

NYISO Consumer Interest Liaison Weekly Summary

June 10 – June 14, 2019

Notices:

- The [redline](#) and [clean](#) versions of **NYISO Transmission Expansion Interconnection Manual (M-23)**, have been posted to the [Manuals, Technical Bulletins & Guides webpage](#) under **Manuals, Under Review**. All proposed changes will be presented at the July 17th BIC and July 18th OC.
- The [draft](#) version of the new **NYISO TB-248 “TCC Market: Modeling of the Rainey PAR”**, has been posted to the [NYISO Manuals, Guides, and Technical Bulletins webpage](#) under **Technical Bulletins, Under Review**.
- The new Corona - Rainey 138 kV line 36187, Rainey 345/138 kV transformer 5E, and the Rainey 138 kV Phase Angle Regulator (PAR) PAR 5 will be placed in service in **TCC auctions beginning with the July 2019 Balance-of-Period Auction**. The Corona - Rainey line 36187 and the Rainey PAR will be secured in TCC auctions at that point. Additionally, the NYISO will secure the Shoemaker - Chester 138 kV line 27 in **TCC auctions beginning with the July 2019 Balance-of-Period Auction**. The Rainey PAR will be optimized in the Optimal Power Flow analysis of TCC auctions as described in Technical Bulletin #248.
- The [final](#) version of the **NYISO TCC Automated Market System User’s Guide [UG-08]** has been posted to the [NYISO Manuals, Technical Bulletins, and Guides webpage](#) under **Guides**.
- The **NYISO 2020 Project Prioritization Survey** has been sent to registered shared governance member organizations. The sender will be "Siena College Research Institute" (noreply@gemailserver.com) with the subject "NYISO 2020 Project Prioritization Scoring Survey". For the list of individuals receiving the survey and further details on the projects included in the survey, please see the [June 12th BPWG meeting materials](#).
- The **Lyonsdale Biomass Generator Deactivation Assessment** has been posted to the following link:
[Generator Deactivation Assessment](#)

Meeting Summaries:

Monday, June 10, 2019

Joint Electric System Planning/Installed Capacity Working Group/Transmission Planning Advisory Subcommittee

Key Study Assumptions for Generator Retirements

Keith Burrell of the NYISO presented the key Deactivation Study assumptions for the following generating stations:

- **Steuben County LF**
 - **Zone C, 3.2 MW**
- **Monroe Livingston LFGE**
 - **Zone B, 2.4 MW**
- **Auburn – State St.**
 - **Zone C, 7.4 MW**
- **Hudson Ave 4**
 - **Zone J, 16.3 MW**

The study will use the most recent base case from the 2019-2028 Comprehensive Reliability Plan (CRP) with the following updates:

- *Load*
 - *updated to match the 2019 Load and Capacity Data Report (“Gold Book”) forecast*
- *Transmission*
 - *All firm Transmission Owner Local Transmission Plans (LTPs) from the 2019 Gold Book are included with the exception of the NYSEG Coopers Corners 345/115 & 115/34.5 kV transformers (due to target I/S outside of the inclusion period) •*
 - *AC Transmission selected projects NAT/NYPA T027 and National Grid/Transco T019*

The major assumptions for the 2019-2028 CRP were included with the meeting materials for reference. In response to a stakeholder question, Mr. Burrell explained that there will be four separate studies conducted with the same assumptions.

The NYISO is performing the assessment of the BPTF (Bulk Power Transmission Facilities) while the local transmission operators will conduct the non-BPTF for the facilities in their respective transmission districts.

The assessment for Steuben Count LF, Monroe Livingston LFGE and Auburn-State St. will be completed by August 8, 2019. The assessment for Hudson Ave. 4* will be completed by August 27, 2019. To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/6987817/03_2019GDA_Steuben_MonroeLvgnstn_AuburnS_S_Hudson4_KeyAssumptions_vFinal.pdf/1835c328-dcd1-aa68-e8b5-c6c37dabaa1e

**Note to above: The Hudson Ave 4 Generator Deactivation assessment was posted on June 12, 2019 at the following link: [Generator Deactivation Assessment](#)*

Reliability Analysis Data Manual Updates

Pramila Nirbhavane of the NYISO presented updates to the Reliability Analysis Data Manual. This manual describes the data required by the NYISO to carry out technical analysis to support its mission of preserving the reliability of the New York State bulk power system.

