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**Report on**  
**CURRENT MARKET INITIATIVES RELEVANT TO RELIABILITY**  
**April 13, 2018**

**1) 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.

**Implications to Reliability:** An accurate locality exchange factor is necessary to ensure sufficient capacity resources are maintained within the locality to meet resource adequacy needs.

**Update:** Stakeholders approved an approach for reflecting Capacity Exports from Localities in the 2017/2018 Capacity Markets, encouraging ongoing analysis and development of markets rules for enhancing the modeling treatment for future years. NYISO has implemented the approved methodology to recognize that an exporting generator continues to operate within its Locality. NYISO has determined that there are no viable probabilistic based alternatives that could supplant the deterministic locality exchange factor calculations. Consideration is being given to a simplified model proposed by the NYTOs.

**2) Capacity Zone Elimination**

The NYISO has engaged stakeholders in discussions to consider whether a mechanism was necessary to eliminate a capacity locality and, if necessary, to develop market rules to facilitate the transition. The NYISO's efforts are guided by an objective to provide market certainty to participants that would seek to invest in the resources necessary to maintain reliability while minimizing potential inefficient market outcomes.

**Implications to Reliability:** Capacity locality price signals are necessary to ensure resources are built and maintained where needed to sustain resource adequacy and transmission security.

**Update:** NYISO has observed that the development of capacity zone elimination rules based solely upon deliverability criteria will not present a robust solution that accurately captures reliability needs. The NYISO has expanded discussions to consider sound reliability criteria, such as resource adequacy and transmission security, as applicable to both the creation and elimination of zones. The NYISO has completed the market design. Stakeholders did not approve the recommended design. The outcome has been appealed to the NYISO Board of Directors.

### 3) Market Assessment for Accommodating Public Policy

The NYISO will assess the impacts of decarbonization goals on the current NYISO energy and capacity markets from the high penetration of low carbon or carbon-free resources and consider whether new market products or changes to the existing market structure will be necessary to meet the anticipated reliability needs.

**Implications to Reliability:** Improved incentives to provide necessary services and products to enhance reliability.

**Update:** The NYISO is considering a broad spectrum of market product and structural enhancements that may be necessary to incent market participants to meet the reliability needs anticipated with 50% renewable generation. The NYISO has completed its simulation of potential market conditions and initiated discussions on possible reforms with stakeholders. Further discussion of select concepts are ongoing.

### 4) Distributed Energy Resources

To ensure NYISO markets are capable of integrating Distributed Energy Resources (DERs) in greater numbers and to provide clarity as to how they can realize value for their services, NYISO staff has engaged Market Participants in the development of a DER Roadmap. The roadmap seeks to build a 3-5 year plan for market enhancements that better integrate DERs into NYISO's markets.

**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 and stakeholders are engaged in the development of a DER Participation Model to support resource integration into the wholesale markets. The model development is expected to complete in 2018

### 5) Energy Storage Resources

As the grid evolves, Energy Storage Resources (ESRs) contribution to maintaining a reliable and cost effective grid is expected to grow. ESRs such as pumped hydroelectric generators, flywheels, and batteries can supply electricity to the grid to meet demand, and can withdraw electricity from the grid to alleviate excess supply. ESRs can promote more reliable and efficient operation of the electric grid, particularly when paired with intermittent renewable generation. The NYISO is currently engaged in developing a new market design concept that reflects ESR technological advancements and policy development to allow wholesale grid operators and ESR managers to take better advantage of ESR capabilities.

**Implications to Reliability:** Enhanced system reliability and resiliency through access to flexible resources valuable in balancing intermittent resource output.

**Update:** On February 15, 2018, the FERC issued Order No. 841, designed to facilitate greater participation by electric storage resources in organized wholesale electric markets. The Order requires a compliance filing by November 2018 and implementation of the changes in December 2019. NYISO and stakeholders are engaged in the completion of an Energy Storage Resource participation model.