

**Northeast ISOs
Seams Resolution Report
History of Seam Issues Resolution**

Broader Regional Markets

P21 NORTHEAST GENERATOR ATTRIBUTES TRACKING (GAT) SYSTEM

Green power suppliers need transparent and efficient tracking of the attributes of green power traded across the ISOs that assures that no double counting occurs.

- NY is working with market participants to determine the suitability of adapting the New England Generator Information System (GIS) to New York markets. 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. On September 24, 2004, the New York State Public Service Commission (PSC) issued its Order on the Renewable Portfolio Standard that outlines a centralized procurement process for renewables. A workshop on the need for a GATS system, sponsored by the PSC and New York State Energy Research and Development Authority (NYSERDA), was held on July 14, 2005. On September 21, 2005, the PSC issued a State Administrative Procedure Act (SAPA) notice stating that it is considering authorizing PSC Staff and NYSEERDA, in consultation with the NYISO, to begin the design of a certificate-based tracking and trading system. In the RPS Program January 26, 2006 Order in Case 03-E-0188, the New York Public Service Commission expressed its inclination to modify the current Environmental Disclosure Program to include an attributes accounting system similar to systems used in other states. The NYISO, NYPSC, and NYSEERDA met on December 19, 2006 to discuss the PSC's implementation schedule and to review the potential involvement of the NYISO in such a system.
- NYISO is supporting the NYSEERDA and NYDPS staff effort to develop a comprehensive set of functional requirements for a New York GATS. (Q2-2009)
- The IESO is awaiting direction from government before proceeding further on this initiative.
- PJM Environmental Information Services Inc (PJM-EIS), a wholly owned subsidiary of PJM Technologies, launched its Generation Attribute Tracking System (GATS). The system was placed in service in September 2005. The system is now being used by PJM LSEs to demonstrate compliance with RPS programs in five PJM jurisdictions (NJ, MD, DC, DE, and PA). As of March 2008 there are 181 subscribers and 342 registered renewable generators in GATS. 22 of these registered renewable generators are located outside of PJM in regions where a tracking system does not currently exist. Each of these external facilities has qualified for one or more PJM-state RPS programs, and GATS facilitates their participation and enhances their liquidity.
- In July 2002, the New England Power Pool (NEPOOL) launched the NEPOOL Generation Information System (GIS). This system tracks the generation attributes, emissions, and outputs of all generators in New England. The system also facilitates the trading of renewable energy certificates (REC) for states with renewable energy portfolio standards (RPS). Consistent with current New England state requirements, NEPOOL's Generator Information System Operating Rules recognize the need to track the attributes of all energy transmitted between New England and other ISOs. Under those rules, energy transactions with unit-specific NERC Tags are given the attributes of the particular generating station while all other energy transactions are given attributes of the system mix of the exporting control area.
- The NEPOOL GIS was the first tracking system in the nation to support multi-state RPS programs. The PJM-EIS GATS was designed on the basis of the NEPOOL GIS. Although there are some functional differences, the two systems are compatible in architecture, core functionality and look-and-feel.

P33 INTERREGIONAL CONGESTION MANAGEMENT (MARKET-TO-MARKET COORDINATION)

NYISO and PJM are evaluating a coordinated bilateral Congestion Management Process concept. PJM and NYISO met in April and May 2007 and discussed possible opportunities for coordination. The main 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. Market-to-Market Coordination is intended to more cost effectively utilize the region's collective assets to address constraints across multiple systems, resulting in lower congestion costs to consumers, and provide a more consistent pricing profile across ISO/RTO markets. (Q2 -2010)

- A straw-man proposal is planned to be developed by late 2007 with market participant review planned for early 2008. Any PJM-NYISO congestion management results are expected to be shared with ISO-NE. PJM and NYISO met in September 2007 to continue discussion of possible opportunities for coordination.
- 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.
- 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.
- The Commission issued an order November 17, 2008, approving NYISO's exigent circumstances/loop flow tariff filing in Docket No. ER09-198-001. In this order, the Commission directs NYISO to work with its market participants, NERC, and neighboring RTOs to develop potential solutions to the loop-flow problem on a comprehensive basis through a collaborative process. The Commission also directs the NYISO, within 90 days of the date of the order, to file a status report on its progress in developing solutions to the loop flow problem, including an inter-RTO congestion management process. NYISO and PJM staff met on December 12, 2008 to continue discussions on a congestion management process.
- On February 12, 2009, NYISO hosted a technical conference for market participants, with representatives from PJM, MISO, IESO and ISO-NE participating, to discuss design considerations and take stakeholder feedback on the development of an Interregional Congestion Management Process. NYISO and PJM staffs have met to discuss the details of performing the market flow calculation and have begun the internal evaluation of identifying the necessary data to be shared to support that process. The NYISO's 90 Day Status Report on Development of Solutions to Loop Flow and Development of Inter-ISO/RTO Congestion Management Process was filed on February 17, 2009.
- PJM and NYISO continue to work on the development of a market flow calculation tool. The development of a unified approach to the calculation of market flows across regions is required in order to evaluate the implications of the use of historic entitlements in a congestion management process. The NYISO presented an overview of activities in support of the development of a congestion management process at the June 26, 2009 Market Issues Working Group (MIWG) meeting. (Q2-2009)
- At the September 1, 2009 Market Issues Working Group (MIWG) meeting, the NYISO provided an update on efforts to develop a congestion management process. The current effort is focused on development of the market flow calculation tool and identification of the appropriate baseline for measuring relief provided as part of the settlement process. As noted in the presentation, the plan calls for implementation of the market flow calculation tool in 2010 with full implementation of a congestion management process between NYISO and PJM in 2011 and implementation with additional neighboring

