

Broader Regional Markets Report

Rana Mukerji

SENIOR VICE PRESIDENT – MARKET STRUCTURES, NYISO

Business Issues Committee Meeting

August 9, 2017, Rensselaer, NY



DRAFT – FOR DISCUSSION PURPOSES ONLY

©COPYRIGHT NYISO 2017. ALL RIGHTS RESERVED

#	Broader Regional Markets Issue	Status
1	Market-to-Market Coordination-PJM Implement mechanism to allow dispatch of generation in neighboring control area to more cost effectively address transmission constraints. The NYISO and PJM activated market-to-market coordination on January 15, 2013.	COMPLETE
2	Interface Pricing Implement mechanism to represent incremental power flows at external proxies for scheduling and pricing decisions. On March 13, 2013, FERC approved the NYISO's proposed interface pricing tariff revisions.	COMPLETE
3	15-minute scheduling with PJM Implementation of intra-hour schedule changes at external proxy. The NYISO activated 15-minute scheduling at Keystone on June 27, 2012, Neptune on October 30, 2012, Linden VFT on November 28, 2012 and HTP on June 3, 2013.	COMPLETE
4	Coordinated Transaction Scheduling (CTS) with PJM Incorporate prices from neighboring control area into dispatch to allow MPs to schedule transactions based on price differences between regions. The NYISO activated CTS with PJM on November 4, 2014.	COMPLETE
5	Coordinated Transaction Scheduling (CTS) with ISO-NE Incorporate prices from neighboring control area into dispatch to allow MPs to schedule transactions based on price differences between regions. The NYISO activated CTS with ISO-NE on December 15, 2015.	COMPLETE

#	Broader Regional Markets Issue	Status
11	<p>Evaluation of Energy Market Offer Cap</p> <p>Differences in offer caps between regions may interfere with economic and reliability driven interchange scheduling</p> <ul style="list-style-type: none"> • On November 17, 2016, FERC issued Order No. 831 requiring, among other matters, the NYISO to 1) cap each resource's incremental energy offer at the higher of \$1,000/MWh or that resource's verified cost-based incremental energy offer, and 2) cap verified cost-based incremental energy offers at \$2,000/MWh when calculating LBMPs • On December 19, 2016, NYISO filed a request for clarification/ rehearing with FERC • The NYISO's compliance filing was submitted on May 8, 2017 	ONGOING
12	<p>Reserves Participation in Adjacent Regional Markets</p> <p>Allow MPs to purchase/sell reserves and regulation between the NYISO and adjacent control areas</p>	PENDING
13	<p>Congestion Rent Shortfalls Resulting From External Transmission Outages</p> <p>Reductions in transmission capacity external to New York may result in congestion shortfalls. There is currently no mechanism to assign these costs to an external responsible party</p>	PENDING
14	<p>Elimination of Rate Pancaking</p> <p>Reciprocal elimination of fees on export transactions can increase interregional transmission scheduling efficiency. Rate pancaking between NYISO and ISO-NE has already been eliminated.</p>	PENDING

#	Broader Regional Markets Issue	Status
15	<p>Capacity Imports from Ontario</p> <p>Ontario has expressed an interest in pursuing eligibility for imports from Ontario to qualify to provide capacity in NY. The NYISO and IESO signed a Memorandum of Understanding on August 25, 2016 regarding capacity imports from the IESO Control Area</p>	COMPLETE
16	<p>Buy-Through of Congestion</p> <p>Buy-through of Congestion would provide a scheduling and settlement mechanism to account for costs in control areas that are not specified on the contract path</p> <ul style="list-style-type: none"> <i>The Lake Erie ISOs and RTOs agree that implementing Buy-Through of Congestion is not necessary at this time</i> 	PENDING
17	<p>Reciprocal Capacity Wheeling with New England</p> <p>Identify the scope of issues pertaining to auction structure, timing, planning, operations, IRM/LCR, cost allocation and other impact areas in NY and ISO-NE markets</p>	PENDING

