NYISO Consumer Interest Liaison Weekly Summary

October 8 – October 12, 2018

Notices:

- *The monthly **Generator Status Update document** has been posted on the NYISO's website. The posting is located in the Generator Status Update folder under the Planning Documents & Resources section at the following link: **Generator Status Update***
- *On October 10, 2018, in accordance with transmission planning process provisions in NYISO Open Access Transmission Tariff, the **NYISO filed, with the NYPSC, copies of submittals of proposed transmission needs driven by Public Policy Requirements** for the Commission's consideration (Case 18-E-0623). View a copy of the filing **here**. The filing is also available **here** at **dps.ny.gov**.*
- *The **draft** version of the NYISO TB-245, **"Monthly Net Benefit Offer Floor Calculation Methodology"**, has been posted to the NYISO Technical Bulletins webpage under Technical Bulletins, Under Review. This Technical Bulletin presents the methodology submitted to the Federal Energy Regulatory Commission on August 19, 2011 pursuant to Order No. 745 for calculating the Monthly Net Benefit Offer Floor applicable to Bids for Demand Side Resources participating in the NYISO's Day-Ahead Demand Response Program and Demand Side Ancillary Service Program. The NYISO has clarified the methodology in certain respects to reflect Commission directives and align with current market rules. **The comment period for TB-245 will be ended by 6:00 pm on October 18, 2018.***

Meeting Summaries:

Tuesday, October 9, 2018

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

Introduction

Michael DeSocio of the NYISO provided the background that led to the development of the GE Energy Consulting "Valuing Capacity for Resources with Energy Limitations" study. Mr. DeSocio described the origin of the 2012 Contribution to Resource Adequacy of Special Case Resources report

developed to assist the Distributed Energy Resource Roadmap, which served as the original foundation of the GE study.

Valuing Capacity for Resources with Energy Limitations

Wes Hall of GE Energy Consulting (GE) presented the results of the study for valuing Installed Capacity for resources with energy limitations. The study built upon the 2012 evaluation of the Contribution to Resource Adequacy of Special Case Resources by GE and NYISO, expanding the scope to include distributed energy and other resources with energy limitations.

Mr. Hall explained the iterative approach employed using GE MARS. Load Forecast Uncertainty was introduced based on the New York State Reliability Council (NYSRC) Installed Reliability Margin (IRM) database models. Results for several parameters for the loss of load events were provided including:

- Distribution of event duration for daily loss of load events
- Distribution of size of hourly loss of load events
- Distribution of loss of energy for daily loss of load events
- Distribution of maximum hourly size of daily loss of load events
- Distribution of loss of load events by time of day
- Expected loss of energy by time of day
- Distribution of loss of load events by day of the year

The study concluded that

- ***Without modeling diversity, the higher the penetration, the longer the duration must be for Capacity Value to reach 100%***
- ***All capacities examined reach 100% Capacity Value with between 8 and 16 hour duration; all but the largest penetrations reaching 100% by 10 hours***
- ***Using the daily and hourly LOLE metrics, the Fractional Capacity Value increases as penetration increases up to a threshold point before decreasing***
- ***This threshold point is driven by the distribution of event duration and size. This is supported by the fact that a similar threshold is not seen for LOEE.***
- ***Unless the limitation on the number of calls per year is very low, the impact of limiting resource persistence is minimal***
- ***Resource diversity can significantly increase Capacity Value for high penetrations***
- ***For resources with short durations, Capacity Value is marginally higher on the High Wind High Solar Case than it is on the Base Case***
- ***The increase in Capacity Value observed in the High Wind High Solar Case is less for diverse resources scheduled in 50 MW blocks***

Mr. Hall summarized the limitations of the study. Stakeholders suggested that the limitations of the study affected the findings and requested additional study using alternative assumptions and methodologies. To see the complete presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-10-09/09242018%20Capacity%20Value%20of%20Resources%20with%20Energy%20Limitations.pdf