control areas in 2013. Also included in this presentation is a schedule for the development of these proposals to support a January 2010 filing with FERC. The presentation can be found at http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-09-01/MIWG_Market_Solutions_to_Loop_Flow.pdf. (Q3-2009)

- The NYISO hosted a joint technical conference on Broader Regional Markets - Solutions to Loop Flows for stakeholders from PJM, IESO, MISO and NYISO markets on October 29, 2009. The Midwest ISO held a follow up technical conference on December 15, 2009. The focus of the technical conferences was the development of market-based solutions to address loop flow. Three market based solutions, Buy-Through of Congestion, Congestion Management (Market-to-Market Coordination) and Interregional Transaction Coordination were presented to stakeholders. A draft white paper was circulated prior to the first technical conference. A second draft is available and posted on the Midwest-ISO's web site. This paper outlines the fundamental power system dynamics responsible for loop flow, previous efforts on the part of utilities, system operators, and reliability coordinators to address loop flows and a discussion of physical phase angle regulator (PAR) and market based solutions. The four ISO/RTO market operators provided a series of presentations on both physical and market based solutions to stakeholders and solicited feedback on the proposed market based solutions. The NYISO plans to file report with FERC in mid-January 2010 detailing proposed solutions to address loop flows based on the outcome of these discussions. (Q4-2009)
- The NERC Interchange Distribution Coordination (IDC) Working Group is working on the development of an IDC calculation tool that would provide a common application for the calculation of market flows on transmission facilities across control areas. Vendor selection for development of this tool is underway with a goal of having the application on-line by November 1, 2010. The information provided by this tool would be used to implement the inter-control area congestion management and buy-through-of-congestion processes. (Q4-2009)
- The NERC IDC Working Group recommended and the NERC Operating Reliability Subcommittee (ORS) approved the implementation of an enhancement to the IDC to provide for a parallel flow visualization tool to calculate generation-to-load dispatch impacts on flowgates. The ISOs and RTOs are working with NERC to develop the processes necessary for the exchange of data needed to perform the required calculations. Implementation of the IDC enhancements is targeted to begin parallel testing by November 1, 2010. (Q1-2010)
- Implementation of a market-to-market coordination process between PJM and NYISO is dependent upon the implementation of NERC's Parallel Flow Visualization tool targeted for deployment in November 2010. Following the implementation of this tool, the ISO/RTOs intend to re-engage stakeholders in the conceptual design of a market-to-market coordination process. (Q2 -2010)
- The September 27 Joint IESO-Midwest ISO-NYISO-PJM Stakeholder Technical Conference on Broader Regional Markets provided a progress update on the development of the NERC parallel flow visualization tool. Results of the calculations performed by this tool will provide the basis for establishing firm flow entitlements (FFE) and will be used to administer the settlement provisions for the market-to-market protocol between NYISO and PJM. The technical conference presentation also included an overview of the market-to-market protocol with examples illustrating the market and settlement process. (Q3 -2010)

P36 LONG-TERM SOLUTION FOR UNSCHEDULED LAKE ERIE LOOP FLOWS

- Unscheduled power flows, particularly around Lake Erie, can negatively impact both electric system reliability and market operations. The NYISO is conducting a comprehensive investigation of transaction scheduling and pricing protocols and incentives in order to assist its efforts to work with PJM, MISO and IESO to develop an alternative long-term solution to mitigate the market and reliability impacts of unscheduled Lake Erie power flows. The results of this ongoing analysis have been, and will continue to be, shared with stakeholders to facilitate an informed discussion of a viable long term solution for managing loop flow. FERC's July 16, 2009 Lake Erie Report/Order orders the NYISO to "expeditiously develop long-term comprehensive solutions to the loop flow problem with its neighboring

RTOs, including addressing interface pricing and congestion management. NYISO is required to submit a compliance filing to FERC detailing its proposed solution, including necessary Tariff revisions by mid-January 2010. Executives from PJM and the NYISO met on August 12, 2009 to address the July 16, 2009 FERC order, physical solutions and market solutions to address circuitous transaction schedules. (Q3-2009)

