

179 FERC ¶ 61,198
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;
James P. Danly, Allison Clements,
Mark C. Christie, and Willie L. Phillips.

New York Independent System Operator, Inc.

Docket Nos. ER21-2460-000
ER21-2460-001

ORDER ON COMPLIANCE FILING

(Issued June 17, 2022)

1. On July 19, 2021, as amended on November 19, 2021, New York Independent System Operator, Inc. (NYISO) submitted proposed revisions to its Market Administration and Control Area Services Tariff (Services Tariff) and Open Access Transmission Tariff (OATT)¹ in compliance with the requirements of Order No. 2222,² which removes barriers to the participation of distributed energy resource aggregations in the capacity, energy, and ancillary service markets operated by Regional Transmission Organizations and Independent System Operators (RTO/ISO markets). In this order, we accept NYISO's compliance filing, subject to a further compliance filing to be submitted within 60 days of the date of issuance of this order, as discussed below. We also direct NYISO to propose an effective date for its compliance filing in the fourth quarter of 2022, as discussed below.

I. Background

2. In Order No. 2222, the Commission adopted reforms to remove barriers to the participation of distributed energy resource aggregations in the RTO/ISO markets.³ The Commission modified section 35.28 of its regulations⁴ pursuant to its authority under

¹ Appendix A lists the Services Tariff and OATT sections filed by NYISO. Capitalized terms that are not defined in this order have the meaning specified in section 2 of the Services Tariff or section 1 of the OATT.

² *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197, *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021).

³ Order No. 2222, 172 FERC ¶ 61,247 at P 1.

Federal Power Act (FPA) section 206⁵ to require each RTO/ISO to revise its tariff to ensure that its market rules facilitate the participation of distributed energy resource aggregations. The Commission found that, by removing barriers to the participation of distributed energy resource aggregations in the RTO/ISO markets, Order No. 2222 will enhance competition and, in turn, help ensure that the RTO/ISO markets produce just and reasonable rates.

3. In Order No. 2222, the Commission amended its regulations to require each RTO/ISO to include tariff provisions addressing distributed energy resource aggregations that: (1) allow distributed energy resource aggregations to participate directly in RTO/ISO markets and establish distributed energy resource aggregators as a type of market participant; (2) allow distributed energy resource aggregators to register distributed energy resource aggregations under one or more participation models that accommodate the physical and operational characteristics of the distributed energy resource aggregations; (3) establish a minimum size requirement for distributed energy resource aggregations that does not exceed 100 kilowatts (kW); (4) address locational requirements for distributed energy resource aggregations; (5) address distribution factors and bidding parameters for distributed energy resource aggregations; (6) address information and data requirements for distributed energy resource aggregations; (7) address metering and telemetry requirements for distributed energy resource aggregations; (8) address coordination between the RTO/ISO, the distributed energy resource aggregator, the distribution utility, and the relevant electric retail regulatory authorities (RERRAs); (9) address modifications to the list of resources in a distributed energy resource aggregation; and (10) address market participation agreements for distributed energy resource aggregators.⁶ Additionally, under Order No. 2222, each RTO/ISO must accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed more than 4 million megawatt-hours (MWh) in the previous fiscal year. An RTO/ISO must not accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed 4 million MWh or less in the previous fiscal year, unless the RERRA permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator.

⁴ 18 C.F.R. § 35.28 (2021).

⁵ 16 U.S.C. § 824e.

⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 8.

II. Compliance Filing

4. In its July 19, 2021 filing, NYISO states that its existing Distributed Energy Resource (DER) and Aggregation participation model, which NYISO proposed under FPA section 205 on June 27, 2019 (2019 Aggregation Filing) and the Commission accepted on January 23, 2020,⁷ satisfactorily complies with the vast majority of the requirements of Order No. 2222.⁸ NYISO explains that its DER and Aggregation participation model establishes: (1) the eligibility, composition, and participation of Aggregations, including Aggregations of DERs; (2) Aggregation participation in the energy and ancillary services markets; (3) participation in both the wholesale markets and programs or markets operated to meet the needs of distribution systems or host facilities; (4) metering and telemetry requirements; (5) settlement of Aggregations; (6) Aggregation participation in the NYISO-administered Installed Capacity (ICAP) market; (7) interconnection requirements; and (8) other tariff provisions required to account for the physical and operational characteristics of DERs and Aggregations.⁹

5. NYISO proposes certain revisions to NYISO's Services Tariff and OATT to comply with the remaining requirements of Order No. 2222.¹⁰ According to NYISO, these limited tariff revisions relate to: (1) the small utility opt-in; (2) interconnection procedures; (3) double-counting of services; (4) single resource Aggregations; (5) coordination among NYISO, Distribution Utility, distributed energy resource Aggregator, and RERRA;¹¹ and (6) market participation agreements. NYISO argues that these limited proposed tariff revisions, combined with its existing DER and Aggregation participation model, demonstrate its compliance with Order No. 2222.

⁷ *N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,033 (2020) (2020 Aggregation Order) (accepting tariff revisions and directing a compliance filing and informational report); *N.Y. Indep. Sys. Operator, Inc.*, Docket No. ER19-2276-003 (Apr. 21, 2020) (delegated order accepting Feb. 24, 2020 compliance filing); *N.Y. Indep. Sys. Operator, Inc.*, Compliance Filing Establishing an Effective Date for Revisions to Market Administration and Control Area Services Tariff Section 13, Docket No. ER19-2276-004 (filed Mar. 9, 2021).

⁸ NYISO July 19, 2021 Compliance Filing, Transmittal at 1, 13 (Transmittal).

⁹ Transmittal at 13.

¹⁰ *Id.* at 37.

¹¹ NYISO proposes to define a "Relevant Electric Retail Regulatory Authority" as "[t]he entity that establishes the retail electric prices and competition policies for retail electric customers." See Services Tariff, § 4.1.10.

6. On October 1, 2021, Commission staff issued a data request advising NYISO that additional information was necessary to process its July 19, 2021 filing (Data Request).¹²

7. On November 19, 2021, in Docket No. ER21-2460-001, NYISO filed a response to the Data Request, which amended its July 19, 2021 filing (Data Request Response).

III. Notices of Filings and Responsive Pleadings

8. Notice of NYISO's July 19, 2021 filing was published in the *Federal Register*, 86 Fed. Reg. 39,016 (Jul. 23, 2021), with interventions and protests due on or before August 9, 2021. On August 3, 2021, the Commission extended the comment date to and including August 23, 2021.¹³

9. Notice of NYISO's Data Request Response was published in the *Federal Register*, 86 Fed. Reg. 67,459 (Nov. 26, 2021), with interventions and protests due on or before December 10, 2021.

10. Advanced Energy Economy (AEE); Advanced Energy Management Alliance (AEMA); Alliance for Clean Energy New York, Inc. (Alliance for Clean Energy); American Public Power Association; Calpine Corporation; the City of New York; Edison Electric Institute; Enerwise Global Technologies, LLC; Natural Resources Defense Council (NRDC) and the Sustainable FERC Project (SFP); New York Association of Public Power (NYAPP); New York Battery and Energy Storage Technology Consortium; New York Municipal Power Agency; New York State Energy Research and Development Authority (NYSERDA); NRG Power Marketing LLC; Potomac Economics, Ltd. (Potomac Economics);¹⁴ New York Transmission Owners (NYTO);¹⁵ and Xcel Energy Services Inc. (Xcel) filed timely motions to intervene.

¹² N.Y. Indep. Sys. Operator, Inc., Docket No. ER21-2460-000, at 1 (Oct. 1, 2021) (delegated order). On October 19, 2021, the Commission extended the deadline for submitting the response to the Data Request to and including November 19, 2021. N.Y. Indep. Sys. Operator, Inc. October 19, 2021 Notice of Extension of Time.

¹³ N.Y. Indep. Sys. Operator, Inc. August 3, 2021 Notice Extending Comment Period.

¹⁴ Potomac Economics is the NYISO Market Monitoring Unit.

¹⁵ NYTOs include Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Power Authority, New York Power Authority, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

11. The New York State Public Service Commission (New York Commission) filed a notice of intervention.

12. AEMA, NYTOs, and NYAPP each filed a timely protest. AEE, NRDC and SFP collectively filed a timely protest. SFP, NRDC, AEE and the City of New York (collectively, Clean Energy and Consumer Advocates (CECA)) filed a timely protest. The New York Commission, NYSERDA, New York Power Authority, the City of New York, and the New York Battery and Energy Storage Technology Consortium (collectively, the Clean Energy Coalition) filed a timely protest.

13. On September 3, 2021, Xcel filed an answer. On September 7, 2021, NYTOs and Alliance for Clean Energy each filed answers. On September 10, 2021, the New York Commission and AEMA each filed answers. On September 14, 2021, NYISO and Potomac Economics each filed answers.

14. In response to NYISO's Data Request Response, AEMA filed timely comments, and AEE filed a timely protest. Also, on December 16, 2021, SFP and NRDC (collectively, Public Interest Organizations) filed a motion to file comments out-of-time and comments.

IV. Discussion

A. Procedural Matters

15. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2021), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

16. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2021), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We accept the answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

17. In its filing, NYISO maintains that its existing DER and Aggregation participation model satisfactorily complies with the vast majority of the directives of Order No. 2222. While we recognize NYISO's efforts to advance the participation of DERs in its markets, we find that NYISO's proposal partially complies with Order No. 2222. As explained in further detail below, we accept NYISO's compliance filing, subject to a further compliance filing to be submitted within 60 days of the date of issuance of this order, as discussed below. We also direct NYISO to propose an effective date for its compliance filing in the fourth quarter of 2022, as discussed below.

18. As a preliminary matter, we find that NYISO complies with the following requirements of Order No. 2222: (1) establish a minimum size requirement for distributed energy resource aggregations that does not exceed 100 kW; (2) propose a maximum capacity requirement for individual distributed energy resources participating in its markets through a distributed energy resource aggregation; (3) allow a single qualifying distributed energy resource to avail itself of the proposed distributed energy resource aggregation rules by serving as its own distributed energy resource aggregator; and (4) address distribution factors and bidding parameters for distributed energy resource aggregations. NYISO's compliance with these requirements is not contested in this proceeding. We address the remaining compliance requirements and comments and protests below.

1. Stakeholder Process

a. Protests

19. AEMA and AEE assert that NYISO made the decision to forego a stakeholder process to review compliance requirements of Order No. 2222 and required tariff changes, because NYISO's tariff amendments accepted in the 2020 Aggregation Order comply with the vast majority of requirements of Order No. 2222.¹⁶ CECA similarly states that NYISO's instant filing is not the product of a collaborative stakeholder process and that NYISO identified for stakeholders the specific tariff revisions it planned to include in its compliance filing one business day before it filed the proposal at the Commission.¹⁷ AEMA argues that NYISO's proposed tariff revisions are vaguely worded, and, in some cases, increase barriers to participation.¹⁸ AEMA also asserts that many of the key details about how NYISO will implement the tariffs, including through manuals and other documents, have yet to be developed, which leaves open the potential for further barriers to participation. AEMA contends that the lack of stakeholder engagement caused numerous issues to be raised in protests about the rules and protocols to implement the DER requirements. AEE asks the Commission to return NYISO's compliance filing to NYISO for further explanation and development.

b. Commission Determination

20. Order No. 2222 did not require each RTO/ISO to conduct a formal stakeholder process before submitting its compliance filing. Therefore, we find these protests to be beyond the scope of this compliance proceeding.

¹⁶ AEMA Protest at 2-3; AEE Protest on Data Request Response at 2.

¹⁷ CECA Protest at 8.

¹⁸ AEMA Protest at 2-3.

2. Small Utility Opt-In

21. In Order No. 2222, the Commission added section 35.28(g)(12)(iv) to the Commission's regulations to provide that RTOs/ISOs may not accept bids from distributed energy resource aggregators aggregating customers of small utilities unless the RERRA allows such customers of small utilities to participate in distributed energy resource aggregations (i.e., to opt in).¹⁹ Specifically, the Commission directed each RTO/ISO to amend its market rules as necessary to (1) accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed more than 4 million MWh²⁰ in the previous fiscal year, and (2) not accept bids from distributed energy resource aggregators if its aggregation includes distributed energy resources that are customers of utilities that distributed 4 million MWh or less in the previous fiscal year, unless the RERRA permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator (small utility opt-in).²¹ The Commission also required each RTO/ISO to explain how it will implement this small utility opt-in, noting that an RTO/ISO may choose to implement this requirement in a similar manner as it currently implements the small utility opt-in provision under Order No. 719-A.²² In Order No. 2222-A, denying a request for clarification, the Commission found that the small utility opt-in established in Order No. 2222 applies to energy efficiency resources.²³

a. Filing

22. NYISO proposes to prohibit enrollment of an individual DER when (1) the DER is a customer of a small utility, and (2) the RERRA has not affirmatively authorized that

¹⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 56.

²⁰ The 4 million MWh cutoff stems from the Small Business Size Standards component of the North American Industry Classification System, which previously defined a small utility as one that, including its affiliates, is primarily engaged in the generation, transmission, or distribution of electric energy for sale, and whose total electric output for the preceding fiscal year did not exceed 4 million MWh. 13 C.F.R. § 121.201 (2013) (Sector 22, Utilities, North American Industry Classification System (NAICS)). Currently, the number of employees is the basis used to measure whether electric power generation, transmission, and distribution industries are small businesses. 13 C.F.R. § 121.201 (2021) (Sector 22, Utilities, NAICS).

²¹ Order No. 2222, 172 FERC ¶ 61,247 at P 65; *see* Order No. 2222-A, 174 FERC ¶ 61,197 at PP 34-35 (dismissing arguments on rehearing about the small utility opt-in).

²² Order No. 2222, 172 FERC ¶ 61,247 at P 66.

²³ Order No. 2222-A, 174 FERC ¶ 61,197 at P 36.

small utility's customers to participate in the wholesale markets in an Aggregation.²⁴ Additionally, NYISO proposes tariff revisions to require each Aggregator to identify whether each DER in its aggregation is a customer of a small utility and, if so, attest that the RERRA affirmatively authorizes that small utility's customers to participate in the wholesale markets in an aggregation.²⁵ NYISO proposes to use its own fiscal year—January 1 to December 31—to identify the MWh distributed annually by each utility. NYISO states that it will require such attestation when it enrolls a DER in an Aggregation, and annually thereafter by April 1.²⁶ NYISO proposes to make the attestation effective for a full Capability Year (May 1 – April 30), which, NYISO maintains, reduces administrative burdens to Aggregators and NYISO and will aid in the operation of its markets. NYISO further proposes that, if it does not receive an annual attestation by April 1, the previously submitted attestation will remain effective. NYISO states that Aggregators will be responsible for the accuracy of their attestations. NYISO's proposed revisions to section 4.1.10 of its Services Tariff are:

An individual Resource that is a customer of a Load Serving Entity^[27] that distributed less than or equal to four million MWh in [NY]ISO's immediately prior and completed fiscal year (which runs January 1 through December 31) shall not be enrolled in an Aggregation, unless the Relevant Electric Retail Regulatory Authority affirmatively authorizes the customers of that Load Serving Entity to participate in the [NY]ISO-administered markets in an Aggregation.

An Aggregator shall, upon enrollment of each individual Resource and annually thereafter, (i) determine whether each Resource is a customer of a Load Serving Entity meeting the annual MWh threshold identified above, and (ii) for each Resource that is a customer of a Load Serving Entity that meets such threshold, accurately attest that the Relevant

²⁴ Transmittal at 37.

²⁵ *Id.* at 12, 37-38; Services Tariff, § 4.1.10.

²⁶ Transmittal at 38.

²⁷ NYISO defines a Load Serving Entity as “[a]ny entity, including a municipal electric system and an electric cooperative, authorized or required by law, regulatory authorization or requirement, agreement, or contractual obligation to supply Energy, Capacity and/or Ancillary Services to retail customers located within the NYCA, including an entity that takes service directly from the ISO to supply its own Load in the NYCA.” Services Tariff, § 2.12.

Electric Retail Regulatory Authority has authorized the Load Serving Entity's customers to participate in an Aggregation. An attestation completed upon an individual Resource's initial enrollment shall be effective until the end of the Capability Year in which the Resource was first enrolled. Each annual attestation shall be completed by April 1, and will be effective for the Capability Year beginning May 1 of that year. If the [NY]ISO does not receive an updated attestation by April 1, the previously submitted attestation shall remain in effect, and the Aggregator shall be responsible for its accuracy.

b. Protests

23. First, several parties oppose NYISO's proposal to apply the small utility opt-in to resources that are customers of Load Serving Entities, rather than Distribution Utilities. AEMA argues that this could be construed as a new requirement for Aggregators to obtain RERRA approval for customers served by small competitive retail suppliers (known as Energy Service Companies in New York) that are also Load Serving Entities.²⁸ AEMA argues that such a requirement would make it significantly more difficult for Aggregators to manage RERRA attestations.²⁹ AEE, NRDC, and SFP similarly note that the Commission specifically tied the opt-in to utilities that "*distribute[d]* 4 million MWh or less" and that NYISO's proposal is inconsistent with the plain language of Order No. 2222.³⁰ They also note that retail choice Load Serving Entities have no role in distribution system operations, whereas the Commission was concerned about the burden placed on smaller utilities.³¹ NYTOs likewise argue that the relevant customer-utility relationship in New York is between a given customer and its Distribution Utility, not between a given customer and its Load Serving Entity.³² These parties recommend that the Commission direct NYISO to replace the term "Load Serving Entity" with "Distribution Utility" throughout the proposed amendment to section 4.1.10, and NYTOs also recommend that NYISO move the definition of "Distribution Utility" from section 4.1.10.5 up to the small utility opt-in provision in section 4.1.10.³³

²⁸ AEMA Protest at 19.

²⁹ *Id.* at 20.

³⁰ AEE, NRDC, and SFP Protest at 23-24 (quoting Order No. 2222, 172 FERC ¶ 61,247 at P 64).

³¹ *Id.* at 24.

³² NYTOs Protest at 6.

Similarly, NYTOs claim that the proposed tariff language, “customer of a [Distribution Utility] meeting the annual MWh threshold[,]” is ambiguous and request that the proposed language be revised to clarify that it refers to customers of Distribution Utilities that distributed less than or equal to the four million MWh threshold.³⁴

24. Second, parties express concern about the responsibilities that NYISO imposes on Aggregators under its proposal. AEE, NRDC, and SFP oppose NYISO’s proposal to require Aggregators to ascertain which distribution utilities are small utilities and, of those, which have opted in.³⁵ They argue that NYISO is better suited to complete this task and that it will be burdensome and inefficient for Aggregators to assume this responsibility.

25. Third, parties urge the Commission to require NYISO to modify its proposed annual attestation requirement for Aggregators. On one hand, NYAPP urges the Commission to reject NYISO’s proposal to allow attestations to remain valid if the Aggregator fails to recertify annually.³⁶ NYAPP requests that attestations only be valid for one year, so that Aggregators pay close attention to the RERRA’s continued authorization. NYAPP contends this will not be an administrative burden. On the other hand, NYTOs argue that there is no need for the Aggregator to update the attestation unless there is a change in status.³⁷ They argue that the status of eligibility is unlikely to change from year to year. However, they express concern that there is no mechanism for an Aggregator to communicate that a DER that was previously eligible to be enrolled in an Aggregation is no longer eligible; thus, they suggest that NYISO’s proposed tariff language be revised to that effect.

26. Fourth, NYAPP requests that the Commission require the Aggregator to submit evidence that each small utility received notice of an attestation (or subsequent attestation) that such small utility opted-in.³⁸ NYAPP asserts that, if the Distribution Utility review process is to be meaningful, the host small utility must be notified because DER participation could potentially endanger the safety and reliability of the small utility’s system. NYAPP also requests that the Commission consider specific penalties

³³ *Id.* at 6-7; AEMA Protest at 20; AEE, NRDC, and SFP Protest at 24.

³⁴ NYTOs Protest at 7-8.

³⁵ AEE, NRDC, and SFP Protest at 24-25.

³⁶ NYAPP Protest at 7-8.

³⁷ NYTOs Protest at 8.

³⁸ NYAPP Protest at 6-7.

for improper attestations, which could have extremely negative consequences, especially for small utilities.

27. Fifth, NYTOs express concern about NYISO's proposal that a customer loses eligibility to participate if, on December 31, the Load Serving Entity distributes four million MWh or less in that fiscal year.³⁹ They argue that it would be unreasonable for customers to lose eligibility at midnight December 31, and unworkable to administer. They recommend that NYISO revise its proposal to specify that ineligibility would apply for the forthcoming Capability Year so that the customer does not lose eligibility during the executory Capability Year.

c. Answers

28. NYISO does not object to identifying small utilities by Distribution Utility rather than Load Serving Entity, so long as the Commission accepts its proposal that the Aggregator be responsible for attesting that the RERRA has opted-in.⁴⁰ NYISO explains that its metering and settlement systems are not designed to measure and calculate energy deliveries by Distribution Utility, and it would require time-consuming and expensive upgrades to do so. NYISO states that it measures load by sub-zone and, in some cases, sub-zonal load is served by more than one Distribution Utility. NYISO explains that it proposed to calculate energy deliveries by Load Serving Entity because that is how its settlement systems currently calculate energy deliveries.⁴¹ NYISO also supports NYTOs' request to replace the "meets such threshold" language with "that distributed less than or equal to" the four million MWh threshold in Services Tariff, section 4.1.10.⁴² NYISO requests that the Commission direct it to make this clarifying revision. In addition, the New York Commission supports replacing the term "Load Serving Entity" with the term "Distribution Utility."⁴³ The New York Commission asserts that requiring Aggregators to seek RERRA approval for customers served by Energy Service Companies could create significant administrative confusion in New York.⁴⁴ The New York Commission also contends that a Load Serving Entity might also have anti-competitive reasons to not allow its customers to participate in the wholesale markets.

³⁹ NYTOs Protest at 7.

⁴⁰ NYISO Answer at 7.

⁴¹ *Id.* at 8.

⁴² *Id.* at 11.

⁴³ New York Commission Answer at 4.

⁴⁴ *Id.* at 5.

29. NYISO defends its proposal that the Aggregator attest that it is fully eligible to participate in the wholesale markets.⁴⁵ NYISO argues that Order No. 2222 did not require RTOs/ISOs to relieve Aggregators of the duty to perform tasks necessary for participation in the wholesale market. Moreover, NYISO argues that an Aggregator will have regular and direct contact with the Distribution Utility concerning any resources located in that utility's service territory. Thus, NYISO asserts that the Aggregator is best positioned to identify the RERRA and obtain the Distribution Utility's confirmation about how much it delivers per year and if the RERRA approves wholesale participation. NYISO also states that it does not expect the Aggregator to collect Distribution Utility meter data to calculate the 4 million MWh threshold, but rather coordinate with the Distribution Utility.

30. NYISO defends its annual attestation requirement and says that it is consistent with its desire for market efficiency and its experience administering these types of regularly scheduled interval designations.⁴⁶ NYISO further states that the Aggregator will have the obligation to provide accurate information and to notify NYISO of a change in the RERRA's opt-in determination. NYISO argues that, if the Commission finds its proposal inconsistent with Order No. 2222, then it prefers NYTOs' approach among the alternatives because it avoids imposing unnecessary administrative burdens and potential market disruption.⁴⁷ AEMA argues that an annual attestation would be unduly burdensome and discourage aggregation.⁴⁸ AEMA argues that the RERRA's opt-in determinations, especially in New York, tend not to change very often, if at all. Given that, AEMA argues that NYAPP's proposal needlessly risks invalidating a DER registration if the annual attestation is not timely submitted. AEMA notes that a resource's contract with an Aggregator covers multiple years, and that Aggregators may be concerned if multi-year participation is not guaranteed.

31. NYISO supports NYAPP's request that the small utility be notified when an Aggregator attests that the RERRA has opted-in to wholesale market participation.⁴⁹ NYISO requests that the Commission direct NYISO to require the Aggregator to provide such notice and to include in its attestation to NYISO a statement that it provided such notification. AEMA argues that there should be a stakeholder process to discuss what evidence of notice would suffice that would not be an undue burden on the Aggregator.⁵⁰

⁴⁵ NYISO Answer at 9-10.

⁴⁶ *Id.* at 12.

⁴⁷ *Id.* at 13.

⁴⁸ AEMA Answer at 3.

⁴⁹ NYISO Answer at 11.

32. NYISO supports NYTOs' request to clarify the timing of a resource's ineligibility by adding to Services Tariff section 4.1.10 the words "for the forthcoming Capability Year[,]" and requests that the Commission direct NYISO to do so.⁵¹ AEMA opposes NYTOs' request and argues that it is unreasonable for existing resources to become unable to participate because their Distribution Utility transformed into a small utility by distributing fewer than 4 million MWhs a year.⁵²

d. Commission Determination

33. We find that NYISO's proposal partially complies with the small utility opt-in requirements of Order No. 2222.⁵³ In particular, we find that NYISO complies with the requirement to accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed more than 4 million MWh in the previous fiscal year.⁵⁴ We find that NYISO partially complies with the requirement to not accept bids from distributed energy resource aggregators if its aggregation includes the distributed energy resources that are customers of utilities that distributed 4 million MWh or less in the previous fiscal year, unless the RERRA permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator.⁵⁵ NYISO's proposal ensures that a resource will not be enrolled in an Aggregation, unless the RERRA affirmatively authorizes its participation in NYISO's markets in an Aggregation, consistent with Order No. 2222.⁵⁶

34. However, we find that NYISO's proposed application of the small utility opt-in to customers of a Load Serving Entity does not comply with Order No. 2222 because, as several parties note, the small utility opt-in applies to "customers of *utilities that distributed* 4 million MWh or less in the previous fiscal year,"⁵⁷ and not to customers of

⁵⁰ AEMA Answer at 2-4.

⁵¹ NYISO Answer at 10.

⁵² AEMA Answer at 3-4.

⁵³ Order No. 2222, 172 FERC ¶ 61,247 at P 65.

⁵⁴ *Id.* P 65; *see, e.g.*, Services Tariff, § 4.1.10 ("Suppliers may aggregate individual Resources electrically located in the NYCA to provide Energy, Capacity and Ancillary Services.").

⁵⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 65.

⁵⁶ *See* Services Tariff, § 4.1.10

⁵⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 64 (emphasis added); *see id.* P 64

Load Serving Entities. Accordingly, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises section 4.1.10 of its Services Tariff to replace the term “Load Serving Entity” with “Distribution Utility.”

35. To implement this directive, we require NYISO as part of its further compliance filing to make several related revisions. First, because, on compliance, the term Distribution Utility will initially appear in section 4.1.10 of the Services Tariff, we direct NYISO to move its proposed definition of Distribution Utility from section 4.1.10.5 to section 4.1.10. Second, to be consistent with the small utility opt-in language in Order No. 2222 related to the distribution utility threshold of 4 million MWh, we direct NYISO to replace: (1) the phrase “meeting the annual MWh threshold identified above” with the phrase “that distributed 4 million MWh or less in the previous fiscal year”; and (2) the phrase “meets such threshold” with the phrase “distributed 4 million MWh or less in the previous fiscal year.” Accordingly, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises section 4.1.10 of its Services Tariff to include these changes in the small utility opt-in provision.

36. Next, we find that NYISO partially complies with the requirement to explain how it will implement the small utility opt-in.⁵⁸ NYISO explains that it will implement the opt-in by requiring the Aggregator to determine whether each of its resources is subject to the small utility opt-in and, if so, requiring the Aggregator to submit annually an attestation that the RERRA has authorized such resource’s participation.⁵⁹

37. We disagree with parties who oppose NYISO’s proposal that the Aggregator determine whether each resource in its Aggregation is a customer of a small utility and whether the RERRA has opted-in to the resource’s wholesale market participation. We find that NYISO’s explanation that it will implement its small utility opt-in by placing these responsibilities on the Aggregator as the market participant is reasonable. As NYISO notes, the Aggregator will have regular contact with the Distribution Utility concerning resources in its service territory, which will facilitate the Aggregator in fulfilling its responsibilities.⁶⁰ As NYISO also notes, it does not expect the Aggregator to calculate the 4 million MWh threshold, but to coordinate with the Distribution Utility to confirm the necessary details. We also disagree with NYAPP’s proposal that the Aggregator must also notify small utilities of its attestation. NYAPP supports its request (“Recognizing this potentially greater burden [of the final rule] on small utility systems, we will exercise our discretion to include in this final rule an opt-in mechanism for small utilities similar to that provided in Order No. 719-A.”).

⁵⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 66.

⁵⁹ Transmittal at 37-38.

