NYISO Consumer Interest Liaison Weekly Summary

December 2 – December 6, 2019

Notices:

- *The NYISO has **posted** the **list of Class Year 2019 members who have requested an exemption from Buyer Side Mitigation** on the NYISO's website. The document can be found on the **Market Monitoring page** of the NYISO's public website under Market Monitoring > ICAP Market Mitigation > Buyer Side Mitigation > Class Year 2019 in the file browser.*

- *The NYISO has **posted** the **interface limits that will be effective in the January 2020 Balance-of-Period Auction** and all subsequent Winter 2019-2020 Balance-of-Period Auctions. This posting can be found on the NYISO website under Markets > **Transmission Congestion Contracts** > Information and Announcements > 2019*

- *The NYISO has **posted** an **announcement regarding updates to the securing of certain 115 kV facilities starting with the January 2020 Balance-of-Period Auction**. This posting can be found on the NYISO website under Markets > **Transmission Congestion Contracts** > Information and Announcements > 2019.*

Meeting Summaries:

Tuesday, December 3, 2019

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

2019 Master Plan -- Final Update

Ryan Patterson of the NYISO presented the final update to the 2019 Master Plan. Mr. Patterson highlighted the changes to the plan resulting from the delayed implementation of the EMS/BMS upgrade. Five project timelines were modified:

- Reserves for Resource Flexibility:
    - 2020 project milestone changed to Market Design Complete with Deployment in 2021

        - 2020 milestone change made to comport with 2020 Contingency Budget
- Ancillary Services Shortage Pricing:
    - 2020 project milestone changed to Market Design Complete with a Deployment in 2022
        - 2020 milestone change made to comport with 2020 Contingency Budget
- More Granular Operating Reserves:
    - 2021 Deployment milestone added to timeline
- Grid in Transition:
    - Issue Discovery removed from 2021 milestone, Ongoing retained for 2021
- Energy Storage Resource Participation Model:
    - Deployment milestone moved to Q4 2020

In response to a stakeholder question on the release of the *"Grid in Transition"* whitepaper, the NYISO explained that the paper is in the final stages and could possibly be posted prior to the end of 2019.

Language was also added to reference the recent passing of the Climate Leadership and Community Protection Act.

The presentation completed the Master Plan for 2019. At this time, the NYISO is asking for feedback on the process, layout, and content of the 2019 Master Plan in consideration of the 2020 Master Plan.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9521715/2019%20Master%20Plan%20Final%20Draft%20120319%20ICAPWG.pdf/d1e2a14c-3ee9-a0d7-e03a-49be288e040e

To see the final 2019 Master Plan, please go to:
https://www.nyiso.com/documents/20142/9521715/2019%20Master%20Plan%20Final%20120319%20ICAPWG.pdf/8a244868-62a7-62f1-b631-7177f35a46dd

Relocating the IESO Proxy Bus

Tolu Dina of the NYISO updated the proposal to relocate Ontario's Independent Electric System Operator (IESO) proxy in the system representation model. The NYISO's market software currently uses the BRUCE station as the proxy bus to schedule transactions with IESO. Analysis of the more recent actual historical delivered energy from transactions between IESO and NYISO indicate a potential improvement can be made with the power flow results from the NYISO's market software. The NYISO analyzed the historical scheduled IESO-NYISO interchange for the six-year period beginning with the commercial operation of the Ontario-Michigan PARs. The marginal generation impact of the top 3 locations was determined from a distribution factor analysis under all-lines-in service conditions:

- BRUCE 500kV (current external proxy bus) has a marginal impact of ~73%
- BECK 220kV has a marginal impact of ~87%
- HAWTHORN 220kV has a marginal impact of ~73%

The analysis indicates that the BECK 220kV interface is a more optimal proxy bus for IESO scheduling as the marginal impact from BECK (~87%) is more aligned with real-time operations (85%-95%).

