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NYISO Consumer Interest Liaison Weekly Summary

June 6 – June 10, 2016

Notices:

- This notice is to provide Market Participants with an example of the RFC-4180 format posted online [HERE](#). The following OASIS price postings will be updated to RFC-4180 format, removing double quotes surrounding fields in the CSV file that do not contain special characters:
 - Day-Ahead Ancillary Service Prices (DAM_ASP)
 - Day-Ahead Market LBMP, Generator (DAM_LBMP_GEN)
 - Day-Ahead Market LBMP, Zonal (DAM_LBMP_ZONE)
 - Real-Time Ancillary Services (RT_ASP)

The change to the RFC-4180 format will occur in connection with the software deployment related to the Comprehensive Scarcity Pricing project.

The NYISO plans to provide additional updates in the future to communicate the actual dates for the software deployment and activation of Comprehensive Scarcity Pricing.

Meeting Summaries:

Tuesday, June 7, 2016

Joint Electric System Planning Working Group/Transmission Planning Advisory Subcommittee

2016 RNA - MARS Topology Discussion

Bill Lamanna of the NYISO presented the Topology development of MARS to be used in the 2016 Reliability Needs Assessment (RNA) study. The process begins with the 2016 IRM study topology. This is followed by a review of the most recently completed studies for consistency (ATR, Operating Studies, etc) and areas of change are identified. Interfaces are updated as necessary. Mr. Lamanna detailed the changes that will occur as a result of the PSEG/ConEd wheel expiring:

- Emergency assistance will be limited over JK lines and ABC due to constraints in PJM and NY systems
- A,B and C lines merged into one interface and VFT separated from A



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- *Dummy Zone J2 eliminated and Zones G and J tied directly to PJM East*

Impacts to the UPNY-SENY interface were highlighted with additional impacts due to the addition of CPV Valley. Changes were noted for Central East, Dysinger East and West Central. Mr. Lamanna completed his presentation with system representations for 2017 and 2018 – 2026 following the introduction of CPV in 2018. To see Mr. Lamanna’s complete presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2016-06-07/RNA_IRM_Topology.pdf

2016 RNA - External Capacity Sales Assumptions

Laura Popa of the NYISO presented the external capacity sales assumptions for the 2016 Reliability Needs Assessment (RNA). Ms. Popa presented the explanation of how the RNA study would treat Capacity sold forward to External Control Areas:

- *Generation selling out through the external areas forward capacity market will be modeled in the RNA Base Cases as equivalent contracts to reflect current obligations;*
- *The generation will then be assumed to return to the NY market after the expiration of the contract for the remaining years of the Study Period; and*
- *A scenario analysis will be performed to assess the potential impact to reliability if a generator continues to sell out in the remaining years of the Study Period.*

To see Ms. Popa’s complete presentation, please go to:

http://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=bic_espwg

Public Policy Transmission Planning Process Update

Zach Smith of the NYISO presented an update on Public Policy Transmission Needs. NYISO issued the final report on May 31, 2016 and filed the report for the Western New York Public Policy Transmission Need with the PSC on June 1, 2016. The NYISO reported that ten projects are viable and sufficient:

- *North America Transmission – Proposal #1*
- *North America Transmission – Proposal #2*
- *North America Transmission – Proposal #3*
- *North America Transmission – Proposal #4*
- *National Grid – Moderate Power Transfer Solution*
- *National Grid – High Power Transfer Solution*
- *NYPA/NYSEG – Western NY Energy Link*
- *NextEra Energy Transmission New York – Empire State Line #1*
- *NextEra Energy Transmission New York – Empire State Line #2*
- *Exelon Transmission Company – Niagara Area Transmission Expansion*



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In the AC Transmission Public Policy Transmission Need, the NYISO solicited Public Policy Transmission Projects and Other Public Policy Projects that were due April 29, 2016. NYISO received 15 proposed Public Policy Transmission Projects (PPTP) and one Other Public Policy Project (OPPP). NYISO will review proposed project information and perform viability and sufficiency analysis and anticipates a tentative plan to issue a Viability & Sufficiency Assessment by September 2016. Mr. Smith completed the presentation with a brief recap of the Public Policy Transmission Planning Process, conducted on a two-year cycle, and will begin the next cycle in August 2016. To see Mr. Smith's complete presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2016-06-07/PPTPP_Update.pdf