⁶⁰ NYISO Answer at 9-10.

by raising safety and reliability concerns. We address those concerns below, as they more closely relate to the coordination requirements established by Order No. 2222.⁶¹

38. However, we find that NYISO does not fully explain how it will implement the small utility opt-in for two reasons. First, we agree with NYTOs that NYISO does not fully explain the timing of a resource's ineligibility to participate as a result of the small utility opt-in, that is, when a resource that is a customer of a large utility becomes a customer of a small utility. We note that NYISO in its answer supports NYTOs' proposal to insert "for the forthcoming Capability Year" in the small utility opt-in provision. We agree with NYTOs that it would be both unreasonable and impractical for a resource that is a customer of a Distribution Utility that distributed more than 4 million MWh in one fiscal year to become immediately ineligible to participate, i.e., on January 1, if that utility distributes 4 million MWh or less in a subsequent fiscal year. We find that, if a resource becomes subject to the small utility opt-in provision, then the resource should be ineligible as of May 1, or the forthcoming Capability Year, unless the Aggregator attests that the RERRA authorized the Distribution Utility's customers to participate. Accordingly, and consistent with NYISO's explanation provided in its answer, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises section 4.1.10 of its Services Tariff to insert "for the forthcoming Capability Year" in the small utility opt-in provision.⁶²

39. Second, we find that NYISO does not clearly explain the process by which an Aggregator must notify NYISO of a change in the RERRA's opt-in determination, specifically, when a RERRA that previously authorized the participation of a resource that is a customer of a small utility decides to bar such participation. While NYISO states in its answer that the Aggregator must notify NYISO if an attestation becomes out of date, the proposed NYISO tariff language instead merely states that the Aggregator must submit an attestation annually, but if it does not, then the previous attestation remains in effect and the Aggregator shall be responsible for its accuracy.⁶³ Accordingly, we direct NYISO to file, within 60 days of the issuance of this order, a further compliance filing that clarifies the Aggregator's responsibilities associated with changes

⁶¹ See discussion *infra* Part IV.B.9.

⁶² We disagree with AEMA's argument that it is unreasonable for existing resources to become unable to participate because their Distribution Utility transformed into a small utility. Order No. 2222 is clear that the small utility opt-in applies to "distributed energy resources that are customers of utilities that distributed 4 million MWh or less *in the previous fiscal year*." Order No. 2222, 172 FERC ¶ 61,247 at P 65 (emphasis added).

⁶³ NYISO Answer at 12; Services Tariff, § 4.1.10; see Transmittal at 38.

to a RERRA's opt-in determination, and clarifies the timing of a resource's ineligibility when the small utility decides to prohibit its participation.

40. Lastly, we decline to establish penalties for improper attestations, as suggested by NYAPP, because Order No. 2222 did not establish such a requirement.

3. Interconnection

41. In Order No. 2222, the Commission declined to exercise its jurisdiction over the interconnections of distributed energy resources to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation.⁶⁴ The Commission therefore stated that it will not require standard interconnection procedures and agreements or wholesale distribution tariffs for such interconnections. The Commission also stated that Order No. 2222 does not revise the Commission's jurisdictional approach to the interconnections of Qualifying Facilities (QF) that participate in distributed energy resource aggregations.⁶⁵ In Order No. 2222-A, the Commission clarified that the Commission declined to exercise jurisdiction over the interconnections of distributed energy resources, including the interconnections of QFs, to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation.⁶⁶

42. Recognizing that distributed energy resources may already have interconnected pursuant to procedures that were accepted by the Commission prior to the effective date of Order No. 2222, the Commission stated that it is not requiring distributed energy resources that already interconnected under Commission-jurisdictional procedures to convert to state or local interconnection agreements.⁶⁷ The Commission required each RTO/ISO to make any necessary tariff changes to reflect this guidance.⁶⁸

⁶⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 90.

⁶⁵ *Id.* P 98 (citing *Standardization of Generator Interconnection Agreements & Proc.*, Order No. 2003, 104 FERC ¶ 61,103, at PP 813-815 (2003) (Order No. 2003); *Standardization of Small Generator Interconnection Agreements & Proc.*, Order No. 2006, 111 FERC ¶ 61,220, at PP 516-518 (2006); *Reform of Generator Interconnection Agreements & Proc.*, Order No. 845, 163 FERC ¶ 61,043 (2018)).

⁶⁶ Order No. 2222-A, 174 FERC ¶ 61,197 at P 43.

⁶⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 103.

⁶⁸ *Id.* P 104.

a. Filing

43. NYISO proposes to modify OATT Attachment Z, sections 32.1.1 and 32.5 to comply with the Commission's directive.⁶⁹ Specifically, NYISO proposes to modify OATT section 32.1.1 to add an additional category of interconnection not subject to the Small Generator Interconnection Procedures, namely "interconnection of facilities participating in the ISO markets exclusively through an Aggregation."⁷⁰ NYISO proposes to make a corresponding change to the definition of Small Generating Facility in OATT section 32.5 to make clear that facilities participating in the NYISO-administered markets solely through an Aggregation, including an Aggregation of a single resource, are not subject to NYISO's Small Generator Interconnection Procedures.⁷¹ Specifically, in section 32.5, NYISO proposes to revise the definition of Small Generating Facility so that it excludes facilities participating in the ISO markets exclusively through an Aggregation. According to NYISO, consistent with the Commission's directive in Order No. 2222, the interconnection of a facility for the exclusive purpose of participation in an Aggregation, and not subject to the Small Generator Interconnection Procedures, will not constitute a "first use" of the facility for the purpose of determining whether the distribution facility is subject to Commission jurisdiction.

44. NYISO states that the 2019 Aggregation Filing included modifications to the tariff language that governs the participation of capacity resources to make the tariff requirements broadly and generally applicable to all capacity resources.⁷² NYISO states that Services Tariff section 5.12.11.5 contains the requirements that are applicable to installed capacity suppliers with energy duration limitations, which generally apply to energy storage resources and DERs, such as the requirement to obtain Capacity Resource Interconnection Service (CRIS), pursuant to Attachments S and X of NYISO's OATT.⁷³

b. Protest

45. AEE, NRDC, and SFP contend that undergoing CRIS review is a time-consuming and administratively burdensome process for DERs and raises a barrier to entry for smaller DERs.⁷⁴ They urge the Commission to direct NYISO to not require CRIS review for any individual DER or DER Aggregation less than 5 MW.

⁶⁹ Transmittal at 38.

⁷⁰ *Id.* at 38-39.

⁷¹ *Id.* at 39.

⁷² *Id.* at 20 n.70.

⁷³ *Id.* at 20-21.

c. Answers

46. NYISO states that the Commission should reject AEE, NRDC, and SFP's request not to require CRIS for DERs or Aggregations less than 5 MW.⁷⁵ NYISO contends that it applies its deliverability requirements for CRIS requests on a comparable basis to all resources that seek to participate in its capacity market and that its existing processes include flexibility for the evaluation of CRIS requests, including the Class Year or an Expedited Deliverability Study. NYISO contends that AEE, NRDC, and SFP present no valid basis for a DER-specific exception here.

47. Xcel states that AEE, NRDC, and SFP fail to provide any justification for the 5 MW threshold they propose.⁷⁶ Xcel also states that there could be significant negative implications for reliability if DERs or Aggregations of 5 MW or less are unable to provide needed capacity when called upon. Xcel believes it would be irresponsible, as well as unduly discriminatory, to waive capacity accreditation requirements for an entire tranche of market resources simply because, on an individual basis, the components of the tranche are small.

d. Data Request Response

48. In its Data Request, Commission staff asked NYISO to explain whether its proposed tariff revisions would exempt from its interconnection procedures all interconnections of resources participating in NYISO's markets exclusively through an Aggregation, even those interconnected to the New York State Transmission System, and if so, how its proposed tariff revisions are consistent with the Commission's guidance.⁷⁷ In response, NYISO explains that its proposed tariff revisions inadvertently applied the Commission's directive to the interconnection of DERs on both the distribution system and the New York State Transmission System.⁷⁸ NYISO states that its proposed tariff revisions were intended to apply only to interconnections of DERs on the distribution system. Therefore, NYISO requests that the Commission instruct it to revise OATT Attachment Z such that only those DERs that propose to interconnect to the distribution system for the purposes of participating in the wholesale markets through an Aggregation are not subject to the Small Generator Interconnection Procedures.

⁷⁴ AEE, NRDC, and SFP Protest at 25.

⁷⁵ NYISO Answer at 56.

⁷⁶ Xcel Answer 10.

⁷⁷ Data Request at 2.

⁷⁸ Data Request Response at 2-3.

49. In its Data Request, Commission staff also asked NYISO to explain how NYISO will evaluate each individual DER seeking to provide ICAP service in order to award CRIS, whether all resources are evaluated for deliverability through NYISO's Class Year process, and if different-sized resources are treated differently during this deliverability analysis.⁷⁹ In response, NYISO states that Attachment S of the OATT contains the procedures for the Class Year study in which a project must participate to obtain CRIS with limited exceptions, and that a resource must possess CRIS to qualify as an ICAP Supplier.⁸⁰ NYISO states that DERs that consist of a single asset and that can operate for 24 hours a day will be evaluated for CRIS like other resources of the same resource type. NYISO contends that resource-specific requirements are necessary in light of the physical and operational characteristics of certain facilities.⁸¹ NYISO also explains that Attachment S clarifies how a CRIS request would be treated for a multi-unit facility composed of multiple units of the same or several different technology types. According to NYISO, these rules align a facility's maximum CRIS level as close as possible to the facility's maximum possible ICAP market contribution.⁸² However, NYISO explains, all resources are not required to go through NYISO's full Class Year study process to obtain CRIS if they are only requesting CRIS and meet the requirements for the Expedited Deliverability Study process.⁸³ One such requirement, according to NYISO, is being in service or having completed a particular study, which may include a utility interconnection study if the facility is not subject to NYISO's interconnection procedures.⁸⁴ In addition, NYISO states that its interconnection procedures do not require a developer of a generating facility that is requesting 2 MW or less of CRIS to be evaluated for deliverability under NYISO's Deliverability Interconnection Standard, which reflects NYISO's long-standing *de minimis* threshold.

e. Data Request Response Protest

50. Public Interest Organizations assert that the requirement for all DERs to obtain CRIS awards is unnecessary, burdensome, and does not comply with Order No. 2222 because it prohibits DERs from providing capacity they are technically capable of providing.⁸⁵ They point out that NYISO's Data Request Response simply notes that

⁷⁹ Data Request at 6-7.

⁸⁰ Data Request Response at 16.

⁸¹ *Id.* at 17.

⁸² *Id.* at 18.

⁸³ *Id.* at 20-21.

⁸⁴ *Id.* at 21.

individual DERs must obtain CRIS on the same terms as other wholesale market resources, but that NYISO does not attempt to address the Commission's finding that reform is necessary to correctly measure the impact of DERs on ICAP requirements.⁸⁶ They argue that NYISO needs to reform how CRIS requirements apply to DERs to comply with the requirement of Order No. 2222 to allow DERs to provide capacity up to their technical capability and avoid procurement of unnecessary capacity, and to reflect the locational benefits of DERs. Public Interest Organizations also point out that NYISO's proposed Transmission Node evaluation process provides an opportunity to resolve the barriers created by the proposed CRIS requirement because it appears to consider the same factors that allow DERs to provide resource adequacy while avoiding or easing load on the transmission system.⁸⁷ They therefore request that the Commission find that requiring CRIS for all DERs does not comply with Order No. 2222 and direct NYISO to: (1) develop screening criteria or other means to identify the amount of capacity from DERs that can be accepted at each Transmission Node without further study and allow DERs to supply capacity accordingly; or (2) explain why such an approach is not technically feasible and propose an alternative that considers DERs' ability to provide resource adequacy without use of the transmission system.⁸⁸

51. In addition, Public Interest Organizations argue that NYISO's approach to limit the CRIS award to no greater than the DER's Energy Resource Interconnection Service (ERIS), which is obtained through NYISO interconnection studies, suffers from two fatal flaws.⁸⁹ First, they argue that this aspect of NYISO's proposal is not compliant with Order No. 2222 because the Commission specifically declined to exercise jurisdiction over the interconnection of individual DERs, yet NYISO proposes to require each individual DER wishing to provide capacity to go through a Commission-jurisdictional interconnection process. They point out that NYISO proposes to conduct the ERIS studies for individual DERs, not DER Aggregations, which will result in an overwhelming volume of interconnection requests that they believe Order No. 2222 sought to avoid. Public Interest Organizations contend that NYISO's approach does not allow the value of heterogeneous Aggregations to be fully recognized because the capacity value of an Aggregation will be simply the sum of the capacity values of each individual resource.⁹⁰

⁸⁵ Public Interest Organizations Protest on Data Request Response at 3.

⁸⁶ *Id.* at 10.

⁸⁷ *Id.* at 11.

⁸⁸ *Id.* at 11-12.

⁸⁹ *Id.* at 12.

⁹⁰ *Id.* at 13.

52. Second, Public Interest Organizations claim that NYISO's proposal is internally contradictory because despite NYISO's proposal to require a DER wishing to provide capacity as part of Aggregation to obtain ERIS, a resource participating in an Aggregation may not be eligible to obtain ERIS, because NYISO proposes to modify its Small Generator Interconnection Procedures to exclude them.⁹¹ They also argue that NYISO's proposed DER rules would subject a resource to a variety of distribution utility and retail regulatory reviews and procedures that are irrelevant once a resource completes a wholesale interconnection process such as ERIS, because the Commission has jurisdiction over its interconnection.⁹² Public Interest Organizations argue that the best remedy is for the Commission to order NYISO to provide a method for DERs to provide capacity without going through interconnection studies.⁹³ In the alternative, they request that the Commission find NYISO's proposed rules for awarding CRIS to DERs unreasonable and order NYISO to file new rules that incorporate the findings and directives of Order No. 2222.

f. Commission Determination

53. We find that NYISO's proposal partially complies with Order No. 2222 with respect to interconnection. In order to reflect the Commission's decision in Order No. 2222 to decline to exercise jurisdiction over the interconnections of distributed energy resources, NYISO proposes to modify OATT section 32.1.1 to exempt from the Small Generator Interconnection Procedures the interconnections of facilities participating in NYISO's markets exclusively through an Aggregation. As NYISO notes in response, NYISO's proposal inadvertently applied the Commission's directive to interconnections of DERs on both the distribution system and the transmission system.⁹⁴

54. We agree with NYISO that the tariff revision should apply only to interconnections of DERs on the distribution system to appropriately reflect the Commission's directives in Order No. 2222.⁹⁵ Accordingly, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises OATT Attachment Z sections 32.1.1 and 32.5, respectively, to: (1) specify that

⁹¹ *Id.* at 13.

⁹² *Id.* at 13 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 803-804).

⁹³ *Id.* at 14.

⁹⁴ Data Request Response at 2.

⁹⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 90 (declining to exercise jurisdiction over the interconnections of distributed energy resources to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation).

the interconnection to the distribution system of facilities participating in NYISO's markets exclusively through an Aggregation is not subject to the Small Generator Interconnection Procedures; and (2) revise the definition of Small Generating Facility to exempt facilities connecting to the distribution system that participate in NYISO's markets exclusively through an Aggregation from the Small Generator Interconnection Procedures.⁹⁶

55. We find that NYISO's proposal to apply its existing deliverability requirements for CRIS requests on a comparable basis to all resources, including to DER Aggregations, is appropriate because it enables Aggregations to demonstrate that they are technically capable of providing capacity in NYISO, consistent with Order No. 2222. In Order No. 2222, the Commission found that distributed energy resource aggregations must be able to meet the qualification and performance requirements to provide the service that they are offering into RTO/ISO markets.⁹⁷ As NYISO explains, to qualify as an ICAP supplier, a resource, including an Aggregation, must obtain CRIS, i.e., interconnection service that allows participation in NYISO's ICAP market to the extent of the facility's deliverable capacity, pursuant to Attachment S of the OATT.⁹⁸ In other words, Aggregations must meet NYISO's deliverability requirements to provide capacity. Contrary to protesters' requests, including Public Interest Organizations' request that we direct NYISO to develop screening criteria or other means to identify the amount of capacity from DERs that can be accepted at each Transmission Node without further study and allow DERs to supply capacity accordingly, Order No. 2222 does not require NYISO to reform or otherwise apply different or preferential treatment with respect to CRIS review to DERs or Aggregations that are less than 5 MW, which would be inconsistent with NYISO's existing qualification and performance requirements to provide capacity. Further, as NYISO explains, NYISO's existing processes include flexibility for the evaluation of CRIS requests, including the Class Year or an Expedited Deliverability Study, which may alleviate some of the concerns raised by protesters about barriers to entry.⁹⁹ We also note that the requirement to possess CRIS applies only to a facility larger than 2 MW.¹⁰⁰

⁹⁶ Data Request Response at 2-3.

⁹⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 117.

⁹⁸ See Services Tariff, § 5.12.1 ("In order to qualify as an Installed Capacity Supplier or be part of an Aggregation that is qualified as an Installed Capacity Supplier, Generators, controllable transmission projects electrically located in the NYCA, transmission projects with associated incremental transfer capability, and Distributed Energy Resources that have the ability to inject Energy must have obtained Capacity Resource Interconnection Service ("CRIS") pursuant to the applicable provisions of Attachment S to the ISO OATT and have entered service.").

56. We disagree with Public Interest Organizations' argument that NYISO cannot subject DERs or Aggregations to the necessary interconnection studies to obtain CRIS and ERIS while still being consistent with the Commission's interconnection guidance in Order No. 2222. We note that in Order No. 2222, with respect to arguments that distributed energy resources should only be required to have one interconnection study at the distribution interconnection stage, the Commission found that there could be different approaches to this issue that would work in appropriate circumstances.¹⁰¹ Therefore, in Order No. 2222, the Commission expressly declined to create new universal requirements or initiate a process to standardize tariffs with respect to studying distributed energy resources. As discussed above, NYISO's revisions to OATT Attachment Z, sections 32.1.1 and 32.5—though subject to further compliance¹⁰²—are intended to satisfy the Commission's directive in Order No. 2222 because they exempt distribution-level DERs from NYISO's Small Generator Interconnection Procedures. In contrast, the provisions regarding CRIS and ERIS are found in Attachment S, and processes to obtain CRIS and ERIS constitute qualification and performance requirements for Aggregations to provide capacity and energy, respectively.¹⁰³

57. However, we agree with Public Interest Organizations that NYISO's tariff may contain inconsistencies and ambiguities. For example, section 25.1.1 of Attachment S appears to only apply to facilities that are subject to the Large Generator Interconnection Procedures or the Small Generator Interconnection Procedures:

The rules in this Attachment S to the ISO OATT cover (i) Large Facilities greater than 20 MW subject to the Large Facility Interconnection Procedures set out in Attachment X to the ISO OATT ("LFIP"), (ii) Small Generating Facilities no larger than 20 MW subject to the Small Generator Interconnection Procedures set out in Attachment Z to the ISO OATT ("SGIP") that are required to enter a Class Year Study pursuant to Section 32.3.5.3.2 of the SGIP, and

⁹⁹ Data Request Response at 20-21.

¹⁰⁰ OATT, attach. S, § 25.3.1.

¹⁰¹ Order No. 2222, 172 FERC ¶ 61,247 at P 99.

¹⁰² See *supra* P 54.

¹⁰³ See, e.g., OATT, attach. S, § 25.3.1 ("Each proposed or existing facility larger than 2 MW, and each facility with CRIS that requests an increase to its CRIS, must meet the NYISO Deliverability Interconnection Standard before it can receive CRIS or Unforced Capacity [UCAP] Deliverability Rights, unless otherwise provided for in this Attachment S.").

facilities greater than 2 MW that seek to obtain or increase CRIS beyond the levels permitted by this Attachment S, Section 30.3.2.6 of the LFIP and Section 32.4.11.1 of the SGIP, as applicable (each a “Project” and collectively, “Projects” for purposes of this Attachment S).

We find that such language in Attachment S—which incorporates the Small Generator Interconnection Procedures by reference, and to which distribution-level Aggregations are exempt—creates an inconsistency that appears to exempt Aggregations from the requirements to obtain CRIS and/or ERIS.¹⁰⁴ In addition, because NYISO’s proposal exempts Aggregations from the definition of Small Generating Facility, we find that it is unclear how Aggregations obtain ERIS. The definition of ERIS in section 25.1.2 of Attachment S refers only to a Large Generating Facility, Class Year Transmission Project, or Small Generating Facility.¹⁰⁵ Accordingly, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that: (1) revises OATT Attachment S and any other affected tariff provisions to resolve the apparent inconsistencies and ambiguities in its tariff, or explains why such revisions are not necessary; and (2) identifies and explains the relevant tariff provisions that codify the rules by which DERs that are not subject to the Small Generator Interconnection Procedures may obtain CRIS and ERIS.

4. Definitions of Distributed Energy Resource and Distributed Energy Resource Aggregator

58. In Order No. 2222, the Commission amended section 35.28(b) of the Commission’s regulations to define a distributed energy resource as “any resource located on the distribution system, any subsystem thereof or behind a customer meter.”¹⁰⁶

¹⁰⁴ We note that it may be possible for NYISO to resolve this inconsistency by inserting a romanette (iii) before “and facilities greater than 2 MW.”

¹⁰⁵ OATT, attach. S, § 25.1.2 (“[ERIS is t]he service provided by the ISO to interconnect the Developer’s *Large Generating Facility, Class Year Transmission Project or Small Generating Facility* required to participate in a Class Year Interconnection Facilities Study under Section 32.3.5.3 of Attachment Z to the New York State Transmission System or to the Distribution System, in accordance with the NYISO Minimum Interconnection Standard, to enable the New York State Transmission System to receive Energy and Ancillary Services from the *Large Generating Facility, Class Year Transmission Project or Small Generating Facility* required to participate in a Class Year Interconnection Facilities Study under Section 32.3.5.3 of Attachment Z, pursuant to the terms of the ISO OATT.”).

¹⁰⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 114.

The Commission stated that these resources may include, but are not limited to, resources that are in front of and behind the customer meter, electric storage resources, intermittent generation, distributed generation, demand response, energy efficiency, thermal storage, and electric vehicles and their supply equipment – as long as such a resource is “located on the distribution system, any subsystem thereof or behind a customer meter.”¹⁰⁷ The Commission explained that its adopted definition of distributed energy resource is technology-neutral, thereby ensuring that any resource that is technically capable of providing wholesale services through aggregation is eligible to do so, which enhances competition in the RTO/ISO markets and, in turn, helps to ensure that these markets produce just and reasonable rates.

59. The Commission stated that energy efficiency and demand response resources are capable of providing demand reductions at customer sites, and therefore “customer sites capable of demand reduction” may meet the definition of a distributed energy resource.¹⁰⁸ In response to requests for regional flexibility, the Commission noted that RTOs/ISOs can propose their own definitions of distributed energy resource for the Commission’s evaluation as long as the scope and applicability of the proposed definitions are consistent with the Commission’s definition of distributed energy resource and consistent with all aspects of Order No. 2222.

60. In Order No. 2222, the Commission also amended section 35.28(b) of the Commission’s regulations to define a distributed energy resource aggregator as “the entity that aggregates one or more distributed energy resources for purposes of participation in the capacity, energy and/or ancillary service markets of the regional transmission organizations and/or independent system operators.”¹⁰⁹ The Commission stated that, because demand response falls under the definition of distributed energy resource, an aggregator of demand response could participate as a distributed energy resource aggregator, but Order No. 2222 does not affect existing demand response rules.

a. Filing

61. NYISO states that it defines a DER as “(i) a facility comprising two or more Resource types behind a single point of interconnection with an Injection Limit of 20 MW or less; or (ii) a Demand Side Resource; or (iii) a Generator with an Injection Limit of 20 MW or less, that is electrically located in the [New York Control Area (NYCA)].”¹¹⁰ NYISO argues that its definition of DER will permit any DER located on the distribution

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* P 115.

¹⁰⁹ *Id.* P 118.

¹¹⁰ Transmittal at 14 (citing Services Tariff, § 2.4).

system, a subsystem thereof or the New York State transmission system to participate in an Aggregation. NYISO asserts that its definition permits electric storage resources, thermal storage, intermittent generation, distributed generation, thermal generation, and Demand Side Resources to qualify as DER. In addition, NYISO explains that a DER may also be a single facility that combines multiple resource types behind the same point of interconnection (e.g., a facility that combines demand reduction capability with an electric storage resource behind the same point of interconnection).

62. NYISO states that it defines an Aggregator as a “Supplier that offers Capacity, Energy, and/or Ancillary Services for an Aggregation.”¹¹¹ NYISO explains that, under this definition, the Aggregator is the market participant, i.e., supplier, offering the collective capability of DER into NYISO’s markets.

b. Data Request Response

63. In its Data Request, Commission staff asked NYISO whether its definition of DER is technology neutral and encompasses all potential technology types.¹¹² NYISO states that its definition of DER is technology neutral and encompasses all potential technology types that are capable of providing wholesale services by responding to commitment and dispatch instructions as a generator or Demand Side Resource.¹¹³ NYISO asserts that its definition of DER captures all of the resource types that its software will be capable of accommodating, and that it is broad enough to capture technologies that are not yet commercially viable, such as fuel cells or resources that consume hydrogen to produce electricity, which are capable of operating as generators or Demand Side Resources.¹¹⁴ NYISO explains that its definition of DER was not designed, developed, or intended to accommodate resources that are not capable of responding to NYISO’s dispatch instructions.¹¹⁵

¹¹¹ *Id.* at 15 (citing Services Tariff, § 2.1).

¹¹² Data Request at 3. More specifically, NYISO explains that all Demand Side Resources must be able to reduce load at the direction of NYISO, consistent with NYISO’s definition of Demand Side Resource. *See infra* note 119. NYISO states that, in addition to Demand Side Resources participating in Aggregations, Demand Side Resources participating in the Special Case Resource program or the Emergency Demand Response Program must also be capable of reducing demand in response to a NYISO instruction. Data Request Response at 3-5 (citing Services Tariff, § 2.4).

¹¹³ Data Request Response at 3.

¹¹⁴ *Id.* at 4.

¹¹⁵ *Id.* at 5.

c. Commission Determination

64. We find that NYISO's definition of DER complies with Order No. 2222 because it is technology-neutral and encompasses every resource that is technically capable of providing wholesale services through aggregation.¹¹⁶ While NYISO's definition of DER includes the defined terms generator and Demand Side Resource, the underlying definitions of these resource types are broad enough such that there would likely be no need to further clarify or revise the definition as new technologies are developed.¹¹⁷ Further, while NYISO does not propose to explicitly include the phrase "located on the distribution system, any subsystem thereof or behind a customer meter" in its definition of DER, we find that NYISO's proposed definition is consistent with the definition established in Order No. 2222 because it encompasses any applicable resource "that is electrically located in the NYCA."¹¹⁸ We note that, while NYISO's definition of DER also includes resources that are interconnected directly to the transmission system and not located behind a customer meter, the Commission in Order No. 2222 did not prohibit RTOs/ISOs from proposing a broader definition.¹¹⁹

65. In addition, we find that NYISO's definition of Aggregator complies with Order No. 2222 because it is consistent with the definition established in Order No. 2222.¹²⁰

¹¹⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 114; Data Request Response at 3-4. We note that, although CECA contends that the Commission established a broad definition of DER to include "any resource" and that the Commission confirmed that the definition of DER includes energy efficiency resources, as discussed *infra* P 112, energy efficiency resources are not technically capable of providing wholesale services in NYISO's markets, and therefore NYISO does not need to revise its definition of DER, or Demand Side Resource, to include energy efficiency resources in compliance with Order No. 2222.

¹¹⁷ A Generator is defined as "A facility, including the Generator of a [behind the meter net generation] Resource, capable of supplying Energy, Capacity and/or Ancillary Services that is accessible to the NYCA." A Demand Side Resource is defined as "A Resource located in the NYCA that: (i) is capable of controlling demand by either curtailing its Load or by operating a Local Generator to reduce Load from the NYS Transmission System and/or the distribution system at the direction of the ISO, in a responsive, measurable and verifiable manner within time limits, and (ii) is qualified to participate in competitive Energy, Capacity, Operating Reserves or Regulation Service markets, or in the Emergency Demand Response Program pursuant to this ISO Services Tariff and the ISO Procedures."

¹¹⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 115; Transmittal at 14.

¹¹⁹ See Services Tariff, §§ 2.7 & 2.4.

5. Eligibility to Participate in RTO/ISO Markets through a Distributed Energy Resource Aggregator

a. Participation Model

66. In Order No. 2222, the Commission added section 35.28(g)(12)(i) to the Commission's regulations to require each RTO/ISO to establish distributed energy resource aggregators as a type of market participant and to allow distributed energy resource aggregators to register distributed energy resource aggregations under one or more participation models in the RTO's/ISO's tariff that accommodate the physical and operational characteristics of the distributed energy resource aggregation.¹²¹ The Commission explained that each RTO/ISO can comply with the requirement to allow distributed energy resource aggregators to participate in its markets by modifying its existing participation models to facilitate the participation of distributed energy resource aggregations, by establishing one or more new participation models for distributed energy resource aggregations, or by adopting a combination of those two approaches.¹²² The Commission stated that it will evaluate each proposal submitted on compliance to determine whether the proposal meets the goals of Order No. 2222 to allow distributed energy resources to provide all services that they are technically capable of providing through aggregation.¹²³

i. Filing

67. NYISO states that its DER and Aggregation participation model allows distributed energy resource aggregations to participate directly in the RTO/ISO markets, in compliance with Order No. 2222.¹²⁴ NYISO states that its DER and Aggregation

¹²⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 115 (noting that RTOs/ISOs can propose their own definitions for the Commission's evaluation as long as the scope and applicability of the proposed definitions are consistent with the Commission's definition of distributed energy resource and consistent with all aspects of this final rule).

¹²¹ Order No. 2222, 172 FERC ¶ 61,247 at P 130.

