

# FERC Order No. 2222 – NYISO Responses to FERC Data Request

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New Resource Integration

**ICAPWG/MIWG**

November 8, 2021

# Agenda

- **FERC Order No. 2222**
  - Background
  - NYISO Requirements
- **Summary of NYISO Draft Responses**
- **Next Steps**

# FERC Order No. 2222

# Background

- **The NYISO proposed a comprehensive participation model for DER and Aggregations in June 2019.**
  - FERC accepted the NYISO's tariff revisions in January 2020.<sup>1</sup>
- **FERC subsequently issued Order No. 2222 (Participation of Distributed Energy Resource Aggregations in Markets Operated by RTOs and ISOs) on September 17, 2020.<sup>2</sup>**

<sup>1</sup> New York Indep. Sys. Operator, Inc., Order Accepting Tariff Revisions and Directing Compliance Filing and Informational Report, 170 FERC ¶ 61,033 (Jan. 23, 2020).

<sup>2</sup> Participation of Distributed Energy Resource Aggregations in Market Operated by Regional Transmission Organizations and Independent System Operators, Order No. 2222, 172 FERC ¶ 61,247 (Sept. 17, 2020).

# Background

- In compliance with Order No. 2222, the NYISO filed its proposed tariff modifications on July 19th, 2021.<sup>1</sup>
- Several entities filed comments on the NYISO's compliance filing.
- The NYISO issued its responses to the comments on September 14th, 2021.<sup>2</sup>
- FERC issued a request for additional information from the NYISO on October 1, 2021, with 30 days to respond.
- The NYISO filed an extension request, which was accepted, resulting in a due date of November 19, 2021.

1 <https://nyisoviewer.etariff.biz/ViewerDocLibrary//Filing/Filing1805/Attachments/20210719%20NYISO%20CmplncFing%20Order%20No.%202222.pdf>

2 <https://nyisoviewer.etariff.biz/ViewerDocLibrary//Filing/Filing1826/Attachments/20210914-NYISOAnswr-PrtstsOrder2222Cmplnc.pdf>

# NYISO Requirements

- **The NYISO must submit a response to the data request from FERC by November 19, 2021, that:**
  - Further explains how its DER participation model complies with Order No. 2222, and
  - proposes additional tariff revisions, as necessary – presently, the NYISO has not identified tariff revisions required in order to respond to the Commission.

# Summary of NYISO Draft Responses

# NYISO Draft Responses

- Today, the NYISO aims to provide an opportunity to discuss the proposed draft responses.
- With this presentation, the NYISO intends to highlight a subset of FERC inquiries and summarize the draft responses.
  - Today's focus will include inquiries that require review of the NYISO's previously approved market design, or coordination with the applicable Distribution Utility and Aggregator
  - For the full list of FERC inquiries, please refer to the Commission's data request.

# Double Counting of Services: FERC Comments

- (Excerpt from FERC request): "To implement section 35.28(g)(12)(ii)(a) of the Commission's regulations, the Commission in Order No. 2222 allowed RTOs/ISOs to limit the participation of resources in RTO/ISO markets through a distributed energy resource aggregator that are receiving compensation for the same services as part of another program."
- FERC III.C.1.a: "What role, if any, will the Distribution Utility play in helping NYISO verify that an Aggregator is not providing the same or substantially similar service in the NYISO-administered markets?"

# Double Counting of Services: Draft Response

- **NYISO plans to effectuate this requirement via an Aggregator self-attestation that its DER are not providing the same service(s) in a retail market and/or program.**
  - The NYISO will uphold its requirement for Aggregator self-attestation that the Aggregator's proposed operating plan will not result in conflicting services in retail and wholesale markets.
- **NYISO is collaborating with the Joint Utilities to develop a services compatibility document identifying retail market services that conflict with wholesale market services to prevent double counting.**
  - The NYISO believes the distribution utilities are best informed on their retail programs and retail tariffs to assess individual service conflicts.