- On September 16, 2009, FERC issued an Order Granting Clarification to the NYISO request for clarification or rehearing of the Commission's order issues July 16, 2009. In this Order, FERC states "we clarify here that NYISO must address, in its 180-day report, all solutions to the Lake Erie loop flow problem, including but not limited to: (i) the implementation status of the Ontario-Michigan PARs; (ii) the progress that has been made on the operating agreements for the Ontario-Michigan PARs; and, (iii) the complementary role that physical controls will play in the comprehensive solution to the Lake Erie loop flow problem." (Q3-2009)
- The NYISO hosted a joint technical conference on Broader Regional Markets - Solutions to Loop Flows for stakeholders from PJM, IESO, MISO and NYISO markets on October 29, 2009. The Midwest ISO held a follow up technical conference on December 15, 2009. The focus of the technical conferences was the development of market-based solutions to address loop flow. Three market based solutions, Buy-Through of Congestion, Congestion Management (Market-to-Market Coordination) and Interregional Transaction Coordination were presented to stakeholders. A draft white paper was circulated prior to the first technical conference. A second draft is available and posted on the Midwest-ISO's web site. This paper outlines the fundamental power system dynamics responsible for loop flow, previous efforts on the part of utilities, system operators, and reliability coordinators to address loop flows and a discussion of physical phase angle regulator (PAR) and market based solutions. The four ISO/RTO market operators provided a series of presentations on both physical and market based solutions to stakeholders and solicited feedback on the proposed market based solutions. The NYISO plans to file report with FERC in mid-January 2010 detailing proposed solutions to address loop flows based on the outcome of these discussions. (Q4-2009)
- On January 12, 2010 NYISO filed a report with FERC outlining proposed Broader Regional Markets initiatives to improve the coordination of power system scheduling across the grid. The proposed market enhancements were developed in collaboration with neighboring grid operators taking into account input from market participants. Key aspects of the proposal include Buy-Through of Congestion, Market-to-Market Coordination, Interface Pricing Revisions, Interregional Transaction Coordination, and the installation and coordinated operation of PARs to more closely conform actual power flows to scheduled power flows. Additional supporting filings were completed and submitted to FERC prior to February 2, 2010 by the Midwest ISO, IESO, and PJM. (Q1-2010)
- The plan has received largely favorable comments from a number of parties including other ISOs and market participants. The ISOs and RTOs continue to work together to develop design details for each of the plan's proposals. Efforts are currently underway to develop detailed designs for stakeholder review and approval per the timelines outlined in the NYISO compliance filing. NYISO anticipates the scheduling of NYISO stakeholder and inter-ISO stakeholder meetings to discuss these design plans. The NYISO looks forward to receiving guidance from FERC on the proposed plan and the comments submitted by stakeholders. (Q1-2010)
- On February 12, 2010, the NYISO submitted an answer to the FERC that opposed ITC's request (a) for a declaration from the Commission that a regional cost sharing agreement for ITC's Bunce Creek PARs would be consistent with Commission precedent, and (b) that the Commission mandate participation by the NYISO and New York stakeholders in regional cost sharing discussions related to the multi-regional allocation of the cost of ITC's Bunce Creek PARs. The NYISO's answer raised both legal and equitable concerns with ITC's proposal. (Q1-2010)
- IESO, Midwest ISO, NYISO, and PJM have continued to hold weekly discussions and periodic in-person meetings regarding the six initiatives identified as part of the Broader Regional Markets effort to develop comprehensive long-term solutions to address Lake Erie loop flows. A third joint Broader Regional Markets - Solutions to Loop Flows stakeholder technical conference is planned for the third quarter of 2010. This conference is expected to focus on the Buy-Through of Congestion. (Q2 -2010)

- At the May 24, 2010 NYISO Market Issues Working Group (MIWG) meeting the ISO provided a status update ([link](#)) on each of the six Broader Regional Market Initiatives identified in its January 12, 2010 FERC filing. NYISO intends to provide a status update to FERC noting progress on each of these initiatives in July 2010. (Q2 -2010)
- NYISO stakeholders approved the conceptual design of enhancements to the interface pricing methodology for periods in which the Michigan-Ontario PARs are not available to minimize Lake Erie Loop flows at the June 2, 2010 Business Issues Committee (BIC) meeting. NYISO will continue with the design process, stakeholder approval for any necessary tariff changes, and include this effort in its 2011 budget planning and prioritization process. (Q2 -2010)
- The Midwest ISO is leading a joint study to develop a Regional PAR Coordination Operating Guide. This effort is expected to identify PARs and other controllable devices capable of influencing Lake Erie loop flows and study the potential reliability and market impacts of better coordinated operation. Upon completion of the analysis and necessary updates to the existing Commission-accepted PAR operating protocols, regional operating guide recommendations will be developed and implemented by the ISOs/RTOs to better manage Lake Erie loop flow through the coordinated operation of the identified significant controllable devices. The study is expected to begin early in the third quarter of 2010 and be concluded by the first quarter of 2011. (Q2 -2010)
- On July 15, 2010, FERC issued an order providing conditional approval for the broader regional markets initiatives proposed in NYISO's January 12, 2010 filing. On August 16, 2010, the NYISO filed a report with FERC providing a status update on the Broader Regional Market Initiatives including responses to a series of questions posed by FERC in its July 15, 2010 order. PJM and MISO also responded to FERC's questions. (Q3 -2010)
- On September 27, 2010 PJM hosted a Joint IESO-Midwest ISO-NYISO-PJM Stakeholder Technical Conference on Broader Regional Markets - Developing Solutions to Lake Erie Loop Flows in Philadelphia, PA. This conference provided stakeholders with updates on a number of initiatives including: development of an interregional buy-through of congestion process, development of the parallel flow visualization tool and congestion management protocols, the regional power control device study, and an assessment of the expected market benefits associated with the broader regional market initiatives, (Q3 -2010)

