Northeast Seams Report

Update on Northeast Seams Issues

July 16, 2008
NYISO Business Issues Committee Meeting

Status of Seams Projects

Current Deliverables

Project	Description
1. Intra-Hour Transaction Scheduling	▪ NYISO and ISO-NE have documented a technical definition of a virtual regional dispatch process and have received potentially viable alternative methodologies from their stakeholders. The ISOs will proceed with further stakeholder meetings to finalize the technical definition and to work towards a joint stakeholder acceptance of the proposal. ▪ NYISO and ISO-NE issued a report on the first pilot test on October 24, 2005. A joint meeting of NY and NE stakeholders to review the pilot test report and further develop market participant based proposals for improving the efficiency of the NYISO/ISO-NE interface was held on Nov. 14. Based on discussions at that meeting, ITS will be considered along with other market issues as part of the rules assessment initiative currently underway. ▪ NYISO conducted a limited analysis of inter-market real-time transaction scheduling in 2007, in support of an assessment of real-time scheduling and compensation market rules. However, in 2008, that assessment of real-time market rules will focus on issues associated with generation scheduling, dispatch, and compensation. NYISO expects to re-evaluate the projected benefits of an ITS program in 2008, updating an earlier analysis to reflect current market conditions. If that analysis suggests the potential for substantial benefits for NYISO participants, NYISO will work with ISO-NE to determine the feasibility of moving forward with solution design and implementation.

Note: The complete list of seams issues is updated each quarter for FERC. This is only a summary of recent activities.

Status of Seams Projects *Current Deliverables*

Project	Description
1. Intra-Hour Transaction Scheduling (continued)	▪ In 2008, NYISO and ISO-NE expect to jointly perform an analysis of the impact of uneconomic interchange between the NYISO and ISO-NE control areas. This analysis will attempt to identify the potential economic benefits of more efficient use of available interface transfer capacity. NYISO and ISO-NE will work together to identify market mechanisms that can lead to more efficient scheduling and dispatch across the interface between control areas. ▪ **The NYISO's 2007 State of the Market Report provides an analysis of scheduling and pricing patterns at the NYISO's interfaces with neighboring control areas. This analysis indicates that there is an opportunity to increase the efficient use of transfer capacity during unconstrained periods resulting in both production cost and net consumer benefits in both control areas. The analysis indicates that reducing the transaction scheduling lead time would enable market participants to more efficiently schedule transactions. The report recommends the development of processes to improve coordination between the ISOs even if only during limited circumstances, such as reserve shortages.**

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Status of Seams Projects *Current Deliverables*

Project	Description
2. Regional Resource Adequacy - RAM	▪ At the joint NYISO Board of Directors Management Committee meeting on June 10, 2008 market participants expressed a range of views on alternative forward capacity market designs. The NYISO is committed to working with stakeholders on developing an FCM market design for New York. ▪ The NYISO has engaged NERA to develop a conceptual forward market design; discussions with the ICAPWG were held on 8/7/2007 and 9/12/2007. Con Edison presented their concept of a forward market to the ICAPWG on 9/12/2007, and IPPNY provided comments on the NYISO's and Con Edison's proposals at the 11/2/2007 ICAPWG meeting. At the Jan. 22, 2008 ICAPWG meeting, the NYISO presented an outline of one element of a forward market, the process to more closely tie together the demand curve reset process and the Reliability Needs Assessment**.** The NYISO will continue to work with stakeholders to develop the details of a forward market design. ▪ At the February 27, 2008 meeting of the ICAPWG the NYISO continued discussion of forward capacity market design elements. Considerations related to voluntary, mandatory and partial mandatory forward purchase obligations were presented and discussed with stakeholders. NYISO design objectives include the continuation of successful elements of the current market design, improvements to the demand curve update process, development of meaningful forward price signals, and strengthening the linkage to the Comprehensive Reliability Planning Process.

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Other Seams Related Activity

Recent Initiatives

Project	Description
3. Cross-Border Controllable Line Scheduling	▪ Dennison Scheduled Line: The required modeling changes for this new proxy were deployed in October of 2006 and the new proxy bus was scheduled to be activated for bidding on August 1, 2007. However, issues related to DOE export permits have postponed activation. ▪ Meetings have been held with Alcoa and HQ to discuss implementation of a controllable tie line proxy bus at Dennison. If and when Alcoa, HQ, National Grid and the NYISO are able to agree on a mutually acceptable implementation plan, the NYISO will inform the MP's and schedule an implementation date. ▪ **The NYISO has been working with Alcoa Power Generating, Inc., Hydro Quebec TransEnergie, Cedar Rapids Transmission Company and National Grid to address issues associated with the operation of the Dennison Scheduled Line. The parties are targeting October 1, 2008 as the market implementation date, dependent on system conditions at that time. A technical bulletin describing the bidding rules applicable to the bidding and scheduling of External Transactions at Dennison will be distributed in advance of the market implementation date.** ▪ **Linden VFT, a 300MW injection from PJM to NYISO is targeted to begin operations during the third quarter 2009 with full operation targeted for the fourth quarter of 2009.**

