NYISO Consumer Interest Liaison Weekly Summary

April 8 – April 12, 2019

Notices:

- *The NYISO Board of Directors **announced its selection** of **two transmission projects to meet public policy needs.** The selected transmission projects will benefit consumers by increasing delivery of environmentally desirable power to meet state energy goals, relieving congestion, and replacing aging infrastructure to bolster system reliability and resilience. The projects will add the largest amount of free-flowing transmission capacity to the state's grid in more than 30 years. Pursuant to the Federal Energy Regulatory Commission's Order No. 1000 and the NYISO's Public Policy Transmission Planning Process, the New York State Public Service Commission (NYPSC) identified the need to expand the state's AC transmission capability to deliver additional power from generating facilities located in upstate New York, including important renewable resources, to the population centers located downstate. To provide additional capability to move power from upstate to downstate, the NYPSC identified the Public Policy Transmission Needs to increase transfer capability from central to eastern New York by at least 350 MW ("Segment A") and from the Albany region through the Hudson Valley region by at least 900 MW ("Segment B"). The planning process requires the NYISO Board to evaluate proposals in response to the PSC's declared need and select the more efficient or cost-effective solutions.* ***View more***

- *Please be advised that a draft of the **2019 Load and Capacity Data Report** (also known as the "Gold Book") is now available for your review and comment and has been posted to the NYISO website at the link listed below. The draft for review is the public version which has Table VI-1 redacted, as it may contain Critical Energy Infrastructure Information. This information will be available to individuals with a MyNYISO account when the final version is posted.*
  Draft 2019 Load and Capacity Data Report

Meeting Summaries:

Monday, April 8, 2019

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

Carbon Pricing -- Calculating the LBMPc

Ethan Avallone of the NYISO led a review of the proposed methodology to calculate the $LBMP_C$ portion of LBMP with stakeholders and presented information on Opportunity Costs for eligible resources.

Mr. Avallone explained that the NYISO initially proposed to perform the LBMPc calculation using a system of equations that account for binding transmission constraints and the characteristics of marginal resources. However, the NYISO discovered that in many cases it is not possible to determine a system of equations or solve the system of equations for a given market interval; this would potentially require the NYISO market software to "persist" using the LBMPc from prior intervals for long periods of time.

Due to the inability to solve the system of equations, the NYISO proposes an alternative approach. The NYISO proposes that an estimated fuel cost be used to determine the LBMPc for a Load Zone using the real-time LBMP divided by an estimated marginal fuel cost to provide an approximate heat rate. A stakeholder asked how the NYISO would determine which fuel source would be used for the calculation. The NYISO responded that the solution to that issue was still under consideration and committed to returning to a future MIWG/ICAPWG meeting for further discussion. In response to a stakeholder question on the comparability of the two methods, Mr. Avallone noted four benefits the estimated fuel cost calculation would provide:

- *The new calculation is more transparent than the method initially proposed.*
- *Stakeholders will be better able to estimate the LBMPc and therefore it will be easier for marketers with imports/exports to estimate their charge/credits and for LSEs to estimate the carbon residual allocation*
- *Fewer intervals will require the LBMPc to be persisted due to the lack of ability to solve for LBMPc in that interval*
- *The NYISO also anticipates a faster solve time, enabling posting the LBMPc closer to the RT LBMP posting*

An example was provided for discussion with stakeholders to illustrate the methodology behind the calculation.

Next, Mr. Avallone explained the concept of Opportunity Costs for certain resources that are able to store energy. These resources structure their bids to achieve schedules during the most economic periods of the day. During periods of the day with lower prices, the bids of such resources will likely reflect the estimated opportunity cost of profit from periods of the day with higher prices. The proposed LBMPc methodology will incorporate carbon adders that are the result of bidding opportunity costs. The LBMP used to calculate LBMPc will include the impact of resources bidding opportunity costs when such resources are marginal, so no additional adjustments are necessary. Stakeholders requested that the NYISO present examples of opportunity cost calculation for differing scenarios such as storage combined with fossil generation, pricing when wind is backed down and when hydro is on the margin.