P37 ENHANCED INTERREGIONAL TRANSACTION COORDINATION

The NYISO is leading an effort to develop enhanced interregional transaction capabilities at its borders with neighboring control areas. This enhancement would allow market participants to submit flexible transaction bids for evaluation on an intra-hour basis leading to sub-hourly adjustment of transaction schedules and interchange between control areas. This capability would support convergence of scheduled interchange with pricing patterns between control areas. It would also expand the pool of flexible resources available to balance intermittent generation between control areas and improve transmission utilization and price consistency between control areas. Implementation would take place in phases in conjunction with neighboring control areas.

- At the September 1, 2009 Market Issues Working Group (MIWG) meeting, NYISO provided an overview of the enhanced interregional transaction scheduling capability. The presentation can be found at: http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-09-01/Enhanced_Interregional_Transaction_Coordination_Concept.pdf. This presentation includes an overview of energy bidding, scheduling, pricing, settlement and NERC tag changes necessary for the initial phase of this project supporting intra-hour energy transactions at the NYISO-HQ interface and additional details regarding the schedule for further review with stakeholders. (Q3-2009)
- The NYISO hosted a joint technical conference on Broader Regional Markets - Solutions to Loop Flows for stakeholders from PJM, IESO, MISO and NYISO markets on October 29, 2009. The Midwest ISO held a follow up technical conference on December 15, 2009. The focus of the technical conferences was the development of market-based solutions to address loop flow. Three market based solutions, Buy-Through of Congestion, Congestion Management (Market-to-Market Coordination) and

Interregional Transaction Coordination were presented to stakeholders. A draft white paper was circulated prior to the first technical conference. A second draft is available and posted on the Midwest-ISO's web site. This paper outlines the fundamental power system dynamics responsible for loop flow, previous efforts on the part of utilities, system operators, and reliability coordinators to address loop flows and a discussion of physical phase angle regulator (PAR) and market based solutions. The four ISO/RTO market operators provided a series of presentations on both physical and market based solutions to stakeholders and solicited feedback on the proposed market based solutions. The NYISO plans to file report with FERC in mid-January 2010 detailing proposed solutions to address loop flows based on the outcome of these discussions. (Q4-2009)

- NYISO provided a series of presentations to stakeholders during the first and second quarter of 2010 detailing scheduling, e-tagging, pricing, and settlement issues related to the implementation of more frequent transaction scheduling at the borders. These presentations can be found in the NYISO Market Issues Working Group (MIWG) meeting materials. NYISO's plan is to implement five-minute scheduling capability at the HQ interface in the first quarter of 2011 and 15-minute scheduling capability at the PJM interface in the fourth quarter of 2011. (Q2 -2010)
- NYISO has been reviewing tariff changes necessary to implement the current phase of enhanced interregional transaction scheduling with stakeholders. The NYISO expects to file these tariff revisions with FERC in the fourth quarter of 2010. (Q3 -2010)
- ISO-NE presented at its September 15, 2010 Markets Committee meeting and NYISO presented at its September 20, 2010 Market Issues Working Group meeting an overview of opportunities to improve transaction scheduling at the interface between ISO-NE and NYISO. The presentation outlined potential improvements to transaction coordination including a new 'one-stop' transaction platform, higher frequency transaction scheduling, settlement revisions to reduce risk, and improved congestion pricing. The proposal outlined a plan to review market design concepts through the end of 2010 with market design approval by the end of the second quarter of 2011 and tariff filings in the fall of 2011. The two ISOs have requested feedback from their respective stakeholders on the proposal. (Q3 -2010)

14 REDUCED LEAD TIME FOR IN-DAY TRANSACTION SCHEDULING (NY)

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. This feature will also be considered as part of the NYISO rules assessment initiative currently underway. (July 2003)

- At the March 20, 2009 Market Issues Working Group the NYISO presented an overview of the current 75-minute bid lockdown. Scheduling of transaction for the next hour and 30-minute gas turbine commitments are the primary reason for this timetable. Some market participants have speculated that reducing this window would permit less expensive resources to be scheduled, however, NYISO is not aware of any changes in costs for resources that are unable to be represented prior to the 75 minute bid lockdown. As the NYISO currently evaluates every 15 minutes for the least cost solution, the NYISO sees no demonstrable benefits of reducing the bid lockdown. Subsequently, NYISO does not endorse reducing the current 75-minute window due to potential negative impacts resulting from a less secure bid set.

