

NYISO Consumer Interest Liaison Weekly Summary

December 4 – December 8, 2017

Notices:

- *The New York Independent System Operator (NYISO) has released its plans for creating a market participation model designed to maximize the economic and societal benefits of Energy Storage Resources (ESRs). In a new report, [The State of Storage: Energy Storage Resources in New York's Wholesale Electricity Markets](#), the NYISO examines the technical, regulatory, and market landscape for ESRs and outlines the steps it will take to develop a full market participation model.*
- *New York's electric system has the **capacity to meet demand for electricity and the necessary operating reserves** during extreme cold weather conditions through the 2017-2018 winter season. The NYISO anticipates a peak demand of 24,365 megawatts (MW) for this winter season. Last winter peak demand reached 24,164 MW when weather was milder than the 10-year and 20-year averages. New York's record winter peak was set in 2014, during polar vortex conditions that pushed demand to 25,738 MW.*
- *At the December 13 BIC meeting the NYISO will be presenting, for informational and discussion purposes only, **a summary of the complete market design proposal and accompanying draft tariff language for the on ramps/off ramps project**. The complete market design for on ramps/off ramps was developed by the NYISO with the benefit of extensive discussions with and input from stakeholders at several ICAP Working Groups throughout the second half of 2017. It is a comprehensive rule set, including the methodology, to create new Localities and eliminate existing Localities that aligns with the NYISO Reliability Planning Process. At the request of stakeholders, additional time will be provided to review the complex proposal. Therefore, the NYISO will return to the ICAP Working Group in January 2018 to provide stakeholders with further opportunities to review and comment on the proposal and revised tariff language before returning to a February 2018 BIC meeting.*

Meeting Summaries:

Tuesday, December 5, 2017

Joint Installed Capacity/Market Issues Working Group

Price Correction Deadlines: Proposed Tariff Changes

Michelle Gerry of the NYISO presented the revised proposal to modify the current price correction deadlines and the applicable tariff revisions. Ms. Gerry provided a review of the November 2, 2017 MIWG presentation; explaining the need for the deadline revisions while noting stakeholder feedback

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from that presentation. In response to the stakeholder input received, the NYISO is proposing to modify the price correction deadline to four business days after the market day for real-time prices, and two business days after the market day for Day-Ahead prices. The proposal will be sent to the BIC and MC meetings for approval in January. To see Ms. Gerry's complete presentation, please go to:

http://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=bic_miwg

Constraint Specific Transmission Demand Curves

Jennifer Boyle of the NYISO presented a review of the Constraint Specific Transmission Demand Curves study objectives; to identify the circumstances and system conditions in which transmission constraints are potentially being under or overvalued. The scope of the study will have three steps:

1. *The NYISO will perform preliminary data analysis to gather historical results. The results will assist in determining the design of the market prototype to run market simulations.*
2. *The NYISO will conduct simulations to assist in determining appropriate transmission demand curve MW and pricing values for different constraints and system conditions.*
3. *Publish a study report including simulations results. The results gathered will allow the NYISO to make an informed recommendation as to how to value transmission constraints considering the appropriate level of tradeoffs and maintaining reliable dispatch.*

Ms. Boyle reviewed a summary of stakeholder feedback provided during an earlier presentation on the topic. Ms. Boyle also reviewed historical analysis results on the recently implemented changes to the Transmission Constraint Pricing logic from the Market Monitoring Unit's recent Q3 2017 State of the Market report. The NYISO is currently conducting a historical analysis that will assist in framing the transmission demand curve MW and pricing values to be used in the simulations conducted as part of the second step of the NYISO's analyses.

Some potential Transmission Demand Curve options were also discussed with stakeholders. The NYISO will return to the January 16, 2018 MIWG to review the results of the historical analysis and proposed transmission demand curve criteria for use in market simulations. The NYISO anticipates completing the study and presenting the results in Q3 2018. To see Ms. Boyle's complete presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-05/Constraint%20Specific%20Transmission%20Demand%20Curves_MIWG_12-05-2017.pdf

RTC/RTD Convergence Analysis Overview

Pallavi Jain of the NYISO provided an update to the study to identify the primary causes of systematic price divergences between Real Time Commitment (RTC) and Real Time Dispatch (RTD). The study period consists of data from July 1, 2016 through June 30, 2017. The data and correlations reviewed included:

- *Magnitude and frequency of differences between LBMPs in RTC and RTD*
- *Correlation between RTC-RTD congestion differences and LBMP differences*
- *Correlation between load forecast differences and LBMP divergences*
- *Correlation between Desired Net Interchange(DNI) changes and LBMP divergences*
- *Correlation between regulation shortages and DNI changes*
- *Case studies of three specific occurrences of high price divergences*

While Ms. Jain was leading an overview of the conclusions of the study, stakeholders requested that the price divergences between RTC and RTD be expressed in a percentage of variance as well as dollar value to demonstrate the relationship to Locational Based Marginal Prices (LBMPs).

