

NYISO Consumer Interest Liaison Weekly

May 18 - May 22, 2015

Notices:

- The June 5, 2015 BPWG meeting has been changed from a teleconference to an inperson meeting at the NYISO Krey Corporate Center. Please note the start time will be 10:15.
- The 2015 Spring Economic Conference will be held at the NPCC offices in New York City on June 22 from 11:00 AM until 2:00 PM. For those unable to attend in-person, a NYISO WebEx/teleconference option will be available.

 Representatives from Moody's Analytics will present the National Economic Outlook and the NY State Economic Outlook. After these presentations, the Load Forecasting Task Force will meet to discuss current and upcoming activities.
- The Redline and Clean versions of the Outage Scheduling Manual (M-29) have been posted to the NYISO Manuals & Guides webpage under the "Manuals>Under Review" folder in anticipation of the upcoming June 11, 2015 OC meeting.
- On May 21, 2015, NYISO filed corrected comments with the NYPSC in response to its
 April 3, 2015 Notice Seeking Supplemental Comments regarding transmission
 capability in Western New York. To see the filing, please go to:
 http://www.nyiso.com/public/webdocs/markets_operations/documents/Legal_and_Regula_tory/NY_PSC_Filings/2015/2015_05_21_NYISO_Flng_Crrctd_Cmmnts_WNY_Trnsmssn_14-E-0504.pdf

Meeting Summaries:

Monday, May 18, 2015

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

FERC Order on Possible BSM for ROS and for Uneconomic Retention

Lorenzo Seirup of the NYISO presented the NYISO process to fulfill the FERC Order directing the NYISO to establish, and report on, a stakeholder process to determine whether or not there are circumstances that warrant the adoption of BSM measures in the Rest of State (ROS). The NYISO's report is due to FERC on June 17, 2015. The NYISO has retained FTI Consulting to



help it explore the question of whether there is a need to extend buyer-side mitigation measures to ROS. Issues discussed with stakeholders included:

- Are there specific scenarios, circumstances, or facts that might warrant BSM in ROS?
- What would BSM measures for out-of-market repowering-type agreements look like?
- What additional items should the NYISO study consider?

The NYISO noted feedback for consideration and encourages comments throughout the process. Potomac Economics will review and comment on the FTI analysis and the NYISO will return to stakeholders at a future ICAP Working Group to discuss and seek input on the results of the study. To see Mr. Seirup's presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-04-30/ROS%20Mitigation%20Study.pdf

BTM: Net Generator Initiative: Proposal for Determination of Net ICAP

Donna Pratt of the NYISO presented a proposal for the determination of net ICAP that will be available from Behind-the-Meter Net Generators (BTM:NG). This determination is part of the BTM:NG proposal that will allow generators that directly serve a retail load behind the meter to sell their net generation above the load requirement to the wholesale market. Ms. Pratt explained that the net ICAP available will be the lesser of:

- The net injection capability for the facility's interconnection
- CRIS (to be discussed in a separate presentation), and
- DMGC (Demonstrated Maximum Gross Capability) less (BTM:NG Coincident Load *(1+IRM))
 - DMGC is a variation of the current DMNC that would be specific to BTM:NG resources
 - BTM:NG Coincident Peak Load is the proposed methodology for estimating the maximum load that will be supplied from behind-the meter generator

Ms. Pratt highlighted the purpose and rules for determining DMNC (Demonstrated Maximum Net Capability) and compared it to the proposed DMGC which would be used for the BTM:NG generators. A modified version of the Average Coincident Load (ACL) methodology used for demand response in the Capacity market will be developed to estimate the BTM:NG Coincident Load component of the Net ICAP determination. NYISO will require the BTM:NG facilities to submit Generator Availability Data System (GADS) data, as it does all wholesale suppliers. Additional Capacity market concepts will be brought to upcoming meetings in May and June. To see Ms. Pratt's complete presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-05-

 $\underline{18/BTM_NG\%20NYISO\%20Markets_DMNC_Coincident\%20Peak_ICAPWG_for\%20posting.}$ \underline{pdf}

Tuesday, May 19, 2015



Electric Gas Coordination Working Group

Eastern Interconnection Planning Collaborative (EIPC) Study Results

Four representatives from Levitan & Associates, Inc. presented the results of the EIPC Gas-Electric system interface. The study is comprised of four targets:

- Target 1: Develop baseline assessment of natural gas-electric system interfaces, interaction effects, scheduling practices and the current level of coordination between the electric and gas systems
- Target 2: Evaluate the adequacy of the gas delivery infrastructure to supply the needs of gas-fired electric generation in 2018 and 2023 (Winter and Summer) while serving higher priority RCI loads
- Target 3: Identify impact of postulated gas and electric contingencies on the resiliency of the natural gas delivery system to meet the needs of gas-fired generation post contingency
- Target 4: Review operational / planning / economic issues related to achieving fuel assurance through dual-fuel capability versus incremental FT

