

NYISO Consumer Interest Liaison Weekly Summary

March 30 – April 3, 2020

Notices:

- The final version of the **Load Forecasting Manual (M-06)** has been posted to the <u>Manuals</u>, <u>Technical Bulletins & Guides webpage</u> under Manuals>Planning. All proposed changes were approved at March 18, 2020 BIC meeting.
- The April 8, 2020 BPWG meeting has been cancelled. The next meeting will be held on April 30, 2020.

Meeting Summaries:

Monday, March 30, 2020

Joint Installed Capacity/Market Issues/Price Responsive Load Working Group

Comprehensive Mitigation Review: Part A Enhancements -- Tariff

Christina Duong of the NYISO presented proposed tariff language for the renewable cap compliance filing and the Part A enhancements. Ms. Duong led a review and discussion of the revised tariff language and noted stakeholder feedback.

The filing for the renewable exemption will be filed with FERC on or before April 6, 2020. The Part A enhancements will be filed prior to the end of April 2020.

To see the redline version of the tariff revisions, please go to: https://www.nyiso.com/icapwg?meetingDate=2020-03-30

Capacity Market Reliability and Market Considerations

David Clarke of PSEG-LI presented potential challenges and enhancements to NYISO's Capacity Market and reliability metrics for effectively meeting CLCPA mandates.

Mr. Clarke posited that future challenges to the grid may include inaccurate market price signals, unbalanced resource mix, and increased customer costs. Potential difficulties of estimating an accurate Net Cost of New Entry (CONE) may not be plausible moving forward. Mr. Clarke

highlighted differing outage characteristics anticipated for a grid consisting of high intermittent resource penetration.

PSEG-LI believes that as penetration increases, renewables' capacity value declines, and net load shifts, posing reliability challenges. Mr. Clarke suggested that future discussion topics for Capacity Markets should include:

- A robust scale of UCAP credits ascribed to different resources, as a function of their penetration and temporal attributes
- Recognition of technological and development improvements (e.g. Offshore wind and "Efficacy/applicability of NERC's 1-in-10 LOLE criterion as a measure of reliability)
- Requirements to firm renewable capacity
- Parallel markets for other reliability-related asset attributes
- Alternative reliability metrics

Some stakeholders opined that these issues were more appropriately addressed through the energy markets. To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/11593028/PA%20-%20LIPA%20-%20Future%20of%20NYISO's%20ICAP%20-%2003-20-2020.pdf/0aabf5cb-04a5-ae39-f7b4-13f1ec847bd9

ESR Performance Update & Proposal

Michael DeSocio of the NYISO presented a proposal for handling performance concerns with the Energy Level management capabilities of the ESR (Energy Storage Resource) participation model in the NYISO's day ahead market. Software Performance is generally acceptable, however, performance can degrade unexpectedly when scaled up to larger numbers of ESR resources. Bidding behavior of ESRs cannot be predicted ahead of time and the model is sensitive to changes in bidding behavior. Some issues encountered include:

- Bid/Offer validation checks have been introduced where possible. However, the NYISO is not able to perform bid/offer validation that compares the offers submitted in one hour to the offers submitted in a different hour of the market-day.
- Differences between the Bids an ESR submits in different hours of a market-day can result in the cost of withdrawing (or bidding at zero) for hour 1 and the cost of injecting in hour 14 failing to cover the ESR's stated round trip efficiency losses
- The model is sensitive only when a large number of ESRs have a low round trip efficiency.
- Resources in the interconnection queue is based on Li-Ion technology (batteries) that should have a high round trip efficiency (> 85%).
- Round trip efficiency losses should be considered in the model so that that schedules are feasible

Mr. DeSocio outlined the proposal to add a provision to the tariff that would allow the NYISO to:

- Provide advanced notice to stakeholders of performance concerns no later than 4:00 p.m. on the day before Day-Ahead Bids must be submitted for a Day-Ahead Market (DAM) day
- Suspend the using of use of ISO-Managed Energy Levels with Day-Ahead Market offers until the performance concerns have been addressed.