Solar Integration Study

Tim Duffy of the NYISO presented the Solar Integration Study (Study) completed by the NYISO. The Study investigated the impact of high levels of intermittent resources (wind and solar) on the operation of the Bulk Electric System (BES). Mr. Duffy detailed the primary areas of investigation:

- Development of hourly solar profiles
- Development of a 15-year solar PV projection in the NYCA
- Evaluation and selection of solar forecast vendors
- Review of integration studies from other regions experiencing significant growth in intermittent resources
- Review of potential reliability concerns associated with the frequency and voltage ride-through characteristics of solar installations.
- Analysis of the impact of various levels of solar and wind penetration on NYCA's grid operating regulation requirements.

The typical solar PV impact shape was obtained from the National Renewable Energy Lab's PV Watts tool and there was no expansion of electric storage facilities considered in the Study. Mr. Duffy provided a 15-year solar PV projection by Zone and the anticipated growth in behind-the-meter installations over the same period. California, Hawaii, PJM, Ontario (IESO) and Germany were examined for lessons learned and Mr. Duffy noted the following:

- *There needs to be sufficient flexible resources in the system to manage the transformed net load patterns; such a resource mix can consist of existing and new technologies, including storage.*
- *The availability of essential reliability services to the grid needs to be monitored, specifically: inertia, frequency, and voltage support.*
- *State public utility commissions—Hawaii (Order No. 33258) and California (Rule No. 21)—have mandated frequency and voltage ride-through capability on non-bulk power system level installations.*
- *Improvements in wind and solar forecasting should be prioritized to inform day-ahead and real-time system operations.*



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- *Planning for the large-scale integration of intermittent resources should consider the potential need for new or expanded transmission facilities.*

Regulation requirements were analyzed and recommendations were provided due to the anticipated growth of renewables. Consideration was given to recommendations for rulemaking and standard-setting processes for the adoption of industry standards for solar inverter system voltage and frequency ride-through capabilities. NYISO is developing a solar forecasting system and anticipates a Summer 2017 deployment. Key takeaways from the Study include:

- No reliability issues identified for solar PV and wind penetrations level studied
 - Up to 4,500 MW Wind and 9,000 MW Solar PV
 - Minor increases in regulation requirements easily accommodated.
- Recommended that the NYISO continue to monitor regulation requirements and the bulk power system's capability to provide regulation services going forward.
- Recommended that the NYISO continue to pursue integration of solar forecasting into market and system operations.
- Recommended that the NYISO continue to study the impacts of increased intermittent resources on bulk power system reliability and requirements for essential reliability services (inertia, frequency, voltage).
- Recommended that the NYISO engage with regulatory and industry stakeholders to support adoption of voltage and frequency ride-through capabilities for bulk and non-bulk solar PV installations.

To see Mr. Duffy's presentation and the complete draft Study, please go to:

http://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=bic_espwg

Wednesday, June 8, 2016

Installed Capacity Working Group

Ancillary Services (AS) Manual Revision

Raj Dontireddy of the NYISO presented revisions to the Ancillary Services (AS) Manual. Changes to the AS Manual were required to incorporate the new online Voltage Support Test Data System. All test data for Voltage Support Service (VSS) will be submitted online when the new system goes live, anticipated for June 20, 2016. The new system will create more transparency in the process by allowing the VSS providers to see the status of their test data without submitting a request to the NYISO. Test processing and approval will also be accelerated by eliminating manual processes. Mr. Dontireddy noted that the NYISO will provide training in the use of the automated system in the near future. The AS Manual changes will be presented to the SOAS prior to governance approval. To see Mr. Dontireddy's complete presentation, please go to:

https://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=oc_tpas

Market Transparency Initiative



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Pete Lemme of the NYISO presented the initiative to identify and recommend opportunities to improve the availability of and access to market data and information deemed to be desirable by stakeholders. Mr. Lemme described the interdisciplinary “Market Transparency Initiative Team” (Team) of NYISO subject matter experts that has been convened to improve market transparency. It was noted that the Team has the full support of NYISO senior staff. The plan to enhance transparency to the market includes:

- Active solicitation of transparency improvement suggestions from stakeholders
- Review Stakeholder Services issue tracking system for lack of transparency issues
- Study other ISO/RTO data and information resources to identify best practices
- Interview NYISO subject matter experts to identify historical areas of data and information restrictions that may be subject to change
- Follow-up with NYISO management and stakeholders on potential enhancements.