# Role of Distribution Utilities

- (Excerpt from FERC request): " Order No. 2222 required each RTO/ISO to develop a distribution utility review process that includes criteria by which distribution utilities would determine whether (1) each proposed distributed energy resource is capable of participation in a distributed energy resource aggregation; and (2) the participation of each proposed distributed energy resource in a distributed energy resource aggregation will not pose significant risks to the reliable and safe operation of the distribution system. "

# Role of Distribution Utilities: FERC Question (1/4)

- **FERC VI.A.1.a: “Please provide the criteria by which Distribution Utilities would determine whether a Distributed Energy Resource is capable of participating in an Aggregation, including any specific metrics. Will the Aggregator attestation requirements proposed in NYISO’s answer with respect to double counting be sufficient for Distribution Utilities and NYISO to determine whether a Distributed Energy Resource is capable of participating in an Aggregation?”**

# Role of Distribution Utilities: Draft Response

- The NYISO will incorporate the findings of the Distribution Utility in its own review of each DER & Aggregation per proposed Services Tariff section 4.1.10.7.1.
- It is possible, and likely, that each DU will use different criteria to assess system impact, safety, and reliability.
- The NYISO has coordinated with the Joint Utilities on the below exemplary criteria to provide in response to FERC – criteria are intended to provide examples only.
  - Assessment of duplicative services in wholesale and retail markets – verification of Aggregator self-attestation.
  - Verification of interconnection agreements for all applicable Distributed Energy Resources in a given Aggregation – further, the Aggregator's registration of the DERs are consistent with the terms and conditions of the effective interconnection agreements.
  - Verification that an effective wholesale services agreement (or its equivalent) has been entered into for the Distributed Energy Resources.
  - Verification that all necessary metering and telemetry equipment have been installed and are operational at the Distributed Energy Resource(s)' premises based on the scope of services/products through the Aggregator the DER plans to provide, based on the information provided to the NYISO.
- The above list of criteria used by Distribution Utilities to confirm Distributed Energy Resource capability to participate in an Aggregation, however, is expected to evolve with changes to, for example, NYISO tariff requirements, Distribution Utility capability, Distributed Energy Resource interconnection processes, etc.

# Role of Distribution Utilities: FERC Question (2/4)

- **FERC VI.A.1.b: “Please explain what showing is required from the Distribution Utility to support the decision that the Resource presents significant risks to the reliable and safe operation of the distribution system. How will information about Distribution Utility review concerns be shared with Aggregators?”**

# Role of Distribution Utilities: Draft Response

- **The NYISO's software-based approach to the utility review process will require the applicable DU to communicate its review results (E.g., 'Pass,' or 'Fail') with accompanying feedback.**
  - Issues or concerns should be resolved by direct coordination between the DU and Aggregator, whenever possible.
  - The outcome of all review and coordination must be communicated to the NYISO.
- **The DU is responsible for providing notice of its review results by the end of the allotted 60-day review period, including an explanation of the reason for its determination.**
- **The Aggregator will have access to view DU review results in NYISO's system.**

# Role of Distribution Utilities: FERC Question (3/4)

- **FERC VI.A.1.c: “Please explain what NYISO means by “appropriate measures to mitigate reliability and/or safety concerns.” Please specify what measures might be considered appropriate for such purposes.”**

# Role of Distribution Utilities: Draft Response

- The NYISO did not expressly define "appropriate measures to mitigate reliability and/or safety concerns" as the appropriate measures may be fact-specific, so the NYISO should not prescribe uniform measures to mitigate reliability concerns.
- The NYISO plans to work collaboratively with the Aggregator, based on the recommendations or concerns expressed by the applicable Distribution Utility, to either modify the participation characteristics of an Aggregation, or require the Aggregator to submit a revised Aggregation for review to address the concerns if modifications are not feasible in the short-term.
- Possible measures may include limitation of MWs, or services provided to the market.

# Role of Distribution Utilities: FERC Question (4/4)

- **FERC VI.A.1.d: “Please explain how NYISO’s proposed Distribution Utility review process addresses incremental distribution system reliability impacts. Please specify the tariff provision or provisions where Distribution Utility review of these incremental impacts on Distribution Utility reliability is discussed.”**

# Role of Distribution Utilities: Draft Response

- As articulated in the NYISO's proposed MST 4.1.10.7.1, any incremental change to an Aggregation or Distributed Energy Resources shall be accompanied by a Distribution Utility review period of 60 days.
- The NYISO maintains its requirement for 30 days to conduct a review of the proposed Aggregation & Distributed Energy Resources, to occur following the conclusion of the FERC-required 60-day DU review period.
- The ISO shall also provide to the Distribution Utility individual Distributed Energy Resource physical and operational data necessary to evaluate incremental changes to an Aggregation.

