

# Order No. 2222: Participation of Distributed Energy Resource Aggregations in Wholesale Markets

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*Continued discussion of FERC's September  
17, 2020, Order in Docket No. RM18-9-000*

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- Order No. 2222, issued on September 17, 2020, requires that ISOs/RTOs allow distributed energy resources (DERs) to provide all wholesale services that they are technically capable of providing through an aggregation
- To comply, ISO/RTOs either need to:
  - Revise their tariffs consistent with specific requirements from the Order, or
  - Point to existing tariff provisions that satisfy the intent and objectives of the Order
- The ISO is developing its compliance proposal for further discussion at the February NEPOOL Technical Committees and is considering the initial feedback it has received so far from stakeholders
- In this presentation, the ISO will:
  - Provide a broad overview of the stakeholder feedback received from December
  - Discuss initial ISO responses to a number of questions received
  - Outline the process for developing ISO's response to Order No. 2222

# Background

- At the December 8, 2020, Markets Committee meeting, the ISO requested stakeholders provide their perspectives and feedback on Order No. 2222 by December 22, 2020
- The ISO received feedback from seven groups of participants
  - Some comments were received after December 22, which the ISO is still evaluating
- Much of the feedback consisted of questions about the ISO's proposed compliance with the Order



# Overview of Stakeholder Questions Received on Order No. 2222

- The stakeholder questions on Order No. 2222 fall into several broad categories:
  1. Impacts to existing market designs through which DERs currently participate
  2. Registration and tracking of DERs and DERAs
  3. Considerations for improvements/alterations to existing participation models
  4. Distribution utility review, coordination, interconnection
  5. Real-time coordination and “overrides” and wholesale-retail dual participation
  6. Metering and telemetry
- Today, the ISO will answer the questions for which it has answers
- Many of the questions can best be addressed within the context of a proposed compliance path, which the ISO will be bringing to the NEPOOL Technical Committees for discussion in February



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*Initial ISO Answers to Participant Questions*



# Impacts to existing market designs through which DERs currently participate

- Many of the questions concerned impacts to existing market designs through which DERs currently participate
- The ISO envisions that Resources currently participating under existing market designs will be unaffected by Order No. 2222 compliance
  - Settlement only generator (SOG) for individual DERs less than 5 MW
  - DR aggregation participation model resulting from FERC Order No. 745
  - Passive demand resources, including energy efficiency, in the Forward Capacity Market
  - Alternative Technology Regulation Resources (ATRRs)
- The ISO anticipates that technologies located at an end-use customer facility can choose to enroll either as part of a Demand Response Resource or as part of a DERA for wholesale market participation – not both



# Registration and tracking of DERS and DERAs

- A set of questions concerned the registration and tracking of DERs and DERAs
- The ISO plans to use a central system of record for identifying, mapping, and tracking DERs and DERA, which will be managed by the ISO
- The DER Aggregator and distribution utilities will also have roles with respect to the creation and maintenance of DERAs
  - To clarify these roles, the ISO will develop a conceptual approach for ISO and distribution utility review of DERAs for discussion purposes
- To distinguish between the dispatch performance of the DERs comprising the DERA and the operation of DERs not registered in the ISO-NE market:
  - DERAs participating in the ISO markets will be subject to metering and telemetry requirements applicable to the products they are providing to the wholesale markets
  - DERs not participating in the wholesale markets would not be subject to such requirements – their performance would be part of the net load that the ISO must forecast in order to schedule and dispatch wholesale market resources to meet demand



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*Questions to be Addressed as a Proposal is  
Developed Further*

# Considerations for improvements/alterations to existing participation models

- Some of the questions and comments received concerned the creation of new approaches to accommodate DERs and DERAs comprised of heterogeneous technologies
  - The ISO is considering introducing a new model that would allow an aggregation of DERs to inject, withdraw, and regulate as a single DERA in order to accommodate the aggregation of heterogeneous distributed technologies and facilities (e.g., charging load of a storage device, end-use load, generation in-front of or behind the meter)
  - The ISO is considering allowing the geographical range of a single DERA to be based on the intersection of the pricing node associated with a DRR Aggregation Zone and a metering domain
- We plan to discuss our ideas regarding the new approaches to DERAs with the NEPOOL Technical Committees in February

# Distribution utility review, coordination, interconnection

- The ISO is developing and will share a conceptual approach for ISO, distribution utilities, and retail regulator review of DERAs that addresses questions relating to:
  - Defining the distribution system, from both a legal and operations standpoint
  - Discussing how distribution utilities will work with the ISO to set the standards for review of DER aggregations, including what stage of the aggregation application process this will occur
  - Discussing how the process will apply for resources that are already interconnected and how it will apply for newly interconnecting resources
  - Defining the frequency within which aggregations can be modified/mapped
  - Interconnection studies and re-studies
  - Interconnection costs
- The ISO will work with impacted entities in the development of its conceptual approach on coordination



# Real-time coordination & “overrides” and wholesale-retail dual participation

- The ISO is developing and will share a conceptual approach for real-time coordination and overrides that addresses questions relating to:
  - Clarifying the dispatch information distribution utilities will have access to and the granularity of the operational information
  - Clarifying how distribution utilities manage the sequencing of wholesale market commitments of DERAs and utility program dispatch
  - Managing the communication and implementation of overrides including sequencing and timing
- The ISO is contemplating that dual-participation under the DERA rules, as with dual-participation under the Electric Storage Facility rules, will be permitted so long as the DERA satisfies its wholesale market obligations



# Metering and telemetry

- The ISO is developing and will share a conceptual metering and telemetry approach that addresses questions relating to:
  - Defining the metering requirements and telemetry that will be required for DER aggregations
  - Clarifying if device level telemetry is sufficient for settlement purposes
  - Clarifying if there may be incremental metering requirements for the distribution utility meter readers



# PROCESS FOR DEVELOPING NEW ENGLAND'S RESPONSE TO ORDER NO. 2222



# Process Description

- The ISO is planning on posting draft materials for the February MC meeting during the week of January 18 to outline our design approach
- These materials will provide a backdrop for the ISO to have informal discussions with groups of affected entities for further feedback ahead of the February MC meeting
- As we dive further into the design with affected entities, we may modify or update the draft materials for the February MC meeting
- As the proposal develops, the ISO will also go to the other relevant NEPOOL Technical Committees (e.g. TC) to discuss the proposal or working groups (e.g., MRWG on metering and telemetry) if the committees refer more technical details there

# High-Level Process Schedule

- **Dec 2020:** Kick-off discussion on Order No. 2222 compliance
- **Dec 2020-Feb 2021:** ISO discussions with affected entities (e.g. potential DER aggregators, TOs, EDCs, retail regulators, etc.) under the order
- **Jan 2021:** Continue discussions on Order No. 2222 focusing on preliminary stakeholder questions
- **Feb 2021:** High-level design approach reviewed with the NEPOOL Technical Committees—MC, RC, TC—as appropriate
- **Mar 2021:** More detailed presentation to NEPOOL Technical Committees; take the discussion to working groups if a referral is given
- **Apr 2021:** Continued discussion with NEPOOL; draft Tariff changes released, initial discussion of any conceptual amendment proposals
- **May 2021:** Continued discussion of draft Tariff changes with NEPOOL, continued discussion of any amendment proposals
- **Jun 2021:** Technical committee vote on Tariff changes including any proposed amendments
- **Late Jun 2021:** Participants Committee vote on Tariff changes including any proposed amendments
- **July 19, 2021:** Filing with FERC

# Q&A AND DISCUSSION