16 RESERVES PARTICIPATION IN ADJACENT REGIONAL MARKETS (NY-NE-HQ)

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. (April 2004).

- Reliability issues related to inter-area reserve have been addressed at the NPCC level, and concepts have been approved to be placed in NPCC Criteria documents.
- Two alternatives were explored. One was an expansion of existing ISO-NE/NYISO reserve sharing agreements, which was rejected because it would meet reliability interests but not market interests. The second alternative was preferred in that it would give access to external reserve resources to the ISO-NE and NYISO markets and would allow competition for the provision of reserve reliably and on a comparable basis.
- ISO-NE and NYISO have had preliminary implementation discussions, but the effort is presently on hold due to manpower limitations and awaits prioritization for implementation. ISO-NE's ability to aggressively pursue this initiative is very much dependent on the final schedules for completion of major market initiatives currently under way or pending FERC decisions and on the results of the collaborative priority setting process that ISO-NE conducts with its stakeholders.

17 THE IMPACT OF EXTERNAL TRANSMISSION OUTAGES ON CONGESTION RENT SHORTFALLS AND ICAP MARKETS (NY-NE)

In the TCC auctions that it conducts, the NYISO permits bidders for TCCs to specify external proxy generator buses as the injection or withdrawal locations. 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 is 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. TCCs in New York are fully funded, therefore the New York Transmission Owners are exposed to revenue shortfalls when transfer capability is reduced by external outages outside of their control. In addition, transmission outages or deratings that cause reductions in transfer capability between regions may have an impact on ICAP sales between regions. Due to the emphasis on evaluating SMD2 performance subsequent to deployment in February 2005, NY deferred stakeholder discussion on this issue. 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. (Oct 2004)

18 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 PJM's TOs. On November 02, 2006, PJM supplied 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. In May 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 and other neighboring jurisdictions to pursue reciprocal arrangements 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.
- While rate pancaking between NYISO and ISO-NE has already been eliminated, it is anticipated that the recently initiated interregional cost allocation discussions taking place under the Northeastern ISO/RTO Coordination of Planning Protocol may address the elimination of through-and-out charges between NYISO and PJM. (See Issue I 13) (Q2-2010)

114 Asymmetric Capability Year Impact on Inter-Area Capacity Sales

The NYISO capability year begins May 1st, while the capability years for both PJM and ISO-NE begin on June 1. The election to use Unforced Deliverability Rights (UDRs) for controllable tie-line capacity at an interface with an external control area is factored into the NYISO's annual planning process determining locational capacity requirements. The capacity of a controllable tie-line not used for UDRs may be modeled as emergency assistance in the planning process, subsequently reducing the locational capacity requirement. The one month difference between capability years across the ISOs may be an issue in instances where full capability year obligations or contracted capacity from one control area is transitioned meet requirements in the neighboring control area.

- NYISO and LIPA are discussing potential ways to address the impact for the May 2010 period.
- The NYISO is evaluating a number of options associated with the May/June difference; any option will likely involve changes to NYISO tariffs, manuals, and possibly New York State Reliability Council (NYSRC) rules. The NYISO expects to provide a proposal to MPs in the near future. (Q2-2009)
- NYISO has included a project to consider the extent of market rule changes, software changes and potential operations procedure changes that would be required to align NY's capability year with those of PJM and ISO-NE in its 2010 project candidate list including a recommendation to pursue this initiative. (Q3-2009)
- At the NYISO's December 16, 2009 Management Committee meeting, Market Participants approved revisions to the NYISO's Market Administration and Control Area Services Tariff to revise the Capability Year adjustment election for holders of rights to UDRs. NYISO will continue to pursue the evaluation of market rule, software and operational procedure changes necessary to align the NYISO capability year with neighboring control areas. (Q4-2009)
- On January 14, 2010 NYISO submitted tariff revisions to revise the Capability Year adjustment election for holders of rights to UDRs. The filed tariff language would require holders of UDRs to make such an election by 5:00 PM February 1, preceding the Capability Year. Draft NYISO Technical Bulletin #192, "Interim Capability Year Adjustment Procedure" outlining details of this process has been distributed to market participants for review. (Q1-2010)
- On February 3, 2010 FERC approved Tariff changes necessary to support the Capability Year adjustment election for holders of UDRs. (Q1-2010)
- At the June 17, 2010 Installed Capacity Working Group (ICAP WG) NYISO presented an overview of market design considerations related to the realignment of NYISO's ICAP Capability Year with neighboring markets. PJM and ISO-NE both employ a planning year beginning on June 1 each year and the NYISO employs two distinct six-month capability periods within a capability year beginning on May 1 each year. The NYISO requested feedback from market participants related to anticipated market benefits, additional perceived obstacles, potential impacts on exports from New York, and prioritization with respect to other ICAP market enhancements. (Q2 -2010)