This amendment to the tariff will provide clarity on how the NYISO will handle managing future performance issues caused by the introduction of ESR energy management in the Day-Ahead Market. Mr. DeSocio reviewed the proposed tariff language with stakeholders. This revision would be bundled with the other ESR revisions that were recommended for Board of Directors approval at the

March 25, 2020 MC, to be filed in April 2020 with FERC. To see the complete presentation, please go to:

 $\frac{https://www.nyiso.com/documents/20142/11593028/ESR\%20Scheduling\%20Performance\%20Updatee\%20Proposal\%20vFinal.pdf/ff6ed68a-4743-9beb-4fe9-0a9d3330ec51$

Grid in Transition: Modeling and Assumptions

Roger Lueken of The Brattle Group (Brattle) updated the Grid in Transition study modeling and assumptions.

Mr. Lueken led a review of the policies that are driving the grid in transition, highlighting:

- Climate Leadership and Community Protection Act (CLCPA)
- RGGI
- ZEC Program
- DEC NOX rule

A timeline was provided to illustrate when the key policies and mandates will be incorporated into the study. The issue of "netting" carbon emissions with exporting renewables was raised by stakeholders and it was suggested that Brattle discuss the interpretation of the CLCPA with the NYISO to make a determination. Mr. Lueken explained the trend to 70% renewable generation in 2030 will assume linear growth. ICAP demand curves and ancillary services requirements were also detailed in the model assumptions.

The modeling of supply was presented with the 2019 Gold Book as the primary source. Most generators will be aggregated by zone and type (e.g., gas CC & CT, nuclear, OSW) with a subset modeled individually due to unique operating characteristics. Fuel hubs were noted by location. Mr. Lueken explained the factors to be used for the planned builds and retirements. Mr. Lueken highlighted new resource technologies such as renewable gas, varying duration storage, small modular nuclear, etc., and noted both the technologies that would be included and the ones that would be excluded from the assumption matrix. Technologies not used in the base case may be studied in a scenario format.

- Mr. Lueken next defined the load assumptions to be used for the study. Two load cases will be used: Gold Book assumptions plus a 0.7 degree warming trend per decade will be used for the reference case (per the Climate Change Phase 1 study)
- *CLCPA* aggressive electrification and energy efficiency case.

Load shape change assumptions due to electrification policies were provided in graph format. In conjunction with NYISO, Brattle developed a 5-zone "pipe-and-bubble" representation of the New York grid. Consideration is being given for Brattle to provide a "one off" sensitivity reflecting the benefits of increased transmission. Brattle will model external interties consistent with historical flows, but will reflect some ability of neighboring systems to help balance NY renewable generation. Mr. Lueken explained the approach to the selection and weighting of representative days. Brattle will use ten stand-alone days to effectively represent a full year by selecting and weighting the days carefully. Net load shapes will evolve from 2020 to 2040 with electrification and renewables growth. Additionally, information was provided on the marginal capacity of renewable, intermittent resources highlighting the declining capacity value of wind, solar, and storage. Flexible loads were presented and will reflect the ability to adjust their consumption in response to market prices. Brattle will model a subset of electric vehicles and HVAC systems as flexible.

Stakeholder feedback is encouraged throughout the development of the study and can be sent to deckels@nyiso.com.

Tuesday, March 31, 2020

Budget and Priorities Working Group

Disposition of Funds Remaining from 2019 Budget Cycle

Cheryl Hussey of the NYISO presented the disposition of funds remaining from the 2019 budget cycle.

NYISO's draft 2019 budget vs. actual results were presented to the Board Commerce & Compensation Committee and to Market Participants at the BPWG in February 2020.