Expanding Capacity Eligibility: DER Market Design

Zachary T. Smith of the NYISO introduced a proposal to re-design the capacity market qualifications and participation requirements to allow participation of both a Capacity Supplier that has demonstrated the capability to meet a full duration requirement and Capacity Suppliers with duration limitations that

can demonstrate the capability to meet a shorter duration qualification requirement. Mr. Smith noted that this initial presentation was the starting point of a discussion and the NYISO is seeking stakeholder input to further develop the proposal.
Mr. Smith explained the assumptions used to develop the initial proposal based on the value of capacity. NYISO engaged GE to perform a study to compare the value of resources with different maximum duration capabilities using the Resource Adequacy model which is used to establish our minimum installed capacity requirements. Some stakeholders questioned the methodology of the study and requested the NYISO conduct additional analysis.
Mr. Smith detailed the proposed payment, qualifications, requirements, and obligations of Capacity Suppliers with duration limitations for the proposal to complete a basis for continued discussion. Stakeholder comments are encouraged throughout this process. To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-10-09/Expanding%20Capacity%20Eligibility%20clean.pdf

DER Market Design Update: Wholesale Obligations for Dual Participation
Michael Lavillotti of the NYISO presented the proposal to allow resources that provide services to another entity (*e.g.*, the utility or a host facility) to also provide Wholesale Market services, commonly referred to as Dual Participation.
Mr. Lavillotti explained that resources participating in the Wholesale markets must follow dispatch instructions from the NYISO at all times, and:

- *A resource is expected to facilitate its obligations outside of the wholesale markets through wholesale market bidding or self-scheduling mechanisms*
- *The NYISO does not take any responsibility for ensuring that a resource can meet obligations outside of the wholesale markets*
- *The NYISO will continue to coordinate with the New York utilities, as is done today, to dispatch resources necessary to maintain reliability of the New York electric system*

It is important to note that the NYISO and utility coordination mechanisms for reliability needs will remain the same as today and include the use of DARU, SRE and OOM requests.
Stakeholder feedback is requested and can be sent to deckels@nyiso.com. To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-10-09/DER%20Market%20Design%20-%20Dual%20Participation.pdf

Wednesday, October 10, 2018
Business Issues Committee
Motion #1:
Motion to approve the August 13, 2018 and the September 12, 2018 Meeting minutes.
Motion passed unanimously

Motion #2:
The Business Committee (OC) hereby recommends that the Management Committee approve the revisions to Sections 31.1, 31.4, 31.11 and 31.12 of the Open Access Transmission Tariff (OATT), as more fully described in the presentation entitled "Short Term Improvements to Planning Processes" as presented and discussed at the October 11, 2018 OC meeting.
Motion passed with 2 votes opposed

Wednesday, October 10, 2018

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

Announcement Concerning the Start Times for Back-to-Back Meetings

Debbie Eckels of the NYISO announced that effective immediately, when two meetings are scheduled in succession on the same business day, the second meeting will begin shortly after the first meeting ends. An email notice will be sent to stakeholders at the end of the first meeting, and at least 30 minutes prior to the second meeting, providing the start time of the second meeting.

Expanding Capacity Eligibility: DER Market Design (Completion)

Zachary T. Smith of the NYISO continued the discussion that began during the October 9, 2018 ICAPWG/MIWG/PRLWG meeting. Due to time constraints the previous day, the last segments of Mr. Smith's presentation were postponed to the October 10, 2018 ICAPWG/MIWG/PRLWG meeting.
Mr. Smith presented information on the Aggregation and Time Stacking options for Distributed Energy Resources in the capacity market.
Mr. Smith detailed the qualifications, DMNC testing, obligations and resource swapping capability of DER aggregations.
Time Stacking in the capacity market involves the ability to sequentially align (stack) DER to meet minimum duration requirements for capacity obligations. Individual DER can time stack to meet the eight-hour duration requirement, and/or can aggregate to increase their capacity if all individual DER are less than or equal to 20 MW. Mr. Smith led a review of the qualification and testing requirements to participate using Time Stacking in the capacity market.
To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2018-10-09/Expanding%20Capacity%20Eligibility%20clean.pdf