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There are several potential market design enhancements currently under consideration by the NYISO that may improve convergence between RTC and RTD. It was noted that the scope of the study was to investigate and determine the root causes for price divergence for future project consideration and not to provide or implement specific solutions at this time. The white paper, which will be released December 20, 2017, will offer a list of potential projects for future consideration that may improve price convergence between RTC and RTD. To see the complete presentation please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-05/RTC-RTD%20Convergence%20Analysis%20Overview_12-05-17_MIWG.pdf

Market Assessment with 50% Renewable Generation

Ethan Avallone of the NYISO provided an update on the Integrating Public Policy – Market Assessment with 50% Renewable Generation project to:

- A. Study the impacts of de-carbonization goals and the high penetration of low carbon or carbon-free resources on the current NYISO energy and capacity markets , and
- B. Study whether other market products or changes to the existing market structure will be necessary to meet the anticipated reliability needs

Mr. Avallone provided links to prior NYISO presentations on this topic for stakeholder reference dating back to September 16, 2016. The NYISO is considering a broad spectrum of market product and structure enhancements that may be necessary to incent market participants to meet the reliability needs anticipated as a result of NYS policy to have 50% renewable generation by 2030. Mr. Avallone provided several potential energy market and product changes for NYISO and stakeholders to consider and evaluate. Several market rules were identified for future consideration as the markets evolve with the addition of large amounts of intermittent power suppliers.

Zachary Stines of the NYISO led a discussion of potential capacity market aspects that may require future consideration.

Several of the issues for future consideration will require much more detailed studies and will therefore be subject to the project prioritization process of the NYISO budget process. These projects will be addressed through future budget discussions as the time for the need approaches.

A stakeholder noted that caution should be exerted to introducing new products and rule changes to avoid adding additional cost to consumers prior to the actual need.

The NYISO will release the white paper on the Market Assessment with 50% Renewable Generation in December 2017 and a discussion with stakeholders is scheduled for December 20, 2017. To see the complete NYISO presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-05/IPP%20Market%20Structure%20Assessment%20Dec%202017%20FINAL.pdf

Carbon Pricing in New York’s Wholesale Markets

Dr. Samuel Newell of The Brattle Group (Brattle) led a discussion with stakeholders on the Carbon Pricing in New York’s Wholesale Markets report (Report). Dr. Newell began by explaining the purpose of pricing carbon emissions in the energy marketplace and the alternative methods available. Judy Chang of Brattle detailed different programs across the North America and internationally that are currently being used for carbon abatement in wholesale competitive markets. Ms. Chang explained the pros and cons of the alternatives and contrasted the programs with the concept of including the cost of carbon in supplier’s offers.

Mr. Newell followed with design topics to consider if including the cost of carbon into price formation. Topics discussed with stakeholders included:

- Allocation of collected funds

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- Leakage
- Internal Emissions Rates
- Special Considerations
- Other NYISO Processes and Markets
- Other State Policies and Programs

New Business

- At the December 13 BIC meeting, the NYISO will present a summary of the complete market design proposal and accompanying draft tariff language for the on ramps/off ramps project for informational and discussion purposes only. The complete market design for on ramps/off ramps was developed by the NYISO with the benefit of extensive discussions with and input from stakeholders at several ICAP Working Groups throughout the second half of 2017. It is a comprehensive rule set to create new Localities and eliminate existing Localities that aligns with the NYISO Reliability Planning Process. At the request of stakeholders, additional time will be provided to review the complex proposal. Therefore, the NYISO will return to the ICAP Working Group in January 2018 to provide stakeholders with further opportunities to review and comment the proposal and revised tariff language before a February 2018 BIC meeting.
- The NYISO followed up on the stakeholder request to make it easier and faster to access information on governance projects in a single location on the website. The launch of the NYISO Key Topics Tracker will allow market participants to:
 - a. Track committee and working group documents associated with key projects in one location; from project kick-off to completion
 - b. View regulatory filings associated with each Key Topic
 - c. View description of Key Topics and sort documents by date or status (open, closed or hold)

Thursday, December 7, 2017

System Operations Advisory Subcommittee

NYISO Operations Report – November 2017

Peak Load

The peak load for the month was 20,712 MW which occurred on Friday, November 10, 2017, HB17. Reserve requirements were as follows:

Reserve	10 Sync	Non-Sync	30 Min
Requirement	655	1,310	1,965
For Hour	1,906	3,452	5,122
DSASP Cont.	88	0	88

Major Emergencies -- None

Alert States -- Alert State was declared on 7 occasions:

- 1 – System Frequency – 0 Low/1 High
- 3 – Exceeding Central East Voltage Contingency Limit
- 3 – Emergency Transfer Declared

Alert state was declared 7 times during November of 2016

Thunder Storm Alerts

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0 TSA was declared in November 2017 for a total of 0 hours

Reserve Activations – 3

Emergency Actions – None

TLR3 Declared – 0 for a total of 0 hours

FERC Filing

December 8, 2017

NYISO tariff revisions to comply with a November 11, 2017 order on NYISO's May 2017 filing to comply with FERC Order No. 831 - Offer Caps

FERC Orders

December 7, 2017

FERC Letter Order accepting NYISO's October 16, 2017, OATT and Services tariff revisions regarding comprehensive interconnection process improvements

Filings and Orders:

http://www.nyiso.com/public/markets_operations/documents/tariffviewer/index.jsp