Mr. Avallone noted that carbon pricing will be discussed at the April 30, May 14 and potentially the May 30, 2019 MIWG meetings as the NYISO and stakeholders continue to refine the proposal.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/5897939/4.8.2019_MIWG_Carbon_Pricing_LBMPc_Opportunity_Cost_FINAL.pdf/580aa847-11bf-6ba3-a95b-5420dc09cb89

Impact of NYISO Carbon Pricing on EFW in NY

Michael VanBrunt of Covanta presented the potential impact of carbon pricing on energy from waste (Efw), also known as waste-to-energy (WTE), generating facilities in New York State (NY). Mr. VanBrunt explained that 10 plants in NY process 3,200,200 tons of waste per year and are a critical

part on NY's waste management structure. These facilities represent 285.1 MW of nameplate generation. Mr. VanBrunt provided an outline of the process WTE facilities use to produce electricity from waste material and noted that the process produces a negative net greenhouse gas (GHG) source of energy. WTE facilities are recognized as renewable in NY energy law and included in the state's 25% renewable baseline, but are not included as renewable energy credit eligible in the NY State Clean Energy Standard.
Mr. VanBrunt provided estimates of additional costs that will be imposed on WTE facilities if they are not characterized as renewable and exempted from a carbon charge. Covanta estimates the cost of a carbon charge on the burner tip emissions of WTE facilities could put continued operation of these facility's operation at risk, therefore incurring a negative GHG effect on NY State.
To see the complete Covanta presentation, please go to:
https://www.nyiso.com/documents/20142/5897939/NYISO%20Carbon%20Pricing%20Impact%20on%20EfW%20in%20NY%204-8-19.pdf/f9e97410-3a9c-0b9d-3e99-721fc9e34e39

Expanding Capacity Eligibility

Zachary T. Smith of the NYISO presented proposed revisions to the Market Services Tariff (MST) and the Open Access Transmission Tariff (OATT) to incorporate the expansion of Capacity market eligibility. Mr. Smith highlighted revisions made since the prior March 25, 2019 ICAP/MIWG meeting.
Revisions were made throughout MST 5 to change the phrases "DER Participation Model" or "Distributed Energy Resource" to "DER Aggregation" to correspond to the language in MST Section 2. Other changes to MST Section 5 include

- MST 5.11.1
  - Revisions made to account for Demand Reductions from DER in determining the Adjusted Actual Load for the allocation of the NYCA Minimum Unforced Capacity Requirement.
- MST 5.12.6.2
  - Now includes the word "of" in the following sentence; "A Resource's Unforced Capacity will be the applicable Adjusted Installed Capacity multiplied by the quantity of 1 minus the Resource's derating factor"
- MST 5.12.13
  - The title of this section was changed from "Swapping Aggregations" to "Resources Changing Aggregations" to match the language in MST 4
- MST 5.12.14
  - Language changes for clarification of resources with a limited run time duration election
  - Ministerial updates

Incremental revisions were also made to the OATT tariff Attachments S and Z. Updates include:

- Ministerial revisions were made in OATT Attachment S Section 25.9.4 to mirror the language in Section 25.9.3.1
- Ministerial revisions were made in OATT Attachment Z Section 32.1
  - Revisions were made to include the word "of" in Section 32.1.4.2.1
- Ministerial revisions were made in OATT Attachment Z Section 32.5
  - The definition of Small Generating Facility was revised to include the words "to interconnect"
- All revisions to the above OATT Attachments since the March 25, 2019 presentation were highlighted in redline attachments provided with the meeting materials.

If required there will be additional discussion at future ICAP/MIWG meetings leading to the April BIC vote on the DER Participation Model proposal. To see the complete presentation, please go to: https://www.nyiso.com/documents/20142/5897939/Expanding%20Capacity%20Eligibility%204-8-19.pdf/e3b02a8e-b510-1cde-72f2-e9c9f3e36f35

DER Incremental Tariff Changes

Michael Lavillotti of the NYISO presented tariff changes for the Distributed Energy Resource (DER) participation model proposal. The purpose of the presentation was to review previous topics discussed with stakeholders to enable and enhance the participation of DER in the NYISO Wholesale Energy, Capacity & Ancillary Services Market and identify the impacted sections of the tariffs. Mr. Lavillotti led a review of the proposed tariff revisions for discussion with stakeholders. Several Market Service Tariff (MST) and Open Access Transmission Tariff (OATT) sections were updated, including:

- MST 23 Energy Storage Mitigation
- MST 18 BPCG
- MST 25 DAMAP
- MST 4.6-4.7 Market Services Rights & Obligations
- MST 30 Market Monitoring Plan
- MST 2 Definitions
- OATT 2 Common Service Provisions
- OATT 6.1-6.4 NYISO Annual Budget
- MST 4.5 Energy Balancing
- OATT 24 DR Cost Allocation
- MST 15 Rate Schedules and Their Various General Rules
- MST 4.1-4.4 Market Services Rights and Obligations
- MST 7 Billing and Payments

Mr. Lavillotti explained that as of May 1, 2020, Generators and Demand Side Resources electrically located in the NYCA (that meet all applicable rules and obligations) may simultaneously participate in the ISO-administered wholesale markets and in programs or markets operated to meet the needs of distribution systems located in the NYCA.