Broader Regional Planning

P26 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. ISO-NE, NYISO and PJM will be presenting the results of their current efforts under the Northeastern Coordination of Planning Protocol. Under the Northeastern Coordination of Planning Protocol, a Northeast group of NYISO, PJM, & ISO-NE called "Joint ISO/RTO Planning Committee" (JIPC) met with market participants at the March 23, 2007 meeting of the Inter-area Planning Stakeholder Committee (IPSAC) and several presentations were made. PJM, NYISO, and ISO-NE are currently exchanging modeling information and load flow analysis such that work completed in 2006 can be expanded in the 2007 work-plan.

- 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 agenda and meeting materials from the Dec 14, 2007 and the June 27, 2008 meetings are posted at the following link: <http://www.interiso.com/documents.cfm>. Additional materials have been posted by each of the ISO/RTOs on their secure links.

- 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.
- During the month of August 2008, high-level meetings were held between NYISO, PJM and ISO-NE to discuss possible expansion of inter-regional planning activities. Follow-up meetings were held.
- An IPSAC meeting was held on December 11, 2008 at which the following items were discussed: the NCSP, the Joint Coordinated System Plan, the North – Country Vermont Study, PJM 500kV Expansion Studies; Environmental Issues, Interregional Wind Integration Issues and Next Steps. Additional presentations demonstrated that Queue studies and other studies have also been well coordinated and resulted in proactive system plans.
- The draft NCSP was posted on January 9, 2009 and an IPSAC conference call was held on January 30, 2009 to discuss comments on the draft Plan and to receive further input from stakeholders regarding continuing studies of interregional system assessments and system improvements.
- Following these two IPSAC meetings a final comment period was concluded on February 4 and the final NCSP was posted on March 3, 2009. The final NCSP is a comprehensive document that discusses: summaries of the RTO's system plans, interregional studies conducted by the JCSP that include the coordination of projects in the Queues having potential interregional impacts, additional coordinated planning activities and issues, wind and renewable resource studies, key environmental issues with potential interregional impacts, renewable resource development, demand side resource development, and plans for additional JIPC analysis.
- Next steps planned are summarized in the NCSP. In particular, NYISO and PJM will be conducting both reliability and production cost analyses which will focus on the New Jersey – Southeast New York area. In addition new tie lines are being explored, including further analysis between ISO-NE and NYISO, as well as their respective transmission owners, that builds upon the prefeasibility study of a tie between Plattsburgh and Vermont. Upon completion of these studies, plans call for conducting a feasibility analysis of the need for a new tie between southern New England and Southeast New York.
- An IPSAC WebEx was held May 7, 2009 to discuss the planned scopes of work and the status of study work. Preliminary results of the Vermont-New York interconnection studies and the NYISO/PJM focused study reliability analysis were presented to stakeholders at an IPSAC meeting held on June 30, 2009. Other topics presented at this meeting included an overview of other inter-regional planning activities, coordination of studies and databases, an overview of each ISO's economic planning process and plans for development of an inter-regional production costing database for future economic analysis. Economic analysis will include focused studies of the ability to transfer power across the New York - PJM interface. Additional economic analysis will focus on the ability to transfer power across the New York - New England Interface. Once the coordinated data base is fully developed, plans call for conducting economic analysis for the three ISO/RTO regions. (Q3-2009)
- An IPSAC meeting was held on June 30, 2009 when an update was provided on: the Vermont-New York New Interconnection; North Country Studies including the integration of wind resources; NYISO/PJM Focused Reliability Study that will confirm generator deliverability modeling used in resource adequacy studies; Other Interregional Planning Activities such as the planned formation of the Eastern Interconnection Planning Collaborative (EIPC); Coordination of Studies and Databases

Overview of ISO Economic Planning Processes for ISO-NE; NYISO, and PJM; and Background on joint modeling and plans for joint Interregional Economic Planning Efforts. (Q3-2009)