DER: NYISO SGIA Review

Thin Nguyen of the NYISO presented the Small Generator Interconnection Procedures (SGIP) and led a review of the interconnection process in an effort to clarify several questions initiated by potential DER stakeholders during the development of the DER Participation Model.
Mr. Nguyen explained the basic principles for the following:

- Determining the Applicable Interconnection Process for Energy Resource Interconnection Service (ERIS)
- NYISO's Small Generator Interconnection Procedures (SGIP)
- NYISO Interconnection Queue Administration
- Alternative Paths under the SGIP
    - Fast Track Process
    - Normal Study Process
- Process for Obtaining Capacity Resource Interconnection Service (CRIS)

Mr. Nguyen highlighted the importance of determining the applicable interconnection process for Energy Resource Interconnection Service (ERIS) and detailed the available options.

1. NYISO's interconnection procedures govern the interconnection of resources when:
    a. *the developer intends to make wholesale sales and*
    b. *the developer proposes to interconnect to (i) transmission or (ii) distribution facilities on which there is already a generator making wholesale sales (i.e., "FERC-jurisdictional distribution")*

2. New York State Standardized Interconnection Requirements (SIR) govern the interconnection of resources when:
    a. *the developer is interconnecting to portions of the distribution system other than "FERC-jurisdictional distribution" and*
    b. *the resource is less than or equal to 5 MW*
3. Utility interconnection procedures govern the interconnection of resources not subject to the NYISO or SIR processes.

Mr. Nguyen detailed each interconnection process and summarized the process for the evaluation of CRIS. To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2018-10-10/ICAPWG_MIWG_Small%20Generator%20Interconnection%20Procedures.pdf

DER: NYISO Telemetry Requirement for DER

Vijaya Ganugula of the NYISO presented the real-time telemetry approach for the Distributed Energy Resource (DER) participation model. Mr. Ganugula noted that during prior telemetry discussions (links provided for reference in presentation), some stakeholders requested that the NYISO provide additional details for the operational need of the 6-second scan rate for real-time telemetry.
Mr. Ganugula explained that the data is needed from resources that currently participate in NYISO's energy and ancillary services markets to maintain situational awareness, facilitate the Automatic Generator Control (AGC) process, meet reliability criteria and immediately respond to unexpected system events. DER aggregations (DCEAs) will have similar impacts on real-time grid operations as that of other market resources and the NYISO will rely on DCEAs, like all dispatchable market resources, to satisfy the reliability requirements of the New York State Reliability Council. DCEAs will provide services comparable to generation resources for the purposes of real-time grid operations. Therefore, the existing 6-second scan rate requirement will also apply to DCEAs. In response to prior stakeholder concern of the high cost of providing a 6-second scan rate, Mr. Ganugula presented a NYISO evaluation determining that 6-second telemetry between a DER and it's DCE could be met with a cost of $1 per MWh/month, and that there is little difference in this cost between a 6-second scan rate versus a 1-minute scan rate. The NYISO's evaluation has indicated that multiple cost effective technologies exist for providing a 6-second scan rate for real-time telemetry and it is not a barrier to entry.
Michael Ferrari of the NYISO continued the telemetry discussion by presenting the alternate telemetry approach. Alternative telemetry is the manner of deriving the status and output of a resource without a traditional meter on a 6-second basis. This option for alternative telemetry will be limited to DER with a peak demand or a maximum injection below 100 kW and must incorporate traditionally metered telemetry with a periodicity of five minutes or faster. The option of utilizing an alternative method of deriving 6 second telemetry could reduce barriers to entry for small DER. The use of alternative telemetry methodologies must be communicated to and approved by the NYISO before use by a DER. Mr. Ferrari described the operational requirements for the alternative telemetry option and also provided the reporting requirements.
Comments are encouraged and can be sent to deckels@nyiso.com. To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2018-10-10/DER%206-Second%20Telemetry%20-%20MIWG%2020180928%20MIWG.pdf