¹²² *Id.*

¹²³ *Id.* In Order No. 841, the Commission clarified that "technically capable" of providing a service means meeting all of the technical, operational, and/or performance requirements that are necessary to reliably provide that service. *Id.* P 3 n.9 (citing *Elec. Storage Participation in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sy. Operators*, Order No. 841, 162 FERC ¶ 61,127, at P 78 (2018), *order on reh'g*, Order No. 841-A, 167 FERC ¶ 61,154 (2019), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 964 F.3d 1177 (D.C. Cir. 2020)).

participation model comprises a comprehensive set of market rules that allows an Aggregator to combine individual facilities as a single unit—the Aggregation—to provide energy, ancillary services, and capacity in the NYISO-administered markets.¹²⁵ NYISO states that under its rules, an Aggregation is treated as a single resource for the purpose of bidding, scheduling, dispatching, settling, and meeting minimum eligibility and performance requirements.¹²⁶ NYISO asserts that the Aggregation (rather than the individual facilities or DERs that make up the Aggregation) will be required to satisfy the minimum eligibility and performance requirements for wholesale market participation, and as such, its participation model addresses the physical and operational characteristics of DER and Aggregations.¹²⁷ NYISO explains that the type and quantity of each service will be defined by the technical capability of the individual resources that compose the Aggregation. In addition, NYISO explains that the Aggregator is the market participant that interfaces with NYISO concerning the participation of the Aggregation.¹²⁸

68. NYISO asserts that the market rules that apply to a given Aggregation depend on the Aggregator's composition.¹²⁹ NYISO states that a homogeneous Aggregation (i.e., composed entirely of a single resource type), with the exception of Demand Side Resources, will be subject to the existing rules for that particular resource type, along with the general rules that apply to all Aggregations.¹³⁰ According to NYISO, this approach provides market participants with the ability to aggregate facilities, while ensuring that the market rules applicable to specific resource types continue to apply. Further, NYISO claims that this approach maintains comparability among Aggregations of single resource types and stand-alone resources of the same type so as not to unduly advantage any one participation model over another.¹³¹ In contrast, NYISO states that a heterogeneous aggregation, defined as a DER Aggregation, is an Aggregation that includes (1) more than one resource type, or (2) only Demand Side Resources.¹³²

¹²⁴ Transmittal at 7-8, 15.

¹²⁵ *Id.* 7, 15 (citing Services Tariff, § 4.1.10).

¹²⁶ *Id.* at 7-8.

¹²⁷ *Id.* (citing Services Tariff, § 4.1.10).

¹²⁸ *Id.* at 7, 15 (citing Services Tariff, § 2.1).

¹²⁹ *Id.* at 15 (citing Services Tariff, § 4.1.10.1).

¹³⁰ *Id.* at 22-23 (citing Services Tariff, § 4.1.10.1).

¹³¹ *Id.* at 21.

¹³² *Id.* at 23 (citing Service Tariff, § 2.4).

69. NYISO contends that its DER and Aggregation participation model complies with Order No. 2222 because it allows homogeneous and heterogeneous Aggregations to participate as resources directly in its energy, ancillary services, and capacity markets.¹³³ For energy, NYISO explains that it will treat Aggregations as dispatch-only resources and will not require or evaluate commitment parameters from Aggregations.¹³⁴ Instead, NYISO will require Aggregations to submit fully dispatchable continuous bid curves that represent the entire operating range of the Aggregation. NYISO argues it does not have the means or operational visibility of the distribution system to effectively optimize the starts and stops of individual facilities within an Aggregation. In addition, according to NYISO, the individual facilities that make up the Aggregation may have a primary function other than providing energy and ancillary services to NYISO and may already be operating to perform their primary function. NYISO states that, when it filed its existing DER and Aggregation participation model, it made corresponding tariff revisions that were accepted by the Commission to reflect that NYISO will not be committing Aggregations or evaluating commitment-related parameters.¹³⁵

70. For ancillary services, NYISO states that Aggregations may be eligible to qualify to provide regulation and operating reserves but will not be eligible to supply voltage support.¹³⁶ NYISO explains that the specific ancillary services each Aggregation may qualify to provide will depend on the individual facilities in the Aggregation. For regulation service, NYISO states that an Aggregation will not be eligible to provide regulation unless each of the generating units in the Aggregation use inverter-based energy storage technology.¹³⁷ NYISO states that regulation services require output or demand to be raised or lowered as necessary in six-second increments. NYISO states that, when an Aggregation comprising one or more generating units is dispatched, there is no certainty that the next increment of output will be provided by a unit that is currently online and synchronized to the system. NYISO states that, for this reason, its accepted rules limit regulation service to facilities that utilize inverter-based energy storage technology, which can respond instantly to dispatch instructions.

71. For operating reserves, NYISO explains that it procures three different products (10-minute synchronized, 10-minute non-synchronized, and 30-minute reserves) and that an Aggregation's eligibility to provide a particular product will depend on the

¹³³ *Id.* at 15 (citing Services Tariff, § 4.1.10.1).

¹³⁴ *Id.* at 16-17 (citing Services Tariff, §§ 2.13, 4.1.8, 4.1.10, 4.2.3 & OATT, § 1.13).

¹³⁵ *Id.* at 17.

¹³⁶ *Id.*

¹³⁷ *Id.* at 18 (citing Services Tariff, §§ 4.2.1.3.1, 15.3).

characteristics and operating status of the individual facilities in the Aggregation.¹³⁸ NYISO states that an Aggregation may provide 10-minute synchronous reserves when it: (1) is bid as ISO-Committed Flexible or Self-Committed Flexible;¹³⁹ (2) is operating within the dispatchable portion of its operating range; (3) is capable of responding to NYISO instructions to change its operating level within 10 minutes; and (4) meets the qualifications identified in NYISO's procedures.¹⁴⁰ Aggregations comprising one or more generating units and Aggregations that include Demand Side Resources that facilitate demand reductions using a generator may only provide spinning reserves if all of the generating units in their Aggregation use inverter-based energy storage technology and they meet the criteria in NYISO's procedures. An Aggregation may provide 10-minute non-synchronized reserve if it consists of generating units and is capable of increasing its supply level within 10 minutes and meets the criteria in NYISO's procedures.¹⁴¹ According to NYISO, an Aggregation may provide 30-minute synchronized reserve when it: (1) is offered as ISO-Committed Flexible or Self-Committed Flexible, and (2) is operating within the dispatchable portion of its operating range.¹⁴² As described above, an Aggregation may not provide 30-minute synchronous reserves if it has one or more generating units, unless all such generating units utilize inverter-based energy storage technology. NYISO states that an Aggregation whose facility mix includes one or more generating units is eligible to provide 30-minute non-synchronous reserve. NYISO clarifies that, consistent with current requirements for generators, Aggregations using the Self-Committed Fixed Bid¹⁴³ mode are not eligible to provide any kind of operating reserves.¹⁴⁴

¹³⁸ *Id.* at 18-19.

¹³⁹ NYISO explains that ISO-Committed Fixed, ISO-Committed Flexible, Self-Committed Fixed, and Self-Committed Flexible are bidding modes defined in the Services Tariff. NYISO states that both ISO-Committed Fixed and ISO-Committed Flexible bidding modes require NYISO to evaluate economic bids prior to scheduling resources. NYISO also states that Self-Committed Flexible is a bidding mode in which a dispatchable generator self-commits to a specified output level, but is also made available to follow. *Id.* at 29 n.110.

¹⁴⁰ *Id.* at 18 (citing Services Tariff, §§ 2.15, 15.4.1.2.1).

¹⁴¹ *Id.* at 19 (citing Services Tariff, §§ 2.15, 15.4.1.2.2).

¹⁴² *Id.* at 19.

¹⁴³ NYISO explains that Self-Committed Fixed is a bidding mode in which a generator is self-committed and opts not to be dispatchable over any portion of its operating range. *Id.* at 29 n.110.

¹⁴⁴ *Id.* at 19 (citing Services Tariff, § 15.2)

72. For voltage support service, NYISO explains that it prohibits Aggregations from providing voltage support service given that Aggregations, being composed of facilities connected to the distribution system, are unlikely to provide measurable and beneficial voltage support to the bulk electric system because any reactive power provided on the distribution system will experience high losses due to motors, transformers, and impedance at the distribution level.¹⁴⁵

73. For capacity, NYISO argues that its DER and Aggregation participation model allows comparable treatment of all eligible resources and facilitates the participation of DERs in NYISO's capacity market.¹⁴⁶ NYISO explains that all resources that seek to qualify as capacity suppliers, other than Responsible Interface Parties,¹⁴⁷ must be able to participate in NYISO's energy market and be capable of responding to the direction and control of NYISO.¹⁴⁸ NYISO also highlights that the Commission accepted and NYISO implemented on March 1, 2021 substantial changes to market rules applicable to resources with energy duration limitations that are not capable of operating 24-hours each day.¹⁴⁹ According to NYISO, its market rules value capacity from a resource with an energy duration limitation on the basis of its contribution to meeting resource adequacy. NYISO explains that an Aggregation of a single resource type will largely be treated as if it were an individual resource of the relevant type, e.g., an Aggregation composed solely of batteries will be treated as a single energy storage resource.¹⁵⁰

ii. Protests

74. AEMA contends that NYISO's proposal to prohibit homogeneous Aggregations of a single type of DER, other than Demand Side Resources, from participating as a DER Aggregation is an unnecessary and artificial barrier to participation.¹⁵¹ AEMA contends

¹⁴⁵ *Id.* (citing Services Tariff, § 15.2).

¹⁴⁶ *Id.* at 19-21.

¹⁴⁷ Responsible Interface Party is defined as "A Customer that is authorized by the [NY]ISO to be the Installed Capacity Supplier for one or more Special Case Resources and that agrees to certain notification and other requirements as set forth in this Services Tariff and in the [NY]ISO Procedures." Services Tariff, Definitions, R (Responsible Interface Party).

¹⁴⁸ Transmittal at 20 (citing Services Tariff, §§ 2, 4, 5).

¹⁴⁹ *Id.* at 20-21 (citing Services Tariff, § 5.12.11.5).

¹⁵⁰ *Id.* at 21.

¹⁵¹ AEMA Protest at 14-16.

that it is entirely reasonable for the Aggregator to have the option of participating under the DER Aggregation model or its resource-specific models. AEMA claims that allowing homogeneous Aggregations to participate as DER Aggregations preserves operational flexibility, enables homogeneous Aggregations to more easily become heterogeneous Aggregations, and would avoid re-registration requirements and other administrative burdens associated with modifying Aggregation types.¹⁵² AEMA therefore states that NYISO's proposal violates the Commission's directive not to limit the types of resources that participate in distributed energy resource aggregations.¹⁵³

75. AEE, NRDC, and SFP assert that NYISO does not explain how its participation model considers the capabilities of the Aggregation as a whole, especially one that is heterogeneous, and therefore does not accommodate the physical and operational characteristics of the Aggregation.¹⁵⁴ For example, they point out that an Aggregation composed primarily of solar resources would be exempted from binding day-ahead market schedules under NYISO's rules for intermittent power resources. Conversely, they explain that the addition of a single small storage resource would subject the entire Aggregation to binding day-ahead schedules. They therefore state that a behind-the-meter solar and behind-the-meter storage Aggregation would be precluded from providing the services it is technically capable of providing despite the fact that this is a DER use-case that is fast growing and that the Commission highlighted in Order No. 2222.¹⁵⁵ Similarly, AEE, NRDC, and SFP state that adding any amount of energy storage to an Aggregation of solar resources would impose stringent scheduling and dispatch requirements that are applied to energy storage resources alone to the entire Aggregation, a result at odds with the physical and operational characteristics of that Aggregation given that it includes solar resources. They assert that NYISO could address this challenge by creating one or more participation models that allow solar and storage resources to operate like intermittent power resources during solar performance hours similar to the approach taken by PJM Interconnection L.L.C. (PJM) for solar-battery hybrids.

76. In addition, AEE, NRDC, and SFP and AEMA argue that NYISO's proposed participation model is limited by the characteristics of the least capable resource within the Aggregation, which fails to account for the characteristics of the entire heterogeneous Aggregation and prevents it from providing all wholesale services that it is technically capable of providing.¹⁵⁶ More specifically, they provide examples to demonstrate that

¹⁵² *Id.* at 16.

¹⁵³ *Id.* at 14-15.

¹⁵⁴ AEE, NRDC, and SFP Protest at 6-9.

¹⁵⁵ *Id.* at 7-8 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 142).

NYISO's requirement that an Aggregation may only qualify to offer the ancillary services that all individual facilities are qualified to provide will preclude many heterogeneous Aggregations from participating or, if they do participate, from providing all services that they are technically capable of providing.¹⁵⁷ For example, they state that under NYISO's model, adding any amount of solar to an Aggregation of energy storage resources would render the entire Aggregation ineligible to provide regulation service or operating reserves because the solar cannot individually provide these services, despite the fact that a portion of the Aggregation is technically capable of doing so. According to these protesters, to be compliant with Order No. 2222, NYISO's model must allow Aggregations to provide all wholesale services that each DER within an Aggregation qualifies to provide.¹⁵⁸

77. Finally, AEE, NRDC, and SFP argue that NYISO's existing buyer-side market power mitigation rules should not be applied to DERs with the capability to inject energy because the rules risk artificially stifling competition and the development of cost-effective and competitive DERs.¹⁵⁹ They request that the Commission direct NYISO to submit a further compliance filing with: (1) tariff revisions to ensure that buyer-side market power mitigation is not applied to DERs participating in Aggregations; or (2) an explanation of why it is just and reasonable to apply buyer-side market power mitigation to these resources. The Clean Energy Coalition likewise asserts that not directing NYISO to address its existing buyer-side market power mitigation rules will have an adverse impact on DER expansion in NYISO's market.¹⁶⁰

iii. Answers

78. NYISO states that the Commission should reject AEMA's request that homogeneous Aggregations of a single resource type should have the option to elect to participate as heterogeneous DER Aggregations because, NYISO argues, the two types of Aggregations are subject to different energy and capacity market participation rules.¹⁶¹ NYISO explains that it developed its participation models for energy storage resources and intermittent power resources with the operating characteristics of those resources in mind. NYISO states that, if homogeneous Aggregations participate as heterogeneous

¹⁵⁶ *Id.* at 6-9; AEMA Protest at 12-14.

¹⁵⁷ AEE, NRDC, and SFP Protest at 8; AEMA Protest at 13.

¹⁵⁸ AEE, NRDC, and SFP Protest at 8; AEMA Protest at 14.

¹⁵⁹ AEE, NRDC, and SFP Protest at 28-29.

¹⁶⁰ Clean Energy Coalition Protest at 9-11.

¹⁶¹ NYISO Answer at 33.

DER Aggregations, rather than Aggregations of their resource type, they may be assessed undergeneration charges if they are unable to meet NYISO dispatch and will not be paid for excess generation.¹⁶² Further, NYISO explains that it models the resource adequacy contributions of the two Aggregations differently, and if a solar Aggregation operates as a DER Aggregation, it will be modeled as being capable of operating at its full capability for any six consecutive hours for purposes of establishing the Resource Adequacy Requirements used in the capacity market, which could have negative reliability implications.¹⁶³

79. With respect to AEE, NRDC, and SFP's protest regarding heterogeneous Aggregations of solar resources and electric storage resources, NYISO states that energy storage resources should not gain the benefit of the special exceptions to the operating and settlement rules that apply to intermittent power resources.¹⁶⁴ NYISO states that it would have reliability concerns if fully controllable resources would be permitted to operate in a manner that is inconsistent with NYISO's dispatch instructions.¹⁶⁵ Further, NYISO notes that AEE, NRDC, and SFP's request was proposed in NYISO's stakeholder process as a possible future market participation model and contends that the idea should be considered in that process and should only be implemented after acceptable rules to govern operation of such hybrid resources are in place.

80. In response to protests about NYISO's proposal that Aggregations only be able to qualify to offer the ancillary services that all individual facilities in the Aggregation are qualified to provide, NYISO states that, pursuant to Northeast Power Coordinating Council (NPCC) Directory 5, Requirement 6, NYISO is required to ensure that all resources it relies upon to provide operating reserves can sustain operation for at least one hour following activation.¹⁶⁶ NYISO maintains that it can only meet this requirement by ensuring that all resources in an Aggregation can satisfy this NPCC sustainability requirement. As for protests about heterogeneous Aggregations being required to operate using a fully dispatchable, continuous bid curve, NYISO reiterates that it does not have the means to effectively and economically optimize the starts and stops of individual facilities within an Aggregation or to know which facilities are operating.¹⁶⁷ NYISO

¹⁶² *Id.* at 34.

¹⁶³ *Id.* at 35.

¹⁶⁴ *Id.* at 32.

¹⁶⁵ *Id.* at 33.

¹⁶⁶ *Id.* at 31 (citing NPCC Directory 5; <https://www.npcc.org/content/docs/public/program-areas/standards-and-criteria/regional-criteria/directories/directory-5-reserve-20200426.pdf>); 2019 Aggregation Filing at 42-45.

states that adding resource commitment to its DER rules would require a complete redesign of its participation model and might not be technically feasible.¹⁶⁸

81. NYISO asserts that concerns about buyer-side market power mitigation should be addressed in NYISO's stakeholder process for its Grid in Transition initiative.¹⁶⁹

iv. Data Request Response

82. In its Data Request, Commission staff asked NYISO to explain how the DER and Aggregation participation model accommodates the physical and operational characteristics of heterogeneous Aggregations, particularly heterogeneous Aggregations with mostly one resource type.¹⁷⁰ In response, NYISO explains that the market rules for DER Aggregations were specifically designed to accommodate two or more different resource types operating together in a single Aggregation, such as energy storage resources with renewable or thermal generation, to satisfy energy and capacity market obligations.¹⁷¹ NYISO contends that the DER Aggregation participation model is designed to accommodate resource Aggregations that are capable of following dispatch instructions and provides a broad range of configuration options that allow an Aggregator to configure its Aggregations appropriately.¹⁷² Conversely, NYISO explains that the rules developed to address participation by intermittent power resources are a better match to the operating characteristics of Aggregations of solar intermittent power resources than the more generic rules NYISO developed for DER Aggregations. NYISO explains that it would be unjust, unreasonable, unduly discriminatory, and inconsistent with NYISO's market design for the Commission to excuse resources that are capable of following NYISO's dispatch instructions (e.g., energy storage resources) from doing so because an Aggregator chooses to include an energy storage resource in an Aggregation of solar intermittent power resources that cannot follow dispatch instructions. In addition, according to NYISO, Aggregators are expected to make prudent decisions about

¹⁶⁷ NYISO Answer at 31(citing 2019 Aggregation Filing at 29).

¹⁶⁸ *Id.* at 32.

¹⁶⁹ *Id.* at 55-56. NYISO states that in its Grid in Transition initiative, it intends to work with stakeholders to evaluate opportunities to leverage competitive wholesale market products and services to address public policy needs for clean energy and bolster the resiliency of New York's bulk power system. See <https://www.nyiso.com/-/nyiso-s-great-expectations-for-a-grid-in-transition>.

¹⁷⁰ Data Request at 5.

¹⁷¹ Data Request Response at 8.

¹⁷² *Id.* at 8-9.

how best to configure their available resources consistent with NYISO's tariff rules. Finally, NYISO argues that, if it is instructed to change how it implements the DER rules that the Commission accepted in the 2019 Aggregation Filing, then NYISO may not meet its 2022 implementation goal and DER implementation may be delayed for all resources.¹⁷³

83. In its Data Request, Commission staff asked NYISO to explain how its proposal would not present a barrier to the formation of heterogeneous Aggregations.¹⁷⁴ NYISO explains that its market rules do not present a barrier but instead provide transparent market signals to inform developers and investors of the types of resources and combination of resources that can best meet the needs of New York's electric system.¹⁷⁵ NYISO asserts that Order No. 2222 does not require every DER participation model to optimally accommodate all possible DER resource configurations. NYISO states that it has worked to accommodate in its software a reasonable set of resource attributes that will allow market participants to represent their resource's operating characteristics.

84. In its Data Request, Commission staff asked NYISO to explain how Aggregations composed largely, but not exclusively, of solar resources would avoid penalties and not result in resource adequacy concerns.¹⁷⁶ NYISO states that the accepted DER and Aggregation market design permits Aggregators to choose how to assemble their available resources into one or more Aggregations and encourages Aggregators to make prudent decisions about how best to configure their available resources consistent with NYISO's tariff rules.¹⁷⁷ NYISO explains that the financial incentives provided by the DER market design do not encourage an Aggregator to create a DER Aggregation that almost exclusively comprises solar intermittent power resources.

85. In its Data Request, Commission staff asked NYISO to explain how its requirements for Aggregations to provide ancillary services comply with North American Electric Reliability Corporation, NPCC, and New York State Reliability Committee Rules.¹⁷⁸ NYISO states that it procures ancillary services, including operating reserves, to support grid reliability. NYISO states that suppliers only qualify as eligible to provide the operating reserve products that the least capable technologies within an Aggregation can support, and that this requirement is not limited to DERs.¹⁷⁹ NYISO states that it

¹⁷³ *Id.* at 12.

¹⁷⁴ Data Request at 5.

¹⁷⁵ Data Request Response at 13.

¹⁷⁶ Data Request at 5.

¹⁷⁷ Data Response at 14-15.

¹⁷⁸ Data Request at 7.

issues dispatch instructions at the Aggregation level, which limits its ability to verify that individual DERs utilized by the Aggregator satisfy established operating reserve and regulation service reliability requirements. In addition, NYISO states that it requires conventional standalone resources providing operating reserves and regulation service to achieve stringent reliability requirements; thus, it is paramount to system reliability that those same standards be applied to Aggregations and that NYISO not simply assume, based on the declaration of an Aggregator, that an Aggregation is capable of a service that its individual DER may not be qualified to provide when evaluated on a stand-alone basis.¹⁸⁰ NYISO states that it is currently working with stakeholders to develop an integrated hybrid participation model which will explore the feasibility and technical requirements necessary to allow an integrated hybrid storage resource to provide operating reserves based on the energy capabilities of each of the individual components of the hybrid storage resource.

v. Data Request Response Protests

86. AEE and Public Interest Organizations argue that NYISO's proposal to require heterogeneous Aggregations to be fully dispatchable in the same manner as traditional generators suggests that Aggregators must choose to pursue only homogeneous Aggregations, despite the Commission's explicit directive that heterogeneous Aggregations be accommodated.¹⁸¹ Further, Public Interest Organizations assert that NYISO's proposal ignores the directive of Order No. 2222 to develop heterogeneous aggregations that "ensur[e] that complementary resources, including those with different physical and operational characteristics, can meet qualification and performance requirements."¹⁸² AEE claims that the inability to follow dispatch instructions like traditional technologies is a key physical and operational characteristic of Aggregations composed of mostly variable renewable resources that the Commission expected would be accommodated in new or revised DER Aggregation participation models.¹⁸³ AEE adds that NYISO's market rules must give DER Aggregations the opportunity to compete to provide the services they are technically capable of providing, while leaving to Aggregators and market participants the choice and risk of how to pursue Aggregations.¹⁸⁴

¹⁷⁹ Data Request Response at 23.

¹⁸⁰ *Id.* at 27.

¹⁸¹ AEE Protest on Data Request Response at 4-6; Public Interest Organizations Protest on Data Request Response at 6-7 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 142).

¹⁸² Public Interest Organizations Protest on Data Request Response at 6 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 142).

¹⁸³ AEE Protest on Data Request Response at 4-5.

87. AEE and Public Interest Organizations contend that NYISO's response does not address why its proposed rules, which limit the participation of heterogeneous Aggregations by the least capable resource within the Aggregation, are technically necessary or compliant with Order No. 2222, given that such rules prevent heterogeneous Aggregations from offering all of the services they are technically capable of providing.¹⁸⁵ Public Interest Organizations note that, instead, NYISO argues that its current rules for homogeneous Aggregations are superior to the rules for heterogeneous Aggregations, and that Aggregators can avoid some of the shortcomings of poorly fitting participation models by optimizing how they enroll their resources in various Aggregations.¹⁸⁶ They assert that NYISO seeks to substitute its judgment for that of the Commission on the value of heterogeneous Aggregations.¹⁸⁷

vi. Commission Determination

88. We find that NYISO's proposal partially complies with the participation eligibility requirements of Order No. 2222. Specifically, we find that NYISO complies with the requirement to establish distributed energy resource aggregators as a type of market participant.¹⁸⁸ Consistent with this requirement, NYISO defines an Aggregator as the market participant that interfaces with NYISO concerning the participation of the Aggregation.¹⁸⁹

89. We find that NYISO partially complies with the requirement to allow distributed energy resource aggregators to register distributed energy resource aggregations under one or more participation models in NYISO's tariff that accommodate the physical and operational characteristics of the distributed energy resource aggregation.¹⁹⁰ As expressly permitted by Order No. 2222, NYISO's DER and Aggregation participation model comprises a combination of existing participation models: (1) an existing DER Aggregation participation model; and (2) existing resource-specific participation models.¹⁹¹

¹⁸⁴ *Id.* at 6.

¹⁸⁵ *Id.* at 6-8; Public Interest Organizations Protest on Data Request Response at 3, 5-7.

¹⁸⁶ Public Interest Organizations Protest on Data Request Response at 5-6.

¹⁸⁷ *Id.* at 6.

¹⁸⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 130.

¹⁸⁹ *See* Services Tariff, § 2.1.

¹⁹⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 130.

Under NYISO's proposal, the DER Aggregation participation model accommodates the physical and operational characteristics of heterogeneous Aggregations and homogeneous Aggregations of demand response, whereas NYISO's resource-specific participation models accommodate the physical and operational characteristics of other types of homogeneous Aggregations (e.g., homogeneous Aggregations of electric storage resources or generators).¹⁹² In Order No. 2222, the Commission afforded each RTO/ISO the flexibility to modify its existing participation models to facilitate the participation of distributed energy resource aggregations, as NYISO proposes here, and did not require that each RTO/ISO establish a single participation model that could accommodate every possible aggregation, so long as its proposal allows distributed energy resources to provide all services that they are technically capable of providing through aggregation.¹⁹³ With one exception discussed below, we find that NYISO's DER and Aggregation participation model satisfies this requirement because it allows homogeneous and heterogeneous Aggregations to participate as resources directly in NYISO's energy, ancillary services, and capacity markets.

90. We disagree with AEMA's contention that Order No. 2222 requires that a homogeneous Aggregation be allowed to participate in NYISO as a DER Aggregation, rather than as a homogeneous Aggregation subject to the existing market rules of its resource type, and that such a restriction creates a barrier by denying homogeneous Aggregations the flexibility to easily become heterogeneous Aggregations. As NYISO states, the proposed rules for homogeneous Aggregations better accommodate the physical and operational characteristics of such Aggregations than the more generic DER Aggregation rules.¹⁹⁴ For example, NYISO developed its electric storage resource rules specifically to accommodate the operating characteristics of that type of resource, and those rules would similarly accommodate the operating characteristics of an aggregation of electric storage resources, whereas NYISO's DER Aggregation rules are more generic.

¹⁹¹ *Id.* ("Specifically, to meet the goals of the final rule, each RTO/ISO can comply with the requirement to allow distributed energy resource aggregators to participate in its markets by modifying its existing participation models to facilitate the participation of distributed energy resource aggregations, by establishing one or more new participation models for distributed energy resource aggregations, or by adopting a combination of those two approaches.").

¹⁹² Transmittal at 22-23.

¹⁹³ Order No. 2222, 172 FERC ¶ 61,247 at P 130.

¹⁹⁴ NYISO Answer at 33-34 ("NYISO's resource-specific operating rules will better reflect the resources' operating characteristics than the more generic DER Aggregation rules that apply to Demand Side Resources and heterogeneous Aggregations.").

We find it reasonable and consistent with the flexibility that the Commission afforded to the RTOs/ISOs in Order No. 2222 for NYISO to require Aggregations to participate under market rules that best accommodate the characteristics of that Aggregation. In doing so, NYISO is not limiting certain types of resources from participating in Aggregations, as AEMA contends, but rather specifying which market rules apply to such Aggregations. AEMA does not argue that, under NYISO's proposal, homogeneous Aggregations are limited in the services that they can provide in NYISO's markets as a result of being required to participate as a homogeneous Aggregation. Moreover, NYISO's proposal allows resources to switch between participation models annually, which we believe sufficiently addresses AEMA's concerns.¹⁹⁵

91. We also disagree with protesters' assertions that NYISO's DER and Aggregation participation model does not accommodate the physical and operational characteristics of heterogeneous Aggregations, such as DER Aggregations comprising solar and electric storage resources. As NYISO explains, intermittent power resources (e.g., solar resources) are afforded special operating and settlement treatment based on their physical and operational characteristics because their output is not controllable.¹⁹⁶ We agree with NYISO that a heterogeneous Aggregation of solar and electric storage resources would not warrant the same treatment as intermittent power resources because, with the addition of an electric storage resource, such an Aggregation is capable of following NYISO dispatch instructions. We find that NYISO's DER and Aggregation participation model is broadly designed to accommodate the physical and operational characteristics of any heterogeneous Aggregation, not only one that consists of solar and electric storage resources, and as such is compliant with Order No. 2222. Nonetheless, while creation of such a model is not required by Order No. 2222, we also recognize that NYISO may be considering development of a new hybrid participation model that will better accommodate the characteristics of solar and electric storage resource Aggregations than the DER Aggregation market rules.

