NYISO Consumer Interest Liaison Weekly Summary

February 3 – February 7, 2020

Notices:

- *The Redline & Clean versions of **TB-064 - Changing from Daylight Savings to Standard Time** and **TB-088 - Changing from Eastern Standard Time to Daylight Saving Time** have been posted under the **'Technical Bulletins > Under Review'** folder on the **NYISO Manuals & Guides webpage**. The proposed revisions include updated dates and bidding information for 2020's Daylight Saving Time.*

- *The **Transmission Congestion Contracts Manual** **Attachment E** (Points of Injection and Withdrawal) and **Attachment F** (Prohibited Groups of Points of Injection and Withdrawal) for the Spring 2020 Centralized TCC Auction and Summer 2020 Reconfiguration Auctions are now posted on the NYISO website and can be accessed **online** under Manuals > Operations.*

- *The NYISO has **posted** an updated **document detailing the Operational Base Flow (OBF) imposed on the Waldwick and ABC PARs to include the OBF to be utilized in the Spring 2020 Centralized TCC Auction and Summer 2020 Reconfiguration Auctions**. This posting can be found on the NYISO website under Markets > **Transmission Congestion Contracts** > Information and Announcements > 2020.*

Meeting Summaries:

Monday, February 3, 2020
Transmission Planning Advisory Subcommittee
Motion #1a
Queue #801:
Prattsburgh Wind
SRIS Scope
Recommended to the OC for approval

Motion #1b
Queue #929:
Morris Ridge Solar
SRIS Scope
Recommended to the OC for approval

Motion #1c
Queue #931:
Astoria Energy Storage
SRIS Scope
Recommended to the OC for approval

Motion #1d
Queue #938:
KCE NY12 Energy Storage
SRIS Scope
Recommended to the OC for approval

Tuesday, February 4, 2020

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

Grid in Transition Discussion: Energy Market Enhancements

Ashley Ferrer of the NYISO presented energy market enhancements intended to address the grid in transition. NYISO stakeholders voted to prioritize the Grid in Transition project to explore present emerging reliability and economic challenges facing New York's electricity sector. Examining the coming changes to the grid will identify gaps in the markets and will help determine a path forward to help ease the transition to the future grid.

Ms. Ferrer began by reminding stakeholders of the progress the NYISO has made with the proposal to incorporate the price of carbon into the Energy market. Carbon pricing is the most effective means to directly reflect and align the public policy goals with respect to evolving a zero carbon future into the markets.

Ms. Ferrer then provided an overview of the enhancements to shortage pricing which are an integral part of preparing for a grid in transition. Shortage pricing for ancillary services is important to provide incentives for generating units to respond to real-time needs and to signal investment, by sending the appropriate signals when supply is short and unable to meet the reliability needs of the system. Ongoing market design efforts include:

- *Ancillary Services Shortage Pricing,*
- *Constraint Specific Transmission Shortage Pricing,*
- *Enhanced Fast Start Pricing*

Additionally, the NYISO is continuing its efforts on three projects related to its Operating Reserves products. More Granular Operating Reserves, Reserves for Resource Flexibility and Ancillary Services Shortage Pricing are currently under development to support reliable grid operations as more and more intermittent renewable resources are added to the grid. In response to a stakeholder suggestion that the projects underway may be implemented before they are needed in the market, Ms. Ferrer explained that although the development is underway, deployment will come at a later time and noted that it is important to have the structure completed and ready for the future changes.

The NYISO is considering potential future energy market efforts. These efforts will require further investigation, discussion and consideration before reaching a well-defined scope:

- *Engaging the demand side to balance intermittent supply and provide ancillary services*
- *Evaluate changes to the energy market construct to improve incentives to encourage resource flexibility throughout the real-time scheduling horizon*
- *Changes to the settlements of the energy and ancillary services markets to reflect impact of changing system conditions in real time*
- *Changes to the time horizon or time intervals of the Day-Ahead and/or Real-Time Markets due to variability in the load shape from intermittent and renewable resources*

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10653145/20200204%20ICAPMIWG%20-%20Grid%20in%20Transition%20Discussion%20-%20Energy%20Market%20Enhancements.pdf/ae2c75c2-dd96-58a3-5010-7fab7ba9061b

LIPA: Independent Analysis of the Impacts of the CLCPA on the NYS Electrical Grid

Jonathan Jacobs of PA Consulting, on behalf of Long Island Power Authority, presented an analysis of the impact to the New York State electrical grid as a result of implementing the Climate Leadership and Community Protection Act (CLCPA).