Several technical bulletins (TB) were incorporated into the manual:

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- *TB 238 NYISO Determination of Adverse Material Impact of Modeling Discrepancies*
- *TB 239 System Network Representation - Geomagnetic Induced Current Model Data*
- *TB 241 Data Screening Procedure*
- *TB 242 Acceptable Generator Dynamics Model Criteria*
- *TB 244 Power System Changes - Notification Requirements*

Ms. Nirbhavane highlighted several changes made throughout the manual and accompanying attachments to bring the manual up to date.

The TPAS voted to recommend the Reliability Analysis Data Manual updates to the June 21, 2019 OC meeting for approval. To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/6987817/04a_RAD_Manual_Presentation_TPAS_06102019.pdf/986b9222-bd86-b955-7d4e-28b5cd67c3b8

Northern Export and Cedars Import Stability Limits Report

David Mahlmann of the NYISO presented the analysis that went into the development of the Northern Export and Cedars Import Stability Limits. Mr. Mahlmann explained that the loss of a second transmission corridor segment during outage conditions can result in limited North Country connections to the Eastern Interconnection. Illustrations were provided and discussed with stakeholders to define the Northern Export and Cedars Import interface.

The Northern Export Stability limits recommended by the study impose a set of limits for the North Country equipment outages, thus replacing local NYPA administered stability limits with a set of NYISO administered stability limits. Mr. Mahlmann explained that the limits will be incorporated into the NYISO commitment software. Tables were provided to reflect the recommended limits.

The TPAS voted to recommend the Northern Export and Cedars Import interface limits to the June 21, 2019 OC for approval. To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/6987817/05_Northern%20Export%20and%20Cedars%20Import%20Stability%20Limit%20Presentation_TPAS%20%206_10_19%20-%20Updated.pdf/713ded1d-edc3-d9dc-631b-c2c797387af0

Study Scopes under Consideration for Recommendation for OC Approval

Queue #789

Atlantic Shores Offshore Wind 8

Offshore Wind Generation Plant

880 MW W/S

Brooklyn, Kings, NY

Recommended to the OC for approval

Queue #790

Atlantic Shores Offshore Wind 9

Offshore Wind Generation Plant

880 MW W/S

Staten Island, NY

Recommended to the OC for approval

Queue #792

Long Island Offshore Wind Connection

Offshore Wind Generation Plant

Uprate to Queue #363

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318 MW W/S
Melville, NY
Recommended to the OC for approval

Study Reports under Consideration for Recommendation for OC Approval

Queue #637*
Flint Mine Solar
Solar Power Plant
100 MW W/S
Greene County, NY
Recommended to the OC for approval

Queue #637 Optional*
Flint Mine Solar Optional
Solar Power Plant
100 MW W/S
Greene County, NY
Recommended to the OC for approval

**Note on above Queue #637: Only one project will be sent to OC for approval*

Queue #718
Cortland Energy Center Solar
Solar Power Plant
50 MW W/S
Cortland County, NY
Recommended to the OC for approval

Queue #719
East Light Energy Center Solar
Solar Power Plant
40 MW W/S
Montgomery County, NY
Recommended to the OC for approval

Queue #720
North Light Energy Center
Solar Power Plant
80 MW W/S
Seneca County, NY
Recommended to the OC for approval

Queue #721
Excelsior Energy Center
Solar Power Plant
280 MW W/S
Genesee County, NY
Recommended to the OC for approval

Review of Material Modification Determinations and Modifications Requiring a New Interconnection Request/SIS Request

O&R Transmission Project – New Oak Street 138kV Substation Project

- No System Impact Study required

O&R Transmission Project – Ramapo Bank 2300 Replacement Project

- No System Impact Study required

Transmission Expansion & Interconnection Manual Revisions

Thinh Nguyen of the NYISO presented revisions to the Transmission Expansion & Interconnection Manual (TE&I Manual). Since the last update to the TE&I Manual in June 2017, several tariff revisions have been accepted by FERC revising the transmission expansion and interconnection procedures. Additionally, the TE&I Manual needed further updating to add detail regarding interconnection study methodology and clarify existing practices and procedures.

Mr. Nguyen detailed several updates to the TE&I Manual to reflect revisions made as part of the 2017 comprehensive queue reform including:

- Increased Efficiencies in the Interconnection Process
- Improvements to the Class Year Study Process
- Other Clarifications and Improvements to the Interconnection Process

Other updates were made to conform with tariff changes since the last update in June 2017 including changes resulting from compliance with FERC Order 1000 and rules regarding to External-to-ROS Deliverability Rights (EDR). Finally, the manual was updated for minor ministerial and editorial changes throughout the document.