DER Market Design Updates

Michael Lavillotti of the NYISO provided several updates to the Distributed Energy Resource (DER) participation model design.
Mr. Lavillotti began by clarifying qualifications for DERs and DCEAs (DER aggregations) that wish to participate in the Ancillary Services market. DCEAs will be eligible to supply the Ancillary Service products for which all DER within the aggregation are eligible to supply. All DERs in the DCEA must meet the requirements of the Ancillary Service products for a DCEA to qualify for that product. Also, DCEAs containing generator-based DER will only be eligible to provide Non- Synchronous Operating Reserves because the NYISO will not have real-time visibility of the grid synchronization operating state of the individual generator-based DER within the DCEA. Finally, as Regulation Service is a bi-directional product, and the minimum offer size for DER is 100kW, DERs will be required to have a minimum upper operating output of 200kW to participate in Regulation Service.
An update was provided for DCEA energy withdrawals as a DCEA may conceivably have a negative operating range if there are individual ESR contained in the DCEA. The range will be determined at initial registration and at any point in time an ESR enters or leaves a DCEA.
Mr. Lavillotti highlighted details for DER eligibility for Bid Production Cost Guarantee (BPCG). It was noted that there is ongoing evaluation for Day-Ahead Margin Assurance Payment (DAMAP) eligibility and the NYISO is encouraging stakeholder comments for consideration.
Examples were provided to illustrate Energy Balancing with generation and load reduction within a DCEA to achieve the DCEA dispatch level.
The final update provided by Mr. Lavillotti was that the NYISO has not identified the need for any additional market mitigation measures specifically for the DER participation model at this time.
Stakeholder comments are encouraged and can be sent to DER_Feedback@nyiso.com or deckels@nyiso.com. To see the complete presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2018-10-10/DER%20Market%20Design%20Updates.pdf

Thursday, October 11, 2018
Operating Committee
Motion #1:
The Operating Committee (OC) hereby approves the meeting minutes from August 17, 2018 and September 12, 2018.
The motion passed unanimously by show of hands.

Motion #2:
The Operating Committee (OC) hereby recommends that the Management Committee approve the revisions to Sections 31.2.1 -31.2.7 and 31.11 of the Open Access Transmission Tariff (OATT), as more fully described in the presentation entitled "Short Term Improvements to Planning Processes" as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3a:
The Operating Committee (OC) hereby approves the Q#695 South Fork Wind Farm II System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3b:

The Operating Committee (OC) hereby approves the Q#704 Bear Ridge Solar Revised System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3c:
The Operating Committee (OC) hereby approves the Q#718 Cortland Energy Center System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3d:
The Operating Committee (OC) hereby approves the Q#719 East Light Energy Center System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3e:
The Operating Committee (OC) hereby approves the Q#720 North Light Energy Center System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3f:
The Operating Committee (OC) hereby approves the Q#721 Excelsior Energy Center System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #3g:
The Operating Committee (OC) hereby approves the Q#738 Empire Wind II System Reliability Impact Study (SRIS) scope as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands.

Motion #4a:
The Operating Committee (OC) hereby approves the Q#521 Bull Run Wind II System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4b:
The Operating Committee (OC) hereby approves the Q#538 and Q#539 NextEra Segment B and Segment B Alternative System Impact Study (SIS) reports as presented and discussed at the October 11, 2018 OC meeting, provided however, Q#538 and Q#539 NextEra Segment B and Segment B Alternative are alternatives to each other and only one of these alternatives may proceed to a Facilities Study.
The motion passed unanimously by show of hands with abstentions from NYPA and Helix Ravenswood.

Motion #4c:
The Operating Committee (OC) hereby approves the Q#541 Avangrid Connect NY Edic-PV System Impact Study (SIS) report as presented and discussed at the October 11, 2018 OC meeting, provided

however, Q#540 Connect NY Edic-Ramapo (the SIS for which was approved by the OC on July 12, 2018) and Q#541 Avangrid Connect NY Edic-PV are alternatives to each other and only one of these alternatives may proceed to a Facilities Study.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4d:
The Operating Committee (OC) hereby approves the Q#543 NYES Segment B System Impact Study (SIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with abstentions from NYPA and Helix Ravenswood.