92. However, we find that any DERs that an Aggregator uses to satisfy NYISO's relevant technical, operational, and/or performance requirements should be allowed to provide ancillary services through aggregation.¹⁹⁷ We understand protesters are

¹⁹⁵ More specifically, when a DER in an Aggregation that is providing capacity seeks to change its participation model, it can only do so prior to the start of the Capability Year (i.e., May 1 each year), and the Aggregator seeking to include this DER in its Aggregation must notify NYISO of such a change prior to August 1 of the year prior to the beginning of the Capability Year. Transmittal at 36-37.

¹⁹⁶ NYISO Answer. at 32.

¹⁹⁷ See Order No. 2222, 172 FERC ¶ 61,247 at P 3 n.9 ("In Order No. 841, the Commission clarified that "technically capable" of providing a service means meeting all

concerned that NYISO's proposal unreasonably limits the ancillary services (i.e., regulation service and operating reserves) that a heterogeneous Aggregation can provide in scenarios where one or more DERs within that Aggregation is not capable of providing that service.

93. We also recognize that NYISO has voiced a reliability concern related to its argument that it is required to ensure that all resources it relies upon to provide operating reserves can sustain operation for at least one hour following activation and that, because the Aggregator will dispatch the individual facilities in its Aggregation, NYISO will lack visibility into which resource is being used to provide the next increment of energy or ancillary services. We believe, however, that NYISO could address its reliability concerns by means other than requiring that all individual DERs within the Aggregation satisfy the relevant reliability requirements, such as the one-hour sustainability requirement. Therefore, so long as some of the DERs in the Aggregation can satisfy the relevant requirements to provide certain ancillary services (e.g., the one-hour sustainability requirement), we find that those DERs should be able to provide those ancillary services through aggregation, in accordance with the goal of Order No. 2222 to allow distributed energy resources to provide all services that they are technically capable of providing through aggregation.¹⁹⁸ At the same time, we agree with NYISO that this change should not be made at the expense of ensuring compliance with reliability standards nor delay the timely implementation of its Aggregation model. Thus, we clarify that NYISO should implement its Aggregation model in the fourth quarter of 2022, as proposed, and further propose a reasonable effective date by which it will comply with the requirement to allow DERs to provide all the ancillary services they are technically capable of providing through aggregation while also addressing NYISO's reliability and visibility concerns. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing proposing an effective date by which it will allow DERs in heterogeneous Aggregations to provide all of the ancillary services that they are technically capable of providing through aggregation. To the extent that NYISO may need additional information from Aggregators regarding the individual DERs in an Aggregation in order to address NYISO's concern, we note that it should include such requirements among the information and data that an Aggregator must provide about the physical and operational characteristics of its Aggregation, including any necessary physical parameters to be submitted in registration, and any

of the technical, operational, and/or performance requirements that are necessary to reliably provide that service.”); *see also id.* P 114 (“The revised definition of distributed energy resource that we adopt in this final rule is technology-neutral, thereby ensuring that any resource that is technically capable of providing wholesale services through aggregation is eligible to do so, which enhances competition in the RTO/ISO markets and, in turn, helps to ensure that these markets produce just and reasonable rates.”).

¹⁹⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 130.

necessary information that must be submitted for the individual DERs,¹⁹⁹ or additional bidding parameters.²⁰⁰

94. Finally, we find that protesters' argument that DERs with the capability to inject energy should not be subject to buyer-side market power mitigation is outside the scope of this proceeding. The Commission in Order No. 2222 neither addressed buyer-side market power mitigation rules nor required RTOs/ISOs to revise those rules for distributed energy resource aggregations.

b. Types of Technologies

95. To implement section 35.28(g)(12)(ii)(a) of the Commission's regulations, the Commission required that each RTO's/ISO's rules not prohibit any particular type of distributed energy resource technology from participating in distributed energy resource aggregations.²⁰¹ In addition, to implement section 35.28(g)(12)(ii)(a) of the Commission's regulations, the Commission required each RTO/ISO to revise its tariff to allow different types of distributed energy resource technologies to participate in a single distributed energy resource aggregation (i.e., allow heterogeneous distributed energy resource aggregations).²⁰² The Commission explained that requiring that RTOs/ISOs allow heterogeneous aggregations will further enhance competition in RTO/ISO markets by ensuring that complementary resources, including those with different physical and operational characteristics, can meet qualification and performance requirements, such as minimum run times, which will help ensure that RTO/ISO markets produce just and reasonable rates.²⁰³

¹⁹⁹ See *infra* P 172 (requiring NYISO to revise its tariff "to include any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation" and "to establish any necessary information that must be submitted for the individual distributed energy resources").

²⁰⁰ "Additionally, we agree with commenters that some bidding parameters for existing participation models may not accommodate the unique features of certain distributed energy resource aggregations [. . .] [W]e . . . require that each RTO/ISO incorporate appropriate bidding parameters into its participation models as necessary to account for the physical and operational characteristics of distributed energy resource aggregations." Order No. 2222, 172 FERC ¶ 61,247 at P 227.

²⁰¹ *Id.* P 141.

²⁰² *Id.* P 142.

²⁰³ *Id.*

96. With respect to the participation of demand response resources in distributed energy resource aggregations, the Commission stated that the benefits of allowing heterogeneous aggregations outweigh commenters' preferences to limit the types of resources that can participate in aggregations.²⁰⁴ The Commission stated that the requirements in Order No. 745 would apply to demand response resources participating in heterogeneous aggregations.²⁰⁵

97. In Order No. 2222-B, the Commission stated that only those reductions that meet the definition of demand response in the Commission's regulations and are used to reduce customer load from a validly established baseline pursuant to Order Nos. 745 and 745-A must be compensated consistent with those orders.²⁰⁶ In addition, the Commission clarified that, if an individual distributed energy resource is a behind-the-meter generator, it may participate within a distributed energy resource aggregation as a demand response resource or as a different type of distributed energy resource.²⁰⁷ The Commission stated that, if the distributed energy resource participates as demand response, the requirements in Order No. 745 would apply, and the RTOs/ISOs are required to allow that distributed energy resource to aggregate with other types of distributed energy resources in a heterogeneous distributed energy resource aggregation. The Commission stated that, if the behind-the-meter resource participates as another type of distributed energy resource (i.e., not as a demand response resource), the requirements in Order No. 745 would not apply.

i. Filing

98. NYISO argues that its DER and Aggregation participation model is technology neutral and permits a combination of technology types to be eligible to participate that were not previously fully capable of doing so.²⁰⁸ NYISO states that it has other, narrowly tailored market rules for certain resource types that address the technical capabilities, unique operational abilities or configurations (e.g., limited energy storage resources, municipally-owned generation, or behind-the-meter net generation) that its DER and Aggregation participation model was not designed to address. Therefore, NYISO explains that it will not permit facilities that utilize these narrowly tailored market participation models (i.e., generators with Public Utility Regulatory Policies Act (PURPA) contracts, limited control run-of-river resources, behind-the-meter net

²⁰⁴ *Id.* P 145; *see also* Order No. 2222-A, 174 FERC ¶ 61,197 at P 54.

²⁰⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 145.

²⁰⁶ Order No. 2222-B, 175 FERC ¶ 61,227 at P 42.

²⁰⁷ *Id.* P 44.

²⁰⁸ Transmittal at 22-23.

generation resources, municipally-owned generation, system resources, and control area system resources) to participate in an Aggregation utilizing those existing participation models' market rules. NYISO notes that to the extent that a resource qualifies to use one of the identified participation models but chooses not to utilize that participation model, it may seek to qualify to participate in an Aggregation.

99. NYISO explains that its market rules permit both homogeneous and heterogeneous Aggregations and that, with the exception of Demand Side Resources, homogeneous Aggregations will be subject to the existing rules for that particular resource type along with the general rules that apply to all Aggregations.²⁰⁹

100. NYISO also argues that its DER and Aggregation participation model maintains compliance with Order No. 745 for Aggregations that include Demand Side Resources.²¹⁰ Under NYISO's proposal, an Aggregation that includes Demand Side Resources will not be required to declare in its day-ahead or real-time offers what portion of its offer constitutes demand reductions. Instead, NYISO states that it will evaluate each Aggregation's performance (via telemetry and revenue-quality meter data) after the fact to establish compliance with Order No. 745. Specifically, NYISO states that it will evaluate an Aggregation's actual demand reductions against the monthly net benefit threshold after the fact and will compensate demand reductions only when the real-time locational based marginal price (LBMP) meets or exceeds the monthly net benefit threshold. NYISO explains that demand reductions that are not compensable pursuant to Order No. 745 will nonetheless be included in NYISO's evaluation of whether the Aggregation achieved its NYISO-issued base point signal.

ii. Protests

101. CECA states that NYISO's proposal fails to remove barriers to the direct participation of energy efficiency resources in Aggregations in NYISO's capacity market which, according to CECA, was required by Order No. 2222.²¹¹ CECA contends that the Commission recognized in Order No. 2222 that energy efficiency resources are technically capable of providing capacity market services.²¹² CECA believes that energy efficiency resources, which CECA states are able to reliably deliver verifiable reductions in demand during peak hours, are technically capable of providing capacity as a supply-side resource.²¹³

²⁰⁹ *Id.*

²¹⁰ *Id.* at 23-24.

²¹¹ CECA Protest at 3. AEE, NRDC, and SFP support CECA's protest. AEE, NRDC, and SFP Protest at 10.

²¹² CECA Protest at 10.

102. CECA states that energy efficiency resources currently participate as supply-side resources in the capacity markets of other RTOs/ISOs, including ISO New England Inc., PJM, and Midcontinent Independent System Operator, Inc. (MISO).²¹⁴ CECA argues that NYISO's continuation of its "dispatchability" requirement for capacity resources fails to "accommodate the physical and operational characteristics of each [DER] aggregation," as required by Order No. 2222, and prohibits certain DER technologies—i.e., energy efficiency resources, behind-the-meter solar generation, and other passive (non-dispatchable) demand resources—from participating in the NYISO capacity market through Aggregation. In addition, CECA asserts that there are numerous benefits from including energy efficiency in NYISO's capacity market, including avoided infrastructure and reductions in production cost.²¹⁵

103. CECA states that energy efficiency resources can be accounted for on the supply or demand side of capacity markets, but that in practice, limiting energy efficiency resources to the demand side creates barriers to entry and undercounts their value to the system.²¹⁶ CECA argues that demand side-only approaches present barriers to entry for merchant (non-utility) energy efficiency resource aggregators, load forecast challenges, and other practical limitations that obstruct the participation of energy efficiency resources.²¹⁷ CECA therefore states that they support supply-side participation, which they assert unlocks additional energy efficiency demand reductions and unlocks capacity value by enabling energy efficiency aggregators to earn capacity revenues. CECA argues that supply-side participation bridges the gap between the low marginal price that consumers face for capacity and the higher marginal value of that capacity on the system.

104. Finally, CECA notes that developing a model for energy efficiency resources to participate in NYISO's capacity market is a complicated undertaking that is best informed by a robust stakeholder process, but asserts that such a process should not delay implementation of the rest of NYISO's DER participation model.²¹⁸ CECA requests that

²¹³ *Id.* at 3-4, 10-11.

²¹⁴ *Id.* at 4.

²¹⁵ *Id.* at 16, 18-19.

²¹⁶ *Id.* at 19-20. CECA explains that, under a demand-side-only model, energy efficiency investments are accounted as reducing the end-use electric load to develop the forecasts, thereby reducing the need for capacity procurement in the capacity markets. CECA states that, under a supply-side model, energy efficiency investments are instead interpreted as providing discrete, verifiable capacity supply commitments that energy efficiency providers can qualify for and then offer as supply into the capacity markets.

²¹⁷ *Id.* at 22.

the Commission direct NYISO to initiate a stakeholder process to examine energy efficiency applications and to identify, evaluate, and remove barriers to entry of energy efficiency resource Aggregations.²¹⁹

iii. Answers

105. ACE NY supports CECA's protest and urges the Commission to require NYISO to allow energy efficiency resources to participate in DER Aggregations.²²⁰

106. Potomac Economics and NYISO disagree with CECA. While Potomac Economics agrees that energy efficiency provides substantial benefits, it believes that the most accurate and straightforward way to compensate energy efficiency is for buyers and consumers to face lower capacity and energy charges based on their respective load reductions.²²¹ Potomac Economics disagrees that supply-side treatment of energy efficiency is needed to address barriers to participation of energy efficiency because energy efficiency suppliers can engage directly with retail customers and most energy efficiency investment is promoted through state and utility subsidies.²²² Potomac Economics argues that a supply-side energy efficiency model in New York would primarily direct payments to ratepayer-funded utility programs.²²³ Potomac Economics notes that, contrary to CECA's claim that such a model is needed to support merchant energy efficiency providers, merchant energy efficiency in neighboring New England accounts for only 0.7% of total energy efficiency participation in the last capacity auction, while the vast majority was made up of utility and government programs. Potomac Economics states that capacity payments are not needed to fund energy efficiency investments because this funding is provided through retail rates.

107. NYISO also argues that the Commission should reject CECA's request.²²⁴ NYISO states that it permits all resources to participate in DER Aggregations subject to the same requirements, terms, and conditions as other resources. NYISO explains that, to participate in the capacity market, all resources must be able to provide energy and

²¹⁸ *Id.* at 5.

²¹⁹ *Id.*

²²⁰ ACE NY Answer at 1-3.

²²¹ Potomac Economics Answer at 3.

²²² *Id.* at 3-4.

²²³ *Id.* at 5-6.

²²⁴ NYISO Answer at 47-53.

respond to the direction and control of NYISO.²²⁵ NYISO argues that the Commission should not require NYISO to change its DER rules to enable energy efficiency to participate in the capacity market based on a different set of requirements that are more favorable and permissive than the rules that apply to other DERs. NYISO further argues that, because energy efficiency reduces demand, it should be accounted for as a demand-side resource. If the Commission does opt to require NYISO to allow energy efficiency to participate as a supply-side resource in its capacity market, NYISO requests that the Commission allow sufficient time to implement this requirement separately from the implementation of its DER Aggregation rules.²²⁶

108. Potomac Economics and NYISO state that they have significant concerns about the practicability of verifying the capacity contributions of energy efficiency on the supply side.²²⁷ For example, according to Potomac Economics, a supply-side model would have major drawbacks, including inaccurate capacity accreditation, adverse incentives, cost shifting, double compensation, and inaccurate load forecasting.²²⁸ In addition, NYISO points out that Potomac Economics recently recommended that MISO terminate the participation of energy efficiency in its capacity market citing measurement and verification concerns.²²⁹ NYISO also indicates that PJM's Independent Market Monitor, Monitoring Analytics, has raised concerns about the measurement and verification of energy efficiency programs that receive capacity revenues. According to NYISO, these measurement and verification concerns will become reliability concerns if NYISO is required to permit energy efficiency resources to participate in its capacity market and they do not perform as promised.

iv. Data Request Response

109. In its Data Request, Commission staff asked why the DER and Aggregation participation model cannot be revised to accommodate the specific traits of certain resource types, such as generators with PURPA contracts or municipally-owned generation.²³⁰ In response, NYISO states that its narrowly-tailored, market participation models address or incorporate preexisting regulatory rights, longstanding tariff authority, technical capability, operating characteristics, and specific operating configurations.²³¹

²²⁵ *Id.* at 48.

²²⁶ *Id.* at 48, 50-52.

²²⁷ *Id.* at 49; Potomac Economics Answer at 4-9.

²²⁸ Potomac Economics Answer at 4-5.

²²⁹ NYISO Answer at 49-50.

²³⁰ Data Request at 7-8.

NYISO states that these participation models are not compatible with NYISO's DER and Aggregation participation model. For example, some have unique settlement rules, some would require duplicative DER functionality, and others would be administratively burdensome and infeasible.

v. Commission Determination

110. We find that NYISO's proposal complies with the requirements of Order No. 2222 with respect to types of technologies. We find that NYISO complies with the requirement to not prohibit any particular type of distributed energy resource technology from participating in distributed energy resource aggregations.²³² NYISO's proposal includes a technology-neutral definition for DER and thus does not prohibit any type of technology from participating in an Aggregation.²³³

111. We find that NYISO's proposal, which specifies that certain resource types participating under existing participation models²³⁴ are ineligible to participate in an Aggregation, is also compliant with Order No. 2222. As NYISO explains, the region has specific, narrowly tailored market rules for certain resource types that address the technical capabilities, operation, and configurations of those resources. NYISO does not prohibit such resources from participating as DERs if they are otherwise eligible, so long as they do not also simultaneously participate in NYISO markets using other existing participation models.²³⁵ We find nothing inconsistent with Order No. 2222 in NYISO requiring DERs that are eligible for multiple participation models to choose one.

112. We also are not persuaded by protesters' arguments that Order No. 2222 requires NYISO to change its existing performance requirements to accommodate a specific type of resource, in this case energy efficiency, to participate in NYISO's capacity market as part of an Aggregation. Order No. 2222 does not require NYISO to change its existing market qualification and performance requirements; rather, "distributed energy resource aggregations must be able to meet the qualification and performance requirements to provide the service that they are offering into RTO/ISO markets."²³⁶ Accordingly, we

²³¹ Data Request Response at 27-32.

²³² Order No. 2222, 172 FERC ¶ 61,247 at P 141.

²³³ *See supra* P 64.

²³⁴ *I.e.*, generators with PURPA contracts, limited control run-of-river resources, behind-the-meter net generation resources, municipally-owned generation, system resources, and control area system resources.

²³⁵ Data Request Response at 28-30.

agree with NYISO that it should not be required to change its capacity market qualification requirements to enable energy efficiency resources (or any other resource type that currently does not qualify) to participate in NYISO's capacity market.²³⁷ We find that NYISO's existing capacity market requirement that all Demand Side Resources be able to perform in a manner consistent with the directions and control of NYISO is itself technology neutral,²³⁸ and that irrespective of whether energy efficiency resources are capable of providing resource adequacy in other RTO/ISO markets, these resources are not capable of meeting all of the current operational requirements to provide resource adequacy in NYISO. Further, because Order No. 2222 does not require RTOs/ISOs to model energy efficiency in a certain way, we reject as out of scope the arguments raised by various parties on whether energy efficiency should be modeled as supply or demand side participation.

113. In addition, we find that NYISO complies with the requirement to allow heterogeneous aggregations.²³⁹ We find that NYISO's DER Aggregation participation model complies with this directive by allowing both injecting and demand-curtailling resources to aggregate and participate in NYISO's markets as a single Aggregation.²⁴⁰

114. Furthermore, we find that NYISO's proposal complies with the requirement to apply the requirements of Order No. 745 to demand response resources participating in heterogeneous aggregations.²⁴¹ To apply the requirements of Order No. 745, NYISO's proposal requires that Aggregations independently measure energy injections, withdrawals, and demand reductions. After the fact, NYISO will evaluate each Aggregation's performance providing actual demand reductions against the monthly net benefit threshold, and only compensate demand reductions when the real-time LBMP meets or exceeds the monthly net benefit threshold.²⁴²

²³⁶ Order No. 2222, 172 FERC ¶ 61,247 at 117.

²³⁷ NYISO Answer at 48.

²³⁸ As discussed above, all Demand Side Resources must be able to reduce load at the direction of NYISO in order to participate in NYISO's markets. *See supra* note 114.

²³⁹ Order No. 2222, 172 FERC ¶ 61,247 at 142.

²⁴⁰ Transmittal at 22-23 (citing Services Tariff, § 2.4).

²⁴¹ Order No. 2222, 172 FERC ¶ 61,247 at P 145.

²⁴² Transmittal at 23-24 (citing Services Tariff, § 4.5.7.2).

c. Double Counting of Services

115. 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.²⁴³ More specifically, the Commission required each RTO/ISO to revise its tariff to: (1) allow distributed energy resources that participate in one or more retail programs to participate in its wholesale markets; (2) allow distributed energy resources to provide multiple wholesale services; and (3) include any appropriate restrictions on the distributed energy resources' participation in RTO/ISO markets through distributed energy resource aggregations, if narrowly designed to avoid counting more than once the services provided by distributed energy resources in RTO/ISO markets.²⁴⁴

116. The Commission in Order No. 2222 found that it is appropriate for RTOs/ISOs to place narrowly designed restrictions on the RTO/ISO market participation of distributed energy resources through aggregations, if necessary to prevent double counting of services.²⁴⁵ Thus, the Commission found that it is appropriate for RTOs/ISOs to place restrictions on the RTO/ISO market participation of distributed energy resources through aggregations after determining whether a distributed energy resource that is proposing to participate in a distributed energy resource aggregation is (1) registered to provide the same services either individually or as part of another RTO/ISO market participant;²⁴⁶ or (2) included in a retail program to reduce a utility's or other Load Serving Entity's obligations to purchase services from the RTO/ISO market.²⁴⁷ The Commission provided

²⁴³ Order No. 2222, 172 FERC ¶ 61,247 at P 160.

²⁴⁴ *Id.*

²⁴⁵ *Id.* P 161. For instance, the Commission explained that, if a distributed energy resource is offered into an RTO/ISO market and is not added back to a utility's or other Load Serving Entity's load profile, then that resource will be double counted as both load reduction and a supply resource. Also, the Commission stated that, if a distributed energy resource is registered to provide the same service twice in an RTO/ISO market (e.g., as part of multiple distributed energy resource aggregations, as part of a distributed energy resource aggregation and a standalone demand response resource, and/or a standalone distributed energy resource), then that resource would also be double counted and double compensated if it clears the market as part of both market participants. *Id.*

²⁴⁶ For example, as part of another distributed energy resource aggregation, a demand response resource, and/or a standalone distributed energy resource. *Id.* P 161 n.414.

²⁴⁷ *Id.* P 161.

RTOs/ISOs with regional flexibility with respect to the restrictions that they propose in their tariffs to minimize market impacts caused by the double counting of services provided by distributed energy resources in RTO/ISO markets.²⁴⁸

117. In Order No. 2222-A, the Commission clarified that, when the Commission stated that “if a distributed energy resource is offered into an RTO/ISO market and is not added back to a utility’s or other Load Serving Entity’s load profile, then that resource will be double counted as both load reduction and a supply resource,” the Commission was indicating that, for planning purposes, double counting of services would occur if the same distributed energy resource reduces the amount of a service that an RTO/ISO procures on a forward-looking basis in a certain time period while also acting as a provider of that same service in that same delivery period.²⁴⁹ Further, the Commission clarified that, to the extent that an RTO/ISO already has restrictions in place to avoid double counting of services, it is not required to propose new restrictions but rather must explain on compliance how these existing restrictions prevent double counting.²⁵⁰ Such restrictions would only be appropriate “if necessary to prevent double counting of services,”²⁵¹ and each RTO/ISO must otherwise “allow distributed energy resources that participate in one or more retail programs to participate in its wholesale markets.”²⁵²

118. In Order No. 2222-B, the Commission clarified that payment of full locational marginal price (LMP) in the energy market to behind-the-meter distributed energy resources participating as demand response resources in distributed energy resource aggregations does not constitute double counting, so long as the requirements of Order No. 745, including the net benefits test, are satisfied.²⁵³

i. Filing

119. NYISO states that it permits simultaneous generator and Demand Side Resource participation in the wholesale markets and in programs or markets operated to meet the needs of distribution systems located in the NYCA.²⁵⁴ NYISO explains that, effective

²⁴⁸ *Id.* P 164.

²⁴⁹ Order No. 2222-A, 174 FERC ¶ 61,197 at P 63 (quoting Order No. 2222, 172 FERC ¶ 61,247 at P 161).

²⁵⁰ *Id.* P 64 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 161).

²⁵¹ *Id.*

²⁵² *Id.* P 64 (quoting Order No. 2222, 172 FERC ¶ 61,247 at P 160).

²⁵³ Order No. 2222-B, 175 FERC ¶ 61,227 at P 43.

with the rules accepted in the 2019 Aggregation Filing, DERs will also be permitted to participate simultaneously in the wholesale markets and in programs or markets operated for distribution systems in the NYCA.²⁵⁵ NYISO argues that its dual participation rules and operational coordination procedures were developed in conjunction with the NYTOs and include special bidding rules to ensure that NYISO and the applicable transmission owner have adequate situational awareness and understand the resource's operating status. NYISO states that, in accordance with the Commission's directive that authorizes a Distribution Utility to override NYISO's dispatch of an Aggregation, NYISO proposes to strike the final sentence of Services Tariff section 4.1.11, which gives NYISO the authority to determine schedules for resources engaged in dual participation.

120. NYISO states that it does not propose any tariff revisions to comply with the Commission's directive to permit DERs to provide multiple wholesale market services because the Commission-accepted provisions proposed in the 2019 Aggregation Filing will allow each Aggregation to be able to qualify to provide energy, ancillary services, and ICAP.²⁵⁶

121. NYISO proposes modifications to Services Tariff section 4.1.10 to avoid double counting of services.²⁵⁷ First, NYISO explains that pursuant to Services Tariff section 4.1.10.1, Aggregators may not offer any resource as part of an Aggregation that is participating in the NYISO-administered markets in a different Aggregation or as an individual resource. NYISO asserts that this existing rule avoids the potential for a DER's capability to be offered more than once in the wholesale markets.

122. In addition, NYISO proposes to revise Services Tariff section 4.1.10.6 to prohibit an Aggregator from enrolling a new DER that "provides the same or substantially similar service in a retail market or program" that it provides in the NYISO-administered markets.²⁵⁸ NYISO states that this proposed revision will help maintain reliability by preventing a DER from offering the same MW for the same service in two different places, and ensure rates are just and reasonable by preventing the DER from being compensated twice.

²⁵⁴ Transmittal at 40-43.

²⁵⁵ *Id.* at 40.

²⁵⁶ *Id.*

²⁵⁷ *Id.* at 41.

²⁵⁸ *Id.*

ii. Protests

123. AEE, NRDC, and SFP raise concerns about NYISO's proposal, in Services Tariff section 4.1.10.6, to prohibit resources that provide service in a retail market or program from providing the same or substantially similar service in the wholesale market.²⁵⁹ They argue that NYISO's proposal to prohibit double counting of services is redundant, unacceptably vague, and likely to pose a barrier to participation. NYTOs contend that the term "substantially similar" is too ambiguous and does not sufficiently define what would constitute a substantially similar service.²⁶⁰ The Clean Energy Coalition also opposes this language and argues that it erects a substantial barrier to dual market participation, which is in conflict with Order No. 2222.²⁶¹ AEE, NRDC, and SFP argue that the prohibition should be against compensation for identical service, not the same or functionally similar service, as NYISO proposed. AEE, NRDC, and SFP, and AEMA assert that NYISO's prohibition is overly broad and redundant given existing prohibitions on double counting by NYISO and the New York Commission.²⁶² AEMA argues that the New York Commission's prohibitions satisfy the Commission's objectives of preventing double counting, and NYISO's proposed language will only create confusion.

124. AEMA requests that the Commission direct NYISO to delete the proposed language in section 4.1.10.6 of the Services Tariff.²⁶³ If the Commission does not direct NYISO to delete this language, AEMA requests that the Commission direct NYISO to list what existing state programs it deems fall into the category of "same or substantially similar service." AEE, NRDC, and SFP, and AEMA also request that the Commission direct NYISO to clarify why existing restrictions against double counting are not sufficient.

125. NYTOs argue that the Commission should require NYISO to explain, with examples, what would constitute a substantially similar service and greater explanatory detail should be developed through NYISO's stakeholder process and included in the applicable NYISO manual.²⁶⁴

²⁵⁹ AEE, NRDC, and SFP Protest at 18-20.

²⁶⁰ NYTOs Protest at 10-11.

²⁶¹ Clean Energy Coalition Protest at 4-9.

²⁶² AEE, NRDC, and SFP Protest at 19; AEMA Protest at 5-7.

²⁶³ AEMA Protest at 7.

²⁶⁴ NYTOs Protest at 10-11.

iii. Answer

126. NYISO states that it does not object to removing the phrase “or substantially similar service” from Services Tariff section 4.1.10.6.²⁶⁵ NYISO states that it carefully considered the arguments raised in several of the protests and agrees that the language “substantially similar service” creates uncertainty about which programs are prohibited. NYISO states that it also agrees with protests indicating that the New York Commission has specified when participants in certain retail programs cannot participate in the wholesale markets.

127. To implement revised Services Tariff section 4.1.10.6, NYISO also requests that the Commission direct NYISO to amend its Aggregator attestation requirement, in section 4.1.10.5 of the Services Tariff, to require that an Aggregator also attest that the individual DERs participating in the Aggregation are not providing through a retail market or program the same service(s) that the Aggregation will be providing in the NYISO-administered markets.²⁶⁶

128. NYISO asserts that its proposal in Services Tariff section 4.1.10.6—to prohibit an Aggregator from enrolling a new DER that provides the same service in a retail market or program that it provides in the NYISO-administered markets—is the narrowest measure that NYISO can enforce. As to arguments that NYISO’s proposal is insufficiently narrow, NYISO contends that it lacks the ability to determine whether a DER in an Aggregation is providing a service in the wholesale markets that it is ineligible to provide, or whether a DER is providing the same service in the retail and wholesale markets at the same time.²⁶⁷ According to NYISO, monitoring for such double counting would necessitate more intrusive and expensive metering and telemetry requirements, and more extensive software upgrades than NYISO is currently developing.

iv. Data Request Response

129. In its Data Request, Commission staff asked NYISO to describe what role, if any, the Distribution Utility will play in helping NYISO verify that an Aggregator is not providing the same or substantially similar service in the NYISO-administered markets.²⁶⁸ In response, NYISO states that it and the Distribution Utilities are developing a matrix that will specifically identify retail markets and programs and the corresponding wholesale market service (if any).²⁶⁹ NYISO states that it intends to post this matrix on

²⁶⁵ NYISO Answer at 15-18.