The NYISO will be available at the MIWG/ICAP working group meetings on April 10 and 15, 2019 to provide additional opportunities for stakeholder discussion as the DER participation model is refined prior to seeking governance approval.

Mr. Lavillotti separated out MST Section 23.4.5 for discussion in order to avoid the mixing of the energy and capacity markets in the same conversation. No comments on this section were provided at the meeting.

To see the complete presentation, please go to: https://www.nyiso.com/icapwg?meetingDate=2019-04-10

Wednesday, April 10, 2019

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

NYISO-PJM JOA Revisions for M2M

Cameron McPherson of the NYISO presented proposed revisions to the NYISO/PJM Joint Operating Agreement (JOA) to coordinate the Market-to-Market (M2M) re-dispatch process. When re-dispatch coordination on a flowgate occurs, the flowgate is jointly managed in the economic dispatch models of both Control Areas. Definitions of specific M2M terms were provided for clarity.

Mr. McPherson explained that NYISO and PJM continue to observe contingency overloads on the East Towanda – Hillside 230kV tie line during periods of transmission outages coincident with the operation of the Liberty Asylum Unit in PJM. Due to the structure of the JOA and the PJM tariff, PJM's ability to take controlling actions is limited. A FERC waiver allows the NYISO and PJM to coordinate on M2M Re-dispatch Flowgates for the East Towanda – Hillside facility, and grant a waiver of the JOA provisions related to M2M Re-dispatch Coordination. During the waiver period, the NYISO and PJM have agreed to work through the necessary JOA revisions.
Mr. McPherson provided details on the specific tariff revisions required to accomplish the M2M Re-dispatch process and also noted additional minor JOA revisions to areas such as confidentiality provisions and NY-NJ PAR settlements.
The NYISO will return to the MIWG after considering stakeholder feedback prior to seeking governance approval for a Q2/Q3 filing to FERC.
To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/5935285/NYISO-PJM%20JOA%20Changes%20-%20FINAL%20v0.pdf/dfa22f13-9cf9-3f30-80ed-c7a1f951eb94

DER Tariff Review
Michael Lavillotti of the NYISO provided stakeholders with the opportunity for discussion of the Distributed Energy Resource (DER) participation model prior to a vote on the proposal. The NYISO noted that there will be an additional opportunity for discussion at the April 15, 2019 MIWG meeting.

New Business
Zachary T. Smith of the NYISO noted that the Request for Proposal (RFP) for the Demand Curve Reset consultant has been issued. The NYISO amended the timeline to acknowledge the issuance of the RFP.

Friday, April 12, 2019

Joint Electric System Planning Working Group/Transmission Planning Advisory Subcommittee
Straw Proposal to Streamline Public Policy Transmission Needs Projects in Interconnection Process and Establish a Procedure to Administer Att. Y 31.6.4
Yachi Lin of the NYISO presented a straw proposal to address concerns raised by stakeholders in reference to the ability of the NYISO to adequately study the feasibility and constructability of non-BPTF (non-Bulk Power Transmission Facilities) upgrades in a proposed project based on the Public Policy Transmission Need (PPTN). Certain Transmission Owners (TOs) also sought to clarify their right to build, own, and recover the costs of non-BPTF upgrades in the Public Policy Transmission Planning Process (PPTPP) pursuant to Section 31.6.4 of Attachment Y. NYISO staff reviewed the inputs and developed a straw proposal to revise the OATT and the Public Policy Transmission Planning Manual to address the identified concerns and to further enhance the PPTPP.
The first part of the proposal is to evaluate the non-BPTF upgrades in the PPTPP in a 3 step process:

1. *Perform sensitivities, as appropriate, to account for the Public Policy Transmission Need case when performing the required analyses*
2. *Revise the scope of the feasibility/constructability analyses in the optional Feasibility Study and System Impact Study under Attachment P for upgrades proposed or related to Public Policy Transmission Projects to study the feasibility/constructability of not only where the upgrade proposes to interconnect but also the upgrade itself as it relates to the local transmission system*

