

Report on CURRENT MARKET INITIATIVES RELEVANT TO RELIABILITY September 14, 2016

1) Behind the Meter: Net Generation Model

The NYISO's market rules do not include provisions that clearly explain how generation whose primary purpose is to serve onsite load can sell their excess generation into the wholesale electricity markets. This effort would look to clearly define those rules to allow this incremental generation capability to participate in the NY wholesale electricity markets.

Implications to Reliability: Increased transparency and ability to schedule generation which is currently behind the meter.

Update: NYISO received stakeholder approval of the market design in December and has received FERC approval of the relevant tariff changes. NYISO anticipates implementation of the software to facilitate participation in the 4th QTR.

2) Reforming the Energy Vision (REV)

The NYS Public Service Commission (PSC) initiated the "Proceeding on Reforming the Energy Vision (REV)" with the goal of aligning electric utility practices and the regulatory paradigm with technological advances in information management, power generation, and distribution. These changes include:

- A new business model in which Distributed Energy Resources (DERs)
 become a primary tool in the planning and operation of electricity systems.
 Utilities would be encouraged to invest in DERs that help to avoid or defer the need for more historically traditional distribution system investments.
- The establishment of a Distributed System Platform Provider (DSP) that
 actively manages and coordinates DERs while providing a market in which
 customers are able to utilize DERs in response to dynamic system conditions.
 Such customers would provide, and be compensated for, any system benefits
 associated with their responses.

Implications to Reliability: Enhanced system reliability and resiliency through distributed resource availability and active management of load consumption based upon market conditions.

Update: The NYISO is supporting efforts by the Joint Utilities reviewing ISO-DSP Interaction and Coordination.

3) Comprehensive Shortage/Scarcity Pricing/Fuel Assurance

The Comprehensive Shortage Pricing tariff changes were implemented in November 2015. The Comprehensive Scarcity Pricing tariff changes were implemented in June 2016.

Improvements to fuel and performance incentives are aimed at creating additional incentives for ICAP suppliers to be available on critical operating days. The NYISO will evaluate the need for additional mechanisms to enhance incentives for suppliers to be available to reliably meet the real-time needs of the NYCA, especially on days when there is a high risk of a reduction in real-time resource availability due to factors including high demand and fuel supply uncertainty.

Implications to Reliability: Improved real time market incentives will promote increased unit availability.

Update: The NYISO is recommending to suspending efforts on fuel constrained offers to evaluate the potential needs of energy storage and distributed energy resources. Further work would be prioritized and completed after developing a greater understanding of potential market needs.

4) Reliability Must Run (RMR) Service Agreements

The FERC directed the NYISO to develop and file a set of rules to designate resources for RMR service to ensure the continued reliable and efficient operation of the power system and the NYISO Markets. The structure and administration of the program will require specifying the retirement notification obligations, process for evaluation of alternative solutions, definition of compensation and cost allocation provisions, and expectations for participation in the capacity and energy markets. The NYISO is additionally exploring enhancements to its long-term planning process to support identification of, and development of solutions for, potential generator retirements.

Implications to Reliability: Enhanced system reliability and resiliency through resource availability and improved planning processes, and improved market certainty and transparency.

Update: FERC has ruled given NYISO further compliance obligations in its ruling on the RMR proposal. The NYISO is developing these further compliance requirements with inputs from stakeholders with an expected filing date of September 19th.

5) Locational Capacity Requirements (LCR): Review of Alternate Methodologies

The NYISO has initiated stakeholder discussion on evaluating alternate methodologies for setting LCRs. There are multiple possible approaches to determine the LCR requirement for a Capacity Zone after the IRM has been set under NYSRC's Policy 5. NYISO recognizes that some methodologies may require modifications to Policy 5, which must be approved by the NYSRC.

Implications to Reliability: Enhanced system reliability and resiliency through resource availability and improved planning processes, and improved market efficiency and transparency.

Update: NYISO continued discussions with stakeholders on alternative methods for determining Locational Minimum Installed Capacity Requirements (LCRs). This effort will look for ways to optimize LCRs based on minimizing capacity costs statewide while maintaining minimum Loss of Load Expectation criteria, and address any cost allocation rules to ensure that loads are paying their fair share of capacity costs. NYISO has engaged GE to assist in developing a mechanism that will evaluate the opportunities to refine LCR based upon the costs of maintaining the capacity. The NYISO expects preliminary results from GE in September, draft methodology in October and final findings in December, and will discuss these with stakeholders and NYSRC's ICS committee.

6) Demand Curve Reset

The Demand Curve Reset process has been initiated to perform a reassessment of the capacity market demand curve parameters to be effective beginning with the Summer of 2017 Capability Period. The Analysis Group has been selected to perform the study and has facilitated discussions on potential peaking unit types, the gross costs of such units, and the potential energy and ancillary service revenues available to the different unit types and locations.

Implications to Reliability: Enhanced system reliability and resiliency through improved market transparency and financial stability.

Update: The Analysis Group has issued their final report with recommendations on the demand curve parameters. The NYISO has issued their draft report with preliminary recommendations on the demand curve and will issue their final report by September 15th.

7) Energy Storage Resource Integration

Since the announcement of the NYS PSC REV initiative, there has been a growing interest in wholesale market participation of storage resources. Currently the NYISO has several resource classifications that can accommodate participation of storage in the wholesale markets that include: (1) Energy Limited Resource (ELR); (2) Limited Energy Storage Resource (LESR); and, (3) Demand Side Ancillary Services Program (DSASP). New storage resource characteristics may facilitate additional opportunities to participate in the markets.

Implications to Reliability: Energy storage resources represent a new class of equipment looking to participate in the markets and reliability services. Understanding the characteristics of the equipment and their capabilities, relative to the expectations of the reliability services, is necessary to ensure compliance with reliability standards.

Update: The NYISO is initiating discussions in the market working groups to engage stakeholders in a review of resource characteristics, existing market rules that define the opportunities for storage resources to participate in the markets and an evaluation of revisions that may be necessary to accommodate new storage resources.

8) Capacity Exports from Localities

The NYISO MMU has raised concerns with the capacity market pricing outcomes if resources located in import constrained localities sell their capacity to external control areas. Currently, Roseton has been awarded a forward capacity market obligation for the 2018/2019 period. ISO-NE is pursuing changes that would accelerate opportunities for participation and would allow resources to participate in the 2017/2018 auctions.

Implications to Reliability: The NYISO does not expect negative impacts to reliability.

Update: The NYISO has initiated discussions with stakeholders on reviewing the underlying market concerns and the MMU's proposed solution. The NYISO will be continuing discussions with stakeholders to explore resolutions.