In response to a stakeholder inquiry, Mr. Dina explained that the change of proxy will not require coordination with IESO, as it only affects the NYISO representation. It was also noted that the change will be coordinated with NYISO TCC Operations for future TCC auctions.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9521715/IESO%20PROXY%20BUS.pdf/86184ec4-8b1a-6e0a-9a56-8a5a473e2f8e

Wednesday, December 4, 2019

Joint Transmission Planning Advisory Subcommittee/Market Issues/Electric System Planning Working Group

Short-Term Reliability Process & Other Proposed Reliability Planning Process Tariff Language Changes

Keith Burrell of the NYISO presented updates to Section 38 of the OATT and to the generator registration documents. The changes were made to reflect stakeholder feedback. Mr. Burrell noted that this would be the last presentation prior to seeking governance approval for the process. Some stakeholders opined that there were additional, minor changes required on the economic withholding evaluation process before it can be considered final. To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9330603/03a_STRP%20and%20Other%20Revisions%20December%204%20ESPWG%2020191125.pdf/910ff018-3a18-7d35-6cc0-d4a70f845b72

Study Scopes under Consideration for Recommendation for OC Approval

Queue #766 (3 Options)
NY Wind Holbrook Project
NY Wind Holbrook – Optional SRIS #1
NY Wind Holbrook – Optional SRIS #2
Offshore Wind
880 MW W/S
Suffolk County, NY
Recommended to the OC for approval

Queue #899
Scriba-Volney #20 Line Series Reactor Project
Series Reactor – 345kV
Oswego County, NY
Recommended to the OC for approval

Wednesday, December 4, 2019

Interconnection Project Facilities Study Working Group

Overview of the Class Year Facilities Study Process

Thinh Nguyen led a review of the Class Year Facilities Study process. Mr. Nguyen defined the Class Year process using tariff section 25.1.1:

> *"The purpose of these rules is(1) to allocate responsibility among Developers and Transmission Owners and Load Serving Entities ("LSEs"), as described herein, for the cost of the new interconnection facilities that are required for the reliable interconnection of generation projects and Class Year Transmission Projects to the New York State Transmission*

System and to the Distribution System in compliance with the requirements of the type of interconnection service elected by the project Developer . . . "

The two types of Interconnection Service were explained as Energy Resource Interconnection Service (ERIS) and Capacity Resource Interconnection Service (CRIS), and using two standards; Minimum Interconnection Standard (MIS) and Deliverability Interconnection Standard (DIS).

Mr. Nguyen reviewed the studies that the Class Year participants will undergo. The Part 1 and Part 2 studies were identified and detailed.

The remaining steps of the process were detailed for stakeholder reference. Mr. Nguyen highlighted the changes that will be incorporated into Class Year 2019 as a result of the updates completed in the governance process in 2019, pending FERC acceptance.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9539204/CY19_OverviewOfCYStudies_FinalDraft.pdf/43c11e20-78ca-b8d8-37a2-95eacf4cf0c8

Class Year 2019

Ed Cano of the NYISO presented the Class Year 2019 (CY19) work plan and projects. CY19 includes 91 members representing a total of 8,893 MW. 39 projects totaling 8,036 MW are requesting ERIS and CRIS, whereas 52 projects totaling 857 MW are CRIS Only submissions. Mr. Cano identified the 91 projects included in CY19. A New York State map was provided depicting the location of the 91 projects.

Mr. Cano reviewed the anticipated timeline identifying each of the studies to be performed and the amount of time scheduled for each study. If all projects accept their initial allocations, CY19 is expected to be sent to the OC for approval in November 2020. A "scope of work" was included with the meeting materials for stakeholder review. A stakeholder requested that the NYISO post a table identifying the number of submitted MW for CY19 in each NYISO zone. To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9539204/CY19_Projects_Workplan_FinalDraft.pdf/bb3c396b-cacf-f2af-047c-f282d37147b8

Thursday, December 5, 2019

System Operations Advisory Subcommittee

NYISO Operations Report – October 2019

Peak Load

The peak load for the month was 23,774 MW, which occurred on Wednesday, October 2, 2019, HB15. Reserve requirements were as follows:

Reserve	10 Sync	Non-Sync	30 Min
Requirement	655	1,310	1,965
For Hour	1,307	2,114	4,135
DSASP Cont.	66	0	66

Major Emergencies:

At 16:17 on 10/13/2019, a Major Emergency was declared by the NYISO Shift Supervisor when the power flow on HQ Cedars exceeded its 105% Transient Stability Limit. The Major Emergency was terminated at 16:20.

At 23:59 on 10/13/2019, a Major Emergency was declared by the NYISO Shift Supervisor when the power flow on Northern Export exceeded its 105% Transient Stability Limit. The Major Emergency was terminated at 00:06 on 10/14/2019.