Mr. Jacobs began with an overview of the CLCPA mandates combined with the Clean Energy Standard (CES) targets and the state-mandated Resource Procurement Programs (RPPs). A comparison was made using a representation of the current energy market design and the characteristics of a renewables dominated energy market. The immediate issues for the markets to address were highlighted as:

- Price formation, including negative power prices
- Curtailment of renewables
- Net load ramping requirements – function of generation technologies
- Matching demand and meeting reliability requirements

Mr. Jacobs described the impact of zero marginal cost resources suppressing market-clearing power prices, and diminishing energy margins. Graphs were provided to illustrate the effect of a large quantity of renewables with low marginal prices flattening the dispatch curve using California Independent System Operator operational dispatch curves, due to the experience with a high penetration of renewables in that market.

Examples were also provided to demonstrate the risk of curtailment required with a large amount of renewables in a system. Mr. Jacobs expressed the need for amounts above the CES requirement of Energy Storage Resources to limit the anticipated curtailment of renewable resources in the future grid.

The PA Consulting analysis of the future NYS electrical grid indicated that a need for more than 10,000 MW of flexible and reliable energy, typically provided by thermal fleets, will be required. The analysis also predicted the shifting of peak load into later hours.

Recommendations by the author for consideration in minimizing impacts to reliability include:

- *Additional energy storage*
- *Low capacity factor peaking units utilizing an increasing share of fuels derived by renewable electricity*
- *Market products that incentivize reliability (e.g., controlled output from renewables, more granular ancillaries, payments for ramp-ability, etc.)*

- *Load flexibility*
- *Transmission upgrades to allow export of surplus renewable generation to other zones or RTOs*

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10653145/1.24.20%20LIPA-NYISO.pdf/4ad41e57-96e2-3007-b3f0-df7bf78f5e63

External ICAP Rights for the 2020/2021 Capability Year (Prior to Deliverability Testing)

Frank Ciani of the NYISO presented the External Installed Capacity (ICAP) Rights for the 2020/2021 Capability Year. Mr. Ciani began by explaining that GE MARS simulations were performed on the Locational Capacity Requirement (LCR) MARS database to determine the capacity imports to be allowed without violating the Loss of Load Expectation criterion.

The results for the External ICAP Rights for the 2020/2021 Capability Year are provided in the table below:

	PJM	ISO-NE	Quebec (HQ)	Ontario (IESO)	Row Totals
Initial Values (TTC Summer Ratings)	1,450	1,400	1,690	1,850	**6,390**
Grandfathered Rights*	1,080	0	1,110	0	**2,190**
Individual Limits (above GF)	285	620	12	28	**945**
Simultaneous Limits (above GF)	152	332	6	15	**505**
Final Values **	1,232	332	1,116	15	**2,695**
* Includes ETCNL for these purposes ** Subject to Deliverability Study					

In response to a stakeholder question, Mr. Ciani explained that the large drop in the IESO value is a result of the Somerset Generating Station retirement.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10653145/ICAPWG_2020_01_29_draft_04_import-rights.pdf/4336a331-b35d-23b4-cd43-f21d2d48b1db

Comprehensive Mitigation Review: Revisions to the Part A Exemption Test

Lorenzo Seirup of the NYISO presented the updated proposal for the Part A Exemption Test component of the Buyer Side Mitigation test. Mr. Seirup explained that this NYISO proposal is a holistic revision to the prior proposal in earlier presentations.

In order to maximize value to the members in the Class Year currently underway, the NYISO is proposing to incorporate specially tailored elements of the Mitigation Study Period (MSP) Enhancements into its Part A revisions. The development of MSP Enhancements for the Part B test may merit a longer timeframe than is possible under the fast-track development process and will return for discussion with stakeholders later this year with a separate revised proposal.

