

Enhancing Fuel & Energy Security

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Agenda

- **Background**
- **2020 Project Scope**
- **Fuel Security Monitoring Elements**
- **Related Efforts**
- **Next Steps**

Background

- **In 2019, the NYISO engaged Analysis Group to perform an assessment of fuel and energy security (FES study) in New York**
 - The final study report as well as the NYISO Management Response are posted with the material for the November 21, 2019 ICAPWG meeting
- **Today's presentation will outline the NYISO's plan to enhance fuel security monitoring**

2020 Project Scope

- **Enhance monitoring by adding additional fuel security elements to the Winter Capacity Assessment (Fall) and Cold Weather Operations (Spring) presentations**
- **Develop forward load forecasts (e.g., 14+ days) to be used as an input for internal fuel and energy security assessments**
 - This effort could potentially include enhancements such as applying severe cold weather event, generic dispatch assumptions, fuel disruptions, etc
- **Continue to further define and incorporate on-going initiatives:**
 - Potentially develop fuel security-related “thresholds or triggers” to assist in identifying the potential for future concerns
 - Determine if/when it may be prudent to re-run a Fuel and Energy Security study

Fuel Security Monitoring Elements

- Fuel Security Monitoring will be updated at least twice a year and compared to the assumptions in the 2019 FES study
- If there are large deviations in actual conditions vs. the assumptions that are impactful to reliability, this may trigger the need for a refresh of the FES study

Fuel Security Monitoring Elements cont'd

■ Generation Mix:

- Deployment of new renewable and clean resources
 - On & Offshore Wind
 - Solar (BTM and Utility Scale)
 - Storage (Battery and other)
- Hydro and thermal forced outages
- Generator outages due to lack of fuel
- Retirements of dual-fuel generators and reductions in alternate fuel capability
- Winter season starting alternate fuel inventory
- NYSDEC “peaker rule” impacts

Fuel Security Monitoring Elements cont'd

■ Gas Infrastructure:

- Capacity, demand, and utilization

■ Dual Fuel Availability:

- Extended weekly fuel inventory evaluations (14+ Day Look Ahead)
- Enhanced annual surveys (Winter Prep/Fuel Availability)

■ Fuel Disruptions and Impact:

- Potential need to revisit/refresh Fuel and Energy Security Study
- Develop fuel security-related “thresholds or triggers” to assist with identifying potential future concerns
- Gas pipeline constraints and contingencies

Fuel Security Monitoring Elements cont'd

- **Forecasting (Load, EE, EV, Electrification, DER, DR, etc.):**
 - Status of transmission upgrades
 - Actual load/winter load forecasts
 - SCR/EDRP activations & magnitude
 - DER
 - EV (Electric Vehicle penetration)
 - Electrification (Primarily heating)

Related Efforts

- **Another 2020 project (B688 GFER Upgrade) features enhancements to the generator fuel inventory survey application to better inform NYISO on generator winter preparation/fuel availability**
- **NYISO is actively involved in many industry groups focused on Gas/Electric coordination and fuel security (IRC EGCFT, EIPC EGTF, NERC EGWG, etc.)**
- **CARIS 2020 (70 x 30 scenario), Climate Change Impact Study Phase II (100 x 40 analysis), RNA, and Grid in Transition**
- **NYSRC High Renewable Resource Modeling Whitepaper**

Next Steps

- **NYISO will return to a working group in fall 2020 to discuss enhanced fuel security findings as part of the 2020-2021 winter assessment**

Feedback/Questions?

- Email additional feedback to:
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- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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