Stakeholders will have opportunities for additional input at future TPAS meetings prior to submission to the OC for approval.

To see the complete presentation including redline and clean versions, please go to:

https://www.nyiso.com/documents/20142/6987817/10a_TEI%20Manual%20Revision_PPT_061019%20TPAS_ICAPWG_Final.pdf/99aceabf-c2a5-1655-bfac-bee631d4770d

Class Year/Interconnection Queue Redesign

Thinh Nguyen of the NYISO led a review of the proposed redesign of the Class Year/Interconnection process. The goal of the redesign is to expedite the interconnection study process and limit the possibility of unique issues related to a single or few projects to delay in the timely completion of the class year.

As presented in prior working group discussions, the proposal is divided into two main categories; Deliverability Redesign and Class Year Study Efficiencies. Mr. Nguyen highlighted the updates to the proposal since the last discussion and encouraged stakeholders to provide feedback;

- Deliverability evaluation in the System Reliability Interconnection Study (SRIS) for all Large Facilities
 - This would allow Developers to consider changes to projects that potentially make them more deliverable. During the transition period, this rule would apply only to projects that do not have an OC-approved SRIS scope as of the effective date of the tariff revisions.
- Remove additional System Deliverability Upgrade (SDU) Studies from the rest of the Class Year
 - This would allow the Class Year to continue without delay

- The impacted Developers must pursue such studies outside the normal Class Year process
- Allows Developers to potentially re-enter Class Year based on timing of results
- Perform a “Mini Deliverability Study” outside the Class Year process for Capacity Resource Interconnection Service (CRIS)-only projects
 - This eligibility would have limiting requirements.
 - This would allow eligible projects to proceed outside of the Class Year time requirements
- More stringent CRIS Expiration Rules
 - Increases deliverability “headroom” retained by facilities not using, or using only a portion of their CRIS or that have not yet entered the ICAP market

Mr. Nguyen next provided the details of the proposals for the Class Year Study efficiencies:

- Frontload Class Year Study Work in Part 1 Studies
 - Potentially shortens the duration of the Class Year
- Eliminate Duplication in SRIS and Class Year Studies
 - Focus Class Year analysis on incremental "system and/or projects' interaction analysis“
 - Could expedite SRIS by avoiding detailed analyses in SRIS that are duplicated in the Class Year Study
- Require Project Data Earlier in Class Year Process
 - Potential to shorten duration of Class Year Study
- Revise & Clarify Regulatory Milestone Requirements
 - Adds additional milestone for renewable projects and adds clarity to required regulatory milestone

The NYISO noted substantial stakeholder feedback and will continue to develop the proposals and vet tariff language through the summer. The goal is to receive a FERC Order prior to the Class Year 2019 Notice of Additional SDU Studies. To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/6987817/11_Class%20Year%20Redesign%20061019_TPA_S_ICAPWG_Final.pdf/0253200e-06a8-1411-a6b1-5d6e93b1ce7d

Tuesday, June 11, 2019

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

Zone J Operating Reserves Manual Updates

Ashley Ferrer of the NYISO presented updates to the operating manuals to reflect changes to Zone J operating reserve requirements.

On April 26, 2019, the NYISO filed a proposal with FERC to procure 500 MW of 10-minute reserves and 1,000 MW of 30-minute reserves in Zone J, consistent with NYSRC reliability rules for NYCA reliability. The proposal will also establish operating reserve demand curves that assign a \$25/MWh value to the proposed reserve requirements for Zone J. Pending FERC approval, the NYISO proposes to implement the new Zone J reserve requirements in late June 2019.

The affected manuals include:

- *Ancillary Services Manual (AS Manual)*
- *Day-Ahead Scheduling Manual (DAS Manual)*
- *Transmission and Dispatch Operations Manual (T&D Ops Manual)*

Ms. Ferrer highlighted the updates required for each manual to reflect the Zone J reserve changes. It was noted that there were also revisions to the AS Manual that applied to Voltage Support Service and Automatic Fuel Swap capability testing, which were presented at prior MIWG/ICAPWG meetings. There were also additional changes to the DAS and T&D Ops manuals that were unrelated to the Zone

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J reserve proposal. These additional updates would be included in the BIC and OC votes to approve the manuals.