# Ongoing Operational Coordination

- **(Excerpt from FERC request): " In Order No. 2222, the Commission required each RTO/ISO to revise its tariff to (1) establish a process for ongoing coordination, including operational coordination, that addresses data flows and communication among itself, the distributed energy resource aggregator, and the distribution utility; and (2) require the distributed energy resource aggregator to report to the RTO/ISO any changes to its offered quantity and related distribution factors that result from distribution line faults or outages. In addition, the Commission required each RTO/ISO to revise its tariff to include coordination protocols and processes for the operating day that allow distribution utilities to override RTO/ISO dispatch of a distributed energy resource aggregation in circumstances where such override is needed to maintain the reliable and safe operation of the distribution system. "**

# Ongoing Operational Coordination: FERC Question (1/3)

- FERC VI.B.1.a: “Please specify what information and data will be shared during operations. What data flows and communications will be used to share this information? Please cite the specific sections of the appropriate manuals or procedures, if applicable.”

# Ongoing Operational Coordination: Draft Response

- **Exchange of Outage information**
  - Communication of planned distribution system/transmission system maintenance
  - Submission of forced outage notifications
  - Notifications of emerging transmission/distribution system conditions
  - Submission of requests for SRE on behalf of DU
  - Submission of SRE for transmission system reliability
- **Exchange of Day-Ahead information**
  - Submission of wholesale Day Ahead bids/offers
  - Issuance of Day Ahead Operating Plan
  - Submission of individual Day Ahead DER Schedules to Distribution Utility
  - Utility review of individual DER schedules/notifications of infeasibility
- **Exchange of Real-Time Information**
  - Submission of Real-Time bids/offers for wholesale participation
  - Issuance of RT Dispatch instructions, including telemetry and OOM instructions as needed.
- **After-the-fact de-rate categorizations performed by NYISO**
- **NYISO will document the Operational Coordination in NYISO procedures and manuals**

# Ongoing Operational Coordination: FERC Question (2/3)

- FERC VI.B.1.b: “Please explain which NYISO tariff provision or provisions provide coordination protocols and processes for the operating day that allow Distribution Utilities to override RTO/ISO dispatch of an Aggregation in circumstances where such override is needed to maintain the reliable and safe operation of the distribution system.”

# Ongoing Operational Coordination: Draft Response

- **Proposed Services Tariff Section 4.1.10.7.2 describes the operational coordination process by which the NYISO, Distribution Utility, Transmission Owner, and Aggregator will communicate and collaborate to achieve efficient and reliable dispatch of Aggregations.**
- **If an override of ISO dispatch of a particular Aggregation is needed to preserve distribution system reliability, the responsibility shall rest with the applicable Distribution Utility to initiate the chain of communication to resolve risks.**
- **Ultimately, the Aggregator must alter its bids and promptly communicate an outage/derate to the NYISO in order to resolve DU reliability concerns or necessary overrides.**

# Ongoing Operational Coordination: FERC Question (3/3)

- FERC VI.B.1.c: “Please explain how these coordination protocols and processes will be transparent and when an Aggregation will be informed of Distribution Utility overrides and by whom.”

# Ongoing Operational Coordination: Draft Response

- All operational communications for specific Aggregations and/or individual Distributed Energy Resources shall be managed by a single entity, the Aggregator.
- The Aggregator is expected to work with the Distribution Utility to re-dispatch its pool of Distributed Energy Resources to both resolve the distribution system reliability concern and still meet the NYISO's dispatch signal.
  - As previously explained, the Aggregator must submit revised bids and communicate any necessary outages/derates to the NYISO through the existing channels for bidding and/or outage scheduling, to reflect the outcome of its coordination with the applicable DU.
- The NYISO intends to include details of this procedure in operational manuals (E.g., Transmission & Dispatch Operations, Day Ahead Scheduling Manual, Emergency Operations Manual).

# Modifications to List of Resources

- (Excerpt from FERC request): “In Order No. 2222-A, the Commission encouraged the RTOs/ISOs to propose abbreviated distribution utility review processes for modifications to existing aggregations. The Commission also limited the length of the distribution utility review period to no more than 60 days.”