Alert States -- Alert State was declared on 25 occasions:
21 – Emergency Transfer Declared
1 – Shortage of 10 Minute Synchronized Reserve
2 – Exceeding Transient Stability Limit
1 – Exceeding Central East Voltage Contingency Limit
Alert state was declared 10 times during October of 2018

Thunder Storm Alerts
0 TSA was declared in October 2019 for a total of 0.0 hours

Reserve Activations – 4
There were 4 Reserve Activations during October of 2018

Emergency Actions
None

TLR3 Declared – 0 for a total of 0 hours

NYISO Operations Report – November 2019

Peak Load
The peak load for the month was 21,324 MW, which occurred on Wednesday, November 13, 2019, HB17. Reserve requirements were as follows:

Reserve	10 Sync	Non-Sync	30 Min
Requirement	655	1,310	1,965
For Hour	1,089	2,676	5,389
DSASP Cont.	66	0	66

Major Emergencies:
At 00:04 on 11/07/2019 a Major Emergency was declared by the NYISO Shift Supervisor when the power flow on Central East VC exceeded its 105% Voltage Transfer Limit. The Major Emergency was terminated at 00:06.

Alert States -- Alert State was declared on 13 occasions:
10 – Emergency Transfer Declared
3 – Exceeding Central East Voltage Contingency Limit
Alert state was declared 18 times during November of 2018

Thunder Storm Alerts
0 TSA was declared in November 2019 for a total of 0.0 hours

Reserve Activations – 2
There were 13 Reserve Activations during November of 2018

Emergency Actions
None

TLR3 Declared – 0 for a total of 0 hours

Thursday, December 5, 2019

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

Energy Storage Resources: ICAP Manual Changes

Sarah Carkner of the NYISO presented updates to the Installed Capacity (ICAP) Manual that are necessary to administer the proposed Energy Storage Resource (ESR) tariff revisions. Ms. Carkner highlighted changes made since the July 10, 2019 presentation, incorporating stakeholder input.
A change from the July proposal is that the ESR availability calculation will no longer depend on whether the Resource is ISO or Self-Managed in the Real-Time Market. The Energy Level (state-of-charge) constraint will be considered in the Real-Time Market for both ISO and Self-Managed ESRs. The revised availability calculation will more accurately capture the real-time availability of ESRs. Additionally, ESRs will be required to Bid, Schedule, Notify their full positive to negative range of the ICAP equivalent of UCAP sold in the DAM as ISO-Managed (e.g., an ESR's 3 MW ICAP Obligation will require it to bid, schedule, notify for the range of -3 MW thru +3 MW).
Ms. Carkner led a detailed review of the calculation for determining the derating factor for ESRs. The unavailability calculation for ESRs will use the same time frame as the existing EFORd methodology. The NYISO is seeking stakeholder feedback on the draft ICAP Manual revisions posted with today's meeting materials. Pending additional feedback, the NYISO will return to a future ICAPWG/MIWG to continue discussions on the revisions to the ICAP Manual and appropriate Attachments. To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/9622070/ESR%20ICAP%20Manual%20Changes%20presentation.pdf/2591adfa-f44f-7adf-9b79-23588ad7bdc1

2021—2025 ICAP Demand Curve Reset: Proposed Tariff Revisions for Gross CONE Adjustments
Ryan Patterson of the NYISO presented the proposal to adjust the calculation for the Composite Escalation Factor for Gross Cost of New Entry (Gross CONE).
In response to the NYISO's request that stakeholders identify potential tariff changes early in the Demand Curve Reset (DCR) process, the New York Transmission Owners (NYTOs) submitted the following proposals:

- Address three specific, technical aspects of the methodology for escalating Gross CONE and net Energy and Ancillary Services (Net EAS) revenue values
    - Modify the Gross CONE composite escalation rate methodology to account for relative changes in the weightings of the four component costs (Labor, Materials, Turbine, General/Other) over the course of the reset period
    - Modify the Gross CONE escalation methodology to account for revisions in publically available cost indices selected for use
    - Modify the method of escalating Net EAS revenue values
- Extend the collar mechanism to apply to future annual updates – (To be discussed at a later date)

At the October 28, 2019 ICAPWG/MIWG/PRLWG meeting, the NYISO discussed its proposal to calculate the growth rate for all indices, as of October 1, for the year before the first year covered by the reset period ("DCR Year") and the applicable annual update year, divided by the DCR Year values. The NYISO is now proposing to slightly modify this proposal by instead baselining the calculation to Year 1 of the reset period ("Reset Year") and applying the escalation rate to the Gross CONE values accepted by FERC for Year 1.