Clean and redlined versions of each manual are posted with the June 11, 2019

MIWG/ICAPWG/PRLWG meeting materials and are also available on the NYISO website, under the “[Manuals, Technical Bulletins, & Guides > Under Review](#)”. The manuals will be presented for approval to the BIC on June 20, 2019 and the OC on June 21, 2019. To see the complete presentation, please go to:

<https://www.nyiso.com/documents/20142/7007643/Zone%20J%20Operating%20Reserve%20Manual%20Updates%20MIWG.pdf/e68cdbca-20f5-ee41-e9e8-b66a6600e779>

Carbon Pricing: Tariff Revisions Review

Ethan Avallone of the NYISO presented tariff language revisions for the carbon pricing proposal. The NYISO has been to the MIWG/ICAPWG several times with tariff updates and continues to refine the language with consideration to stakeholder feedback. This presentation highlighted updates since the May 30, 2019 presentation.

Mr. Avallone led a review of the calculation for LBMP_C and noted that certain variables used in the calculation would have values set in accordance with NYISO procedures. It was also noted that if the LBMP is corrected, then the LBMP_C shall be recalculated based on the applicable revised LBMP and updated if necessary. Additional OATT tariff revisions were posted that mirror the previously discussed MST tariff language.

The presentation of the completed market design is targeted for the June 20, 2019 BIC meeting.

Although there will be no vote on the market design at the June 20, 2019 BIC, stakeholder discussions regarding the Carbon Pricing Supplemental Analysis will continue at ICAPWG/MIWG. The Carbon Pricing Supplemental Analysis is targeted for discussion at June and July ICAPWG/MIWG meetings. The BIC vote on the Carbon Pricing proposal is currently planned for a later date.

To see the complete presentation, please go to:

https://www.nyiso.com/documents/20142/7007643/6.11.2019_MIWG_Carbon_Pricing_Tariff_Review_FINAL.pdf/4622a2c9-f7a1-ff00-8273-cc2abe988885

Opportunity Costs for Energy Storage Resources

Nicholas Shelton of the NYISO presented the proposed methodology for the calculation of opportunity costs for Energy Storage Resources (ESR) that it plans to use as a baseline. The NYISO will be required to calculate a Reference Level for ESRs, which will be used as a “proxy” intended to reflect the offers of a generator if it was in a competitive market and could not exercise market power.

Under the NYISO’s methodology, Generators will be able to reflect changes to their opportunity costs while injecting or withdrawing, functionally similar to a thermal unit utilizing the Fuel Cost Adjustment.

Mr. Shelton explained the assumptions to be used in formulating opportunity cost adjustments for the Day-Ahead Market (DAM):

- *At the beginning of the day, the energy storage level for an ESR will be its minimum level*
- *An ESR will be able to completely charge or discharge within a single hour*

The NYISO proposal would use the last 90 days of DAM prices and calculate the average LBMP for each hour. An optimal schedule algorithm will be developed identifying the peaks and troughs.

Formulas were provided for determining the revenue derived from the Optimal Schedule and a Sub-Optimal Schedule. Examples were presented and discussed with stakeholders for clarity.

Reference Levels for ESRs will consist of opportunity costs plus any additional adders that the Market Participants can substantiate. The Reference Level is equal to the Opportunity Cost and the variable operating and maintenance costs plus a risk adder.

A supplemental document was provided with greater detail and additional examples. Stakeholders noted that the document was very complex and requested that a clearer document be produced for ease of stakeholder review.

The NYISO will incorporate feedback as it refines the presentation and will return to a future ICAPWG/MIWG for additional stakeholder discussion. To see the complete presentation, please go to: <https://www.nyiso.com/documents/20142/7007643/ESR%20Opportunity%20Cost%20-%20061119.pdf/41cf3cfe-1a28-b738-8e18-d26f1b901a3e>

Wednesday, June 12, 2019

Budget and Priorities Working Group

Enterprise Information Management: Data Integration

Ryan Smith of the NYISO reported on the Decision Support System (DSS) upgrade. The DSS supports more than 9,500 requests per day from approximately 2,000 market participant accounts comprising over 500 organizations. DSS provides two functions:

1) The Customer Settlements function provides:

- *Versioned customer settlements Feb 2005 – present*
- *Transparency by providing access to data required to calculate customer settlements*
- *Prior day bills/re-bills and invoices published to data mart nightly*
- *13 Universes and 89 reports*

2) The Public Market Pricing and Load data function offers:

- *Versioned DAM, RT, Ancillary prices Feb 2005 – present*
- *Constraints, Interface Limits and Flows, Load data Feb 2005 – present*
- *Published to data mart three times daily*
- *Data accessible via public portal interface on nyiso.com*
- *2 Universes 33 reports*

The Public Market Pricing and Load data function upgrade is currently underway and will be completed before the Customer Settlements function. A timeline was provided with the anticipated schedule for completion. The project is currently behind schedule and is anticipated for a December 2020 completion.