# Modifications to List of Resources: FERC Question (1/2)

- **FERC VII.2.a: “Please provide additional support for NYISO’s proposal to have the same 60-day Distribution Utility review period for modifications to existing Aggregations as for new Aggregations. Please explain whether NYISO, when consulting with the Distribution Utilities, considered if the removal of a small individual resource would be less likely to have distribution system impacts and should therefore not require as much time to review.”**

# Modifications to List of Resources: Draft Response

- **The NYISO and Joint Utilities have discussed the dynamics of the review process extensively. The Joint Utilities maintain that, due to the potential for variable complexity of modifications to existing Aggregations, 60 days should be allotted for all modifications.**
  - The Joint Utilities have expressed that individual reviews may require far fewer than 60 days, while others may require the full 60-day duration – this process will evolve accordingly to best suit the nature of DER and Aggregation modifications.
- **The NYISO proposes to maintain the allowance of 60 days for modifications to existing Aggregations.**
  - The initial review of a new Aggregation and a subsequent review of changes to an Aggregation will follow the same timeline.
  - The NYISO systems shall be developed to allow for the full 60-day duration of the review period.
    - Actual review of new or subsequent requests may not necessarily require the entire 60-day period to complete.
    - The NYISO continues to require a 30-day review period immediately following the DU review period.

# Modifications to List of Resources: FERC Question (2/2)

- **FERC VII.2.b: “Please explain in more detail how NYISO plans to work with Distribution Utilities on a case-by-case basis to facilitate expedient review of Distributed Energy Resources.”**

# Modifications to List of Resources: Draft Response

- The NYISO will make the enrollment data it collects available to the applicable Distribution Utility for a given Aggregation and its associated facilities.
- In order to ensure the Distribution Utility reviews are completed in a timely manner, the NYISO will implement software to notify the applicable Distribution Utility of an Aggregation that is submitted for review and will accordingly enable the Distribution Utility to retrieve data to aid in completing its review.
  - This software will also track the review period to allow the DU to meet its 60-day requirement.

# Locational Requirements

- **(Excerpt from FERC Request): “In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(b) to the Commission’s regulations to require each RTO/ISO to revise its tariff to establish locational requirements for distributed energy resources to participate in a distributed energy resource aggregation that are as geographically broad as technically feasible.”**

# Locational Requirements: FERC Question (1/2)

- **FERC IV.1.a: "Please describe the status of this ongoing process to identify Transmission Nodes and any updates regarding details of the proposed approach. For example, what criteria is NYISO planning to use to identify Transmission Nodes?"**

# Locational Requirements: Draft Response

- **The NYISO is finalizing a list of Transmission Nodes with NYCA Transmission Owners.**
- **The NYISO will present to stakeholders by early Q1 2022 the list of Transmission Nodes that will be available for Aggregation at program deployment.**
  - The NYISO intends to use these Transmission Nodes to represent Aggregations in its market models and will also calculate LBMPs for each Transmission Node.
- **The NYISO and Member Systems have been considering the following (but not limited to) system conditions when identifying Transmission Nodes:**
  - Transmission and/or distribution operational load pockets
  - Thermal limits of lines and protective equipment
  - Franchise demarcations between Member System service territories
  - Concentration of Load relative to total average system Load
  - Distribution area substation topology

# Locational Requirements: FERC Question (2/2)

- **FERC IV.2.a: " Other than posting the Transmission Nodes on the public website after they have been identified, will NYISO provide stakeholders with any other information, prior or subsequent to this posting, to make its Transmission Node identification process more transparent? "**

# Locational Requirements: Draft Response

- **The NYISO will present the initial list of Transmission Nodes in a technical bulletin and provide the methodology used to select the Nodes in an accompanying stakeholder presentation.**
  - Future revisions to the list of Transmission Nodes will be presented to stakeholders (including any factors that resulted in the changes to the set of Transmission Nodes) and updated in the appropriate NYISO documentation.
- **NYISO will provide notice to Aggregators that are affected by a change in Transmission Nodes.**
  - The NYISO's Aggregation management software system is designed to issue an alert and email notification requiring the Aggregator to re-enroll facilities.
  - The NYISO will also discuss changes to Transmission Nodes on an annual basis at a working group discussion prior to the changes.

# Next Steps

# Next Steps

- **NYISO FERC Order No. 2222 Request for Data Due Date: November 19, 2021.**
- **NYISO DER deployment is still anticipated for Q4 of 2022.**

# Questions?

# Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