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Other Seams Related Activity

Recent Initiatives

Project	Description
4. Dynamic Ramp Allocation Between Proxy Busses at the NYISO-Hydro Quebec interface	▪ There are two proxy buses available for scheduling transactions at the NYISO-HQ interface. One proxy bus is available for scheduling import/export transactions into and out of the New York Control Area. The other proxy bus is available for scheduling wheel-through transactions sourced or sunk in another control area. This dual proxy bus arrangement was implemented to remove a barrier to the full use of TTC (Total Transfer Capacity) on the interface while still enforcing the 1,200 MW import limit based on NYCA reserve requirements. The allocation of ramp capacity between the import/export and wheel-through proxies is currently assigned on a fixed basis. Providing for the dynamic allocation of ramp capacity between the two proxy buses will allow for more efficient transaction scheduling at the interface by allowing ramp capacity for the interface to be allocated between the two proxy buses in the economic evaluation of transactions schedules. ▪ The NYISO is actively pursuing the development of software enhancements necessary to implement the dynamic allocation of ramp between the two proxy buses. The software development and testing is expected to be completed in time for deployment in the fourth quarter of 2008.

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Other Seams Related Activity

Recent Initiatives (continued)

Activity	Description
1. COORDINATION OF INTERREGIONAL PLANNING	▪ To continue to develop ways to improve the coordination of planning for the Northeast region, this project is established to identify future deliverables towards achieving progress in this endeavor. ▪ On December 14, 2007 another IPSAC meeting was held by teleconference and web-ex at which the ISOs made presentations on several topics, including: New England Loss of Source Feasibility Study; planned system improvements in each ISO/RTO region; environmental and renewable resource issues. In addition, the ISOs presented their proposed Scope of Work for an inter-regional transmission adequacy study for discussion and stakeholder input. Stakeholders raised additional issues that are currently under consideration. **Interim study results for the transmission analysis were discussed with stakeholders at an IPSAC meeting held on June 27, 2008. At this meeting, the ISO/RTOs also reviewed their plans for additional analyses with stakeholders. Plans call for conduct of further transmission studies, and production analyses. An update will be presented to stakeholders at a meeting planned for the 4th quarter 2008.** ▪ The Northeastern ISO/RTO Coordination of Planning Protocol currently provides that cost allocation will be addressed consistent with the provisions of each ISO/RTO's Tariff. Merchant and elective upgrades can already be accommodated within existing tariffs. Studies are ongoing to identify potential cross border physical improvements to the system. The Protocol allows for the development of additional cost sharing mechanisms as may be needed in the future.

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Other Seams Related Activity

Recent Initiatives (continued)

Activity	Description
1. COORDINATION OF INTERREGIONAL PLANNING (continued)	▪ **The integration of over 450 MW (nameplate) of wind resources in the NY North Country is planned for 2009. ISO-NE and NYISO are conducting joint operating studies to ensure reliable operation of the system. These issues were discussed with stakeholders at the June IPSAC meeting.**

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Other Seams Related Activity

Recent Initiatives

Activity	Description
2. INTERREGIONAL CONGESTION MANAGEMENT	▪ NYISO and PJM are evaluating a coordinated bilateral Congestion Management Process concept. PJM and NYISO met on April 12-13, 2007 and discussed possible opportunities for coordination. This intent of this activity is to develop a concept that enables optimal dispatch between control areas such that one control area may alleviate congestion in the other. A straw-man proposal is planned to be developed by late 2007 with market participant review planned for early 2008. ▪ NYISO and PJM are evaluating a coordinated bilateral Congestion Management Process concept. The intent of this activity is to develop a concept that enables optimal dispatch between control areas such that one control area may alleviate congestion in the other. NYISO continues to work with PJM on the development of a feasible process. NYISO presented a Congestion Management process overview to market participants at the December 14, 2007 Market Issues Working Group. ▪ PJM and NYISO had a productive meeting on January 29th, 2008 to continue discussions on a potential congestion management process. More specifically, the parties reviewed RTO to RTO redispatch examples, interaction between any new process and existing PJM NYISO agreements and potential data exchanges. It is PJM's and NYISO's intent to complete the development of a conceptual design for a congestion management process and present this to stakeholders by the end of 2008.