Under Target 1, an extensive report on the natural gas pipeline infrastructure as it relates to services provided to gas fired electric generation was delivered. Illustrations of the gas infrastructure specific to the NYISO were provided as well as details on underground storage and LNG facilities. NYISO generator contracting practices were presented for discussion -- notably the fact that the large majority of gas-fired generation in NY does not have FT contracts. A table illustrating a qualitative assessment of the relative gas-electric interface attributes for the studied regions was provided to help portray the ability of NYISO generation to access natural gas relative to the other control areas including IESO, ISO-NE, MISO, PJM and TVA. In Target 2 the natural gas infrastructure adequacy to serve the scheduled demands of electric system generation was studied in depth. An electric system dispatch model was developed to estimate hourly gas demands for each gas-fired generator in the NYISO control area for the years 2018 and 2023. Scenarios and sensitivities were applied to measure the ability of the gas delivery system to adequately serve the electric generation system under reference, low and high gas demands. Results revealed that, while there are differing levels of scheduled generation affected by gas constraints under nearly all market conditions, there are steps that can be taken to mitigate constraints such as system redispatch to other fuel sources, switching to liquid fuel for those units with dual-fuel capability and pipeline capacity expansions. In addition, the frequency and duration of such constraints was identified on the daily peak hours during three summer and three winter months.

Various high-impact, low probability natural gas and electric system contingencies were analyzed in each PPA region utilizing hydraulic models for Target 3. Gas side contingencies included pipe breaks and loss of major compression stations, while electric contingencies included loss of large generation plants/stations or outages of critical high voltage transmission facilities. Detailed steady state and transient analysis was conducted to assess the resiliency of the natural gas delivery system to supply the needs of gas fired generation post contingency. Target 4 examined the fuel assurance aspects of the study. The options of employing dual-fuel ability and utilizing Firm Transportation contracts (FT) were analyzed. The analysis for the



NYISO control area showed that for the NYC, LI and Lower Hudson Valley regions, dual-fuel (using ULSD as the second fuel) appears to be the more cost effective solution for fuel assurance as compared to the cost of obtaining FT contracts. To see the complete presentation on the study results, as presented by Levitan & Associates, Inc., please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_egcwg/meeting_mat_erials/2015-05-19/May%2019th%20NYISO%20Presentation%205-18-15.pdf The Draft Reports providing detailed results for each of the Four Targets can be found on the EIPC website at: http://eipconline.com/Gas-Electric_Documents.html

Wednesday, May 20, 2015

Market Issues Working Group

Broader Regional Markets Metrics

Tara Fisher of the NYISO presented metrics for the Broader Regional Markets initiative for the month of February 2015. To see Ms. Fisher's presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-05-20/agenda%202%20Monthly%20Report%20APR%202015.pdf

CTS with ISO-NE Tariff Revisions Follow-up

James Pigeon of the NYISO presented proposed tariff revisions required to allow the implementation of CTS with ISO-NE. Mr. Pigeon provided redline versions of the Coordination Agreement and Schedule D of the Coordination Agreement to reflect the revisions. Redline versions of the MST sections 4.4 and 17.1, and Sections 6.1, 6.2, 6.5 and 16.3 of the OATT were also displayed while Mr. Pigeon explained the required changes. To see the complete presentation, please go to:

http://www.nyiso.com/public/committees/documents.jsp?com=bic_miwg

Behind the Meter Net Generation (BTM:NG) Initiative: Energy Market Design Proposal Pradip Ganesan of the NYISO presented the proposal for the Energy Market concepts for the BTM:NG initiative. In response to a stakeholder inquiry, Mr. Ganesan explained that the Energy Market concepts and the Installed Capacity Market concepts will be combined when the NYISO brings the BTM:NG proposal for stakeholder governance action. The NYISO's proposed market design will utilize the unit's available net generation. The market model will derive net generation through an assessment of the size of the load served by the BTM:NG generator and its gross generation. These elements will be required to be included in the BTM:NG generators Day Ahead and Real Time offers. Mr. Ganesan explained registration requirements, bidding requirements, the proposed rules related to the scheduling of BTM:NG resources including the determination of Upper Operating Limit (UOL), Start-up cost Minimum Generation MWs (Min Gen) and Min Gen Cost. The BTM:NG resource will be financially settled based on the net meter reading at the interconnection point. A net injection shall result in a payment to the generator at LBMP prices, whereas a net withdrawal shall be settled by the wholesale Load Serving Entity (LSE), as is done today. Examples were provided in an appendix to the presentation to illustrate the BTM:NG scheduling process. To see Mr. Ganesan's complete presentation, please go to:



http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-05-20/agenda%204%20BTMG_MIWG_052015_final.pdf