Mr. Seirup led an overview of the revised proposal components, including:

- *Enhance the Part A Exemption Test by creating two MSPs to reflect the variability of the expected In-Service dates for Examined Facilities (EFs)*
- *Perform the Part A test for each year of the EF's MSP*

- *Grant Part A Exemptions beginning with the first year the EF passed*
- *Revise the order by which EFs are tested and granted exemptions under Part A.*
- *Perform the Part A exemption test before the Part B exemption test*
- *For each EF, perform the Part A test for each Locality it is contained in*

Mr. Seirup explained the proposed process for evaluating the EFs using two MSPs, Group 1 and Group 2. The two MSPs were detailed using a timeline example to illustrate the starting and ending dates in relation to the Class Year. Additional changes to the proposal for the start of the MSPs include:

- For Class Year studies, the estimated Initial Decision Period will be a year from the Class Year start date
- For Expedited Deliverability Studies, the estimated Initial Decision Period will be three months from the study start date

In grouping the EFs, Mr. Seirup explained the criteria for the projects that will be included for the Group 1. The criterion pertain to projects with a shorter construction period. Exceptions to the grouping criteria may occur, and in those cases, the NYISO will consult with the MMU for a final determination. NYISO provided additional timelines to more clearly explain the MSP timing.
Next, Mr. Seirup provided details on the chronological order that will be applied to EFs in each corresponding MSP. Under the existing rules, the Part A test is performed for the first year of the MSP only. Under the revised proposal, the NYISO is will perform the Part A test for each year of an EF's MSP. The NYISO will then perform the Part A test for the second and third year of the MSP for Group 1, before moving on to each year of the MSP for Group 2. Mr. Seirup detailed the process and noted stakeholder feedback for future ICAPWG/MIWG discussion.
Next, Mr. Seirup presented the methodology for ordering the EFs for the Part A test. Mr. Seirup noted that it is appropriate to acknowledge, in its BSM rules that the construction and market entry of public policy resources ("PPRs") is reasonably certain. A definition was provided for PPRs. For each year of the MSP(s), the Examined Facilities that qualify as PPRs will be tested before non-PPR Examined Facilities, ordering from lowest to highest Unit Net Cost of New Entry (CONE). Mr. Seirup summarized the proposed Exemption Testing Process as:

1. **The Part A test is performed for all EFs**
2. **The Part B test is performed, incorporating the results from Part A**
3. **Renewable & Self Supply Exemptions are granted to eligible EFs that have not yet received an exemption under Part A or Part B**

Mr. Seirup addressed the proposal in terms of nested Localities by explaining that the NYISO is proposing to perform, for each Examined Facility, the Part A test is for each Locality in which it is located and performing the Part A test for the nested Locality first. Part A is then performed for the nesting locality.
Examples were provided to illustrate the process timing and results.
To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10653145/Feb4%20Revisions%20to%20Part%20A%20Exemption%20Test_Final.pdf/4dcb2e63-81df-340c-c642-15a07dbc2f19

Thursday, February 6, 2020
System Operation Advisory Subcommittee
NYISO Operations Report – January 2020
Peak Load
The peak load for the month was 21,895 MW, which occurred on Monday, January 20, 2020, HB18.
Reserve requirements were as follows:

Reserve	10 Sync	Non-Sync	30 Min
Requirement	655	1,310	1,965
For Hour	945	2, 865	5,269
DSASP Cont.	57	0	57

Major Emergencies:
None
Alert States -- Alert State was declared on 15 occasions:
6 – Emergency Transfer Declared
8 – Exceeding Central East Voltage Contingency Limit
1 – System Frequency Low
Alert state was declared 22 times during January of 2019
Thunder Storm Alerts
0 TSA was declared in January 2020 for a total of 0.0 hours
Reserve Activations – 6
There were 9 Reserve Activations during January of 2019
Emergency Actions
None
TLR3 Declared – 2 for a total of 6.0 hours

Thursday, February 6, 2020

Comprehensive Mitigation Review Project Plan

Michael DeSocio of the NYISO presented updates to the Comprehensive Mitigation Review for 2020. Mr. DeSocio began by reviewing the scope and goals of the project. The objective of the effort is to modify the Installed Capacity market framework in a balanced manner that (i) preserves competitive price signals and economically efficient market outcomes required to maintain system reliability and (ii) enables the Climate Leadership and Community Protection Act (CLCPA) goals.
Mr. DeSocio led a review of stakeholder input received from earlier presentations including:

- *Multiple Value Pricing*
- *CRIS+*
- *Forward Clean Energy Market*
- *California Model*
- *Fixed Resource Requirement*

Next, Mr. DeSocio updated stakeholders on the progress of initiatives the NYISO is currently developing. The Buyer Side Mitigation (BSM) enhancements (*e.g.* Part A, MSP) coinciding with Class Year 2019 were discussed with stakeholders.
Additional proposals for Capacity Market Enhancements will be developed and discussed in the near future to address longer term market concerns. Ideas such as Available Capacity Transfer (ACT) and Future Clean Capacity Requirement (FCCR) will be considered as part of the effort to evaluate all relevant options.
A stakeholder requested that Potomac Economics prepare an evaluation of the available market adjustments as an independent source to assist in the vetting process.
Comments are encouraged throughout this process and it was noted that stakeholders are welcome to schedule and present relevant topics to the working group. To see the complete presentation, please

go to:
https://www.nyiso.com/documents/20142/10718541/Comprehensive%20Mitigation%20Review.pdf/aefa8ce3-e3dc-994e-07e7-8feffc834cfc

2020 Project: Locational Marginal Pricing of Capacity Concept Design Proposal

Pallas LeeVanSchaick of Potomac Economics presented the market design concept for the Locational Marginal Pricing of Capacity proposal. The objective for this project is to consider a capacity pricing framework where the clearing price at each location is set in accordance with the marginal reliability value of capacity at the location. The deliverable for 2020 is Issue Discovery.

Mr. LeeVanSchaick explained that a Demand Curve Reset (DCR) is necessary to estimate the Net Cost of New Entry (CONE) for each location in order to derive a system-level Cost of Reliability Improvement (CRI). The CRI will help provide efficient prices for different locations and technologies based on the marginal reliability value.

Mr. LeeVanSchaick then demonstrated the methodology for estimating the Marginal Reliability Impact (MRI) in relation to the Loss of Load Expectation (LOLE) to determine a Market Clearing Price.

The market process was outlined to illustrate the steps required to estimate the MRI with the GE MARS program and perform the shifting/adding capacity to reach the LOLE that corresponds to the prescribed DCR Level of Excess.

Due to a lack of additional time, Mr. LeeVanSchaick was unable to complete the presentation and stated that he would return to an ICAPWG/MIWG later in February to continue the discussion. To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10718541/Slides%20for%20CLMP%20Presentation%20No%202__2032020%20final.pdf/3dec5b70-1d84-6127-7c14-72b37ba8dd75

More Granular Operating Reserves: CIA Methodology

Tariq Niazi of the NYISO presented the methodology to be used for developing the Consumer Impact Analysis on the More Granular Operating Reserves effort. Mr. Niazi began by providing background on the project for stakeholder reference.

Mr. Niazi explained that the Consumer Impact Analysis will use the NYISO's Day-Ahead Market software and re-run select market days from 2019 with the addition of the proposed load pocket reserve requirements. The LBMPs from the re-run case will be compared to the original LBMPs to determine a price delta. The delta of the LBMPs will then be applied to the real-time actual load data for those dates to estimate total cost difference. The analysis will also discuss the potential impact on resource commitment in each load pocket as well as assess the potential impact on DA BPCG payments incurred to satisfy N-1-1 contingency requirements for NYC load pockets.

As with all NYISO Consumer Impact Analyses, the analysis will discuss impacts to reliability, transparency and the environment.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/10718541/CIA%20Methodology%20for%20More%20Granular%20Operating%20Reserves.pdf/2770a150-ee32-04f7-fc99-a2557d12e3af

FERC Filings

February 7, 2020

NYISO supplement to the December 20, 2019, filing of three enhancements to the existing Competitive Entry Exemption established under the NYISO's buyer-side capacity market power mitigation measures

FERC Orders

February 6, 2020

FERC Letter Order accepted fast start resources compliance filing subject to NYISO filing a two-week advance notice of the actual effective date

Filings and Orders:

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