

# Engaging the Demand Side Issue Discovery Report

---

Francesco Biancardi

Market Design Specialist

December 6, 2023, MIWG

# Project Overview

# Project Overview

- **Deliverables:**

- Q4 Issue Discovery

- **2023 Project Description:**

- Engaging the Demand Side is a highly collaborative project that will, in conjunction with NYISO stakeholders, identify potential issues with or gaps in the NYISO's existing Demand Side programs. A final report will be released in Q4 of 2023, which will recommend next steps regarding future Market Design projects/efforts to address feedback.

# Issues Identified

# NYISO Concerns with SCR Program Enhancements

- **The SCR program includes a significant amount of manual administration including scheduling SCR Events and auditing SCR performance**
  - The decision process for SCR events requires NYISO grid operators to take manual out-of-market actions during times that grid reliability already requires extra attention
- **These manual processes make expanding the SCR model impractical**
- **For example, if the NYISO allowed SCRs to have multiple Energy Duration Limitations, Grid Operators would need to factor in SCR startup/shutdown times, Energy Durations, etc. to efficiently utilize these Resources**
  - To fully appreciate each SCR's unique operating capabilities in this context, NYISO would need to call on them individually like DER – NYISO would no longer be able to call SCRs to activate based on Load Zones
  - The current standardization of operating characteristics (21 hour DA notification, 2 hour in-day notification, 4 hour EDL) reduces complexity
- **Expanding the SCR model would also perpetuate the use of out-of-market actions to address system conditions**
  - Procuring additional in-market Resources adds flexibility to the system and helps address reliability issues that may arise
- **Automation of the SCR program to reduce reliance on these manual processes would be an inefficient use of staffing resources**
  - NYISO has already developed complex software for the DER participation model that accommodates the varying physical and operational characteristics of DSRs as described and requested by external stakeholders
- **In short, SCR program enhancements would not result in additional controllable Resources entering the NYISO markets, nor would they generally help to alleviate issues raised in the Grid in Transition whitepaper**

# NYISO Staff Feedback Summarized

- **NYISO believes that any EtDS recommendations to address external stakeholder feedback must simultaneously help address issues laid out in the Grid in Transition whitepaper**
  - Specifically, the loss of controllable Resources in the markets in the face of increasing penetration of intermittent renewables and storage

# C&I Stakeholder Feedback Summarized

- **MPs have requested that the NYISO modify SCR program rules so that Resources can better represent their true operating capabilities to the wholesale market**
  - Some SCRs may be capable of responding to SCR Events more frequently than others
  - Some SCRs may be capable of responding to SCR Events with less than today's 21-hour advance notification requirement
  - Some SCRs are capable of operating with a 4, 6, or 8-hour Energy Duration limitation
  - In short, some Resources have expressed that they are more flexible than the SCR program allows, but not flexible enough to fully participate in the DER program on dispatch

# Mass Market/Retail Feedback Summarized

- **Some stakeholders have indicated that the NYISO's DER telemetry requirements may be cost-prohibitive for smaller DER**
- **Some stakeholders have expressed concern regarding the NYISO's proposed 10kW minimum size requirement for individual DER**



# Project Recommendation

# Project Recommendation

- **NYISO recommends that the 2024 EtDS project effort explore the development of a Day-Ahead only DER enhancement**
  - NYISO believes existing DER rules and requirements can be utilized to address external stakeholder feedback on the SCR program, but additional market enhancements and considerations would still be required to create a Day-Ahead Only model, including:
    - Day-Ahead Only Bidding
    - Order 745 Compliance/Application of the Monthly Net Benefits Threshold
    - ICAP Supplier Bid/Schedule/Notify Obligations
    - Ability to Aggregate
- **The NYISO also recommends that the organization maintain the SCR program in its current state**
- **Further development of participation use cases in 2024 will help NYISO to assess and validate the merits of these recommendations**

# Next Steps

# Next Steps

- **Kickoff Market Design Concept Proposed milestone in 2024**

# Our Mission & Vision



## Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



## Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

# Questions?

# Appendix

# 2019 DER Model Benefits for Demand Side Resources

- **An DSR transitioning to the DER model would find that the model allows them to better represent their full capabilities in the NYISO markets**
  - The 2019 DER participation model allows DSRs participating in a DER Aggregation to have a longer Energy Duration (and therefore a higher CAF) that reflects the Aggregation's Energy Duration and includes the ability to time-stack individual DER/DSR



# DER Model Benefits to a Grid in Transition

- Unlike the SCR program, which relies on out-of-market actions taken by NYISO Operators, DSRs in the DER model are automatically scheduled/dispatched based on the economics of their bids
- Economic scheduling of additional Demand Side Resources will help smooth impacts of increased penetration of intermittent Resources
- Dispatching Demand Side Resources by Transmission Node, rather than for an entire Load Zone as is done in the SCR program, will provide more accurate response to system conditions