²⁶⁶ *Id.* at 17.

²⁶⁷ *Id.* at 17-18.

²⁶⁸ Data Request at 8-9.

its public website once finalized. NYISO states that it will update the document when notified by a Distribution Utility of a new retail market service or program, or when an existing wholesale or retail market service has changed. NYISO states that it will continue to rely on an Aggregator's attestation that the DER it enrolls are not providing the same service in a retail market or program, and that the matrix will assist Aggregators in identifying incompatible services and programs.

v. Data Request Response Protests

130. AEE claims that NYISO does not identify with sufficient detail the criteria that will be used to create the matrix that will identify retail markets and programs administered by the Distribution Utilities and the corresponding wholesale market service, which creates significant ambiguity for DER owners and Aggregators seeking to participate in the market through Aggregation.²⁷⁰ AEE adds that the oversight and dispute resolution process that will apply is not defined. AEE suggests that the role of RERRAs in the process of determining whether double counting will occur, and the dispute resolution process, must be described in NYISO's tariff.

131. AEMA states that NYISO's plan to develop the matrix is unnecessary given the existing mechanisms in NYISO and RERRA to avoid double counting.²⁷¹ AEMA argues that, with respect to potential double counting of identical retail and wholesale services, the RERRA, as the Commission has recognized, is the appropriate jurisdictional entity to make that determination.²⁷² AEMA requests that the Commission direct NYISO to revise its tariff to explicitly designate this responsibility under the role of the RERRA. AEMA states that, if NYISO and the Distribution Utilities move forward with the development of a matrix, the process should be transparent and allow for stakeholder input through the stakeholder process.

132. Public Interest Organizations state that NYISO's proposed process to identify double counting appears reasonable in substance, but the process does not provide for adequate stakeholder or regulatory review, and the process should be described in NYISO's tariff.²⁷³ In particular, they assert that a Distribution Utility-led process provides no opportunity for review of the results by the Commission or stakeholders. They argue that, consistent with the Commission's rule of reason policy,²⁷⁴ the

²⁶⁹ Data Request Response at 33.

²⁷⁰ AEE Protest on Data Request Response at 8.

²⁷¹ AEMA Protest on Data Request Response at 8.

²⁷² *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at P 162).

²⁷³ Public Interest Organizations Protest on Data Request Response at 2-3.

Commission should require NYISO to amend its tariff to include NYISO's proposed list of specific retail programs that foreclose participation in specific wholesale markets because it determines a resource's eligibility for market participation.

vi. Commission Determination

133. We find that NYISO's proposal partially complies with the double counting requirements of Order No. 2222. We find that NYISO's existing DER and Aggregation participation model complies with the requirement to allow distributed energy resources that participate in one or more retail programs to participate in its wholesale markets.²⁷⁵ In particular, the existing model affords DERs the opportunity to participate simultaneously in one or more retail programs and in NYISO-administered wholesale markets.²⁷⁶

134. In addition, we find that NYISO's proposal complies with the requirement to allow distributed energy resources to provide multiple wholesale services.²⁷⁷ NYISO's proposal allows Aggregations to provide multiple wholesale services, akin to other supply resources.²⁷⁸ Further, NYISO's proposal does not restrict an Aggregation that meets the relevant eligibility requirements from any market or from providing any service, except for ancillary services, as discussed above.²⁷⁹

135. We find that NYISO's proposal partially complies with the requirement to include appropriate restrictions on the participation of distributed energy resources in NYISO's markets through distributed energy resource aggregations, if narrowly designed to avoid counting more than once the services provided by distributed energy resources in NYISO's markets.²⁸⁰ NYISO proposes two such restrictions. First, pursuant to section 4.1.10.1 of its Services Tariff, Aggregators may not offer any resource as part of an Aggregation that is participating in the NYISO-administered markets in a different Aggregation or as an individual resource. We find that this restriction complies with Order No. 2222 because it prevents a DER in an Aggregation from providing energy,

²⁷⁴ See *infra* P 153.

²⁷⁵ See Order No. 2222, 172 FERC ¶ 61,247 at P 160.

²⁷⁶ See Services Tariff, § 4.1.11.

²⁷⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 160.

²⁷⁸ See Services Tariff, § 4.1.10.

²⁷⁹ See *supra* PP 92-93.

²⁸⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 160.

ancillary services, or capacity as part of another Aggregation or as an individual resource and being double counted for providing the same service in NYISO's markets.²⁸¹

Second, NYISO's proposal revises section 4.1.10.6 of its Services Tariff to prohibit Aggregators from enrolling new resources that would provide "the same or substantially similar service" in NYISO-administered markets as they already provide in retail services or programs. We find that NYISO's proposal to include the phrase "or substantially similar" in its tariff results in a restriction that is not narrowly designed, as discussed by protesters. We agree with protesters and NYISO's answer that this phrase is too broad and ambiguous as to which retail programs would overlap with wholesale markets. In accordance with NYISO's request in its answer, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that deletes "or substantially similar" from section 4.1.10.6 of NYISO's Services Tariff and likewise replaces "Installed Capacity or a substantially similar service" with "Installed Capacity" in the third sentence in this tariff section.

136. Moreover, in accordance with NYISO's request in its answer, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that amends section 4.1.10.5 of NYISO's Services Tariff to require an Aggregator to attest that resources enrolled in the Aggregation are not providing the same service in a retail service or program as they are in the NYISO-administered markets. As NYISO states in its answer, this attestation requirement will enable NYISO to administer the appropriate restrictions for double counting of services.

137. We disagree with protesters who allege that the restriction to prevent double counting in section 4.1.10.6 of the Services Tariff is not narrowly designed and therefore non-compliant with Order No. 2222. With the revisions directed above,²⁸² we find that this tariff provision is narrowly designed because it does not broadly prohibit an Aggregation's participation unless the Aggregation is providing the same service in a retail program.²⁸³ We acknowledge the complexity of defining the same service, as

²⁸¹ See *id.* P 161 (finding that it is appropriate for RTOs/ISOs to place restrictions on the RTO/ISO market participation of distributed energy resources through aggregations after determining whether a distributed energy resource that is proposing to participate in a distributed energy resource aggregation is registered to provide the same services either individually or as part of another RTO/ISO market participant).

²⁸² See *supra* P 135.

²⁸³ Order No. 2222, 172 FERC ¶ 61,247 at P 161 (providing, as an example of an appropriate restriction on RTO/ISO market participation of distributed energy resources through aggregations, a distributed energy resource that is proposing to participate in a distributed energy resource aggregation that is registered to provide the same services either individually or as part of another RTO/ISO market participant).

explained by NYISO, and note that Order No. 2222 allows flexibility regarding any proposed restrictions.²⁸⁴ We also disagree with AEE, NRDC, and SFP's, and AEMA's protests that NYISO's proposed tariff provisions to prevent double counting are unnecessary and redundant given existing prohibitions by NYISO and the New York Commission. Although RERRAs such as the New York Commission can condition participation in retail distributed energy resource programs on those resources not also participating in RTO/ISO markets,²⁸⁵ Order No. 2222 requires RTOs/ISOs to place appropriate restrictions on participation in RTO/ISO markets to avoid counting more than once the services provided by distributed energy resources in RTO/ISO markets. We find that NYISO's proposal complies with this requirement for the reasons discussed above and that the existing New York Commission restrictions identified by protesters do not conflict with NYISO's proposed tariff provisions.

138. In addition, we find that NYISO's plans to rely on its Aggregation enrollment and attestation processes are compliant with the requirement to properly account for the different services that distributed energy resources provide in the RTO/ISO markets.²⁸⁶ NYISO's proposal would appropriately restrict resources' participation when providing the same service, and the Commission provided flexibility to regions to determine the appropriate restrictions for their market in Order No. 2222.²⁸⁷ We also disagree with AEE's and AEMA's argument that the tariff must define a RERRA's role in determining whether double counting occurs. As NYISO notes, the attestation that we direct NYISO to revise is consistent with Services Tariff section 4.1.10.7.3, which requires the Aggregator to comply with all RERRA rules. As discussed below, we find that this provision sufficiently establishes the RERRA's role in accordance with the requirements of Order No. 2222.²⁸⁸

139. In response to the Data Request, NYISO explains that it is developing a matrix to identify corresponding retail services and programs that overlap with NYISO-administered markets and will post the matrix on its public website. We disagree with Public Interest Organizations that NYISO's proposal to post the matrix on its public website is insufficiently transparent, because, as NYISO explains, the matrix merely serves to assist Aggregators in identifying incompatible services and programs. We find that NYISO's proposal provides market participants additional clarity beyond the Commission's requirements in Order No. 2222. We also decline to require NYISO to

²⁸⁴ *Id.* P 164.

²⁸⁵ *Id.* P 162.

²⁸⁶ *Id.* P 160.

²⁸⁷ *Id.*

²⁸⁸ *See infra* P 302.

include the matrix in its tariff, because the matrix would only provide guidance, and NYISO will rely on an Aggregator's attestation that its Aggregation does not include any resources providing the same service in both retail programs and wholesale markets.

6. Locational Requirements

140. 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.²⁸⁹ Given the variety of approaches to locational requirements proposed by commenters, the Commission provided each RTO/ISO with flexibility to determine the locational requirements for its region, as long as it demonstrates that those requirements are as geographically broad as technically feasible. To the extent that an RTO/ISO seeks to continue its currently effective locational requirements for distributed energy resources, it must demonstrate that its approach meets this requirement. The Commission stated that each RTO/ISO must provide a detailed, technical explanation for the geographical scope

²⁸⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 204.

of its proposed locational requirements.²⁹⁰ While each RTO/ISO must provide a detailed, technical explanation for the geographical scope of its proposed locational requirements, the Commission provided RTOs/ISOs with a certain degree of flexibility as to the technical aspects of a locational requirement that is as geographically broad as possible.²⁹¹

a. Filing

141. NYISO explains that its DER and Aggregation participation model requires each individual facility within an Aggregation to be electrically located in the NYCA and electrically connected to the same NYISO-identified Transmission Node.²⁹² NYISO states that it will identify Transmission Nodes throughout the NYCA, following consultation with the NYTOs, and will map the collection of electrical facilities (e.g., distribution feeder lines) associated with the Transmission Node to which individual facilities may aggregate.²⁹³ NYISO states that the process for identifying Transmission Nodes and mapping electrical facilities to Transmission Nodes first considers a broad set of electrical facilities for each Transmission Node, and then, if necessary, the set of electrical facilities is reduced for the Transmission Node until NYISO and the applicable Transmission Owner agree that the Transmission Node appropriately reflects the electrical conditions on the system.²⁹⁴ NYISO explains that it will identify each Transmission Node on its public website alongside the list of generator names, load names, and other general system information.²⁹⁵

142. NYISO states that it will review the set of Transmission Nodes annually and update the set of Transmission Nodes, if necessary, to account for changing conditions on

²⁹⁰ *Id.* The Commission stated that this explanation could include, for example, a discussion of the RTO's/ISO's system topology and regional congestion patterns, or any other factors that necessitate its proposed locational requirements.

²⁹¹ *Id.* P 206.

²⁹² Transmittal at 8 (citing Services Tariff, §§ 4.1.10.2 & 25-27. A Transmission Node is defined as “[a] bus located inside the NYCA that is identified by the [NY]ISO to represent an electrical area to which individual Distributed Energy Resources may aggregate and at which LBMPs are calculated.” Transmittal at 25 n.97 (citing Services Tariff, & 2.20).

²⁹³ Transmittal at 25.

²⁹⁴ *Id.* at 25-26.

²⁹⁵ Services Tariff, § 4.1.10.2.

the New York State Transmission System and underlying distribution systems.²⁹⁶ NYISO explains that, if it determines changes to the set of Transmission Nodes are necessary, it will post a notice about changes at least 90 days prior to the start of the Capability Year, and these changes will take effect on the first day of that Capability Year.²⁹⁷

143. NYISO asserts that modeling facilities that participate in an Aggregation close to their electrical location will enable NYISO to manage transmission constraints and reliability concerns. NYISO states that its approach to identifying Transmission Nodes seeks to maximize the area of the distribution system covered, while minimizing bulk power system concerns.²⁹⁸ NYISO states that these requirements will also enable NYISO to facilitate settlements at the individual Transmission Node LBMP rather than the zonal average LBMP, which will encourage DERs to locate where they will provide greater benefits.²⁹⁹

b. Protests

144. AEE, NRDC, and SFP assert that NYISO's proposal to base locational requirements on mapping distribution feeder lines to a Transmission Node should theoretically appropriately balance geographic flexibility and reliability constraints, but they express concern that the mapping process has not begun and that it is unclear whether it will ultimately ensure that Aggregations can be assembled over the largest possible geographic area.³⁰⁰ AEMA similarly contends that, while NYISO's Transmission Node mapping process should, in theory, result in the largest geographic areas within which Aggregators may form aggregations, it is unclear whether multi-nodal aggregation will be possible because the initial mapping has not been shared with market participants.³⁰¹ AEMA asserts that it is impossible to assess without more information whether the Transmission Node concept is just and reasonable and otherwise complies with Order No. 2222. AEE, NRDC, and SFP ask the Commission to require NYISO to make an informational filing once Transmission Nodes have been established to allow the Commission and stakeholders to assess whether NYISO achieves the balance sought in Order No. 2222.³⁰²

²⁹⁶ *Id.*

²⁹⁷ Transmittal at 26; Services Tariff, § 4.1.10.2.

²⁹⁸ Transmittal at 26.

²⁹⁹ *Id.* at 8, 26-27.

³⁰⁰ AEE, NRDC, and SFP Protest at 26-28.

³⁰¹ AEMA Protest at 18.

145. AEMA and AEE, NRDC, and SFP also note that NYISO's proposed timeline to update Transmission Nodes does not align with NYISO's proposed timeline for Distribution Utility review such that some Aggregations may be precluded from registering Aggregations far enough in advance to allow for timely market participation.³⁰³ AEE, NRDC, and SFP explain that Transmission Nodes will be updated 90 days prior to the beginning of the Capability Year but Aggregators may face up to a 90-day review period in addition to other NYISO network modeling processes, and therefore, may face a lag of a month or more before being able to participate. According to AEMA, the 90-day notice of changes to Transmission Nodes will effectively preclude Aggregators from participation in the summer strip ICAP auction, which would cause unnecessary fluctuations in the supply resources available to NYISO and result in unjust and unreasonable rates.³⁰⁴ AEMA and AEE, NRDC, and SFP ask the Commission to direct NYISO to adjust the timing of Transmission Node updates to avoid any delays in market participation.³⁰⁵

c. Answer

146. NYISO argues that protesters' concerns about NYISO's implementation of Transmission Nodes are premature because NYISO is still working to implement the proposal that the Commission accepted in the 2019 Aggregation Filing as just and reasonable.³⁰⁶

d. Data Request Response

147. In its Data Request, Commission staff asked NYISO to describe the status of the ongoing process to identify Transmission Nodes and what criteria NYISO is planning to use to identify Transmission Nodes.³⁰⁷ Regarding how NYISO will ensure that the Transmission Nodes that it identifies will provide locational requirements that are as geographically broad as technically possible, NYISO states that it has been working with the applicable Member Systems individually to identify Transmission Nodes.³⁰⁸ NYISO

³⁰² AEE, NRDC, and SFP Protest at 27.

³⁰³ *Id.*; AEMA Protest at 19.

³⁰⁴ AEMA Protest at 19.

³⁰⁵ *Id.*; AEE, NRDC, and SFP Protest at 27-28.

³⁰⁶ NYISO Answer at 45.

³⁰⁷ Data Request at 9.

³⁰⁸ Data Request Response at 34.

also states that the total number of Transmission Nodes identified in the NYCA is 115, which it states should not change significantly prior to implementation. NYISO provides a chart that details the number of Transmission Nodes in each Load Zone. NYISO states that it and the Member Systems have considered a number of factors to establish Transmission Nodes, including: (1) transmission and/or distribution system load pockets; (2) thermal limits of local transmission and distribution lines and protective equipment; (3) distribution and transmission system footprints; (4) concentration of load relative to total average system load; and (5) distribution system substation topology.³⁰⁹ NYISO asserts that, using these and other factors, NYISO and Member Systems identified the Transmission Nodes that send efficient market signals to developers without compromising distribution system reliability. NYISO explains that, in areas of NYCA that are more heavily networked with adequate hosting capacity, Transmission Nodes are geographically and electrically broad, whereas more constrained areas of NYCA require Transmission Nodes to cover smaller geographic and electrical footprints that better align with expected transmission constraints.

148. NYISO states that it also intends to add the list of Transmission Nodes as an attachment to a business practice manual.³¹⁰ NYISO states that it may publish a technical bulletin in advance of the business practice manual completion, if necessary, to provide Aggregators sufficient time to develop their Aggregations. NYISO also states that it will review and update, if needed, the identified Transmission Nodes on an annual basis prior to the start of a Capability Year. NYISO explains that it intends to discuss the set of Transmission Nodes with its stakeholders through its shared governance process prior to the implementation of the participation model, and when changes are made to the set of Transmission Nodes.³¹¹ Finally, NYISO states that its system is being designed such that affected Aggregators will be notified automatically via email when changes are made to the Transmission Nodes to which an Aggregation is modeled and that the Aggregator must re-enroll an Aggregation at the newly applicable Transmission Node.

149. With respect to whether the proposed timeline of posting the Transmission Nodes at least 90 days prior to the start of the Capability Year will provide sufficient notice to Aggregators, NYISO explains that the 90-day notice accounts for the previously accepted 30-day notice requirement to modify Aggregations, and provides Aggregators 60 days to evaluate and, if necessary, modify Aggregations.³¹² NYISO states that it proposes to provide Distribution Utilities the full 60-day review period authorized by Order No.

³⁰⁹ *Id.* at 34-35.

³¹⁰ *Id.* at 35.

³¹¹ *Id.* at 36.

³¹² *Id.* at 36-37.

2222. NYISO states that it agrees with AEE, NRDC, and SFP's concerns that the 60-day Distribution Utility review upsets NYISO's intended 2-month period for an Aggregator to modify its Aggregation in response to changes to Transmission Nodes. NYISO asserts that, if the Commission accepts NYISO's proposed 60-day Distribution Utility review period, NYISO will propose a corresponding modification to Services Tariff section 4.1.10.2 to adjust the posting date for Transmission Node change notifications to 150 days to address AEE and SPP's concerns and account for NYISO's proposed 90 days, which includes NYISO's 30-day review period and then the Distribution Utility's 60-day review period.³¹³

e. Data Request Response Comments and Protests

150. While AEE considers NYISO's proposal to identify Transmission Nodes as a step in the right direction, AEE contends that DER Aggregators cannot make use of topological information unless there are means to map Transmission Nodes to real-world information, such as utility account numbers, street addresses, or geographic information system shape files, and without such means, the nodes themselves do not provide DER Aggregators access to sufficient information to permit them to participate.³¹⁴ AEE asserts that development of fulsome meter to Transmission Node mapping should be conducted through a stakeholder process. AEMA likewise argues that additional information and/or tools must be made available regarding the Transmission Nodes to allow DER Aggregators to correctly identify and map planned DERs.³¹⁵

151. Public Interest Organizations state that NYISO's proposed criteria for evaluating Transmission Nodes for DER Aggregation purposes are reasonable, provided that the indicated studies are carried out with a level of transparency and stakeholder participation equivalent to other transmission study processes.³¹⁶

f. Commission Determination

152. We find that NYISO's proposal partially complies with the locational requirements of Order No. 2222. We find that NYISO complies with the requirement to provide a detailed, technical explanation for the geographical scope of its proposed locational requirements.³¹⁷ As NYISO explains, NYISO will work with the NYTOs, on

³¹³ *Id.* at 37.

³¹⁴ AEE Protest on Data Request Response at 10-11.

³¹⁵ AEMA Comments on Data Request Response at 10.

³¹⁶ Public Interest Organizations Protest on Data Request Response at 3 and 9.

³¹⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 204.

an annual basis, to identify Transmission Nodes and associated distribution feeder lines to which individual facilities may aggregate prior to the start of the Capability Year and will maximize the area of the distribution system covered while minimizing bulk power system concerns.³¹⁸ We agree with commenters that, based on NYISO's representations, the proposed Transmission Node framework should appropriately balance geographic flexibility and reliability constraints. For instance, NYISO describes the factors that it and Member Systems will consider in identifying Transmission Nodes that send efficient market signals to developers without compromising distribution system reliability.³¹⁹ We find reasonable NYISO's explanation that Transmission Nodes are geographically and electrically broad in areas of NYCA that are heavily networked with adequate hosting capacity, while more constrained areas require Transmission Nodes to cover smaller geographic and electrical footprints.³²⁰

153. However, we find that NYISO does not comply with the requirement 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.³²¹ We find that NYISO's tariff is insufficiently clear regarding how NYISO will identify or change its Transmission Nodes. NYISO's tariff does not include the criteria that it will use to: (1) establish a set of Transmission Nodes in the NYCA at which individual DERs may aggregate; and (2) review and, as needed, update the identified Transmission Nodes on an annual basis to be as geographically broad as technically feasible. Under the Commission's precedent, "[d]ecisions regarding whether an item should be placed in a tariff or in a business practice manual are guided by the Commission's rule of reason policy, under which provisions that 'significantly affect rates, terms, and conditions' of service, are readily susceptible of specification, and are not generally understood in a contractual agreement must be included in a tariff, while items better classified as implementation details may be included only in the business practice manual."³²² We find that NYISO's processes to identify and update Transmission Nodes significantly affect rates, terms, and conditions of service because they will determine how broadly resources may aggregate and under what conditions NYISO may change the nodes at which resources may have already aggregated. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this

³¹⁸ Transmittal at 25-26.

³¹⁹ Data Request Response at 34-35.

³²⁰ *Id.* at 35.

³²¹ Order No. 2222, 172 FERC ¶ 61,247 at P 204.

³²² *Energy Storage Ass'n v. PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,296, at P 103 (2018) (citation omitted) (*ESA v. PJM*).

order, a further compliance filing to specify in its tariff the criteria it will use to: (1) establish a set of Transmission Nodes in the NYCA at which individual distributed energy resources may aggregate;³²³ and (2) review and, if needed, update the identified Transmission Nodes on an annual basis.

154. We decline to direct NYISO to undertake a formal stakeholder process to map its Transmission Nodes, as AEE requests.³²⁴ In response to AEE's concern that Aggregators will not be able to make use of topological information, we believe that NYISO's commitment to discuss the set of Transmission Nodes with its stakeholders through its shared governance process prior to implementation of the participation model and when Transmission Nodes are updated should provide a forum for stakeholders to ask questions and provide comments.³²⁵ We also note that NYISO plans to notify Aggregators automatically if a change is made to the Transmission Node at which the Aggregation is modeled.³²⁶ In addition, NYISO will post the Transmission Nodes on its website and in the business practice manual, along with other general system information, load names, and generator names.³²⁷ We expect that the additional clarity we have directed NYISO to include in the tariff regarding the Transmission Node identification and review process, along with NYISO's proposed measures to inform stakeholders of Transmission Node identification and review, will provide sufficient transparency for stakeholders.

155. Finally, we note that, in its Data Request Response, NYISO states that it agrees with AEE, NRDC, and SFP that the addition of a 60-day Distribution Utility review period upsets NYISO's intended two-month period for an Aggregator to modify its Aggregations in response to changes to Transmission Nodes.³²⁸ NYISO states that, if the Commission accepts its proposed 60-day Distribution Utility review period, NYISO will propose a modification to Services Tariff section 4.1.10.2 adjusting the posting date for changes to Transmission Nodes to 150 days before the start of the Capability Year to

³²³ Such criteria could include the five factors NYISO states that it has considered with Member Systems in identifying the 115 Transmission Nodes to date. These factors include transmission and/or distribution system load pockets and thermal limits of local transmission and distribution lines and protective equipment. Data Request Response at 34-35.

³²⁴ See *supra* P 20.

³²⁵ Data Request Response at 36.

³²⁶ *Id.*

³²⁷ Transmittal at 26; Data Request Response at 35; NYISO Services Tariff, § 4.1.10.2.

³²⁸ Data Request Response at 37.

address commenters' concern. As discussed below, we find that NYISO's 60-day Distribution Utility review period complies with Order No. 2222.³²⁹ Accordingly, we acknowledge NYISO's commitment to propose to modify section 4.1.10.2 of its Services Tariff to state that notice of changes to Transmission Nodes will be posted 150 days (rather than 90 days) before the start of the Capability Year.

7. Information and Data Requirements

156. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(d) to the Commission's regulations to require each RTO/ISO to establish market rules that address information requirements and data requirements for distributed energy resource aggregations.³³⁰ As discussed in more detail below, the Commission required each RTO/ISO to revise its tariff to: (1) include any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation; (2) require distributed energy resource aggregators to provide a list of the individual resources in their aggregations; and (3) establish any necessary information that must be submitted for the individual distributed energy resources. The Commission also required each RTO/ISO to revise its tariff to require distributed energy resource aggregators to provide aggregate settlement data for the distributed energy resource aggregation and to retain performance data for individual distributed energy resources in a distributed energy resource aggregation for auditing purposes.

157. First, the Commission required each RTO/ISO to revise its tariff to include any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation. The Commission required each RTO/ISO to revise its tariff to establish any necessary physical parameters that distributed energy resource aggregators must submit as part of their registration process only to the extent these parameters are not already represented in general registration requirements or bidding parameters applicable to distributed energy resource aggregations.³³¹

158. Next, the Commission directed each RTO/ISO to revise its tariff to require distributed energy resource aggregators to provide a list of the individual distributed energy resources participating in their aggregations to the RTO/ISO.³³² The Commission

³²⁹ See *infra* P 324.

³³⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 236.

³³¹ *Id.* P 237.

³³² *Id.* P 238.

stated that, if an RTO/ISO needs additional information beyond this list, the RTO/ISO should identify and explain in its compliance filing what additional specific information about the individual distributed energy resources within an aggregation the RTO/ISO needs. The Commission stated that each RTO/ISO should also propose how the information requested must be shared with the RTO/ISO and affected distribution utilities. As part of these tariff revisions, the Commission stated that each RTO/ISO must also require that the distributed energy resource aggregator update that list of individual resources and associated information as it changes.³³³ The Commission also found that the distributed energy resource aggregator, not an individual distributed energy resource in the aggregation, is the single point of contact with the RTO/ISO, and that the aggregator would be responsible for managing, dispatching, metering, and settling the individual distributed energy resources in its aggregation.³³⁴

159. The Commission found that aggregate settlement data for a distributed energy resource aggregation, as well as performance data for individual distributed energy resources in a distributed energy resource aggregation are necessary for the participation of any type of resource in RTO/ISO markets and to enable the RTOs/ISOs to perform necessary audit functions.³³⁵ Therefore, the Commission required each RTO/ISO to revise its tariff to require each distributed energy resource aggregator to maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation. The Commission also required each RTO/ISO to revise its tariff to require each distributed energy resource aggregator to provide, upon request from the RTO/ISO, performance data for individual resources in a distributed energy resource aggregation for auditing purposes.

160. The Commission stated that the requirements for settlement and performance data should be consistent with the settlement and auditing data requirements for other market participants.³³⁶ To reduce the burden on distributed energy resource aggregators and the RTOs/ISOs, the Commission found that distributed energy resource aggregators should only be required to retain that performance data for individual distributed energy resources in an aggregation that the RTO/ISO deems necessary for auditing purposes. The Commission stated that, to the extent that an RTO/ISO does not need certain performance data from individual distributed energy resources in a distributed energy

³³³ *Id.* (referring to discussion concerning modifications to list of resources in aggregation); *see id.* P 336.

³³⁴ *Id.* P 239.

³³⁵ *Id.* P 240.

³³⁶ *Id.*

resource aggregation for auditing purposes, it should not require a distributed energy resource aggregator to retain that information for individual distributed energy resources participating in a distributed energy resource aggregation.

a. Filing

161. NYISO proposes that, similar to other market participants, each Aggregator must comply with the registration and metering requirements in NYISO's tariffs and manuals and designate one or more persons to receive communications from NYISO.³³⁷ In addition to these requirements, NYISO states that Aggregators are responsible for submitting information about the Aggregation as a whole and the individual facilities comprising the Aggregation.³³⁸

162. However, NYISO states that it has not finalized or presented to its stakeholders the processes and procedures for registering Aggregations and enrolling individual facilities.³³⁹ NYISO explains that it is currently working to develop a new business practice manual that exclusively addresses participation of Aggregations and intends to finalize these processes and procedures. Once NYISO completes the development of its new Aggregation management software and related systems, and is able to finalize the list of attributes necessary to register an Aggregation and enroll individual DER, NYISO commits to providing that information to stakeholders. NYISO states that its tariffs do not generally specify resource registration and data requirements and that its proposal to include these requirements in the applicable market participant registration materials and the various business practice manuals and applicable user guides is consistent with requirements for other resources.

