NYISO Consumer Interest Liaison Weekly Summary

December 18 – December 22, 2017

Notices:

- *We are pleased to announce that the newly revised and updated eTariff Viewer is now available for your use at the following NYISO website link:* ***http://go.pardot.com/e/302901/cuments-tariffviewer-index-jsp/wd53/31519904***

- *The NYISO has released its* ***RTC-RTD Convergence Study****. The report can be found under the December 5, 2017 Market Issues Working Group (MIWG) materials. The NYISO will be looking for feedback from market participants during January 2018.,* ***Report***

- *The 2018 Installed Capacity Load Forecast has been posted on the NYISO website:* ***2018 ICAP Forecast***

Meeting Summaries:

Tuesday, December 19, 2017

Joint Market Issues/Price Responsive Load Working Groups

Distributed Energy Resources Market Concept Proposal Summary

Michael Lavillotti of the NYISO presented a summary of the Distributed Energy Resources Market Design Concept Proposal (MDCP). This MDCP is the second step in the market design process, and builds on the ideas outlined in NYISO's February 2017 DER Roadmap and subsequent stakeholder discussions. Beginning in 2018 the NYISO will develop an appropriate set of rules for DER integration. The definition for DER was clarified:

- DER shall be defined as "resources qualified to participate in NYISO's Energy, Ancillary Services, and/or Capacity markets that are (i) capable of changing their load, or (ii) capable of injecting 20 MW or less onto the transmission and/or distribution system, at the NYISO's direction."
- Dispatchable DER are a subset of DER that are capable of responding in real-time (at least on a five-minute basis) to NYISO directions.

It was noted that some details within this definition will be refined as the effort progresses through 2018. Mr. Lavillotti also described the DER Coordination Entity (DCE), which has the responsibility of dealing with registration and communication issues.
Next measurement & verification (M&V) and measurement & control M&C) was detailed with several references to the recently completed Meter Data study performed by E-Cubed Policy Associates, which can be found at:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-13/NYISO%20Meter%20Data%20Study%20Report.pdf.
Finally, dual participation was discussed to accommodate resources that wish to provide service to the NYISO-administered wholesale markets and to another entity (*e.g.*, utility or host facility). The NYISO is currently engaged with the Joint Utilities to determine how to coordinate dual participation. At this time, NYISO intends to develop rules for dual participation for the dispatchable DER participation model only.
Mr. Lavillotti ended his presentation by noting the progress of the DER Pilot Program and provided a timeline for the continuing process, with enrollment extended through January 31, 2018. The NYISO anticipates the program to begin pilot testing in June 2018.
To see the complete presentation please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-19/Distributed%20Energy%20Resource%202017%20Concept%20Paper%20Summary.pdf
To see the complete Distributed Energy Resources Market Design Concept Proposal, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-19/Distributed%20Energy%20Resources%202017%20Market%20Design%20Concept%20Proposal.pdf

Tuesday, December 19, 2017
Load Forecasting Task Force
2018 Final ICAP Forecast
Arthur Maniaci of the NYISO presented the 2018 final Installed Capacity (ICAP) load forecast. Mr. Maniaci detailed some minor changes made to the preliminary load forecast presented at the December 14, 2017 LFTF meeting. The final ICAP load forecast is the culmination of several LFTF meetings that coordinate Transmission Owner forecasts, incorporating losses and weather adjustments, with the NYISO load forecast. The final ICAP load forecast for 2018 is:

- NYCA 32,902.5MW
- G-J Locality 15,917MW
- J Locality 11,538MW
- K Locality 5,375MW

To see Mr. Maniaci's complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg_lftf/meeting_materials/2017-12-19/2018_ICAP_V3.pdf

Wednesday, December 20, 2017
Market Issues Working Group
Spring 2018 Centralized TCC Auction Survey and Discussion
Gregory Williams of the NYISO presented the results of the Spring 2018 Centralized TCC auction survey. Prior to each TCC capability period, the NYISO conducts a poll of current TCC Market Participants (MPs) to solicit information about the demand for TCCs of various durations in future

auctions as well as the desired structure of the Spring 2018 Centralized TCC Auction. Mr. Williams provided the distribution of the responses to the poll as well as written comments received. In response to stakeholder questions, Mr. Williams explained that the effort to implement the changes suggested in some of the comments would be require proposals going through the project prioritization process. The Spring 2018 Centralized TCC auction will consist of 8 rounds featuring two year TCCs, one year TCCs, six-month TCCs and Balance of Period TCCs. To see the complete presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-20/Spring%202018%20TCC%20Auction%20Survey%20and%20Discussion-FINAL-Approved.pdf

