INTERFACES** – There is a desire to provide east and west scheduling points for transactions on the NY-PJM interface. A draft white paper has been distributed for market participant review, and was discussed at the joint NY/NE meeting on 5/29/2003. This issue is being referred to the individual ISO Market Committees to discuss and refine the business issue definition. (Jan. 2003)
- I3 DIFFERENT RAMPING RULES** – Issue is covered under I5.
- I4 REDUCED LEAD TIME FOR IN-DAY TRANSACTION SCHEDULING** – NYISO market participants have expressed a desire to reduce the lead time for submission of real time transactions below the 75-minute limit currently in effect. (July 2003).
- I5 NY REAL-TIME SCHEDULING (RTS) FUTURE ENHANCEMENTS** – The functionality that will be deployed with the initial release of RTS/SMD 2.0 is described under project P12. A number of additional seams related features and enhancements are listed below and are being discussed by the NYISO and its Market Participants. Enhancements that are given the go-ahead will be added to the open projects list in future seams reports.
- 15-minute external schedule changes
 - Close of real-time market closer to real-time
 - Elimination of administrative SCR/EDRP pricing rules
 - Increased demand side participation
 - 15-minute economic dispatch of internal resources
 - Enhanced combined cycle unit modeling

- I6 RESERVES PARTICIPATION IN ADJACENT REGIONAL MARKETS** – This item encompasses two issues:
- 1) Establish requirements for external 30-min. reserves participation in NY - 1st draft white paper complete Feb. 2002. Currently being addressed by the NPCC TFCO CO-1 WG. Considered a low priority project.
 - 2) There is Market Participant interest in selling operating reserves from NY sources to ISO-NE.

Pending Projects

- P7 Pending (Orig. Date Dec 2002) – COORDINATION OF CONTROLLABLE TIE LINES (PHASE-ANGLE REGULATORS) BETWEEN NY AND PJM** – The FERC Settlement Hearings on the PSEG-ConEd wheeling contracts (FERC Docket EL02-23) have failed to reach an agreement. FERC issued an Order on the Phase I issues 12/9/2002. Appeals of Phase I Order were denied in FERC's 12/23/03 order. The ALJ issued an Initial Decision in the Phase II litigation on June 11th, 2003. Briefs have been finalized. Upon issuance of a final order by FERC, NYISO & PJM will develop a protocol to coordinate the scheduling of the PARS which will be incorporated into the ISOs' operational procedures.
- P9 Pending (Orig. Projected June 2003) – LAKE ERIE SYSTEM REDISPATCH PROJECT IMPLEMENTATION** - This NPCC procedure allows the redispatch of suppliers across regions to alleviate the potential curtailments of transactions due to TLR requests whenever a control area is in an energy short situation. The project requires implementation of operating procedures and billing and settlement process to account for the regional redispatch. (Project targeted to coincide with implementation of AEP and Dayton into PJM market).
- P16 Pending (Orig. Projected 2003) – NY TCC OPTIONS FOR EXTERNAL INTERFACES** – TCC options on external interfaces will allow parties to hedge congestion on long-term transactions. TCC options differ from TCC obligations in that the TCC holder would not pay the NY congestion charge if the value of a TCC option were negative in any hour.