163. For the Aggregation as a whole, NYISO provides an overview of the types of information that it will require.³⁴⁰ NYISO states that it will require Aggregators to provide the load zone, subzone, and applicable Transmission Node at which the individual facilities will aggregate as well as the designated meter authority and the Aggregations collective capabilities including upper and lower operating limits. According to NYISO, each Aggregation will be identified by a specific identification number, name, and resource type (i.e., DER Aggregation or Aggregation of a single resource type).

³³⁷ Transmittal at 30.

³³⁸ *Id.* at 9-10, 29-33.

³³⁹ *Id.* at 30.

³⁴⁰ *Id.* at 31.

164. NYISO proposes that each Aggregator must identify each individual resource participating in its Aggregation to help NYISO validate the composite characteristics and capability of the resources, confirm that the facilities have the appropriate authorizations to provide wholesale market services, and permit NYISO to verify that the individual facilities are not participating in another Aggregation.³⁴¹

165. For the individual facilities participating in the Aggregation, NYISO similarly provides an overview of the information that it will require. NYISO states that it will collect information on, among other things, the interconnection of the facility, ERIS and CRIS values, generator sub-types (e.g., energy limited resources), and fuel types.³⁴² NYISO will also require facility-specific data related to a facility's operating capability including whether it engages in dual participation. NYISO states that it continues to evaluate and develop the list of characteristics it will require Aggregators to provide as it develops its Aggregation management software and intends to document this information in a forthcoming business practice manual.

166. With respect to settlement data, NYISO states that all bids, schedules, dispatch, and settlement will occur at the Aggregation level under its DER and Aggregation participation model.³⁴³ NYISO states that its metering and telemetry standards will provide NYISO with real-time operational data and after-the-fact settlement data to ensure Aggregations are responding to NYISO direction and are accurately settled.³⁴⁴ NYISO will require Aggregations to provide separate settlement data to permit NYISO to evaluate and settle energy injections, energy withdrawals, and demand reductions.³⁴⁵ NYISO will recombine the components of the aggregate response to settle the Aggregation as a whole. To provide NYISO the ability to audit meter data, NYISO states that customers, including Aggregators, are required to keep a complete and accurate record of service taken or provided under the Services Tariff, including meter readings.³⁴⁶ Customers must keep the settlement information for at least 24 months from the date provided to NYISO.³⁴⁷

³⁴¹ *Id.* at 31-32; Services Tariff, § 4.1.10.1.

³⁴² Transmittal at 32-33.

³⁴³ *Id.*

³⁴⁴ *Id.* at 33.

³⁴⁵ Services Tariff, § 4.1.10.4.

³⁴⁶ Services Tariff, § 10.

³⁴⁷ *Id.*

b. Protest

167. AEE, NRDC, and SFP explain that NYISO has not finalized the list of attributes necessary to register Aggregations and enroll individual DERs, and that NYISO plans to include this information in its manuals and users guides, rather than its tariff.³⁴⁸ They argue that this proposal ignores the requirement of Order No. 2222 that each RTO/ISO must “identify and explain in its compliance filing what additional specific information about the individual distributed energy resources within an aggregation that the RTO/ISO needs.”³⁴⁹ They ask the Commission to require NYISO to include the information and data requirements in its tariff and to conduct a robust stakeholder process to develop them. Absent a robust stakeholder process, they contend that NYISO must, at a minimum, define the information and data requirements in its further compliance filing and describe why these requirements are necessary for participation.

c. Answer

168. In response to protesters’ requests to more clearly define in its tariff the information and data requirements for individual DERs participating in an Aggregation, NYISO urges the Commission to accept NYISO’s proposed approach.³⁵⁰ NYISO states that its proposed approach is consistent with the approach for registering other resources and that the information and data requirements are typically contained in the applicable market participant registration materials and business practice manuals. NYISO explains that since 2020, it has been working to develop software and hardware necessary to implement its Aggregation participation model, which includes developing the processes and procedures for registering Aggregations and enrolling DERs. NYISO further explains that it intends to automate components of the DER registration process partially due to the anticipated high volume of DERs and that information and data requirements must be consistent with the software under development. NYISO reiterates that its filing explains the types of information that it expects to require of DER Aggregations and individual DER, but that the final information and data requirements remain under development in concert with development of the required software and systems.

d. Commission Determination

169. We find that NYISO’s proposal partially complies with the information and data requirements of Order No. 2222. We find that NYISO complies with the requirement that each distributed energy resource aggregator maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO

³⁴⁸ AEE, NRDC, and SFP Protest at 25-26.

³⁴⁹ *Id.* at 25 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 184).

³⁵⁰ NYISO Answer 53-55.

can regularly settle with the distributed energy resource aggregator for its market participation, and to provide, upon request from the RTO/ISO, performance data for individual resources in a distributed energy resource aggregation for auditing purposes.³⁵¹ NYISO proposes to require Aggregators to meet all of the standards applicable to generators for metering and telemetry, including maintaining and submitting aggregate settlement data.³⁵² We further find that NYISO's proposed requirements for settlement data are consistent with the settlement and auditing data requirements for other market participants because NYISO applies requirements to Aggregators that are similar to those applied to generators and other customers.³⁵³ For instance, NYISO proposes to require customers, including Aggregators, to keep a complete and accurate record of service taken or provided under NYISO's Services Tariff for at least 24 months from the date the settlement information was provided to NYISO.³⁵⁴ Finally, we find that, consistent with Order No. 2222, NYISO does not require Aggregators to retain information for individual DERs participating in an Aggregation that NYISO does not need for auditing purposes.³⁵⁵

170. We also find that NYISO complies with the requirement to require distributed energy resource aggregators to provide a list of the individual resources in their Aggregations because NYISO proposes to require Aggregators to identify each individual facility in an Aggregation.³⁵⁶ However, we find that NYISO does not comply with the requirement to require the distributed energy resource aggregator to update that list of individual resources and associated information as it changes.³⁵⁷ Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that revises its tariff to require the Aggregator to update the list of individual resources and associated information as it changes.

171. Additionally, we find that NYISO does not comply with the requirements to revise its tariff to include: (1) any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation; and (2) any necessary information that must be submitted for the individual distributed energy

³⁵¹ Order No. 2222, 172 FERC ¶ 61,247 at PP 236, 240.

³⁵² Services Tariff, § 13.2.

³⁵³ Order No. 2222, 172 FERC ¶ 61,247 at P 240.

³⁵⁴ Services Tariff, § 10.

³⁵⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 240.

³⁵⁶ *Id.* P 236; Services Tariff, § 4.1.10.1.

³⁵⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 238.

resources.³⁵⁸ Further, we find that NYISO has not clearly identified the necessary physical parameters that distributed energy resource aggregators must submit as part of their registration process to the extent these parameters are not already represented in general registration requirements or bidding parameters applicable to distributed energy resource aggregations.³⁵⁹ Specifically, while NYISO provides an overview of its intended information requirements, this overview reflects an unfinished proposal that is insufficient to meet the requirements of Order No. 2222. Furthermore, we find that NYISO's proposed approach to include all of these requirements in its various registration materials, business practice manuals, and user guides does not comply with the requirement of Order No. 2222 to include these requirements in the tariff.³⁶⁰ We therefore agree with AEE, NRDC, and SFP that NYISO must include these information and data requirements in the tariff, consistent with Order No. 2222. Finally, we find that NYISO's proposal does not satisfy the Commission's finding in Order No. 2222 that each RTO/ISO should propose how any information regarding individual distributed energy resources within an aggregation the RTO/ISO requests must be shared with the RTO/ISO and affected distribution utilities.³⁶¹

172. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing to: (1) revise its tariff to include any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation, including any necessary physical parameters to be submitted in registration; (2) revise its tariff to establish any necessary information that must be submitted for the individual distributed energy resources; (3) propose how any information regarding individual distributed energy resources within an aggregation the RTO/ISO requests must be shared with the RTO/ISO and affected distribution utilities; and (4) establish any necessary physical parameters that distributed energy resource aggregators must submit as part of their registration process to the extent these parameters are not already represented in general registration requirements or bidding parameters applicable to distributed energy resource aggregations.

8. Metering and Telemetry System Requirements

173. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(f) to the Commission's regulations to require each RTO/ISO to revise its tariff to establish market rules that address metering and telemetry hardware and software requirements necessary

³⁵⁸ *Id.* P 236.

³⁵⁹ *Id.* P 237.

³⁶⁰ *Id.* P 236.

³⁶¹ *Id.* P 238.

for distributed energy resource aggregations to participate in RTO/ISO markets.³⁶² The Commission explained that it understood the need to balance, on one hand, the RTO's/ISO's need for metering and telemetry data for settlement and operational purposes, and, on the other hand, not imposing unnecessary burdens on distributed energy resource aggregators.³⁶³ Therefore, the Commission stated that it would not prescribe the specific metering and telemetry requirements that each RTO/ISO must adopt; rather, the Commission provided the RTOs/ISOs with flexibility to establish the necessary metering and telemetry requirements for distributed energy resource aggregations, and required each RTO/ISO to explain in its compliance filing why such requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual distributed energy resources joining a distributed energy resource aggregation.

174. To implement this requirement, the Commission directed each RTO/ISO to explain, in its compliance filing, why its proposed metering and telemetry requirements are necessary.³⁶⁴ The Commission stated that this explanation should include a discussion about whether, for example, the proposed requirements are similar to requirements already in existence for other resources and steps contemplated to avoid imposing unnecessarily burdensome costs on the distributed energy resource aggregators and individual resources in distributed energy resource aggregations that may create an undue barrier to their participation in RTO/ISO markets.

175. In Order No. 2222, the Commission stated that the distributed energy resource aggregator is the single point of contact with the RTO/ISO, responsible for managing, dispatching, metering, and settling the individual distributed energy resources in its aggregation.³⁶⁵ The Commission further found that the distributed energy resource aggregator is the entity responsible for providing any required metering and telemetry information to the RTO/ISO.

³⁶² *Id.* P 262.

³⁶³ *Id.* P 263.

³⁶⁴ *Id.* P 264. For example, the Commission indicated that metering requirements could be necessary for the distributed energy resource aggregator to provide the settlement and performance data to the RTO/ISO, or to prevent double counting of services. *Id.* (referring to discussions on provision of such data and double counting); *see also* PP 159-64 (discussing requirements concerning double counting), P 240 (discussing requirements concerning settlement and performance data). The Commission indicated that telemetry requirements could be necessary for the RTO/ISO to have sufficient situational awareness to dispatch the aggregation and the rest of the system efficiently. *Id.* P 264.

³⁶⁵ *Id.* P 266; *see id.* P 239.

176. The Commission stated that it would not require uniform metering requirements across all RTOs/ISOs, nor would it require each RTO/ISO to impose uniform metering requirements on individual distributed energy resources.³⁶⁶ Rather, the Commission provided flexibility to RTOs/ISOs to propose specific metering requirements, including any that may apply to individual distributed energy resources that the RTO/ISO demonstrates are needed to obtain any required performance data for auditing purposes and to address double compensation concerns. Similarly, the Commission provided flexibility to the RTO/ISO as to whether to propose specific telemetry requirements for individual distributed energy resources in an aggregation. The Commission stated that the need for such requirements may depend, for example, on whether the RTO/ISO allows multi-node aggregations or how multi-node aggregations are implemented.

177. The Commission stated that it would not require RTOs/ISOs to establish metering and telemetry hardware and software requirements for distributed energy resource aggregations that are identical to those placed on existing resources, or to establish different or additional metering and telemetry requirements for distributed energy resource aggregations.³⁶⁷ Rather, the Commission expected that RTOs/ISOs will base any proposed metering and telemetry hardware and software requirements for distributed energy resource aggregations on the information needed by the RTO/ISO while avoiding unnecessary requirements that may act as a barrier to individual distributed energy resources joining distributed energy resource aggregations or to distributed energy resource aggregations participating in the wholesale markets. However, the Commission required that metering data for settlement purposes at the distributed energy resource aggregation level be consistent with settlement data requirements for other resource types.

178. The Commission stated that each RTO's/ISO's proposed metering requirements should rely on meter data obtained through compliance with distribution utility or local regulatory authority metering system requirements whenever possible for settlement and auditing purposes.³⁶⁸ The Commission further found that this requirement also applies to existing telemetry infrastructure. With respect to jurisdictional concerns raised by some commenters, the Commission noted that any additional RTO/ISO metering and telemetry requirements would not change those required by state or local regulatory authorities and would be required solely to assist with settlements and audits of activity in RTO/ISO markets, or to provide RTOs/ISOs with the real-time information needed to reliably and efficiently dispatch their systems.

³⁶⁶ *Id.* P 267.

³⁶⁷ *Id.* P 268.

³⁶⁸ *Id.* P 269.

179. In response to concerns about potential costs and burdens that could be imposed on distribution utilities as a result of the requirement that RTOs/ISOs rely on metering and telemetry data obtained through compliance with distribution utility or local regulatory authority metering system requirements whenever possible, the Commission stated that it expected that, in general, this information will be provided by individual distributed energy resources to distributed energy resource aggregators, and from distributed energy resource aggregators to RTOs/ISOs.³⁶⁹ However, to the extent that the RTO/ISO proposes that such information come from or flow through distribution utilities, the Commission required that RTOs/ISOs coordinate with distribution utilities and RERRAs to establish protocols for sharing metering and telemetry data, and that such protocols minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.

180. Finally, the Commission found that the RTO/ISO tariffs should include a basic description of the metering and telemetry practices for distributed energy resource aggregations as well as references to specific documents that will contain further technical details.³⁷⁰

a. Filing

181. According to NYISO, the metering and telemetry requirements for Aggregations will be similar to the metering and telemetry requirements for other resources.³⁷¹ NYISO states that its metering and telemetry rules are necessary to implement effective measurement and verification requirements to review resources' responses and performance in real-time and provide appropriate compensation. NYISO states that its metering and telemetry requirements proposed in its 2019 Aggregation Filing are the result of an extensive effort to modify its previous requirements as necessary to reduce costs and lower barriers to entry for advanced technologies.

182. NYISO states that it will collect revenue-quality meter data from the Aggregation, rather than from individual facilities, for settlement purposes.³⁷² NYISO states that Aggregations of a single resource type will be subject to the existing metering rules for that particular resource type. For instance, NYISO explains, an Aggregation composed of electric storage resources will be subject to the specific Services Tariff Section 13.2.4 metering requirements applicable to electric storage resources.³⁷³ NYISO notes that its

³⁶⁹ *Id.* P 270.

³⁷⁰ *Id.* P 271.

³⁷¹ Services Tariff, § 13; Transmittal at 10.

³⁷² Transmittal at 34; Services Tariff, § 4.1.10.4.

electric storage resource-specific rules require that energy injections and energy withdrawals of each electric storage resource in an Aggregation must be directly metered, and the hourly meter data must be reported as two separate components (energy injections and energy withdrawals).

183. NYISO states that Aggregators of DER Aggregations are required to provide three streams of after-the-fact, revenue-quality meter data: (1) energy injections, (2) energy withdrawals by withdrawal-eligible generators; and (3) demand reductions.³⁷⁴ NYISO states that it requires this information for measuring both performance and settlements. NYISO states that it requires the individual signals to pair with the different revenue-grade meter files that are submitted one day after dispatch.³⁷⁵

184. Under NYISO's DER and Aggregation model, NYISO states that the Aggregation will receive real-time base point signals from NYISO and the Aggregation will, in turn, provide real-time telemetry signals to NYISO in addition to the after-the-fact revenue-quality meter data for the Aggregation's energy injections, withdrawals, and demand reductions.³⁷⁶ NYISO states that these distinct streams of data will permit NYISO to account for the Aggregation's operations including, for example, to apply the Order No. 745 net benefit threshold to the Aggregation's demand reductions.³⁷⁷

185. NYISO states that, consistent with the rules for generators, Aggregations will be required to send telemetry signals 24 hours a day, seven days a week, nominally on a six-second basis.³⁷⁸ NYISO states that the Aggregator must measure the injection, withdrawal, and load reduction of all individual facilities in the Aggregation, without regard to the resources it directs to operate, in order to achieve the NYISO dispatch. NYISO explains that this requirement is crucial for NYISO to maintain the reliability of the New York Bulk Power System and provides two-way communications of operational data between the Aggregation and NYISO. NYISO states that it relies on telemetry data for the situational awareness necessary to balance supply and demand within the NYCA and to identify and respond to normal and abnormal conditions.

³⁷³ Transmittal at 35.

³⁷⁴ *Id.* at 34; Services Tariff, § 4.1.10.4.

³⁷⁵ Transmittal at 34.

³⁷⁶ *Id.* at 10, 33-35.

³⁷⁷ *Id.* at 10.

³⁷⁸ Services Tariff, § 13.2; Transmittal at 34.

186. NYISO explains that individual facilities within an Aggregation will not need to receive real-time base point signals, provide real-time telemetry, or submit revenue-quality meter data to NYISO; these requirements will instead apply to the Aggregation.³⁷⁹ NYISO proposes that Aggregators will be responsible for ensuring that all measurements for metering and telemetry for the individual facilities it represents derive from either directly measured or calculated values, or a combination thereof, in accordance with the requirements set forth in NYISO's procedures.³⁸⁰ NYISO asserts that communicating with the Aggregation, rather than individual facilities, will minimize real-time and after-the-fact administrative burdens on all parties involved.

b. Protests

187. AEE, NRDC, and SFP and AEMA argue that NYISO's metering and telemetry requirements are overly burdensome and are not adequately tailored to the services provided.³⁸¹ With respect to metering, AEE, NRDC, and SFP support some elements of NYISO's proposal and state that NYISO has appropriately allowed third-party metering, which gives flexibility for DERs to utilize a range of configurations to participate in an Aggregation. However, AEE, NRDC, and SFP and AEMA contend that NYISO's requirement, in section 3.2.1.2 of NYISO's Accounting and Billing Manual, that meter data be submitted the next operating day creates a barrier because Aggregators will not have access to utility meter data by that time.³⁸² AEE, NRDC, and SFP state that NYISO has failed to achieve the balance Order No. 2222 requires of meeting NYISO's need for meter data for settlement and operational purposes, on the one hand, and not imposing unnecessary burdens on Aggregators, on the other.

188. With respect to telemetry, AEE, NRDC, and SFP argue that NYISO has not explained, as Order No. 2222 requires, why its blanket requirement for six-second telemetry is needed for all services, i.e., six-second telemetry may be necessary for regulation service but not for capacity and energy market participation.³⁸³ They argue that NYISO's requirement will preclude residential-scale DERs from participating in

³⁷⁹ Transmittal at 10, 31-32.

³⁸⁰ Services Tariff, § 13.3.3. The real-time six-second status of an individual facility may be calculated through an alternative telemetry solution for facilities that are 100 kW or smaller. The use of an alternative telemetry solution must only augment directly metered values that are measured at a periodicity of 5-minutes or faster. NYISO Answer at 23 (referencing 2019 Aggregation Filing at 60).

³⁸¹ AEE, NRDC, and SFP Protest at 10-13; AEMA Protest at 8-12.

³⁸² AEE, NRDC, and SFP Protest at 13; AEMA Protest at 11.

³⁸³ AEE, NRDC, and SFP Protest at 11.

Aggregations. AEMA argues that there must be an evaluation of the benefits of telemetry from DERs versus the costs and barriers to participation that the telemetry requirements create.³⁸⁴ AEMA asserts that the requirements for Aggregators to provide multiple streams of telemetry and revenue quality meter data exceeds requirements for generators. AEMA argues that NYISO's metering and telemetry requirements will require each DER in an aggregation to have metering and telemetry, in addition to having metering and telemetry on the load at the point of interconnection, which will serve as a barrier to customers smaller than 1 MW. AEMA argues that in many cases, for resources greater than 100 kW and under one MW and residential-scale DERs, the cost of direct telemetry capable of providing values on a six-second basis would be prohibitive and will exclude them from participating in a DER Aggregation. AEE, NRDC, and SFP also dispute NYISO's contention that six-second telemetry is required for all resources for reliability reasons.³⁸⁵ They assert that this contention is difficult to reconcile with the fact that there are a large number of DERs already operating in New York through New York's robust net metering program and injecting into NYISO's system without any telemetry.

189. AEE, NRDC, and SFP argue that the limited flexibility that NYISO's proposal provides is insufficient. For example, they assert that the fact that telemetry is only required from the Aggregation as opposed to the individual DERs within the Aggregation does lessen the administrative burden but does not resolve the cost and logistical barriers posed by the requirement.³⁸⁶ Similarly, they contend that the option to use a combination of measured or calculated values based on five-minute data is still burdensome because that five-minute data is not generally available for residential customers.

190. NYAPP requests that the Commission confirm that NYISO's proposed tariff provisions on metering and telemetry were developed in negotiations between NYISO and the NYTOs, and that NYISO relies on its existing market rules for DER and DER Aggregator participation as the basis for compliance with Order No. 2222.³⁸⁷ NYAPP states that these proposed provisions are not suitable for small utilities, serve as a barrier to small utilities considering whether to opt in, and should not be applied to NYAPP members at this time. NYAPP requests that the Commission require NYISO to establish suitable metering and telemetry tariff provisions that account for the needs of small utilities.

³⁸⁴ AEMA Protest at 8-12.

³⁸⁵ AEE, NRDC, and SFP Protest at 12.

³⁸⁶ *Id.* at 11-12.

³⁸⁷ NYAPP Protest at 11-14.

c. Answers

191. NYISO contends that the Commission should accept NYISO's proposed metering and telemetry requirements without modification.³⁸⁸ NYISO states that Order No. 2222 does not specify the metering and telemetry requirements each RTO/ISO must use but rather directs the RTOs/ISOs to develop requirements that meet the needs of their respective regions, and to explain why those requirements are just and reasonable and do not pose unnecessary or undue barriers on DERs.

192. In response to protests about NYISO's requirement that Aggregations provide six-second telemetry, NYISO argues that this requirement is just and reasonable and does not create an undue burden.³⁸⁹ NYISO explains that the six-second scan rate applicable to all generators and Aggregations is needed to: (1) maintain situational awareness of the NYCA electric system; (2) operate NYISO's automatic generation control process to maintain load and generation balance; (3) meet mandatory bulk power system reliability criteria, including criteria unique to New York State; and (4) respond to emergency conditions. In addition, NYISO claims that it currently uses six-second telemetry signals to meet mandatory New York State Reliability Council criteria, Requirement D.1 for Mitigation of Major Emergencies, which requires that when a transmission facility experiences a thermal overload, NYISO must take immediate corrective action within five minutes. NYISO argues that it needs six-second information from resources to respond to thermal overload, and to schedule resources in a manner that mitigates the issue in compliance with the reliability standard.

193. NYISO notes that the Commission accepted its metering and telemetry rules proposed in its 2019 Aggregation Filing and that the substantive concerns raised here are the same as those raised in that proceeding.³⁹⁰ NYISO notes that the Commission found NYISO's six-second telemetry requirement "is necessary to meet reliability standards and respond to emergencies, and also is consistent with NYISO's requirements for other resources."³⁹¹ NYISO contends that the Commission should not permit protesters to re-litigate issues that the Commission has already considered and decided. Moreover, NYISO argues that its metering and telemetry rules are already being coded in its software and that new changes would delay implementation of its DER and Aggregation participation model.

³⁸⁸ NYISO Answer at 18-30.

³⁸⁹ *Id.* at 20-21.

³⁹⁰ *Id.* at 20-22.

³⁹¹ *Id.* at 22 (citing 2020 Aggregation Order, 170 FERC ¶ 61,033 at P 74).

194. In response to arguments that NYISO's proposed telemetry requirements would exclude residential customers, NYISO maintains that it has established flexible rules for small DERs with a response of under 100 kW that allow the option to utilize alternative measurement and verification tools, such as calculating six-second telemetry values derived from five-minute data in place of real-time measurement.³⁹² According to NYISO, this will avoid the need for small facilities to install more costly hardware and software that is required for conventional resources. NYISO further contends that protesters are incorrect that DERs using calculated (rather than six-second telemetered) values will be prohibited from providing ancillary services. NYISO explains that Aggregations containing one or more facilities that utilize calculated values will not meet the eligibility requirements to provide regulation service but will be allowed to provide operating reserves. In response to AEMA's argument that NYISO's requirement poses an undue barrier because, in certain circumstances, each asset in a DER Aggregation must have its own metering and telemetry in addition to having metering and telemetry on the load at the point of interconnection, NYISO reiterates that the Commission already approved this requirement and that these requirements are essential to obtain required performance data for real-time operations and for settlement purposes.³⁹³

195. NYISO disagrees with AEMA's argument that the cost of six-second telemetry creates an undue barrier.³⁹⁴ NYISO explains that its own cost estimates are well below AEMA's and argues that the cost of providing telemetry—at any scan rate—is a cost that must be borne by Aggregators and owners of individual DERs. NYISO also points out that, as a result of its evaluation of new telemetry technologies in 2019, it will allow the use of software defined wide area networks as an alternative to existing multi-protocol label switching, which will reduce installation and connection times and costs. In response to AEMA's assertion that NYISO's requirements to provide multiple streams of telemetry and revenue quality meter data exceeds the requirements for other generators, NYISO states that such requirements are necessarily more complex because Aggregations consist of multiple separate resource types.³⁹⁵ However, NYISO maintains that the metering and telemetry requirements that apply to Aggregations consisting of multiple resource types, taken as a whole, are not any greater than the combined requirements of the participating resource types.

196. In response to AEE, NRDC, and SFP's and AEMA's arguments that not all Aggregations should require the same telemetry depending on size and services provided,

³⁹² *Id.* at 23.

³⁹³ *Id.* at 24-25.

³⁹⁴ *Id.* at 25.

³⁹⁵ *Id.* at 27.

NYISO reiterates that its six-second telemetry requirement is necessary for reliability, situational awareness, and to respond to emergencies.³⁹⁶ In response to the argument that the requirement that settlement-quality meter data be submitted by noon on the day after an operating day creates barriers to participation, particularly for smaller entities, NYISO clarifies that the Aggregator is not required to submit meter data.³⁹⁷ Rather, NYISO states that the applicable metering authority is required to submit the data. NYISO explains that an Aggregator may act as the meter authority for its Aggregation if it chooses to be a Meter Services Entity, but it may decide to utilize the applicable Transmission Owner or third-party Meter Services Entity to play this role, in which case the Transmission Owner or third-party would be required to submit the data.

197. In response to NYAPP's concerns regarding the impact of telemetry and metering on small utilities, NYISO explains that its requirements are only applicable to Aggregations and Aggregators and not small utilities.³⁹⁸ However, NYISO states that it is willing to work with small utilities to address specific concerns.

198. Xcel recommends that the Commission reject the relief that AEE, NRDC, and SFP and AEE request with respect to telemetry, metering, and settlement, and specify that any holdings in this proceeding will not predetermine the measures appropriate in other regions.³⁹⁹ In response to arguments that NYISO has not reconciled its six-second telemetry requirement for DER Aggregations with the fact that net metered customers in NYISO are not subject to telemetry, Xcel argues that telemetry for DER Aggregations and telemetry for existing net metered customers are fundamentally different.⁴⁰⁰ Xcel states that Load Serving Entities have learned how to adjust their forecasting models and incorporate net-metered output into their load forecasts. In contrast, Xcel asserts that managing DER Aggregations will require different tools, because the nature of services DER Aggregations provide differ from net-metered resources' simple injections that occur with more predictable patterns. Xcel states that market efficiency will suffer if operators do not have a clear picture of how all dispatched resources are responding to dispatch instructions.

199. With respect to metering and settlement, Xcel suggests that all resources at a site should aggregate through a single point of interconnection meter to avoid substantial upgrades to Load Serving Entities' settlement and customer billing systems.⁴⁰¹ Xcel

³⁹⁶ *Id.* at 27-28.

³⁹⁷ *Id.* at 29.

³⁹⁸ *Id.*

³⁹⁹ Xcel Answer at 1-2.

⁴⁰⁰ *Id.* at 3-4.

states that rules must be put into place to allow Load Serving Entities ample time to update their billing and settlement systems before DERs can switch between DER Aggregations.

d. Data Request Response

200. In its Data Request, Commission staff asked NYISO whether it will allow Aggregators to rely on meter data from the relevant Distribution Utility or RERRA.⁴⁰² In response, NYISO states that its tariff, as accepted in the 2020 Aggregation Order and in a subsequent filing, designates that an Aggregator may obtain metering from either: (1) the Member System for the transmission district in which the entity is located; (2) a Meter Services Entity, which is a third party entity authorized by NYISO to provide metering services; or (3) a municipal electric utility.⁴⁰³ NYISO further states that, pursuant to NYISO's rules, the transmission provider or applicable municipal electric utility will be the default provider of metering and meter data services. NYISO states that the only type of RERRA authorized to provide metering and meter data services is a municipal electric utility.

201. In its Data Request, Commission staff also asked NYISO to clarify whether there are circumstances under which metering and telemetry data will come from, or flow through, Distribution Utilities, and if so, whether NYISO has coordinated with Distribution Utilities and RERRAs to establish protocols for sharing metering and telemetry data.⁴⁰⁴ NYISO states that the default providers of metering and meter data services are Member Systems or the applicable municipal electric utility, unless an Aggregator elects to use a Meter Services Entity.⁴⁰⁵ NYISO states the real-time telemetry data communication requirements accepted in the 2020 Aggregation Order allow Aggregation telemetry data to be communicated only with the applicable Member System, or communicated with both the Member System and NYISO in parallel.⁴⁰⁶ NYISO states that it requires that telemetry data be provided to the applicable Member System in the event of a NYISO contingency.