#	Broader Regional Markets Issue	Status
6	<p>Asymmetric Capability Year Impact on Inter-Area Capacity Sales</p> <p>On February 3, 2010, FERC approved tariff revisions necessary to support the Capability Year adjustment election for holders of UDRs. On February 25, 2015, the Analysis Group presented the findings of its capacity market assessment, concluding that development of a forward capacity market structure is not warranted at this time.</p>	COMPLETE
7	<p>Coordination of Regional Day Ahead Electric Market Timing with Gas Day</p> <p>FERC directed the ISOs and RTOs to consider changes to the timing of their Day-Ahead Markets in response to changes to the gas nomination timeline. The NYISO's existing Day-Ahead scheduling practices satisfy FERC's timing requirements.</p>	COMPLETE
8	<p>Michigan-Ontario PAR Cost Allocation</p> <p>Proposal by MISO and ITC to allocate 30.9% of the cost of ITC's Michigan Ontario PARs to New York. On September 22, 2016, FERC rejected the MISO/ ITC proposal and ruled in favor of the NYISO and PJM. The NYISO completed issuance of refunds associated with this issue in May 2017 as part of the August 2016 Final Bill Close-out.</p>	COMPLETE
9	<p>Five-minute Transaction Scheduling with Hydro Quebec</p> <p>Implement economic scheduling of interchange across controllable interties via the 5 minute Real-Time Dispatch ('RTD') at the HQ Chateauguay proxy</p>	PENDING
10	<p>15-Minute Transaction Scheduling with Ontario</p> <p>Implementation of intra-hour schedule changes at external proxy</p> <ul style="list-style-type: none"> ♦ IESO has indicated that other priorities will delay the quarter hour scheduling timeline. NYISO and IESO have agreed to revisit prioritization discussions upon resolution of those factors. 	PENDING

#	Broader Regional Markets Issue	Status
18	Addressing Control Area to Control Area Capacity Transactions Identify and alleviate barriers to capacity market import and export transactions	PENDING
19	Future of the ConEd/ PSEG Wheel The ConEd/ PSEG wheel agreement expired on April 30, 2017. The NYISO and PJM worked together to identify market design changes necessary to address the expiration of this agreement. The NYISO and PJM implemented the new protocol on May 1, 2017	COMPLETE
20	RTC-RTD Forward Horizon Coordination Improvements The NYISO aims to improve modeling consistency between RTC and RTD and evaluate improvements to look-ahead evaluations to facilitate more efficient RTC-RTD scheduling and price convergence <ul style="list-style-type: none"> •The NYISO provided an initial presentation on this topic to stakeholders at the April 5, 2016 MIWG meeting •An update on this effort was provided at the September 29, 2016 MIWG meeting 	ONGOING

#	Broader Regional Markets Issue	Status
21	<p>Settlement Intervals and Shortage Pricing in Markets Operated by RTOs and ISOs</p> <p>On June 16, 2016, FERC issued Order No. 825 regarding the alignment of settlement and dispatch intervals for energy, operating reserves, and intertie transactions. The NYISO submitted its required compliance filing to FERC on January 11, 2017. FERC accepted the NYISO's compliance filing on February 24, 2017</p>	COMPLETE
22	<p>Impact to NYISO Capacity Market of ISO-NE's Proposed Revisions to the Qualification Requirements for Import Capacity Resources Seeking to Participate in ISO-NE's Reconfiguration Auctions and Bilateral Transactions</p> <p>The proposed effective date of ISO-NE's proposed revisions to the qualification requirements for "Import Capacity Resources" to participate in ISO-NE's Reconfiguration Auctions and bilateral transactions creates a substantial risk of unjustifiably increasing New York capacity prices and creating inefficient price signals in the NYISO-administered capacity market</p> <p><i>•With one modification, stakeholders approved the NYISO's proposal at the October 26, 2016 Management Committee meeting. That modification would set the Locality Exchange Factor for capacity exports from Generators located in the G-J Locality to ISO-NE at 80% from June 2017 through May 2018, rather than utilize the tariff methodology and inputs.</i></p> <p><i>•The NYISO Board of Directors upheld the Management Committee's vote</i></p> <p><i>•The NYISO filed proposed tariff revisions with FERC on November 30, 2016</i></p> <p><i>•On January 27, 2017, FERC issued an order accepting the NYISO's proposed Locality Exchange Factor methodology, but rejected the proposed one-year transitional mechanism for capacity exports from Generators located in the G-J Locality to ISO-NE</i></p> <p><i>•On June 1, 2017, the NYISO filed an informational report with the FERC concerning the NYISO's evaluation of potential additional modifications to its rules governing capacity exports from certain localities in New York, and noting that the review and development of issues and potential modifications to the rules is still ongoing</i></p> <p><i>•On June 29, 2017, the NYISO's consultant, GE Energy Consulting, presented further analysis of its Probabilistic Locality Exchange Factor Analysis, including conclusions. The NYISO requested stakeholder comments by July 14, 2017</i></p>	ONGOING