Process Improvements in the Communication of Consumer Impact Analyses

Tariq Niazi of the NYISO presented an update to the Consumer Impact Analysis (CIA) process. The NYISO requested and received extensive feedback on the manner in which it communicates the CIA. The Consumer Interest Liaison held meetings with market participants from each governance sector as well as representatives of the Department of State to discuss the CIA process and develop a more robust process for future analyses. Several aspects were updated to include:

- The Consumer Interest Liaison will continue to maintain its independence in conducting and presenting CIAs
- Provide stakeholders a preliminary indication at the outset of a market design initiative whether a project is expected to have a major consumer impact to exceed \$50 million per year
- Present to stakeholders a description of the methodology to be used for CIAs before conducting the impact analysis
- Present to stakeholders the final CIA at least 30 days prior to submission of the market design initiative to BIC, OC and/or MC for approval
- CIAs to clearly state all the assumptions underlying the impact analysis
- The process of conducting and presenting CIAs to be incorporated into the 2016 project schedule from the outset
- Evaluate alternative implementation options for stakeholder consideration

Mr. Niazi explained that the updates to the process will be included in the project schedule for 2016 and therefore have an impact on the work load and project schedule. A timeline was provided to illustrate the additional steps required for a theoretically typical project. To see Mr. Niazi's presentation, please go to:

 $\frac{http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-05-20/agenda\%205\%20Process\%20Improvements\%20to\%20CIAs.pdf$

2014 State of the Market Report for the NYISO Markets: Energy Market Highlights and Recommendations

Pallas LeeVanSchaick of Potomac Economics (MMU) presented the 2014 State of the Market (SOM) report highlights and recommendations. Mr. LeeVanSchaick provided several tables and graphs to illustrate pricing, congestion pattern and uplift trends. A total of sixteen recommendations were made under various market areas. There was continued discussion with stakeholders on the 2014 SOM at the May 27 MC meeting and the May 28 ICAP working group. The see the presentation on Energy Market Highlights and Recommendations, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-05-20/agenda%206%20NYISO%202014%20SOM%20Report-Presentation%2051414%20for%20MIWG.pdf



Comprehensive Scarcity Pricing

Ethan Avallone of the NYISO presented additional details for and benefits of the Comprehensive Scarcity Pricing proposal. Mr. Avallone explained that, when implemented, the Comprehensive Scarcity Pricing software will allow for a more accurate modeling of system conditions. The NYISO proposes to increase the SENY 30-minute reserve demand curve price to \$500, effective at all times to provide a value consistent with the SCR/EDRP resources used to protect those reserves. Mr. Avallone described the proposed thunderstorm alert proposal that will reduce the 1,300 MW SENY 30-minute reserve requirement to zero during thunderstorm alert events, with the rationale that the N-1-1 contingency is already secured by backing down transmission during a TSA. Under this proposal, the expected load reduction from SCR/EDRP resources will be used to create the scarcity reserve requirement within each scarcity reserve region. The creation of scarcity reserve regions based on zone(s) called as part of a specific SCR/EDRP activation with same activation reason, as contemplated by this proposal, will require the NYISO to post and settle based on zonal reserve clearing prices to allow for reserve clearing prices to differ between zones during SCR/EDRP activations, where appropriate. When a SCR/EDRP activation includes LI, the reserve limitation on LI will be increased by an amount equal to the applicable Expected SCR/EDRP MW value for Zone K during the hours of the SCR/EDRP activation. NYISO will continue to discuss the Comprehensive Scarcity Pricing initiative with stakeholders through June 2015 and anticipates bringing the proposal to the July 2015 BIC/MC for market design approval. To see Mr. Avallone's complete presentation, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_mate

rials/2015-05-

20/agenda%207%20Comprehensive%20Scarcity%20Pricing%20May%20MIWG%20FINAL.pd

Revisions to MST Attachment H

Giacinto Pascazio of the NYISO presented the revisions to the Market Services Tariff Attachment H. Updates were made to the tariff to reflect NYISO use of best fuel cost information in the Reference Level calculations. Changes were made in Section 23.4.2.2.1 in reference to Market Party use of the default bid and 23.4.3.3.1.2 on the fuel cost adjustment mitigation measure and the Day-Ahead Impact test. The see Mr. Pascazio's complete presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_mate rials/2015-05-20/agenda%208%20MST%2023.4%20redline.pdf

Thursday, May 21, 2015

Joint Electric System Planning Working Group/Interconnection Planning Task Force 2015 CARIS 1: Historic Congestion/Follow-up Items

Tim Duffy of the NYISO presented information on historic congestion and updates on additional aspects of the 2015 CARIS 1 study. Mr. Duffy explained that NYISO utilizes Congestion Reporting for Off-Line (CROS) to calculate Demand Congestion values NYCA-wide and by individual constraints and described how the process works. Mr. Duffy provided data to illustrate how congestion values are measured, ranked and used in the CARIS 1 process. Mr.