⁴⁰¹ We note that it is unclear whether Xcel is referring to a commenter's statement or generally explaining its preferred method of metering DERs at a single site. *Id.* at 5.

⁴⁰² Data Request at 11.

⁴⁰³ Data Request Response at 38.

⁴⁰⁴ Data Request at 11.

⁴⁰⁵ Data Request Response at 38.

⁴⁰⁶ *Id.* at 39.

202. In its Data Request, Commission staff asked NYISO to explain the circumstances under which NYISO will accept directly measured (as opposed to calculated) metering and telemetry data.⁴⁰⁷ In response, NYISO states that NYISO's metering rules require Aggregators to collect directly metered data from each facility within an Aggregation for settlement purposes, regardless of resource size, type, or the services provided, after which the Aggregator will combine the revenue-quality meter data to transmit to NYISO.⁴⁰⁸ NYISO states that each facility will also be required, with limited exceptions, to provide directly measured real-time telemetry data on a six-second basis to the Aggregator. To reduce the potential barrier to entry for small facilities due to the costs of traditional telemetry solutions, NYISO explains that it allows Aggregators to seek authorization to use an alternative telemetry scheme for individual facilities with a capability of 100 kW or less. NYISO explains that it identified the 100 kW or less threshold as a way for smaller resources to initially be included in the market without creating unmanageable reliability risk. NYISO states that these small facilities must still be capable of providing directly measured telemetry with a periodicity of five minutes or less.

e. Data Request Response Protests

203. AEMA reiterates that NYISO's proposed requirements are unnecessary and create barriers to the entry of small resources, and it requests that the Commission reject NYISO's compliance filing and direct NYISO to engage with stakeholders to ensure that NYISO's proposed requirements meet the intent of Order No. 2222 to not create new barriers.⁴⁰⁹ AEE asserts that NYISO's description of its metering and telemetry requirements that apply to individual DERs within an Aggregation are overly burdensome. AEE contends that the alternative telemetry scheme approach for smaller resources was created prior to the issuance of Order No. 2222, and that the alternative telemetry approach creates an economic barrier to DER participation.⁴¹⁰

204. AEE states that NYISO's proposed Meter Service Entity construct still requires the meter authority to submit the meter data by noon the following operating day.⁴¹¹ However, AEE asserts that DER Aggregators will be unable to receive that information from the utilities in time and will be required to install metering to obtain that data on their own, which presents a significant barrier to entry. AEE contends that it is unclear what the penalty will be when the metering authority does not submit the data that they

⁴⁰⁷ Data Request at 12.

⁴⁰⁸ Data Request Response at 40.

⁴⁰⁹ AEMA Protest on Data Request Response at 2-6.

⁴¹⁰ AEE Protest on Data Request Response at 8 - 9.

⁴¹¹ *Id.* at 14.

are responsible for providing. Finally, AEE requests that the Commission request clarification from NYISO on whether NYISO coordinated with Distribution Utilities and RERRAs to establish protocols for sharing metering and telemetry data.⁴¹²

f. Commission Determination

205. We find that NYISO's proposal partially complies with the metering and telemetry system requirements of Order No. 2222. In particular, we find that NYISO's proposal partially complies with the requirement to establish market rules that address metering and telemetry hardware and software requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets because its tariff lacks the deadline for meter data submission for settlements and does not include references to the specific documents that contain further technical details.⁴¹³ In addition, we also find that NYISO partially complies with the requirement to explain why its proposed metering and telemetry requirements for distributed energy resource aggregations are just and reasonable and do not pose an unnecessary and undue barrier to individual distributed energy resources joining a distributed energy resource aggregation. We find that NYISO has explained the majority of its proposed metering and telemetry requirements, but we find that NYISO's filing lacks clarity regarding its protocols for sharing metering and telemetry data and the meter data submission deadline.⁴¹⁴

206. As an initial matter, we find that NYISO's proposed metering and telemetry requirements are consistent with the Commission's finding in Order No. 2222 that the distributed energy resource aggregator is the entity responsible for providing any required metering and telemetry information to the RTO/ISO.⁴¹⁵ While an Aggregator may choose to have a NYISO-authorized Meter Services Entity or applicable Member System provide Aggregation metering services on its behalf, each Aggregation is responsible for meeting the applicable metering standards under NYISO's Services Tariff.⁴¹⁶ Likewise, under NYISO's proposal, Aggregations are required to provide telemetry data to NYISO.⁴¹⁷

207. With respect to metering, we find that NYISO's proposal partially complies with the requirement to revise its tariff to establish market rules that address metering

⁴¹² *Id.* at 15.

⁴¹³ Order No. 2222, 172 FERC ¶ 61,247 at P 271.

⁴¹⁴ *Id.* PP 263, 270.

⁴¹⁵ *Id.* P 266.

⁴¹⁶ Services Tariff, § 4.1.10.4; NYISO Answer at 29.

⁴¹⁷ Services Tariff, § 13.2; Transmittal at 32-33.

requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets.⁴¹⁸ In Order No. 2222, the Commission explained that “the RTO/ISO tariffs should include a basic description of the metering and telemetry practices for distributed energy resource aggregations as well as references to specific documents that will contain further technical details.”⁴¹⁹ As discussed below, we find that NYISO’s basic description of its metering practices for Aggregations in its tariff is incomplete because while the tariff specifies that each Aggregation must submit revenue-quality meter data and meet the metering standards in NYISO’s tariff and procedures,⁴²⁰ it lacks the deadline for meter data submission for settlements. We also find that the tariff does not include references to the specific documents that contain further technical details, as Order No. 2222 requires.

208. Protesters express concern about NYISO’s meter data submission deadline, which is in section 3.2.1.2 of its Accounting and Billing Manual, and contend that the penalty for late meter data submission is unclear.⁴²¹ Section 3.2.1.2 of NYISO’s Accounting and Billing Manual states that the Member System⁴²² is responsible for submitting all available hourly meter to NYISO by noon of the first business day following a service day.⁴²³ In its answer, NYISO explains that the requirement to submit meter data by noon applies to the applicable metering authority, rather than the Aggregator. NYISO explains that the meter authority could be the applicable Member System, a third-party Meter Services Entity, or the Aggregator if it chooses to become a Meter Services Entity and assume the role of meter authority for the Aggregation.⁴²⁴ We find that there is a lack of

⁴¹⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 262.

⁴¹⁹ *Id.* P 271.

⁴²⁰ Services Tariff, § 4.1.10.4.

⁴²¹ AEE, NRDC, and SFP Protest at 13; AEMA Protest at 11; New York Independent System Operator, Inc., Manual 14, Accounting and Billing Manual, Section 3.2.1.2 (Oct. 2021), <https://www.nyiso.com/documents/20142/2923231/acctbillmnl.pdf/b5c1ecb6-82cb-d1e0-9c84-4b2128f1f6bc>.

⁴²² Member Systems is defined as “[t]he eight Transmission Owners that comprise the membership of the New York Power Pool.” Services Tariff, Definitions.

⁴²³ New York Independent System Operator, Inc., Manual 14, Accounting and Billing Manual, Section 3.2.1.2 (“By noon the first business day following a service day, the [Transmission Owners] are required to submit all available sub-zonal transmission tie-line interconnection, Generator, and sub-zone Load hourly meter data to the NYISO.”).

clarity in the record regarding which entity submits the meter data for settlement. However, we disagree with AEE that NYISO's Tariff is unclear as to what the penalty will be for late meter data submission, because section 13.3.1.2 of the Services Tariff provides the applicable penalties for noncompliant metering or meter data services for Aggregators.⁴²⁵ We find that specification of the meter data submission deadline and which entity must meet the meter data submission deadline is a key component of metering practices for Aggregators and therefore should be included in the basic description of metering and telemetry practices in the tariff, as Order No. 2222 requires.⁴²⁶ For example, failure to meet the meter data submission deadline may result in financial consequences for Aggregators, and as such, may significantly impact Aggregators' participation in NYISO's markets. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing to revise NYISO's tariff to include the meter data submission deadline for settlement and specify which entity must submit meter data.⁴²⁷ In addition, we acknowledge that Aggregators may be in the position of compiling meter data for numerous individual DERs within an Aggregation, and that meeting the meter data submission deadline may consequently pose additional challenges for Aggregators compared to standalone resources. Thus, we encourage NYISO to discuss its proposed meter data submission deadline for Aggregators with stakeholders before filing. Finally, as part of its compliance filing, we direct NYISO to include in its tariff references to specific documents that contain further technical details with respect to metering, as Order No. 2222 requires.

⁴²⁴ Services Tariff, § 4.1.10.4; NYISO Answer at 29.

⁴²⁵ Services Tariff, § 13.3.1.2 ("The Aggregator, Responsible Interface Party, or Curtailment Service Provider shall be responsible for any applicable penalties issued as a result of metering or meter data services that do not comply with the ISO Tariffs and ISO

Procedures, including, but not limited to, penalties issued pursuant to Services Tariff Sections 5.12 and 5.14.").

⁴²⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 271 ("[W]e find that the RTO/ISO tariffs should include a basic description of the metering and telemetry practices for distributed energy resource aggregations as well as references to specific documents that will contain further technical details.").

⁴²⁷ We note that, in eTariff, there are several accepted eTariff records for section 13 of NYISO's Services Tariff for which NYISO has not yet proposed effective dates. When NYISO submits revisions to Services Tariff section 13 in its further compliance filing, it should incorporate any tariff provisions previously accepted in the 2020 DER Aggregation Order that the Commission is not directing further changes to in this order.

209. In addition, we find that NYISO's proposal partially complies with the requirement to explain why its proposed metering requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual DERs joining a distributed energy resource aggregation because NYISO does not propose protocols for sharing metering data, as discussed further below.⁴²⁸ We find that NYISO has supported its need for after-the-fact meter data in order to accurately implement its settlement process for market participants, including Aggregations.⁴²⁹ We find reasonable NYISO's explanation that it requires multiple streams of revenue quality meter data where Aggregations consist of multiple resource types to produce accurate settlements and properly settle demand reductions consistent with Order No. 745.⁴³⁰ We further find that NYISO's option to provide flexibility to Aggregators to utilize alternative measurement and verification tools, such as calculating values through a NYISO-approved methodology in place of real-time measurement, is reasonable in order to avoid the need for small facilities to install additional hardware and software.⁴³¹

210. We also find that NYISO's proposal complies with the requirement in Order No. 2222 that metering requirements should rely on meter data obtained through compliance with Distribution Utility or local regulatory authority metering system requirements whenever possible for settlement and auditing purposes, given that NYISO will permit Aggregators to use data obtained from revenue-quality retail billing meters (e.g., hourly interval meters).⁴³² In addition, we find that NYISO's proposed settlement data requirements are similar to those for other resource types,⁴³³ and NYISO therefore complies with the requirement of Order No. 2222 that meter data for settlement purposes at the distributed energy resource aggregation level be consistent with settlement data requirements for other resource types.⁴³⁴

211. As discussed in more detail below, with respect to telemetry, we find that NYISO complies with certain requirements related to the establishment of telemetry requirements, including supporting the need for Aggregators to provide six-second telemetry requirement while providing flexibility for smaller resources and proposing use

⁴²⁸ See *infra* P 216.

⁴²⁹ Transmittal at 34.

⁴³⁰ NYISO Answer at 27.

⁴³¹ *Id.* at 23; Data Request Response at 40.

⁴³² Order No. 2222, 172 FERC ¶ 61,247 at P 269; Data Request Response at 40.

⁴³³ NYISO Transmittal at 34; Services Tariff, § 13.2.

⁴³⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 268; Services Tariff, § 4.1.10.4.

of existing telemetry infrastructure where possible. However, we find that NYISO's tariff lacks references to specific documents that contain further technical details on telemetry requirements and its proposal lacks specificity regarding protocols for sharing metering and telemetry data.

212. We find that NYISO's proposal partially complies with the requirement to revise its tariff to establish market rules that address telemetry requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets. We find that NYISO's proposal includes a basic description of its telemetry requirements. As NYISO explains, its proposal requires Aggregations to send telemetry signals 24 hours a day, seven days a week, nominally on a six-second basis, consistent with the rules for generators to allow NYISO to maintain the reliability of the New York Bulk Power System. However, we find that NYISO does not comply with the requirement to include references to the specific documents that contain further technical details.⁴³⁵

Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing to include references to specific documents that contain further technical details with respect to telemetry, as Order No. 2222 requires.

213. In addition, with one exception, we find that NYISO's proposal complies with the requirement to explain why its proposed telemetry requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual DERs joining a distributed energy resource aggregation due to the lack of clarity regarding its protocols for sharing telemetry data, as discussed further below.⁴³⁶ We find that NYISO has supported the need for Aggregations to provide six-second telemetry, consistent with its requirements for other suppliers, in order to meet the New York-specific local reliability rule that requires NYISO to respond to thermal overloads in under five minutes.⁴³⁷ We are not persuaded by protesters who argue that NYISO could continue to meet this reliability standard without NYISO's existing six-second telemetry requirement. We note that the Commission has previously found that NYISO's six-second telemetry requirement is necessary to meet NYISO's specific reliability requirement,⁴³⁸ and that protesters present no new arguments here to show why six-second telemetry is no longer needed to meet local reliability criteria in New York.

⁴³⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 271.

⁴³⁶ *Id.* P 263.

⁴³⁷ NYISO Answer at 20-21 (referencing New York State Reliability Council Requirement D.1 for Mitigation of Major Emergencies).

⁴³⁸ 2020 Aggregation Order, 170 FERC ¶ 61,033 at P 74 (“We find this [six-second telemetry] requirement is necessary to meet reliability standards and respond to emergencies, and also is consistent with NYISO's requirements for other resources.”).

214. Similarly, we are not persuaded by protesters' arguments that the telemetry requirement presents undue costs to individual DERs and Aggregators. Protesters do not show that a lesser telemetry requirement, such as a 60-second interval, would remove the cost and logistical barrier of small resources' equipment needs. Further, we agree with NYISO that the cost of providing telemetry is a cost that must be borne by Aggregators who wish to participate in NYISO's markets. We find that NYISO's proposed telemetry requirements do not cause undue barriers for smaller resources including residential DERs because they provide flexibility by accepting telemetry and metering based on calculated values.⁴³⁹ Contrary to protesters' claims, we find that this accommodation strikes a reasonable balance between removing barriers to participation and meeting reliability and metering and settlement needs.

215. We also find that NYISO complies with the requirement that an RTO's/ISO's proposed telemetry requirements should rely on existing telemetry infrastructure whenever possible.⁴⁴⁰ As noted above, NYISO has established flexible rules for small DERs with a response of under 100 kW that allow the option to utilize alternative measurement and verification tools.⁴⁴¹ As NYISO explains, this should avoid the need for small facilities to install more costly hardware and software that is required for conventional resources.⁴⁴² To the extent protesters argue that even NYISO's alternative telemetry scheme for smaller resources could require additional cost-prohibitive equipment, we reiterate our finding that NYISO's proposed telemetry requirements do not cause undue barriers for smaller resources because they provide flexibility for such resources while still allowing NYISO to meet its reliability and metering and settlement needs.

216. However, we find that NYISO does not comply with the requirement that, to the extent that an RTO/ISO proposes that metering and telemetry data comes from or flows through distribution utilities, an RTO/ISO must coordinate with distribution utilities and RERRAs to establish protocols for sharing metering and telemetry data, and that such protocols minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.⁴⁴³ Under NYISO's proposal, Aggregators may choose that the applicable Member System provide its meter data to NYISO, and it appears that NYISO's proposed definition of Distribution Utility may encompass Member Systems.⁴⁴⁴

⁴³⁹ Services Tariff, § 13.3.3.

⁴⁴⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 269.

⁴⁴¹ NYISO Answer at 23.

⁴⁴² *Id.* (citing 2019 Aggregation Filing at 60).

⁴⁴³ Order No. 2222, 172 FERC ¶ 61,247 at P 270.

We agree with AEE that NYISO's proposal does not clearly specify the protocols for sharing metering and telemetry data, and does not explain how such protocols minimize costs and other burdens and address privacy and cybersecurity concerns, as Order No. 2222 requires.⁴⁴⁵ While NYISO notes in its Data Request Response that telemetry data must be provided to the applicable Member System in the event of a NYISO contingency, NYISO must specify its metering and data sharing protocols to satisfy this requirement.⁴⁴⁶ Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that establishes protocols for sharing metering and telemetry data, and that such protocols minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity, as Order No. 2222 requires.

217. Finally, in response to the requests AEMA and NYAPP make regarding further process and procedure, we note that those issues are beyond the scope of this compliance proceeding, and we acknowledge NYISO's willingness to work with small utilities to address resource-specific concerns. Lastly, with respect to Xcel's request that the Commission specify that any findings in this proceeding will not predetermine the measures that are appropriate in other regions, we emphasize that the Commission's findings here pertain to NYISO's proposal and that we do not prejudge any other RTO's/ISO's filing here.

9. Coordination between the RTO/ISO, Aggregator, and Distribution Utility

a. Market Rules on Coordination

218. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(g) to the Commission's regulations to require each RTO/ISO to revise its tariff to establish market rules that address coordination between the RTO/ISO, the distributed energy resource aggregator, the distribution utility, and the RERRAs.⁴⁴⁷ The Commission stated that

⁴⁴⁴ Member Systems are defined as "[t]he eight Transmission Owners that comprise the membership of the New York Power Pool." Services Tariff, Definitions. NYISO proposes to define a Distribution Utility as "[a]n entity, such as a Transmission Owner or Public Power Entity that owns and operates facilities used for the retail distribution of electricity and provides retail service(s) under tariffs approved by the applicable Relevant Electric Retail Regulatory Authority." Services Tariff, § 4.1.10.5.

⁴⁴⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 270.

⁴⁴⁶ Data Request Response at 39.

⁴⁴⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 278.

coordination requirements should not create undue barriers to entry for distributed energy resource aggregations but must also consider the substantial role of distribution utilities and state and local regulators in ensuring the safety and reliability of the distribution system.⁴⁴⁸

i. Filing

219. NYISO proposes modifications to its Services Tariff to comply with the Order No. 2222 directives related to coordination among NYISO, aggregator, Distribution Utilities, and RERRA.⁴⁴⁹ NYISO states that it has worked with the NYTOs to identify and develop appropriate operating procedures and protocols to facilitate DER and Aggregation participation, including dual participation. NYISO states that its filing addresses each of the three categories of coordination protocols (the role of the distribution utilities, ongoing operational coordination, and the role of the RERRAs).

ii. Commission Determination

220. We find that NYISO's proposal partially complies with the coordination requirements of Order No. 2222. While NYISO proposes market rules on coordination in compliance with Order No. 2222, we find that NYISO does not comply with certain coordination requirements, as discussed further below.

b. Role of Distribution Utilities

221. To implement section 35.28(g)(12)(ii)(g) of the Commission's regulations, the Commission in Order No. 2222 required each RTO/ISO to modify its tariff to incorporate a comprehensive and non-discriminatory process for timely review by a distribution utility of the individual distributed energy resources that comprise a distributed energy resource aggregation, which is triggered by initial registration of the distributed energy resource aggregation or incremental changes to a distributed energy resource aggregation already participating in the markets.⁴⁵⁰ The Commission required each RTO/ISO to demonstrate on compliance that its proposed distribution utility review process is transparent, provides specific review criteria that the distribution utilities should use, and provides adequate and reasonable time for distribution utility review.⁴⁵¹

⁴⁴⁸ *Id.* P 279.

⁴⁴⁹ Transmittal at 11, 43-46.

⁴⁵⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁴⁵¹ *Id.* P 293.

222. More specifically, the Commission stated that each RTO/ISO must coordinate with distribution utilities to develop a distribution utility review process that includes criteria by which the 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.⁴⁵² In Order No. 2222-A, the Commission clarified that, although it is providing each RTO/ISO with the flexibility to develop review procedures and criteria appropriate for its region, the Commission expects that the criteria proposed on compliance will require that an RTO/ISO decision to deny wholesale market access to a distributed energy resource for reliability reasons be supported by a showing that the distributed energy resource presents significant risks to the reliable and safe operation of the distribution system.⁴⁵³ In addition, the Commission clarified that only the distribution utility hosting a distributed energy resource (i.e., the utility that owns and/or operates the distribution system to which the resource is interconnected) should be given an opportunity to review the addition of that resource to a distributed energy resource aggregation.⁴⁵⁴

223. To support this distribution utility review process, the Commission stated that RTOs/ISOs must share with distribution utilities any necessary information and data about the individual distributed energy resources participating in a distributed energy resource aggregation.⁴⁵⁵ In Order No. 2222-A, the Commission clarified that the specific information regarding a distributed energy resource that is provided by a distribution utility to an RTO/ISO as part of the distribution utility review process should be shared with the distributed energy resource aggregator.⁴⁵⁶ The Commission explained that such information could include whether a resource: (1) affects the safety and reliability of the distribution system; or (2) is capable of participating in an aggregation.⁴⁵⁷ To the extent that a distribution utility declines to provide distributed energy resources with the

⁴⁵² *Id.* P 292.

⁴⁵³ Order No. 2222-A, 174 FERC ¶ 61,197 at P 76 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 292) (referencing the criteria by which the distribution utilities will determine whether a proposed distributed energy resource will pose “significant risks to the reliable and safe operation of the distribution system”).

⁴⁵⁴ *Id.* P 70.

⁴⁵⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 292; *see id.* PP 236-40.

⁴⁵⁶ Order No. 2222-A, 174 FERC ¶ 61,197 at P 75 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 292).

⁴⁵⁷ *Id.* P 75.

information that they need to participate in RTO/ISO markets via an aggregation, the Commission stated that it expects that RTOs/ISOs will provide an avenue to facilitate those resources' participation, including, where appropriate, the use of the RTO/ISO dispute resolution procedures.⁴⁵⁸

224. In addition, in Order No. 2222, the Commission stated that the results of a distribution utility's review must be incorporated into the distributed energy resource aggregation registration process.⁴⁵⁹

225. The Commission also required each RTO/ISO to revise its tariff to specify the time that a distribution utility has to identify any concerns regarding a distributed energy resource seeking to participate in the RTO/ISO markets through an aggregation.⁴⁶⁰ The Commission stated that each RTO/ISO should propose a timeline that reflects its regional needs.⁴⁶¹ In Order No. 2222-A, the Commission limited the length of distribution utility review to no more than 60 days.⁴⁶² The Commission stated that, if an RTO/ISO believes unusual circumstances could give rise to the need for additional distribution utility review time, the RTO/ISO may propose provisions for certain exceptional circumstances that may justify additional review time.⁴⁶³ The Commission encouraged shorter review periods for smaller aggregations and resources to the maximum extent practicable, and reiterated that any proposed review period must be shown to be reasonable based on what is being reviewed.⁴⁶⁴

226. In Order No. 2222, the Commission stated that the RTOs/ISOs must include potential impacts on distribution system reliability as a criterion in the distribution utility review process.⁴⁶⁵ The Commission clarified in Order No. 2222-A that, when the

⁴⁵⁸ *Id.*

⁴⁵⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁴⁶⁰ *Id.* P 295.

⁴⁶¹ *Id.* The Commission stated that any distribution utility review must be completed within a limited but reasonable amount of time and that it expects a reasonable amount of time may vary among RTOs/ISOs but should not exceed 60 days.

⁴⁶² Order No. 2222-A, 174 FERC ¶ 61,197 at P 72 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 295).

⁴⁶³ *Id.* P 72.

⁴⁶⁴ *Id.*

⁴⁶⁵ Order No. 2222, 172 FERC ¶ 61,247 at P 297.

Commission found that RTOs/ISOs must include potential impacts on distribution system reliability as a criterion in the distribution utility review process, the Commission was referring specifically to any incremental impacts from a resource's participation in a distributed energy resource aggregation that were not previously considered by the distribution utility during the interconnection study process for that resource.⁴⁶⁶

227. In addition, the Commission found that the distribution utility should have the opportunity to request that the RTO/ISO place operational limitations on an aggregation or the removal of a distributed energy resource from an aggregation based on specific significant reliability or safety concerns that the distribution utility clearly demonstrates to the RTO/ISO and distributed energy resource aggregator on a case-by-case basis.⁴⁶⁷ The Commission clarified in Order No. 2222-A that, to the extent a distribution utility recommends the removal of a distributed energy resource from an aggregation due to a reliability concern, an RTO/ISO should not remove the resource without a demonstration by the distribution utility that the resource's market participation presents a threat to distribution system reliability.⁴⁶⁸

228. In Order No. 2222, the Commission declined to provide a larger and decision-making role for the distribution utilities and stated that requiring or permitting distribution utilities to authorize the participation of distributed energy resources in RTO/ISO markets directly or as part of an aggregation could create a barrier to distributed energy resource aggregation.⁴⁶⁹

229. Finally, the Commission required each RTO/ISO to revise its tariff to incorporate dispute resolution provisions as part of its proposed distribution utility review process.⁴⁷⁰ The Commission stated that each RTO/ISO should describe how existing dispute

⁴⁶⁶ Order No. 2222-A, 174 FERC ¶ 61,197 at P 79 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 297).

⁴⁶⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 297. In Order No. 2222, the Commission described examples that such a showing could take, such as "a signed affidavit or other evidence from the distribution utility that a [DER]'s participation in RTO/ISO markets would pose a significant risk to the safe and reliable operation of the distribution system," while also recognizing the need to allow for regional flexibility in developing review procedures appropriate to each particular RTO/ISO. *Id.* PP 292, 293, 297.

⁴⁶⁸ Order No. 2222-A, 174 FERC ¶ 61,197 at P 76 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 297)

⁴⁶⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 298.

⁴⁷⁰ *Id.* P 299.

resolution procedures are sufficient or, alternatively, propose amendments to its procedures or new dispute resolution procedures specific to this subject.⁴⁷¹ In Order No. 2222-A, the Commission stated that disputes regarding the distribution utility review process—including those between non-host distribution utilities and a host distribution utility or the RTO/ISO—may be resolved through the RTO’s/ISO’s dispute resolution process, the Commission’s Dispute Resolution Service, or complaints filed pursuant to FPA section 206 at any time.⁴⁷²

i. Filing

230. NYISO proposes Services Tariff section 4.1.10.7.1 to address the role of distribution utilities.⁴⁷³ NYISO states that its proposed tariff modifications: (1) authorize the applicable Distribution Utility to evaluate the reliability and safety impact(s) of each DER connected to its electric facilities that seeks to participate in the wholesale markets; (2) establish that NYISO will provide the applicable Distribution Utility with the physical and operating characteristics that NYISO collects for the DER; and (3) authorize NYISO to limit the capacity and/or provision of wholesale market services that the DER is authorized to supply to address the Distribution Utility’s reliability and/or safety concerns. NYISO’s proposed Services Tariff section 4.1.10.7.1 provides that NYISO “shall provide to the Distribution Utility the physical and operational data collected for the [DER] upon the Resource’s enrollment in the [NY]ISO-Administered markets in order to facilitate the review of new facilities.”

231. NYISO proposes to allow Distribution Utilities the full 60-day review period permitted by the Commission in Order No. 2222.⁴⁷⁴ NYISO’s proposed Services Tariff section 4.1.10.7.1 provides that “the sixty-day review period shall begin on the date [NY]ISO transmits [DER’s] operating and physical information to the Distribution Utility.” NYISO states that the Distribution Utility is not required to use the full 60-day review period to complete its review, and NYISO will work with utilities on a case-by-case basis to facilitate expedient review of DER. NYISO further explains that, if it does not receive a notification within the 60-day evaluation period that a DER poses a significant threat to the reliability and/or safety of the distribution system, then NYISO will assume the operation of the DER will not have a significant adverse reliability and/or safety impact on the applicable distribution system.

⁴⁷¹ *Id.*

⁴⁷² Order No. 2222-A, 174 FERC ¶ 61,197 at P 70 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 299).

⁴⁷³ Transmittal at 43.

⁴⁷⁴ *Id.* at 44 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 295).

232. NYISO explains that Services Tariff section 11 contains its Dispute Resolution Procedures.⁴⁷⁵ NYISO states that these procedures, both formal and informal, are available to parties having a dispute under NYISO's tariff. According to NYISO, entities that seek to enroll a DER or register an Aggregation for participation in NYISO's participation model will be able to use these procedures to resolve related concerns arising under the market rules under NYISO's Services Tariff and OATT.

ii. Protests

233. Parties raise varying concerns about NYISO's proposal as to when the Distribution Utility's 60-day review period begins. NYTOs state that the 60-day review period should begin when the Distribution Utility has confirmed receipt and it has all information, rather than NYISO's proposal that the review period begin "on the date the [NY]ISO transmits Distributed Energy Resource's operating and physical information to the Distribution Utility."⁴⁷⁶ NYTOs also argue that NYISO should have an obligation to collect all necessary data and transmit it to the Distribution Utility. NYTOs contend that, if they do not have the full review period to evaluate the required information, then the Distribution Utility may not reasonably be able to make its determination.⁴⁷⁷ AEE, NRDC, and SFP contend that Order No. 2222 requires that the review process be triggered by initial registration.⁴⁷⁸ They argue that NYISO's proposal creates the opportunity for additional, unspecified delay, which contradicts the Commission's finding that timely registration is needed to eliminate barriers.⁴⁷⁹ Finally, NYAPP requests that the Commission confirm the importance of the 60-day Distribution Utility review period and require proof of notice to the Distribution Utility to start the 60-day review period.⁴⁸⁰ NYAPP states that the full 60-day review period is especially important for small utilities that may have limited resources and that it is a reliability hazard for the review period to begin without the Distribution Utility's awareness. NYAPP also states that NYISO's new customer application should explain and require the DER Aggregator to agree to the Distribution Utility's ability to perform a review of the DERs within the 60-day review period.