Energy Storage Integration Market Design Concept Proposal Summary

Daniel Noriega of the NYISO provided a summary of the Energy Storage Integration Market Design Concept Proposal. Mr. Noriega outlined the criteria that could be used to capture the unique characteristics of energy storage resources and allow the market to leverage, for example, their capability to alleviate energy over-supply, support intermittent generation and smooth load. The following topics were explained in detail:

- *Minimum size eligibility*
- *Aggregations framework*
- *Proposed offer parameters for Energy Storage Resources (ESRs)*
- *Scheduling logic*
- *Settlements framework*
- *Mitigation framework*

Mr. Noriega noted several issues to be addressed beginning in 2018:

- *Treatment of Energy Level when scheduling ESRs to provide Regulation*
- *Dual-participation provisions*
  - *The NYISO intends to consider ESR and DER dual participation rules in 2018*
- *Capacity market participation*
  - *The NYISO intends to address ESR and DER capacity market rules in 2018*
- *Pricing considerations for ESR minimum generation/load blocks*
- *Additional topics that the NYISO may pursue in future years*
  - *Energy Level/State of Charge (SoC) management*

The NYISO will continue to seek stakeholder feedback on the ESR Market Design throughout 2018. To see the NYISO presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-20/Energy%20Storage%20I-O%20MIWG%2017%2012%2020.pdf

Market Assessment for Accommodating Public Policy

Ethan Avallone of the NYISO presented a summary of the Wholesale Market Assessment of the Impact of 50% Renewable Generation (the Report). The NYISO recently released the Report following a year-long study performed by modeling hypothetical energy and capacity market scenarios to understand the effects that the New York State Clean Energy Standard (CES) could have on the wholesale markets. The NYISO's goal was to provide stakeholders with information regarding potential market conditions after the incorporation of renewable resources to meet 50% of the NYCA load.

Mr. Avallone led a review of the assumptions and noted the observations from the Energy Market study indicated:

- *Existing flexible resources were dispatched down, replaced by behind the meter resources and the renewables modeled as virtual supply.*
- *Reduced ramp capability observed (ramp-up and ramp-down).*
- *Persistently low Energy LBMP's.*
- *Increased net load volatility in RT.*
- *Incremental Renewables were not fully deployed.*
- *Existing renewables were curtailed.*
- *Regulation shortages.*

Zachary Stines spoke to the capacity market results of the study and led a review of the assumptions. The capacity market results indicate that:

- *ICAP reference points increased*
  - *Driven by the use of the assumption that the Demand Curve peaking plant receives 0$/kW-y net Energy and Ancillary Services (EAS) revenue (see the sensitivity analysis for alternate assumptions)*
- *ICAP minimum requirements increased for the NYCA, remained nearly flat for the Localities*
  - *Adding renewable resources increases the de-rating factor (locational EFORd) and thus increases the requirement*
  - *Adding behind the meter solar decreases peak load and thus decreases the requirement*
- *Demand Curves became steeper*
  - *Driven by higher reference points*

It was noted that Winter supply exceeds the zero crossing point in all locations.
The study and stakeholder feedback will be incorporated into a 2018 Deliverable of a Market Design Concept Proposal entitled "Master Plan" to aid in the project prioritization process and will begin in January 2018.To see the complete presentation by the NYISO, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-20/2017%20Market%20Assessment%20with%2050%20percent%20Renewables%20Study%20Results%20and%20Market%20Design%20Concepts.pdf
To see the complete Integrating Public Policy: A Wholesale Market Assessment of the Impact of 50% Renewable Generation report, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2017-12-20/2017%20Market%20Assessment%20with%2050%20percent%20Renewables%20Report.pdf

Thursday, December 21, 2017
Management Committee
Motion #1:
The Management Committee (MC) approves the October 25, 2017 meeting minutes.
The motion passed unanimously with one abstention.

FERC Filing

There were no filings made to FERC by the NYISO for this week.

FERC Orders

December 20, 2017

FERC order accepted a Reimbursement Agreement (Service Agreement No. 2386) between Niagara Mohawk Power Corporation and Mid-Atlantic Interstate Transmission, LLC effective October 11, 2017, as requested

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