Mr. Patterson provided the proposed changes to tariff language in MST Section 5.14 for the proposal. The NYISO intends to seek stakeholder approval of the proposed process enhancements at the BIC and MC in January 2020. To see the complete presentation, please go to: https://www.nyiso.com/documents/20142/9622070/DCR%20Proposed%20Tariff%20Changes%20120519%20ICAPWG.pdf/a097c347-d69c-9571-cd69-6a327e60cd51

Ancillary Services Shortage Pricing: Study Report

Pallavi Jain of the NYISO provided an overview of the *"Ancillary Services Shortage Pricing"* report. With the environmentally focused New York public policies, the grid will need responsive and flexible resources to address rapid changes in net load, as well as to support reliable grid operations. Effective pricing of energy and ancillary services products to reflect system conditions and operational needs is crucial. The update also included additional analysis requested by stakeholders at the October 18, 2019 MIWG meeting.

The NYISO performed historical analysis of:

- Frequency of reserve shortage by reserve region and product
- NYCA 30-minute reserve shortages by shadow price
- Persistent reserve shortages

This analysis highlighted the market outcomes from September 3, 2018. On this day, ISO-NE requested a purchase of emergency energy from the NYISO and the NYISO provided the energy using a wheel-through from IESO to ISO-NE.

Ms. Jain observed that ancillary service price signals will be important for signaling the need for investment in maintaining and adding new resources capable of providing the resource capabilities needed to reliably operate the system. The analysis revealed that the majority of current NYCA 30-minute reserve shortages occur at Shadow Price values of $100/MWh or less.

Additionally, the NYISO looked at Value of Lost Load (VOLL) curves, which have been implemented in MISO following the recommendation of Potomac Economics. It was determined that VOLL curves could be useful when evaluating potential changes to the current shortage pricing values and/or including additional Operating Reserve Demand Curve "steps" to help provide for more stable and predictable pricing outcomes.

The conclusions of the report were discussed as the following:

- *The NYISO recommends further collaboration with stakeholders to assess potential changes to the current reserve shortage prices values used in the NYISO- administered markets*
- *The NYISO and its stakeholders should consider increasing lower reserve demand curve values to help avoid frequent shortages, and improve the consistency of market price signals with the reliability value of these ancillary services products*

The market design concept, consumer impact analysis and tariff changes will be completed in 2020. To see the complete presentation, please go to: https://www.nyiso.com/documents/20142/9622070/Ancillary%20Services%20Shortage%20Pricing_study%20overview_12_5_MIWG.pdf/99b7c720-ba5d-f656-01e4-4fd54a930d4b. To see the final report, please go to: https://www.nyiso.com/documents/20142/9622070/Ancillary%20Services%20Shortage%20Pricing_study%20report.pdf/15fb5f26-e1af-fa5a-ee29-3943ab483369

FERC Filings

November 27, 2019

NYISO motion to intervene and comment on Ravenswood request for waiver of certain CRIS rules

November 26, 2019

OATT and Services Tariff revisions regarding credit reporting requirements designed to enhance NYISO's ability to take action to prevent or mitigate the risk of credit defaults in the ISO-administered markets

November 26, 2019

NYISO response to the Commission's Second Deficiency Letter regarding NYISO's June 27, 2019 DER Aggregation Filing

December 6, 2019

NYISO filing on behalf of New York State Electric & Gas Corporation ("NYSEG") of a Utility Services Agreement (SA 2497) between NYSEG and NextEra Energy Transmission of New York, Inc.

December 6, 2019

NYISO filing on behalf of Niagara Mohawk Power Corporation ("Niagara Mohawk") of a Small Generator Interconnection Agreement (SA 2498) between Niagara Mohawk and GR Catalyst Two LLC

FERC Orders

December 2, 2019

Letter Order accepted Reliability Coordination Agreement between NYISO and Alcoa Power Generating, Inc. effective October 25, 2019, as requested
November

November 27, 2019 FERC order accepted the large generator interconnection agreement (SA 2475) among the NYISO, Niagara Mohawk Power Corporation, and Cassadaga Wind LLC

November 29, 2019

FERC Letter Order accepted an Engineering and Procurement Agreement (SA 2477) between Niagara Mohawk Power Corporation and Invenergy Wind Development LLC

Filings and Orders:

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