Motion #4e:
The Operating Committee (OC) hereby approves the Q#571 Heritage Wind System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4f:
The Operating Committee (OC) hereby approves the Q#580 STAMP Load System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4g:
The Operating Committee (OC) hereby approves the Q#594 NW Energy Battery System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4h:
The Operating Committee (OC) hereby approves the Q#668 Liberty Generating Alternative System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Motion #4i:
The Operating Committee (OC) hereby approves the Q#671 Linden Cogen Uprate System Reliability Impact Study (SRIS) report as presented and discussed at the October 11, 2018 OC meeting.
The motion passed unanimously by show of hands with an abstention from Helix Ravenswood.

Thursday, October 11, 2018
Integrating Public Policy Task Force
Treatment of Existing REC Contracts

Michael DeSocio of the NYISO presented the proposal to reduce or eliminate the potential for double payments to resources eligible for REC payments. The intent is to eliminate the potential for double payment to suppliers whose carbon dioxide emissions reductions are already captured by NY REC contracts entered into before the approval of Carbon Pricing market rules by NYISO stakeholders. The proposal is to apply a carbon charge to wholesale market suppliers with NYSERDA REC contracts that are:

- ***Fixed price contracts;***
- ***Based on a REC solicitation that began or was completed prior to the carbon pricing tariff rules becoming effective; and***
- ***Not expired.***

The proposal would deduct the carbon charge from the supplier's settlement based on the societal cost of carbon and the real-time marginal emission rate for the zone that the supplier is located. This carbon charge will be applied to the actual output of the resource based on the proportion of the REC contract to the nameplate capacity.

Some stakeholders suggested that the NYISO should consider that a REC is not always structured entirely on carbon avoidance and that these other factors should be considered in the proposal. Mr. DeSocio noted that the NYISO is seeking input from stakeholders on the nature of REC contracts for a more complete understanding of the various structures.

A stakeholder requested that the NYISO provide information on potential impacts to price hedging. A current NYISO Market Participant (MP) responded to the request saying that this is an issue they have been studying and the MP plans to present information on the potential impacts to hedging at an upcoming IPPTF meeting.

To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg_ipptf/meeting_materials/2018-10-11/20180924%20NY%20REC%20Resources.pdf

Carbon Pricing Transition for Demand Curve Proxy and EAS Revenues

Ryan Patterson of the NYISO presented the effect of carbon pricing on ICAP Demand Curve Net Energy and Ancillary Services (E&AS) revenues. Mr. Patterson led a review of the process used to set the ICAP Demand Curves and the recent change of moving to a historic model that averages projected Net EAS Revenue over a three year period and is updated annually. The NYISO analyzed the impacts of carbon pricing on the ICAP Demand Curves to illustrate how the annual update process could affect future Capacity Market Reference Prices.

The study methodology employed Marginal Emissions Rates (MERs) for 2015 and 2016 derived by Brattle to calculate LBMPs and emissions costs within the model.

The results of the study indicate that although the Demand Curve Proxy Plant is selected to operate less hours in the simulation with carbon pricing implemented, when it is selected to run it will earn higher revenues resulting in a small impact to overall net revenues.

The changes to the reset process implemented in 2016 were intended to allow for the ICAP Demand Curves to capture changes in market conditions over time, including the impacts of changes to market rules. As contemplated by the revised procedures, the resulting impacts of implementing carbon pricing in the wholesale market should be rolled into Net EAS Revenue estimates through the annual update process.

Comments are encouraged and can be sent to ipp_feedback@nyiso.com. To see the complete presentation, please go to:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg_ipptf/meeting_materials/2018-10-11/IPPTF%20-%20Net%20EAS%20Carbon%20Impact.pdf

FERC Filings

October 10, 2018

NYISO filing of a notice of termination of North Energy Power, LLC from the ISO-Administered Markets

FERC Orders

There were no FERC Orders issued to the NYISO for this week

Filings and Orders:

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