- An IPSAC WebEx meeting was held on November 6, 2009. The WebEx provided a status update regarding analysis of the Vermont-New York New Interconnection, NYISO/PJM Reliability and Market Efficiency Analysis and the development of a common economic database for the combined region. Process improvements for coordinating interconnection studies and transmission planning studies are under development. An in-person IPSAC meeting is being planned for mid-December in New England. (Q4-2009)
- An IPSAC meeting was held on December 18th at which the following updates were provided: (i) the results of additional analysis on the Vermont-New York Interconnection; (ii) a summary of existing and pending environmental regulations and a discussion of the potential impacts on the Northeast region; (iii) presentation on the current outlook for natural gas supply, which included estimates of significant increases in the resources available from shale gas sources in the Northeast and mid-Atlantic region, the addition of LNG terminals, and improvements in pipelines; (iv) a summary of the final results of the PJM-New York focused reliability and economic efficiency studies; and (v) a discussion of the data sources and model to be used in both the upcoming NY-NE and three ISO/RTO focused production cost analyses. Many stakeholders expressed the desire to obtain access to the detailed assumptions and data bases to be used in future studies. Some of the data bases are considered proprietary by program vendors and the ISO/RTOs are examining ways of making this information more readily available. Other stakeholders felt that the improved accuracy available from confidential ISO/RTO databases should be used subject to sharing as many assumptions as possible consistent with information policy constraints. The next IPSAC meeting is scheduled for February 2, 2010. The purpose of the call will be to discuss the status of NCSP09, a survey of transmission cost allocation methods (see I13), and next steps. (Q4-2009)
- An IPSAC WebEx was held February 2, 2010 to discuss the status of the NCSP09 report, NY-NE and three ISO/RTO focused production cost analyses, a summary of existing cost allocation methodologies currently in use by ISO/RTOs, and next steps. NCSP09 will be a comprehensive document that summarizes studies conducted by the JIPC, other coordinated interregional planning activities, and next steps. Plans call for posting the draft NCSP09 and allowing three weeks for stakeholder comment. Stakeholder comments will be discussed at a WebEx scheduled for April 30. A joint production cost data base is nearing completion and the simulation results are being validated. Plans call for JIPC presenting the model validation results before stakeholders and once their input is received, completing the production cost studies for NY-NE later this year. NYISO and PJM have agreed to begin interregional cost allocation discussions in an open and transparent stakeholder process. (see item I13) (Q2-2010)
- The draft 2009 Northeast Coordinated System Plan was posted on April 8, 2010 for stakeholder comment. On April 30 IPSAC held the final WebEx meeting for the NCSP effort to discuss the comments received on the NCSP09 and review the report with stakeholders. Many stakeholder comments were incorporated into the draft NCSP and the final NCSP09 was posted on May 24, 2010 to the regional websites. The NCSP is a comprehensive document which discusses a wide variety of planning issues and how they are coordinated throughout the Northeast. (Q2 -2010)
- As part of the April 30, 2010 IPSAC WebEx, there were discussions regarding progress made on the NYISO-NE production cost model validation and plans for completing the production cost studies. (Q2 - 2010)
- Next steps for the JIPC include: conducting high-level production cost studies focusing on PJM, NYISO, and ISO-NE, developing a detailed production cost model and conducting detailed production cost studies, identifying the need for strengthening ties among the systems, updating studies and coordinating planning studies, and addressing interregional cost allocation as may be required by the FERC. (Q2 -2010)
- An IPSAC WebEx meeting is planned for October 29 to present draft IREMM production cost study results, assumptions to be used in PROMOD studies, improvements in coordination of production cost data bases, EIPC, and responses to the FERC NOPR. (Q3 -2010)

P35 Eastern Interconnection Planning Collaborative (EIPC)

On September 1, 2009, 23 planning authorities representing about 95% of the peak load in the Eastern Interconnection, entered into an agreement to form the Eastern Interconnection Planning Collaborative Analysis Team. The goal of this initiative, the first of its kind in the Eastern Interconnection, is to provide a grass roots approach to interconnection-wide transmission analysis by the roll-up of the existing regional plans to identify potential opportunities for efficiencies between regions.

On September 14, 2009, members of the EIPC submitted a proposal, in response to a DOE Funding Opportunity Announcement (FOA), for performing interconnection-wide transmission analyses. The project proposes to facilitate the establishment of a multi-constituency stakeholder steering committee to provide strategic guidance to the technical studies. It is anticipated that this initiative will provide benefit to states, policy makers and other stakeholders by providing a coordinated analysis of scenarios of interest and developing potential transmission expansion options and cost estimates to inform their decisions.