NYISO's 2019 financial statement audit was completed in March. Final 2019 budget vs. actual results are as follows:

- A Rate Schedule 1 over-collection of \$0.7M
- A spending under-run of \$5.7M
- Total funds remaining from 2019 budget cycle of \$6.4M

Following the February Board Commerce & Compensation Committee meeting, NYISO staff discussed with Market Participants the proposal that NYISO should retain these funds to pay down principal on outstanding debt. However, NYISO staff is now proposing that NYISO retain these funds to potentially offset:

- A significant shortfall in 2020 Rate Schedule 1 (RS1) recoveries;
- Unplanned expenditures resulting from NYISO's response to the Coronavirus outbreak

If NYISO finds that these funds are not needed for these purposes, NYISO could still pay down principal on outstanding debt in Q4 2020.

NYISO staff will recommend to the NYISO Board of Directors that NYISO retain the remaining \$6.4M to potentially offset a significant shortfall in 2020 Rate Schedule 1 recoveries and unplanned expenditures resulting from NYISO's response to the Coronavirus outbreak.

To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/11612813/02%20Disposition%20of%20Funds%20from%202019%20Budget%20Cycle.pdf/8ed4bd75-c21a-037e-358e-1596365f5532

2019 Corporate Incentive Achievement

Cheryl Hussey of the NYISO presented the results of the 2019 corporate incentive achievement. Ms. Hussey reviewed the goals for the incentive program and identified the results. The final goal for the incentive achievement award is 115% for 2019. To see the complete incentive matrix and results, please go to:

 $\frac{https://www.nyiso.com/documents/20142/11612813/03\%202019\%20Corporate\%20Incentive\%20Goals\%20Achievement.pdf/a39d674d-b7b5-2e6c-d606-391cac2de992$

2020 Corporate Incentive Goals

Cheryl Hussey of the NYISO presented the approved goals for the 2020 corporate incentive achievement.

The Board approved the 2020 Corporate Incentive Goals on November 19, 2019. The only change from the goals presented to the BPWG on October 30, 2019 is the addition of the EMS/BMS project to the Key Project Initiatives – Deploy by March 31, 2020.

To see the complete presentation, please go to:

 $\frac{https://www.nyiso.com/documents/20142/11612813/04\%202020\%20Corporate\%20Incentive\%20Go}{alspresentation.pdf/898ede34-a681-3fc7-9ff8-9552c04d8125}$

2020 Project Schedule Milestone Update

Michael DeSocio of the NYISO provided an update to the 2020 project schedule for the end of Q1 2020. At this time, the only project changed to a commitment status of At Risk/Delayed is E-Tagging Refresh and Performance Improvements. All other projects are currently on schedule. Topics identified for upcoming/continuing discussion include:

- Demand Curve Reset
- Comprehensive Mitigation Review
- Enhanced BSM Mitigation Study Period
- Enhancing Fuel and Energy Security
- Locational Marginal Pricing of Capacity (SOM)
- Tailored Availability Metric
- Reserving Capacity for TCC Balance-of-Period (BOP) Auctions
- 5 Minute Transaction Scheduling
- Ancillary Services Shortage Pricing (SOM)
- Grid in Transition Discussion
- Hybrid Storage Model
- Reserves for Resource Flexibility

Diane Peluso updated the projects anticipated for implementation in the near future including:

- Rate Schedule 12 Settlement
- Dual Participation
- Expanding Capacity Eligibility
- Climate Change Impact and Resilience Study

To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/11612813/05%202020%20Project%20Schedule%20Milest one%20Update.pdf/e0a94d50-57d4-ecd9-347a-737f58b012aa

FERC Filings

April 3, 2020

NYISO answer to the LSP Transmission protest of NYISO's February 20, 2020 filing to establish a Short-Term Reliability Process

April 1, 2020

NYISO request for tariff waiver of MST Section 4.4.1.2.1 to permit the NYISO to temporarily continue preventing Generators from increasing Minimum Generation Bids in real time after they receive Day-Ahead schedules

April 1, 2020

NYISO annual submittal of its unreserved use and late study penalty assessments and distributions report, in compliance with Order No. 890-A

FERC Orders

April 3, 2020

FERC order accepted revisions to enhance the procedures for annually updating IAP demand curves in the years between tariff-prescribed periodic review.

April 2, 2020