3. *Revise the SIS study to make it into two distinct parts for Public Policy Transmission Projects and use one part of the SIS as an input into the NYISO's evaluation and selection*

A flow chart was provided to illustrate where these steps would be placed into the PPTPP timeline.
The second portion of the straw proposal contains the assignment process for upgrades. Ms. Lin noted Attachment Y, Section 31.6.4:

- ***Nothing in Attachment Y affects the right of a Transmission Owner to: (1) build, own, and recover the costs for upgrades to the facilities it owns, provided that nothing in Attachment Y affects a Transmission Owner's right to recover the costs of upgrades to its facilities except if the upgrades has been selected in the regional transmission plan for purposes of cost allocation, in which case the regional cost allocation method set forth in Attachment Y of the ISO OATT applies, unless the Transmission Owner has declined to pursue regional cost allocation;…***

By including an assignment process that documents how a TO would exercise its right as it relates to upgrades, Developers, TOs, and stakeholders will have greater clarity to help aid them in the various steps of the Public Policy Transmission Planning Process. Ms. Lin explained the proposed upgrade identification process along with the facilities that could potentially be assignable to TOs. A second flow chart was provided to illustrate where this process would fit into the PPTPP timeline.
The NYISO plans on returning to the ESPWG/TPAS on May 3, 2019 for further discussion. Interested market participants should provide comments no later than April 19, 2019 in order for consideration at the May 3, 2019 ESPWG/TPAS meeting.
To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/02%20Straw%20Proposal.pdf/eb9ae884-65cd-24eb-3f37-457e6f2249ec

AC Transmission – Lessons Learned

Yachi Lin of the NYISO kicked-off the AC Transmission Public Policy Transmission Planning Process (PPTPP) Lessons Learned discussion. Ms. Lin thanked stakeholders for providing initial comments on the process and encouraged stakeholders to continue sending comments to the NYISO at PublicPolicyPlanningMailbox@nyiso.com.
The Lessons Learned process is an integral part of improving the PPTPP. The NYISO collects and compiles stakeholder suggestions, develops action plans, leads discussions and ultimately implements the action plans. Suggestions that can be implemented immediately or in the near future will be implemented for the next Public Policy Transmission Need (PPTN), if a Need is ordered by the New York State Public Service Commission (PSC). Other suggestions requiring additional time and effort will be developed in the appropriate processes.
Ms. Lin noted feedback received to date and led discussion on the following suggestions:

- *Involve the Board early on, and solicit feedback on the metrics the NYISO will use throughout the evaluation and selection process*
- *Hold a more in-depth technical conference prior to soliciting solutions for clarification*
- *Collaborate with the incumbent facility owners to disclose the system constraints identified in the baseline assessment before soliciting proposals*
- *Develop an open and transparent process to continuously update stakeholders regarding information on system constraints following the technical conference*
- *Hold individual information sessions for each developer to explain their proposals after the solicitation window is closed. Developers should clearly identify the project elements and the design objectives. Developers will also be encouraged to identify the strengths of their project designs and disclose potential issues*

- *Delineate and differentiate the project responsibilities of the incumbent transmission owners and the developers, including the treatment of new transmission facilities and upgrades of existing transmission facilities*
- *Include the treatment of cost containment in the evaluation and selection metrics and related changes to the Development Agreement and rate filings at FERC*
- *Further coordinate the Interconnection Process and Public Policy Transmission Planning Process. To the extent feasible, the cost to mitigate potential adverse reliability impacts should be made available and incorporated into the evaluation and selection process.*

A stakeholder noted that the incorporation of a cost containment provision is critical to enact prior to any future PPTNs. Ms. Lin explained that the NYISO is aware of the importance of this provision and is working to develop a solution.