- The EIPC held two Webinars, on October 13th and 16th, to initiate dialogue with stakeholders, to receive input and to answer questions regarding this initiative. There were over 400 participants in these webinars. (Q4-2009)
- The EIPC Technical Committee has been formed as is in the process of developing the scope and processes for beginning the process of combining and reviewing the regional plans. The EIPC is also developing plans to continue its stakeholder outreach activities. (Q4-2009)
- On December 18, 2009, the DOE announced award selections totaling \$60 million dollars in funding to develop open and transparent stakeholder processes and to conduct transmission planning analyses on an interconnection-wide basis. The awardees for the Eastern Interconnection were the EIPC proposal for developing the stakeholder process and performing the technical analysis and the EISPC proposal to establish a consensus-building process among the Eastern states to identify resource and policy options as input to the technical analysis. It is anticipated that discussions will begin in early 2010 to finalize an agreement with the DOE. (4Q-2009)
- On February 8, 2010, the EIPC submitted a revised proposal to the DOE that was restructured to conform to the amount of the award. The EIPC is engaged in negotiations to finalize an agreement with the DOE. (Q1-2010)
- On March 11, 2010, the EIPC posted a straw proposal for the formation, structure and responsibilities of the Stakeholder Steering Committee (SSC). Three Webinars were held during mid-March to discuss the straw proposal. There were nearly 400 participants in those Webinars. Written comments are due by March 31st. (Q1-2010)
- Following the Eastern-Interconnection wide stakeholder meeting held on April 22-23, 2010 in St Louis several weeks were provided for additional stakeholder comments and negotiations to finalize the SSC make-up and selection process. The final composition and process for selection of the Stakeholder Steering Committee, which will provide strategic guidance throughout the fulfillment of EIPC Topic A DOE FOA 68 grant, was finalized and posted on May 14, 2010. (Q2-2010)
- On May 25, 2010, EIPC posted the schedule and procedures to be used for the selection of sector caucus representatives and SSC members. The list of sector Caucus representatives was posted on June 23rd and the SSC members were posted on July 6th. The first meeting of the SSC was held in Chicago on July 15-16th. (Q2-2010)The EIPC contract with the DOE was finalized at the end of July 2010. (Q3 -2010)
- The EIPC Coordination Agreement Effective date was July 19, 2010. In anticipation that the Agreement would be reached, the EIPC grant work had been proceeding from as early as November 2009. Project work on the early tasks is currently underway and the Interim Report date is currently scheduled for October 31, 2011 and the Final Report is currently scheduled for October 31, 2012. (Q3-2010)
- The SSC has formed three Working Groups: Modeling; Scenario Planning and "Roll-Up" which have begun working on the development of resource/policy future scenarios for macroeconomic analysis. The next SSC meeting will be held on October 12-14th in Washington, DC. EIPC has conducted several

webinars to provide further information on the study models and to respond to stakeholder questions. Technical analysis on the “roll-up” case is underway. (Q3 -2010)

I13 INTERREGIONAL COST ALLOCATION

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. The discussions between NYISO and PJM and between NYISO and ISO-NE referred to in item P26 above also included potential consideration of a cross-border cost allocation mechanism for prospective application.

- At the December 11, 2008 IPSAC meeting there was discussion of interregional cost allocation. The ISO/RTOs current plans call for an open stakeholder process to address interregional cost allocation once projects have been identified and the individual ISO/RTO cost allocation procedures have been substantially finalized by the Commission. Stakeholders expressed different views regarding the schedule and timing for addressing such cost allocation issues. The JIPC is holding to this plan and a summary of existing regional cost allocation methods is included in the NCSP.
- The existing economic planning processes and cost allocation methodologies in the three regions were discussed in detail at the June 30, 2009 IPSAC meeting. If justifications for individual projects are identified, there are several means available in the existing ISO/RTO tariffs to pay for the projects. (Q3-2009)
- At the December 18, 2009 IPSAC meeting, the ISOs indicated their intent to summarize existing cost allocation methodologies and to make the summary available to stakeholders for discussion at the next IPSAC meeting scheduled for February 2, 2010. Stakeholders expressed differing views regarding the timeliness of starting cross-border cost allocation discussions at this time. (Q4-2009)
- At the February 2, 2010 IPSAC Webex meeting, the ISOs presented an updated summary of their existing cost allocation methodologies, as well as the PJM-MISO cross-border cost allocation process recently approved by FERC. Following IPSAC stakeholder discussions, NYISO and PJM agreed to prepare a proposed scope and schedule for addressing a cross border planning process as well as cost allocation between their Control Areas. ISO-NE is participating in the information gathering portion of cross border cost allocation discussion, and will engage its stakeholders if, and before, proposing any change to the current interregional transmission cost allocation methodology. (Q1-2010)
- In response to stakeholder comments, the scope of these discussions will include consideration of the elimination of through-and-out ("rate pancaking") charges between the regions. (See Issue I8) (Q1-2010)
- A PJM Whitepaper entitled “A Survey of Transmission Cost Allocation Issues, Methods and Practices” was posted on the IPSAC website and discussions on interregional cost allocation principles were held with stakeholders on the April 30, 2010 WebEx. NYISO and PJM discussed a proposed process for beginning discussion of cross border transmission cost allocation for their systems. (Q2 -2010)
- On June 17, 2010, the FERC issued a Notice of Proposed Rulemaking on Transmission Planning and Cost Allocation which proposes new requirements for inter-regional planning and cost allocation. The ISO/RTOs filed their comments on September 29, 2010. (Q3 -2010)