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Other Seams Related Activity

Recent Initiatives

Activity	Description
2. INTERREGIONAL CONGESTION MANAGEMENT (continued)	▪ **PJM and NYISO have held several meetings in the first half of 2008 to develop a conceptual design for implementing a coordinated congestion management process. These discussions have focused on the overall design, potential operational procedures and data coordination protocols necessary to integrate a congestion management process. The last meeting between the design teams occurred on April 9th, 2008. The ISOs will continue work on the development of a conceptual design serving the needs of both control areas with the intent of bringing a proposal forward by the end of 2008.**

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Issues Pending Further Discussion

Issue	Description
3. Reserves Participation in Adjacent Regional Markets	▪ There is Market Participant interest in selling operating reserves from generation sources in one region to provide reserves in another region. This issue will be considered along with other longer-term market issues as part of the NYISO Market Evolution Plan, which was presented to NY stakeholders in June 2005. Since late 2005, the NYISO's Market Evolution Plan is part of its strategic planning process. The NYISO suggested this item to its Market Issues WG for stakeholder discussion and prioritization. Following implementation (October 2006) and assessment of their reserve market, ISO-NE will consider inter-control area provision of reserves.

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Issues Pending Further Discussion *(continued)*

Issue	Description
4. Congestion Rent Shortfalls Resulting From External Transmission Outages	▪ Transmission outages or deratings occurring outside of the NYCA that are not anticipated at the time of a TCC auction can force the NYISO to reduce the assumed transfer capability between the NYCA and the adjacent control area. If the resulting set of TCCs are rendered infeasible, the NYISO will incur congestion rent shortfalls in the day-ahead market. There is currently no way to assign the cost impact (due to the congestion rent shortfall) of that outage to the responsible external transmission owner. In addition, transmission outages or deratings that cause reductions in transfer capability between regions may have an impact on ICAP sales between regions. NYISO Senior Management will evaluate project, scheduling and budget impacts in conjunction with all other identified initiatives and determine what further action will be taken. ▪ NYISO will evaluate this issue as part of NYISO's market rules assessment initiative.

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Issues Pending Further Discussion *(continued)*

Issue	Description
5. Elimination of Rate Pancaking	▪ The NYISO, with the support of the New York TOs, will initiate discussions among the affected parties in the Northeast to explore the potential for rate pancaking relief between New York and PJM. A meeting between the NY and PJM TOs was held on August 18, 2005 to initiate discussions on this issue. With the Transmissions Owners as the primary drivers of this issue, NYISO and PJM are awaiting indications of intent from PJM's TOs as to the level of priority this issue has with the TOs. PJM has supply transaction data regarding volume and rates for PJM exports into NY. ▪ The NYISO has also initiated discussions with IESO to eliminate export fees. The revenue application review process for the transmitter that owns the inter-tie transmission lines in Ontario, and is responsible to the provincial regulator for this fee, is currently ongoing. The possibility of eliminating the transmission export fee, along with other options, is being discussed at this rate hearing. The decision on the transmitter's revenue application is expected to be given in May of 2007. ▪ The Ontario Energy Board recently upheld the $1/MWh export charge from IESO. However, the IESO will be (1) conducting a study on appropriate export transmission service rates for Hydro One Networks' 2010 rate process; and (2) will start negotiations with the NYISO to pursue a reciprocal arrangement to eliminate export charges. The IESO will begin discussions with its neighbors early in 2008 and will complete its market impact studies in 2009. The Ontario Energy Board must approve any changes to Hydro One's export transmission charges.

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Issues Pending Further Discussion *(continued)*

Issue	Description
6. Limitations Due to Loss of Large Source	▪ ISO-NE has historically limited resources above certain MW levels when tripping at higher outputs could result in reliability problems for one of the other northeastern markets. ▪ The three ISOs have filed a joint protocol with FERC on the coordination of loss of source procedures. Operating studies of the loss of source, including the Phase II HVDC line connecting Quebec and New England, have been updated and approved. Planning studies are underway by the Joint ISO/RTO Planning Committee (JIPC) and were discussed at the March 23rd IPSAC meeting. ▪ Analysis of potential of short-term transmission changes (series reactors) that could relieve the severity of the loss of source contingencies were discussed at the December 14, 2007 IPSAC meeting. They have been shown to produce marginal benefits and to introduce potential operating problems. They were discussed at the December 14, 2007 stakeholder meeting and it was agreed that these changes should not be pursued.

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Issues Pending Further Discussion *(continued)*

Issue	Description
6. Limitations Due to Loss of Large Source (continued)	▪ **Draft results of a long term assessment of the transmission system that reflects major improvements planned for NYISO, PJM, and ISO-NE were presented at the June 27, 2008 IPSAC meeting. This assessment includes a determination as to their effect on the limitations on the size of allowable source loss in New England. The analysis also identifies the technical feasibility of mitigating the loss-of-source through the use of voluntary load shedding. Compatibility of such a mechanism with existing reliability rules must also be determined. The preliminary results suggest that the loss of source limit could potentially increase to a 1,500 MW to 1,600 MW level by the 2012 timeframe. A pre-feasibility study that determines the impacts of upgrading the Plattsburgh-Vermont tie to 230kV and of adding a 345kV tie between Southwest Connecticut and Westchester will also be discussed with stakeholders. These improvements could result in a further increase in the loss of source limit.** Additional study results will be discussed at an IPSAC meeting planned for the 4th quarter 2008 As needed, further analysis will then identify and analyze representative system improvements for discussion with stakeholders in 2009.

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