Stakeholders requested that Mr. Lemme return with a list of the transparency related requests previously suggested by stakeholders to avoid stakeholder duplication of suggestions. Mr. Lemme committed to return to a future MIWG meeting with that information. A stakeholder suggested that as part of this initiative, the length of time before some confidential information is released to the public should be part of the initiative. The 90 day period prior to releasing masked Supplier bid data was offered as an example. In response to a stakeholder inquiry, Mr. Lemme stated that it is anticipated that the progress of the Team would be reported back to the MIWG on an ongoing basis. Mr. Lemme encouraged stakeholder comments on the process which should be sent to plemme@nyiso.com. To see Mr. Lemme’s presentation, please go to: https://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2016-06-08/Market%20Transparency%20Initiative.pdf

Tariff Revisions to Support Balance-of-Period TCC Auctions

Curt Devenitch of the NYISO presented the tariff revisions to support the Balance-of-Period TCC Auctions. Changes to the Market Services Tariff and the Open Access Transmission Tariff were required to support the Balance-of-Period auction structure while correcting and/or clarifying existing tariff language where it is appropriate for consistency with the existing procedures and the removal of obsolete language. Mr. Devenitch highlighted the specific changes for each tariff section and led the stakeholder discussion of the changes. Feedback was noted at the meeting and can be sent to deckles@nyiso.com by June 15, 2016 for consideration. The NYISO anticipates July 2016 governance action for this effort. To see the complete presentation and supporting redline documentation, please go to: https://www.nyiso.com/public/committees/documents.jsp?com=bic_miwg&directory=2016-06-08

Thursday, June 9, 2016

System Operations Advisory Subcommittee

NYISO Operations Report – May 2016



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Peak Load

The peak load for the month was 25,061MW which occurred on Tuesday, May 31, 2016, HB16. Reserve requirements were as follows:

Reserve	10 Sync	Non-Sync	30 Min
Requirement	655	1,310	1,965
For Hour	857	1978	3,980
DSASP Cont.	49	0	49

Major Emergencies -- None

Alert States -- Alert State was declared on 13 occasions:

- 1 – System Frequency – 1 Low/0 High
 - 1 – ACE Greater than (+OR-) 500MW
 - 1 – Shortage of 10 Min Synchronized Reserves
 - 6 – Exceeding Central East Voltage Contingency Limit
 - 4 – Emergency Transfer Declared
- Alert state was declared 44 times during May of 2015

Thunder Storm Alerts

1 TSA was declared in May 2016

Reserve Activations – 7

Emergency Actions

NONE

TLR3 Declared – 0 for a total of 0 hours

Ancillary Services (AS) Manual Revision

Raj Dontireddy of the NYISO presented revisions to the Ancillary Services (AS) Manual. Mr. Dontireddy repeated the presentation from the June 7, 2016 MIWG meeting for a recommendation to the OC for approval. The SOAS recommended that the AS Manual proceed to the OC for approval. To see Mr. Dontireddy’s complete presentation, please go to: https://www.nyiso.com/secure/webdocs/markets_operations/committees/oc_soas/meeting_materials/2016-06-09/05_NYISO%20VSS%20ASM%20Presentation_MIWGSOAS.pdf

Reliability Analysis Data (RAD) Manual

Keith Burrell of the NYISO presented revisions to the Reliability Analysis Data (RAD) Manual. The RAD 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. Mr. Burrell highlighted the updates to the RAD Manual while clarifying stakeholder questions. The SOAS recommended that the RAD Manual proceed to the OC for approval. To see Mr. Burrell’s complete presentation, please go to:



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https://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=oc_soas

FERC Filings

June 7, 2016

NYISO compliance filing of two week notice of effective date for Scarcity Pricing tariff revisions accepted by March 1, 2016 Order

June 7, 2016

NYISO filing of compliance to remove language from the OATT that was rejected by the Commission in its April 21, 2016, Order

FERC Orders

June 10, 2016

FERC letter order accepted revisions effective on or before June 30, 2016, subject to a compliance filing with no less than two weeks' notice of the proposed effective date

June 6, 2016

FERC Letter Order accepted revisions to the interconnection procedures in OATT Section 25 designed to provide flexibility to large and small project developers wishing to enter a Class Year Study by providing more time to meet certain regulatory milestones

Link to FERC Filings and Orders:

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