Duffy also gave updates on Load Forecast scenarios, the NYCA Coincident Peak Forecast and the derivation of Hurdle Rates. In response to a stakeholder inquiry at a prior ESPWG presentation, Mr. Duffy explained that market transaction rates were in fact utilized as the starting point for the dispatch hurdle rate. The formula "Commitment Hurdle Rate = Dispatch Hurdle Rate + \$2" was presented for clarity. To see Mr. Duffy's complete presentation, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2015-05-21/2015%20Historic%20Congestion.pdf

2015 Fuel Price Forecast

Tim Duffy of the NYISO presented a follow-up to the discussion at the May 4, 2015 ESPWG on the depiction of the High and Low Gas Price Forecasts for Zones J and K as well as a high Midstate Gas Price scenario. In response to the discussion, revised Low Gas Price forecasts for Zones J and K were offered as well as an alternative Mid-state scenario. Graphs were provided to illustrate the new values. To see the presentation by Mr. Duffy, please go to: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2015-05-21/2015%20Fuel%20Price%20Forecast%20Revisions.pdf

<u>Planning Assumptions by Generation Outage States</u>

Dana Walters of the NYISO presented the assumptions that NYISO Planning will use for generators in various outage states for the following studies:

- RNA
- Public Policy
- CRP
- CARIS

A matrix was provided reflecting whether a unit would be represented as in service or out of service depending on the following outage states:

- Forced Out
- ICAP Ineligible Forced Outage
- Intent to Mothball or Retire
- Mothball
- Mothball Noticed Intent to Return
- Retired.

To see the matrix and the associated notations, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2015-05-21/Agenda%205_Planning%20Assumptions%20by%20Gen%20outage.pdf

FERC Order 1000 Interregional Planning Update

Carl Patka of the NYISO presented an update on the FERC Order 1000 Interregional Planning Compliance Filing summary. Mr. Patka highlighted the directives that are applicable to the NYISO. The NYISO will coordinate with PJM, ISO-NE, and the New York Transmission Owners with regard to its further compliance filing and in the development of additional



procedures and an implementation schedule. To see the summary as presented by Mr. Patka, please go to:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2015-05-

 $\frac{21/Order\%201000\%20Interregional\%20Planning\%20Compliance\%20Filing\%20Summary\%20of\%20FERC\%20Order\%20051515.pdf$

Public Policy Transmission Planning Manual

Zach Smith of the NYISO presented the draft Public Policy Transmission Planning Manual (Manual). The Manual includes provisions that reflect revisions to the Public Policy Transmission Planning Process (PPTPP) requirements set forth in Sections 31.1, 31.4, and 31.5 of Attachment Y of the NYISO OATT that were approved by the Management Committee on April 29, 2015 and, pending review and approval by the NYISO Board of Directors, will be filed with FERC for its acceptance. Mr. Smith led a review of the updates, which includes consideration of comments received at prior presentations and written comments. The NYISO intends to have the manual finalized prior to the development of the New York State Department of State public policy needs which are expected in the fall. To see the redline draft version of the PPTPP Manual as presented by Mr. Smith, please go to:

http://www.nyiso.com/public/committees/documents.jsp?com=bic_espwg&directory=2015-05-21

FERC Filings

May 20, 2015

NYISO 205 Filing of Executed Non-Conforming Interconnection Facilities Study Agreements, and Request for Critical Energy Infrastructure Information Designation

May 20, 2015

NYISO filing of comments in response to the Commission's April 21, 2015 workshop in Available Transfer Capability Standards for Wholesale Electric Transmission Services

May 19, 2015

NYISO filing on behalf of National Grid of an amended and restated interconnection agreement (service agreement 337) between Niagara Mohawk Power Corporation and General Mills Operations, LLC

May 18, 2015

NYISO and NYTO joint compliance filing regarding the Order No. 1000 regional transmission planning requirements and the Commission's directives in its April 16, 2015 Order

FERC Orders

May 19, 2015



FERC order accepting compliance tariff revisions regarding the sharing of confidential natural gas-fueled generation information with certain natural gas pipeline personnel

May 19, 2015

FERC order granting the requested waiver of certain NAESB WEQ standards and directing a compliance filing to list all waived standards and the order granting each waiver

Link to FERC Filings and Orders:

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