#	Broader Regional Markets Issue	Status
23	<p data-bbox="61 136 1767 365">PJM Proposal for Pro-Forma Pseudo-Tie Agreements</p> <p data-bbox="61 191 1767 365">PJM has asked the NYISO to review its proposed <i>pro forma</i> pseudo-tie agreement that would apply to NYCA Generators that sell all or a portion of their capacity to PJM. PJM would provide commitment and dispatch instructions to pseudo-tied generators; such generators would be committed and dispatched to meet PJM’s needs, rather than the NYISO’s needs. The NYISO has concerns about using PJM’s proposed pseudo-tie agreement for Generators located in the NYCA. The NYISO is prepared to work with PJM to evaluate potential alternate solutions that would be acceptable to both parties.</p> <hr/> <ul data-bbox="61 376 1767 584" style="list-style-type: none"> <li data-bbox="61 376 1767 409">•<i>The NYISO discussed this topic at the February 22, 2017 MC meeting and the February 28, 2017 MIWG meeting</i> <li data-bbox="61 425 1767 496">•<i>NYISO submitted comments to FERC in response to PJM’s March 9, 2017 filing to modify its rules governing generation resources physically located outside the PJM region that sell capacity to PJM</i> <li data-bbox="61 513 1767 584">•<i>On May 8, 2017, the NYISO submitted comments in response to Potomac Economics’ Section 206 complaint regarding PJM’s pseudo-tie requirements for external capacity resources</i> 	ONGOING

#	Broader Regional Markets Issue	Status
24	<p data-bbox="61 186 575 219">NYISO/PJM Ramapo PAR Cost Allocation</p> <p data-bbox="61 241 1754 339">The NYISO and PJM have initiated a joint stakeholder process to consider modifying their Joint Operating Agreement (JOA) to include an appropriate cost recovery and sharing mechanism for the purchase, installation, and maintenance of transmission equipment for transmission facilities that provide benefits to both ISOs.</p> <ul data-bbox="61 350 1754 612" style="list-style-type: none"> <li data-bbox="61 350 1141 383">•NYISO and PJM presented on this topic as part of a joint meeting on March 10, 2017 <li data-bbox="61 405 1711 470">•The NYISO presented a proposal at the April 10, 2017 MIWG meeting for cost recovery under the NYISO tariffs; PJM and the NYISO held a joint meeting to further discuss this issue on April 18, 2017 <li data-bbox="61 492 1744 558">•Stakeholders approved the NYISO's proposal for Ramapo Phase Angle Regulator cost recovery under the NYISO tariffs at the May 31, 2017 Management Committee meeting <li data-bbox="61 579 1647 612">•On June 21, 2017, the NYISO filed proposed revisions to OATT Rate Schedule 1 regarding cost recovery for the Ramapo PARs 	ONGOING
25	<p data-bbox="61 623 755 656">Ramapo PAR MW Adjustment in the Day-Ahead Market</p> <p data-bbox="61 678 1754 809">Since 2013, the Phase Angle Regulators (PARs) at Ramapo have been operated in real-time to meet a target flow that includes 80% of Rockland Electric Company (RECo) load. To better align the Day-Ahead Market (DAM) and Real-Time Market, the NYISO intends to include a MW adjustment to the Ramapo PARs' schedule in the DAM related to RECo load deliveries. The Ramapo PAR MW Adjustment in the DAM was implemented beginning with the June 14, 2017 market day.</p>	COMPLETE

The Mission of the New York Independent System Operator is to:

- Serve the public interest and
- Provide benefit to stakeholders by
 - Maintaining and enhancing regional reliability
 - Operating open, fair and competitive wholesale electricity markets
 - Planning the power system for the future
 - Providing factual information to policy makers, stakeholders and investors in the power system



www.nyiso.com

ISO NEW YORK
INDEPENDENT
SYSTEM OPERATOR

DRAFT – FOR DISCUSSION PURPOSES ONLY

©COPYRIGHT NYISO 2017. ALL RIGHTS RESERVED