The NYISO will compile the comments and start developing an action plan prior to returning to a future ESPWG meeting in 2019 for additional discussion with stakeholders. In response to a stakeholder question, Ms. Lin provided a deadline of April 30, 2019 for receiving comments for inclusion in the May 21, 2019 ESPWG discussion. The NYISO expects to propose a plan to inform the 2019 Comprehensive System Planning Process (CSPP) review.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/03%20AC_lessonslearned.pdf/8aae2b24-4671-2934-c74b-307b4a3ab96a

Definition of Upgrade

Dana Lazarus of Consolidated Edison (Con Ed) presented a request for a re-examination of the definition of the term Upgrade. Ms. Lazarus noted that in the electrical industry there are several definitions of the term. An improved definition would provide more clarity regarding project elements that would be the responsibility of Transmission Owners (TOs). Con Ed noted the Midwest Independent System Operator (MISO) uses a more detailed definition which could be streamlined to provide additional clarity for the NYISO process. To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/Definition%20of%20Upgrade_April%2012%202019%20ESPWG.pdf/23c51e51-c38a-e3bd-05d4-39f64c9dbb3f

2019-2028 Comprehensive Reliability Plan Draft Report

Kevin DePugh of the NYISO presented the 2019-2028 Comprehensive Reliability Plan (CRP) draft report. Mr. DePugh led a review of each section of the draft report with stakeholders. There were no Reliability Needs found in the 2019-2028 CRP. To see the complete draft report, pleased go to:
https://www.nyiso.com/documents/20142/6001938/04%202019-2028%20CRP%20Report%20Draft.pdf/2dc373d2-9327-0af4-2ab4-95534cb438e3

Economic Planning Manual Updates

Timothy Duffy of the NYISO presented updates to the Economic Planning Manual (Manual). The last update for the Manual was performed in 2016. Several changes are proposed, including:

- Updated description of historic congestion data reporting
- Inclusion of Generation Deactivation process in overall CSPP
- Correction to NYISO web links
- Ministerial changes such as standardization of tariff references, inappropriate capitalizations, and use of defined terms
- Minor language edits for user readability

The Manual will be posted for the 15-day review period prior to a May 2019 BIC vote for approval.

To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/05%20EPP%20Manual.pdf/e450f9e5-98ce-df30-9576-910f14e859ac

Order 845 Compliance Filing

Thinh Nguyen of the NYISO presented the proposed compliance approach for FERC Orders No. 845 and 845-A. In FERC Order No. 845, the Commission adopted ten reforms to the pro forma LGIP (Large Generator Interconnection Procedure) and LGIA (Large Generator Interconnection Agreement) in its NOPR (Notice of Proposed Rulemaking). In Order No. 845-A, FERC addressed 12 requests for rehearing and/or clarification of Order No. 845. The NYISO's compliance filing is due May 22, 2019.
Mr. Nguyen led a review of the ten reforms required by FERC Order No. 845 and explained the intent of each:

1. Interconnection Customer's Option to Build
2. Dispute Resolution
3. Identification and Definition of Contingent Facilities
4. Transparency Regarding Study Models and Assumptions
5. Definition of Generating Facility
6. Interconnection Study Deadlines
7. Requesting Interconnection Service Below Generating Facility Capacity
8. Provisional Interconnection Service
9. Utilization of Surplus Interconnection Service
10. Material Modification and Incorporation of Advanced Technologies

Mr. Nguyen provided the Order No. 845A clarifications, where applicable, prior to a detailed explanation of the NYISO's proposed responses. The proposed tariff language was provided in a redline form for stakeholder review and discussion.
The NYISO will file the proposed revisions to the Commission by May 22, 2019.
To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/06%20Order%20845%20Presentation.pdf/45f65416-62f7-bbdd-cb0c-abadf10f58e6

Key Study Assumptions for Hudson Ave 4 IIFO

Keith Burrell of the NYISO provided the key study assumptions for the ICAP Ineligible Forced Outage deactivation for the Hudson Ave. 4 generating facility. Hudson Ave. 4 is a 16.3 nameplate MW facility located in Zone J.
The case used for the analysis are those used for the 2019-2028 Comprehensive Reliability Plan (CRP) with Gilboa 1 modeled as in-service (unit is currently IIFO).
The NYISO will perform the analysis on the BPTF (Bulk Power Transmission Facilities) while Con Edison will perform the analysis on the non-BPTF. The study period for this assessment will be through summer 2024.
The Generator Deactivation Assessment will be completed by June 30, 2019.
To see the complete presentation, please go to:
https://www.nyiso.com/documents/20142/6001938/07%20HudsonAve4_StudyAssumptions.pdf/16685dd5-1069-66f9-9e90-0ee1bde128c5

FERC Filings

April 12, 2019

NYISO filing of FERC Reporting Requirement No. 582: transmission service in interstate commerce provided during calendar year 2018 in MW-hours

April 10, 2019
Compliance filing to modify the generator notification and NYISO action deadlines specified in the Services Tariff

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

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