

# Enhancing Fuel and Energy Security

**Management Response to Analysis Group's** *Fuel and Energy Security in New York State: An Assessment of Winter Operational Risks for a Power System in Transition*

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# Agenda

- Background
- NYISO Management Response Overview
- Current Monitoring
- Potential Fuel and Energy Security Monitoring Enhancements
- Appendix : Analysis Group (AG) Fuel and Energy Security Report Observations & Options

# Background

- **AG's Fuel and Energy Security study report identifies a number of options for the NYISO and stakeholders to consider in response to the study results**
  - The complete list of AG's observations and options is located in the appendix of this presentation

# NYISO Management Response Overview

- **Based on the study results, the NYISO agrees with AG that the assessment does not appear to identify any short-term reliability risks that warrant the development of market rule changes at this time**
  - However, given expected changes to the fleet and other aspects of the grid, we need to continue to monitor various items that could impact fuel and energy security (e.g., dual-fuel availability, generation mix, winter electrical load, fuel disruptions and associated impacts, and gas infrastructure and demand)
    - These topics are discussed further on subsequent slides

# Current Monitoring

- **Fuel Inventory**
  - On a weekly basis, the NYISO obtains fuel inventory data from generators and assesses fuel adequacy over a 7-day forward period
  - On an annual basis, the NYISO obtains fuel security related data from generators
- **Renewable entry into the market**
  - The NYISO monitors new resource entry through the interconnection process
- **Generator outages due to lack of fuel**
  - The NYISO examines and tracks instances where generators are unavailable due to insufficient fuel supplies

# Current Monitoring (continued)

- **Gas pipeline constraints/contingencies**
  - The NYISO remains cognizant of changes to gas demand and infrastructure and analyzes the associated implications, including regular communications with gas pipelines and local distribution companies
- **Retirements of dual-fuel generators or reduction in alternate fuel capability**
  - The NYISO monitors these reductions to assess potential reliability impacts
- **Status of pending transmission upgrades (e.g., WNY and AC Transmission PPTN upgrades)**
  - The NYISO maintains awareness of the status of these projects, any potential delays, and anticipated in-service dates

# Potential Fuel and Energy Security Monitoring Enhancements

## ■ Fuel Inventory (Internal)

- (Weekly) The fuel monitoring process could be enhanced to project sufficient fuel supplies out 14 days
  - Currently, the NYISO continually assesses fuel sufficiency for forward looking period of one week
- (Seasonal) The NYISO is currently assessing the potential to include some form of fuel security assessment into the annual Winter Assessment reviewed with stakeholders in advance of each winter period

## ■ Retirements of dual-fuel generators or reduction in alternate fuel capability

- Evaluate the impacts of dual-fuel generator retirements or reduction in alternate fuel capability on fuel and energy security to determine potential “triggering” thresholds to engage further with stakeholders on potential market enhancements
- Monitor impact of changing environmental and other regulatory requirements

# Potential Fuel and Energy Security Monitoring Enhancements (continued)

- **Future refreshing of the fuel and energy security assessment**
  - The NYISO recognizes the prudence of refreshing the study results in the coming years to capture the impacts of the ongoing transformation of New York's electric sector
  - The NYISO is also assessing opportunities to incorporate considerations from this study in future studies and the existing planning processes



# Appendix

# AG Fuel and Energy Security Study

## Observations

1. “Based on the resource fleet and operating capability assumed by the study, the New York power grid is well equipped to manage energy/fuel security risks”
2. “NYISO has already taken many steps to address potential risks associated with fuel and energy security concerns”
3. “Significant potential LOL events appear in cases involving reduced operation of oil-fired generating assets, particularly in the downstate regions”
4. “Significant interruptions or reductions in the availability of natural gas for power generation can introduce challenges for reliable operations”
5. “Dual fuel capability - with oil as a backup fuel to natural gas - is vital for maintaining reliability”

# AG Fuel and Energy Security Study

## Observations (continued)

6. “A majority of circumstances leading to potential LOL events are constrained to Long Island”
7. “Meeting the state’s renewable and clean energy resource goals can provide valuable reliability support, and this may be particularly true with respect to offshore wind”
8. “Over the longer term, the potential magnitude and pace of change to the resource fleet stemming from requirements under the CLCPA may be of far greater importance for evaluation than the considerations, scenarios and physical disruptions evaluated in this fuel and energy security study with respect to winter operational risks”
9. “The results of the fuel and energy security assessment point to a number of options that may be considered by NYISO and stakeholders”

# AG Identified Options for Fuel and Energy Security

1. “Continued and expanded monitoring and analysis”
2. “Focus on the possible impacts of potential retirements in response to the proposed “peaker rule”
3. “If continued monitoring indicates the potential for reliability risks related to fuel inventories in the future, further assess the adequacy of incentives for appropriate pre-season fuel oil inventory levels and/or replenishment arrangements”
4. “Review the potential for geographically-targeted development of new renewable and energy storage resources required or incentivized through implementation of the CLCPA”
5. “Proactive scenario analysis of the potential impacts of the CLCPA”
6. “Continuous updating and refinement of energy and fuel security modeling”