The project will be evaluated in the 2020 Project Prioritization Process for resource commitment, but will not be subject to stakeholder scoring.

To see the complete presentation, please go to:

<https://www.nyiso.com/documents/20142/7026152/02%20EIM%20Data%20Integration.pdf/754a5b0c-f140-6317-61bd-77641e98b5c1>

ACC Control Room Renovations

Matthew Musto of the NYISO presented a proposal to upgrade the Alternate Control Center (ACC) technology and configuration. During 2020, the project will completely reconfigure the layout of the control room, mirroring the Primary Control Center (PCC) layout, and add wing displays to improve operator visibility. In 2021, the mosaic tile board system representation would be replaced with a video display to update the technology and closely resemble operations at the Primary Control Center. In response to a stakeholder question, the NYISO noted that the construction plan allows for control continuity. The video board will be built behind the active mosaic tile display. At any time during the construction, the ACC will be available within 20 minutes.

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A timeline was provided showing that the upgrade would be completed in July 2021 at a total estimated cost of \$6.3M¹. The project will be evaluated in the 2020 Project Prioritization Process for resource commitment, but will not be subject to stakeholder scoring. To see the complete presentation, please go to:

<https://www.nyiso.com/documents/20142/7026152/03%20Carman%20Control%20Center%20Renovation.pdf/41b920ad-0191-d32f-a35d-c5c540a2b779>

2020 Market Project Updates, Costs, and Stakeholder Survey

Brian Hurysz of the NYISO presented the market project updates, costs and the stakeholder scoring survey process. Mr. Hurysz led a brief review of the project prioritization process and terminology prior to detailing the stakeholder scoring survey. The survey will be conducted by Siena Research Institute and will be distributed to registered shared governance organizations including non-voting participants and affiliates. The subject of scoring by non-voting members was raised by a stakeholder for further discussion following this survey cycle. An updated list of organizations and contacts to receive the survey was included with the meeting's posted materials for stakeholder review. Each organization may provide one survey response with 100 points available to assign to projects based on their priorities.

Mr. Hurysz noted enhancements to this year's scoring surveys including the ability to provide a link for access to the survey for organizational associates by sharing the code. There is also a comment section after each project and the end of the survey for participants to supplement scoring. Mr. Hurysz noted that the NYISO can assist in re-opening the survey once submitted if necessary.

The official survey was distributed following the June 12, 2019 BPWG with a deadline of June 25, 2019 for submission. Survey results to be reviewed at July 17, 2019 BPWG meeting.

Mr. Hurysz led a final review of the market project candidates while noting any updates made to description or cost. To see the complete presentation, please go to:

<https://www.nyiso.com/documents/20142/7026152/04%202020%20Market%20Project%20Updates%20Cost%20Survey.pdf/0c0450a4-f929-2c34-6ccf-dc7320803fc1>

2020 Enterprise Project Updates and Costs

Brian Hurysz of the NYISO presented updates and the estimated costs for the 2020 enterprise projects. The NYISO had provided the market project costs at the May 29, 2019 BPWG. The enterprise projects are not subject to stakeholder scoring and the material is provided for informational purposes. Mr. Hurysz led a review of the enterprise projects while providing the estimated costs and the deliverables for 2020. To see the enterprise projects candidates for 2020, please go to:

<https://www.nyiso.com/documents/20142/7026152/05%202020%20Enterprise%20Project%20Updates%20Cost%20Survey.pdf/8d136c09-177b-e1fe-4e54-97859e993fd2>

FERC Filings

June 14, 2019

NYISO 205 filing of proposed tariff revisions to modify the requirements for the provision of Cash Collateral

June 11, 2019

NYISO filing of proposed tariff revisions to implement modified requirements for External Capacity Suppliers responding to a Supplemental Resource Evaluation.

¹ Estimated 2020 Cost - \$2.3M, Estimated 2021 Cost – \$4.0M

FERC Orders

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

Filings and Orders:

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