⁴⁷⁵ *Id.* at 44.

⁴⁷⁶ NYTOs Protest at 13 (quoting Services Tariff, § 4.1.10.7.1).

⁴⁷⁷ *Id.* at 14.

⁴⁷⁸ AEE, NRDC, and SFP Protest at 17 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 292).

⁴⁷⁹ *Id.* at 17-18.

⁴⁸⁰ NYAPP Protest at 10.

234. AEE, NRDC, and SFP argue that NYISO's proposed Distribution Utility review process creates opportunity for anticompetitive discrimination and a new barrier to participation.⁴⁸¹ They argue that NYISO's proposal provides no criteria for evaluating DER impacts on the distribution systems, sets few boundaries on the scope of Distribution Utility review, and limits transparency to a review of results after the Distribution Utility has completed its work.⁴⁸² In addition, they contend that NYISO has failed to explain how its proposed Distribution Utility review procedures interact with the requirements of the applicable state interconnection process, why any additional requirements are necessary, and why they will not be redundant to the review that already takes place in the state interconnection process. They contend that the Commission expects that state and local procedures will govern interconnection and serve as the primary way of identifying distribution system issues.⁴⁸³ They point out that New York has standardized DER interconnection rules that appear to address the same issues that the Distribution Utility might consider in reviewing DERs under NYISO's proposal.⁴⁸⁴

235. NYTOs oppose NYISO's proposal that NYISO may assume that a DER poses no significant risks unless the Distribution Utility affirmatively makes that determination.⁴⁸⁵ NYTOs assert that this presumption of no harm is contrary to Order No. 2222 and is not reasonable. NYTOs state that, without requiring a positive affirmation from the Distribution Utility, a simple administrative lapse could result in approval of an Aggregation that would endanger the safety and reliability of the distribution system.⁴⁸⁶ NYTOs suggest that concerns of a non-response could be mitigated if NYISO provides the Distribution Utility notice at day 50 or 55 that it has yet to receive a report of the utility's review.

236. NYTOs also note that in NYISO's proposal in Services Tariff section 4.1.10.7.1, there will be an evaluation and attempt to implement mitigation measures when a Distribution Utility identifies a reliability or safety threat.⁴⁸⁷ They argue that the trigger for such measures should instead occur if a Distribution Utility does *not* determine that a DER will not pose a significant risk.

⁴⁸¹ AEE, NRDC, and SFP Protest at 13.

⁴⁸² *Id.* at 14.

⁴⁸³ *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at P 294).

⁴⁸⁴ *Id.* at 15-16.

⁴⁸⁵ NYTOs Protest at 15.

⁴⁸⁶ *Id.* at 16.

⁴⁸⁷ *Id.* at 16-18.

237. NYTOs argue that NYISO's proposal affords NYISO inappropriate latitude in addressing concerns identified by the Distribution Utility in its review.⁴⁸⁸ NYTOs recommend revisions so that NYISO would have an affirmative obligation to restrict the services offered by an individual DER or Aggregation should the Distribution Utility identify reliability and/or safety concerns. NYTOs further state that it is not clear that NYISO has any authority over the individual DERs within an Aggregation, as the proposal assumes.

238. In addition, NYTOs recommend that the Commission require NYISO to strike the phrase "of new facilities" from the first paragraph of proposed section 4.1.10.7.1 because the language inappropriately conflates the proposed process for enrollment and registration in the wholesale markets with the Distribution Utility's interconnection process.⁴⁸⁹ NYTOs also identify a few drafting errors contained in proposed Services Tariff section 4.1.10.7.1 and 4.1.10.7.2 and suggest that certain words/phrases were omitted, misused, or could be reworded for clarity.⁴⁹⁰ NYTOs request that the Commission direct NYISO to correct these errors in a compliance filing.

iii. Answers

239. Several parties express concern with NYTOs' proposal that the 60-day review period should begin when the Distribution Utility has confirmed receipt and that it has all information. AEMA argues that NYISO's proposal needs more detail, such as the length of time for the Distribution Utility to review information for completeness, to ensure it does not cause undue delay and is limited to necessary information.⁴⁹¹ NYISO contends that NYTOs' proposal would mean there is no limit to how long the Distribution Utility could wait to confirm delivery and would delay the start of the review period.⁴⁹² NYISO asserts that NYISO's software systems, which are in development, will automatically notify the Distribution Utility when NYISO's submission software completes an automated check to determine the Aggregator's submission is complete. NYISO states that, if the automated review determines that the submission is complete, then the information will be sent to the Distribution Utility to start the 60-day clock.⁴⁹³ NYISO contends that there is no reason to expect that the notification will not arrive on the same

⁴⁸⁸ *Id.* at 17.

⁴⁸⁹ *Id.* at 14.

⁴⁹⁰ NYTOs Comments at 19-20.

⁴⁹¹ AEMA Answer at 4.

⁴⁹² NYISO Answer at 36-37.

⁴⁹³ *Id.* at 14.

day it is sent.⁴⁹⁴ However, NYISO states that it is willing to establish communication protocols to provide the Distribution Utility notice that the notification was transmitted and NYISO's database is available in order to mitigate concerns that data would arrive unnoticed.

240. In response to NYAPP's request for proof of notice to the Distribution Utility to start the 60-day Distribution Utility review period, NYISO explains that the Distribution Utility will be notified when it transmits the notification that the data is available for retrieval, thus triggering the start of the review period. NYISO expresses concern with NYTOs' request that the 60-day clock restart if the Distribution Utility identifies data deficiencies, unless the deficiencies are significant enough to impede timely review.⁴⁹⁵ NYISO believes that NYTOs' proposal may upset the balance between the safety and reliability review, and avoiding creating barriers to entry.⁴⁹⁶ NYISO states its expectation that if any data is deficient or additional data is required, the Distribution Utility will inform the Aggregator and NYISO promptly, and the requested information will be provided. NYISO adds that, if a Distribution Utility's concerns are not resolved within the 60-day review period, the utility can recommend not authorizing wholesale market participation.⁴⁹⁷ Finally, in response to AEE, NRDC, and SFP's contention that Order No. 2222 requires that the review process be triggered by initial registration, NYISO argues that Order No. 2222 does not require that enrollment be completed with a specified amount of time.⁴⁹⁸ NYISO points out that the automated enrollment process it is developing will check DER information for completeness. NYISO alleges that it commits to processing enrollments and registrations expeditiously but that delays may be necessary to address concerns.

241. As to the length of the distribution utility review period, NYTOs state that NYISO's proposed 60-day time limit for Distribution Utility review reflects the product of extensive discussions with the Distribution Utilities in New York and that Distribution Utilities explained how and why a fast-tracked deadline (such as 30 days) that would apply in all cases would often be insufficient to permit completion of a good faith, non-discriminatory review.⁴⁹⁹ NYTOs contend that 60 days is necessary to ensure adequate opportunity for review and to have reasonable degrees of confidence in conclusions and

⁴⁹⁴ *Id.* at 37.

⁴⁹⁵ *Id.* at 37-38.

⁴⁹⁶ *Id.* at 37.

⁴⁹⁷ *Id.* at 37-38.

⁴⁹⁸ *Id.* at 42.

⁴⁹⁹ NYTOs Answer at 6.

recommendations. According to NYTOs, shorter time periods will drive the issuance of premature recommendations that will of necessity tend to err on the side of safety and reliability, and potentially lead to less (rather than more) flexibility for DER Aggregations. NYTOs assert that NYISO's proposed 60-day deadline strikes a reasonable balance between speed and confidence.

242. NYISO also argues that the Commission should reject NYTOs' suggestion that NYISO must collect any and all data for Distribution Utility review.⁵⁰⁰ NYISO explains that it would provide the applicable Distribution Utility with all of the information it collects at each DER and Aggregation's enrollment. NYISO also notes that it is willing to work with Distribution Utilities to identify a common set of data that all Distribution Utilities require, and NYISO proposes to require the Aggregator to then submit such data with its registration materials. NYISO contends that the Distribution Utility, not NYISO, is best positioned to articulate data needs to the Aggregator. NYISO also notes that NYTOs' proposal may implicate NYISO in disputes over matters that do not concern NYISO.⁵⁰¹

243. As to the Distribution Utility's review criteria, NYISO proposes that the review be limited to the safety and reliability of the applicable distribution system.⁵⁰² NYISO states that it is not equipped to determine the potential safety and reliability concerns of each network on each distribution system in the NYCA. NYISO claims, and Xcel agrees, that NYISO is not in a position to dictate the specific evaluation criteria to be considered by the Distribution Utility.⁵⁰³ Xcel contends that such authority rests with the applicable RERRA.⁵⁰⁴ Moreover, NYISO states that the Distribution Utility's evaluation criteria are likely to change, and if they are in NYISO's tariff, then they would be subject to NYISO's stakeholder process and require an FPA section 205 filing to update this evaluation criteria.⁵⁰⁵ NYISO argues that NYISO's stakeholder process and an FPA section 205 proceeding are not designed to address distribution system reliability and safety criteria.

244. Xcel offers no opinion on the proper interpretation of New York State's interconnection rules.⁵⁰⁶ However, Xcel argues that the utility must have the opportunity

⁵⁰⁰ NYISO Answer at 38-39.

⁵⁰¹ *Id.* at 39 n.91.

⁵⁰² *Id.* at 41.

⁵⁰³ *Id.* at 41-42; Xcel Answer at 6.

⁵⁰⁴ Xcel Answer at 6.

⁵⁰⁵ NYISO Answer at 42.

to study the specific implications associated with the collective impact of DERs participating through aggregation as part of its review.⁵⁰⁷

245. NYISO defends its proposal to permit a DER to participate if the Distribution Utility does not respond at the end of the review period.⁵⁰⁸ Otherwise, NYISO contends, the Distribution Utility could indefinitely toll expiration of the 60-day window by being non-responsive. NYISO reiterates its offer to provide a “reminder” to the applicable Distribution Utility and suggests that NYISO do so approximately 10 days before the review period ends to prompt that utility to complete its evaluation. Xcel, by contrast, contends that safety and reliability dictate that the RTO/ISO obtain a positive affirmation from the utility, even if outside the prescribed timeframe, before allowing a new or revised aggregation to participate in the wholesale market.⁵⁰⁹ Xcel argues that the Commission should not deny utilities the time they may need to complete aggregation reviews—even where those reviews are completed outside whatever timeframe is specified in the tariff.

246. NYISO agrees to modify its proposal in response to NYTOs’ concerns that NYISO has too much latitude to address safety and reliability concerns identified by the Distribution Utility.⁵¹⁰ Specifically, NYISO requests that the Commission instruct it to revise Services Tariff section 4.1.10.7.1 to read: “The ISO shall ~~may~~ limit the capacity and/or wholesale market services a Distributed Energy Resource is authorized to supply to address the reliability and/or safety concern communicated by the Distribution Utility to the ISO to the extent such concerns are not resolved to the satisfaction of the Distribution Utility through the course of the enrollment process.”

247. NYISO also agrees with NYTOs’ request to delete “new” from Services Tariff section 4.1.10.7.1, and NYISO suggests responsive revisions.⁵¹¹ NYISO also agrees to NYTOs’ three proposed miscellaneous changes to Services Tariff sections 4.1.10.7.1 and 4.1.10.7.2 and requests that the Commission instruct NYISO to adopt these clarifications.⁵¹²

⁵⁰⁶ Xcel Answer at 6.

⁵⁰⁷ *Id.* at 8.

⁵⁰⁸ NYISO Answer at 42-43.

⁵⁰⁹ Xcel Answer at 9.

⁵¹⁰ NYISO Answer at 43.

⁵¹¹ *Id.* at 39-40.

⁵¹² *Id.* at 44 (citing NYTOs Protest at 19-20).

iv. Data Request Response

248. In its Data Request, Commission staff asked NYISO to provide the criteria by which Distribution Utilities would determine whether a DER is capable of participating in an Aggregation.⁵¹³ In response, NYISO explains that the Distribution Utility will determine whether a DER is capable of participating in an Aggregation by evaluating a number of factors.⁵¹⁴ Based on its discussions with the distribution utilities, NYISO explains that these criteria may include: (1) whether the DER is providing service in one or more Distribution Utility programs; (2) whether the DER's participation in the wholesale markets will lead to duplicative compensation, or the double counting of services; (3) a verification of Transmission Node mapping and the electrical location of the DER and Aggregation; (4) an assessment of whether the DER's interconnection agreement permits wholesale market services; (5) whether the interconnection agreement limits the amount (e.g., kW) or type (e.g., regulation service) the DER may provide; (6) whether the interconnection agreement needs to be modified to accommodate the DER's participation in the wholesale markets; and (7) whether a transmission or distribution system aggregation-level study is necessary to identify potential system impacts.⁵¹⁵

249. Commission staff also asked what type of showing a Distribution Utility must make to support a decision that a DER presents significant reliability or safety risks, and how this information will be shared with Aggregators.⁵¹⁶ In its response, NYISO explains how the Distribution Utility will have 60 days to determine whether a DER presents a reliability risk.⁵¹⁷ NYISO states that, at the end of the 60-day review period, the Distribution Utility must provide an articulable justification to both NYISO and the applicable Aggregator of its findings of adverse safety and/or reliability impacts. As part of its justification, the Distribution Utility would provide all information and data necessary to show, for example, that the operation of the DER could: (1) lead to distribution system equipment damage; (2) result in specific safety concerns for utility employees or customers; or (3) lead to reverse flows on the distribution system. NYISO states that the Distribution Utility's explanation must be accompanied by any measures it identified to mitigate or resolve the safety and reliability risk(s).

⁵¹³ Data Request at 13-14.

⁵¹⁴ Data Request Response at 42.

⁵¹⁵ NYISO also explains that the Distribution Utility may review specific attributes and operating parameters such as ramp rates, upper and lower operating limits, distribution line voltage class, and telemetry infrastructure. *Id.* at 42-43.

⁵¹⁶ Data Request at 14.

⁵¹⁷ Data Request Response at 43.

250. Commission staff also asked NYISO to explain what NYISO meant by the phrase “appropriate measures to mitigate reliability and/or safety concerns.”⁵¹⁸ In response, NYISO explains that it has not previously listed the specific actions it may take to resolve these issues.⁵¹⁹ NYISO does state, however, that it will pursue the least restrictive action to resolve the concern and that it will work collaboratively with the Aggregator. NYISO provides examples of such actions it may take, such as limiting the capacity or time of day the DER can offer or limiting the services the DER can provide (such as energy or operating reserves). However, NYISO believes that developing an exclusive list would unnecessarily limit crafting fact-specific, cost-effective remedies.

251. Commission staff also asked NYISO to explain how its proposed Distribution Utility review process addresses incremental distribution system reliability impacts.⁵²⁰ NYISO states that new Services Tariff section 4.1.10.7 permits a Distribution Utility to evaluate the safety and reliability impacts of incremental changes to a DER and Aggregation.⁵²¹

252. Commission staff also asked about NYISO’s proposed dispute resolution procedures as part of the Distribution Utility review process.⁵²² In response, NYISO explains that it did not include new dispute resolution procedures in its filing because NYISO will be the party responsible for authorizing DER participation in its markets.⁵²³ NYISO states that if an Aggregator or a Distribution Utility disagrees with NYISO’s determinations regarding whether or not it authorized a DER or an Aggregation, it may seek to resolve that issue through NYISO’s existing dispute resolution procedures in Services Tariff section 11.⁵²⁴ According to NYISO, these procedures offer multiple avenues to address disputes, including informal dispute resolution, non-binding mediation, or arbitration. NYISO emphasizes that nothing in its dispute resolution procedures restricts the rights of a party from filing a complaint or seeking other remedies from the Commission under the FPA.

⁵¹⁸ Data Request at 13.

⁵¹⁹ Data Request Response at 44.

⁵²⁰ Data Request at 14.

⁵²¹ Data Request Response at 44.

⁵²² Data Request at 15.

⁵²³ Data Request Response at 45-46.

⁵²⁴ *Id.* at 46.

253. Lastly, Commission staff asked whether there are other avenues for Aggregators or Distribution Utilities to resolve disputes.⁵²⁵ NYISO explains that, in addition to its procedures, Aggregators and Distribution Utilities may use dispute resolution procedures in the interconnection agreement or Article VI of the New York State interconnection requirements and application process for new distributed generators and energy storage systems 5 MW or less connected in parallel with utility distribution systems (New York SIR).⁵²⁶ NYISO notes that, if a Distribution Utility and/or Aggregator cannot resolve their dispute through the New York SIR process, they may bring their dispute to the New York Commission.

v. Data Request Response Protests

254. AEE contends that NYISO has not explained why 60 days is needed for the Distribution Utility review process.⁵²⁷ AEE points out that other regions have a shorter review period.

255. AEMA argues that NYISO does not provide sufficient detail to guide the Distribution Utilities' analysis of safety and reliability risks.⁵²⁸ AEMA argues that the tariff should include, for example, the circumstances for requiring assessments of whether a transmission or distribution system Aggregation-level study is necessary to identify potential system impacts. Similarly, Public Interest Organizations argue that NYISO's response confirms that the Distribution Utilities will have no specific review criteria and that the study process will be purely internal to the Distribution Utilities.⁵²⁹ Public Interest Organizations argues that this does not satisfy Order No. 2222 requirements that the distribution utility's review process be transparent and follow specific criteria. They reiterate their concern that the review process will provide opportunity for arbitrary and anti-competitive denials.

256. Public Interest Organizations argue that Order No. 2222 states a belief and hope that state and local interconnection processes can and will address distribution system issues.⁵³⁰ Rather than address this matter, Public Interest Organizations allege that NYISO proposes that distribution utilities will have broad review powers with no

⁵²⁵ Data Request at 15.

⁵²⁶ Data Request Response at 47.

⁵²⁷ AEE Protest on Data Request Response at 11.

⁵²⁸ AEMA Protest on Data Request Response at 9.

⁵²⁹ Public Interest Organizations Protest on Data Request Response at 8.

⁵³⁰ *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 99, 294).

evidence of the “specific circumstances” required by Order No. 2222 to justify those review powers.

257. AEMA argues that NYISO’s response to the Commission’s data request—asking that NYISO 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—provides the Distribution Utilities with significant discretion in defining potential safety and reliability risks, but does not provide sufficient detail to guide the analysis and will impede market participation.⁵³¹ AEMA argues that the tariff should require specific engineering information in order to demonstrate a reliability concern. AEMA also argues that Aggregators should be able to question or challenge utility determinations and propose alternative approaches that are equally effective but less disruptive.⁵³²

258. AEMA argues that, in addition to NYISO’s dispute resolution process, it should be clear whether certain disputes are under the jurisdiction of the Commission or the applicable RERRA.⁵³³ If the latter, AEMA requests that the Commission direct NYISO to include the responsibility to adjudicate disputes in the Role of RERRA section of NYISO’s tariff in order to provide certainty and define roles and responsibilities. AEE similarly contends that NYISO does not provide sufficient detail regarding the dispute resolution process, but rather just a list of issues that may be grounds to justify disallowing a DER from participating in an Aggregation.⁵³⁴ AEE argues that, in this case, the RERRA will decide whether to disallow participation, not NYISO. Thus, AEE argues that the dispute resolution process should be addressed in the Role of RERRA section of NYISO’s tariff.⁵³⁵

vi. Commission Determination

259. We find that NYISO’s proposal partially complies with the requirements in Order Nos. 2222 and 2222-A with respect to the role of distribution utilities. As an initial matter, we find that NYISO developed its distribution utility review process through consultation with distribution utilities, consistent with the requirement of Order No. 2222.⁵³⁶

⁵³¹ AEMA Protest on Data Request Response at 9.

⁵³² *Id.* at 10.

⁵³³ *Id.* at 11.

⁵³⁴ AEE Protest on Data Response Request at 14.

⁵³⁵ *Id.* at 15.

⁵³⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 292; *see, e.g.*, NYISO Answer at 41

We direct NYISO to continue to coordinate with distribution utilities in developing the further compliance filing that we direct below.

260. We also find that NYISO's proposal is consistent with the requirement of Order No. 2222 to include a distribution utility review process that is triggered by initial registration of the distributed energy resource aggregation or incremental changes to a distributed energy resource aggregation already participating in the markets.⁵³⁷ NYISO is developing an automated enrollment process, i.e., a process by which each DER is initially registered by the Aggregator, whereby the Aggregator will complete and submit a fillable electronic form with DER-specific information, and NYISO's software will run an automated check for completeness and notify the Distribution Utility that an enrollment is complete and start the 60-day review period.⁵³⁸ Accordingly, under NYISO's proposal, the 60-day Distribution Utility review period for initial registrants and for modifications begins "on the date [NYISO] transmits [DER's] operating and physical information to the Distribution Utility."⁵³⁹

261. While several protesters propose alternative start times for the Distribution Utility review period, we find that NYISO's proposed start time for the review period complies with Order No. 2222 and is reasonable because the trigger for the review period is when the Distribution Utility receives the information necessary to conduct its review. We disagree with AEE, NRDC, and SFP that NYISO's proposal prevents timely registration of Aggregations. We are concerned that, under AEE, NRDC, and SFP's interpretation, the Distribution Utility review period would begin prior to the Distribution Utility obtaining the necessary information, and if we were to adopt that interpretation, it would inevitably shorten the 60-day review period that NYISO proposed. Consistent with Order No. 2222, we believe that NYISO's proposal ensures that "distribution utility review [will] be completed within a limited, but reasonable amount of time" by affording a 60-day review period.⁵⁴⁰ Moreover, NYISO proposes that its software systems will automatically notify the Distribution Utility when NYISO's submission software completes an automated check to determine the Aggregator's submission is complete,⁵⁴¹ which facilitates timely registration of the DERs and prevents NYISO from delaying the ("NYISO proposed the 60-day period for Distribution Utility review of incremental changes after careful consideration and consultation with utilities.").

⁵³⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁵³⁸ NYISO Answer at 42.

⁵³⁹ See Services Tariff, § 4.1.10.7.1.

⁵⁴⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 295.

⁵⁴¹ NYISO Answer at 37.

process once the Aggregator submits the necessary information. Therefore, we find that NYISO's proposal ensures both that the Distribution Utility will receive a complete submission to conduct its necessary review and that the start of the actual review will not be unreasonably delayed, thereby addressing concerns raised by NYTOs and NYAPP. We acknowledge that NYISO offered to establish communication protocols to provide the Distribution Utility notice that the notification has been transmitted and NYISO's database is available in order to mitigate concerns that data could arrive unnoticed.

262. We also find that NYISO's proposed 60-day review period complies with the requirement to provide adequate and reasonable time for distribution utility review that does not exceed 60 days.⁵⁴² NYISO proposes a 60-day Distribution Utility review period, which is the maximum allowed by Order No. 2222.⁵⁴³ Contrary to AEE's statements that NYISO's proposal is deficient because it has not explained why 60 days is needed, the 60-day review period is within the allowable timeframe that Order No. 2222 permits. We note that the record reflects that the 60-day review period was chosen as appropriate for New York after NYISO's extensive discussions with the Distribution Utilities.⁵⁴⁴ Consistent with this finding, we note that several parties underscore the importance of the 60-day review period in order to ensure that they have adequate review time.⁵⁴⁵ Furthermore, given that NYISO's Services Tariff provides Distribution Utilities with 60 days for review, we reject NYAPP's proposal that a customer application should require an Aggregator to agree to a Distribution Utility's ability to perform its review within 60 days. In addition, we find that NYISO complies with the requirement that only the distribution utility hosting a distributed energy resource has the opportunity to review the addition of that resource to a distributed energy resource aggregation because section 4.1.10.7.1 specifically provides that a Distribution Utility may only conduct a review of a DER connecting "to its facilities."⁵⁴⁶

263. While we accept NYISO's proposed 60-day review period, we agree with NYTOs that the tariff language lacks clarity regarding the circumstances in which the Distribution

⁵⁴² Order No. 2222-A, 174 FERC ¶ 61,197 at P 72 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 295).

⁵⁴³ See Services Tariff, § 4.1.10.7.1; Order No. 2222, 172 FERC ¶ 61,247 at P 295; Order No. 2222-A, 174 FERC ¶ 61,197 at P 72.

⁵⁴⁴ NYTOs Answer at 6.

⁵⁴⁵ See, e.g., NYAPP Protest at 10 ("An appropriate review period is vital for distribution utilities to fully assess the reliability impact(s) a DER may have on its system, and the full 60-day review period is especially important for small utilities that may have limited resources.").

⁵⁴⁶ Order No. 2222-A, 174 FERC ¶ 61,197 at P 70.

Utility review process applies. NYISO proposes that it applies to “each new [DER] connecting to its electrical facilities that seeks to participate” in NYISO’s markets. We find that NYISO’s use of the word “new” in its proposal conflates the initial interconnection of a DER with the initial registration of a DER seeking to participate in the wholesale markets. In response to NYTOs, NYISO asks the Commission to direct it to revise its proposal so that the review process applies to “each [DER] that is connecting or connected to its electric facilities upon that [DER’s] initial enrollment to participate in the [NY]ISO Administered Markets.”⁵⁴⁷ We find that this revision will appropriately apply the review process to a DER that initially registers for wholesale market participation, consistent with Order No. 2222.⁵⁴⁸ We thus direct NYISO to submit a further compliance filing that revises section 4.1.10.7.1 consistent with the suggested alternative language that NYISO proposes in its answer. As part of its compliance filing, we also direct NYISO to delete the phrase “of new facilities” from the following language that NYISO also proposes in section 4.1.10.7.1: “The [NY]ISO shall provide to the Distribution Utility the physical and operational data collected for the Distributed Energy Resource upon the Resource’s enrollment in the ISO-Administered markets in order to facilitate review of new facilities.”

264. Although we find that NYISO largely complies with the requirements in Order No. 2222 regarding the role of distribution utilities, as discussed above, we find that NYISO only partially complies with the requirement to incorporate a comprehensive and non-discriminatory review process.⁵⁴⁹ In addition, we find that NYISO only partially complies with the requirement to demonstrate that its proposed distribution utility review process is transparent.⁵⁵⁰ Accordingly, we find that NYISO must address six of the seven coordination requirements discussed below to ensure a fully comprehensive, non-discriminatory, and transparent distribution utility review process.

265. First, we find that NYISO does not address the requirement in Order No. 2222 that the results of a distribution utility’s review be incorporated into the distributed energy

⁵⁴⁷ NYISO Answer at 40.

⁵⁴⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 292 (requiring each RTO/ISO to incorporate a distribution utility review process of the individual distributed energy resources that comprise a distributed energy resource aggregation, which is triggered by initial registration of the distributed energy resource aggregation). As discussed below,

we reject NYISO’s proposal to apply this distribution utility review process to “any *incremental* change to an Aggregation.” *See infra* P 325.

⁵⁴⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁵⁵⁰ *Id.* P 293.

resource aggregation registration process.⁵⁵¹ Therefore, we direct NYISO to submit, within 60 days of the date of issuance of this order, a further compliance filing that addresses this requirement. NYISO could, for example, revise section 4.1.10.7.1 of its Services Tariff and specify that NYISO shall consider information provided by the Distribution Utility in its evaluation of a DER.

266. Second, we find that NYISO's proposal does not comply with the requirement to include criteria in its tariff by which the distribution utilities will determine whether each proposed distributed energy resource is capable of participating in a distributed energy resource aggregation.⁵⁵² NYISO does not include any capability criteria in the Distribution Utility review process proposed in section 4.1.10.7.1 of the Services Tariff and therefore does not comply with this requirement of Order No. 2222. We note that, in its Data Request Response, NYISO identifies capability criteria that the Distribution Utilities may use.⁵⁵³ However, NYISO does not propose in its tariff to require Distribution Utilities to use any of these criteria during their review. Accordingly, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises its Distribution Utility review process to include in its tariff all or a subset of the capability criteria that NYISO discusses in its Data Request Response, or, if applicable, explain which tariff provisions specifically address such criteria.

267. Third, we find that NYISO's proposal partially complies with the requirement to develop a distribution utility review process that includes criteria by which the distribution utilities will determine whether 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.⁵⁵⁴ Parties argue that NYISO proposes no such criteria and that the review process lacks transparency and risks creating barriers to participation and an opportunity for anticompetitive discrimination. We disagree. NYISO's proposal in section 4.1.10.7.1 of its Services Tariff provides that a Distribution Utility has 60 days "to review the reliability and safety impact" of a DER or a change in an Aggregation.⁵⁵⁵ We find that NYISO's proposal sufficiently allows Distribution Utilities to determine whether the participation of each proposed DER in an Aggregation will pose significant risks to the reliable and safe operation of the distribution system. As to NYISO's criteria, we find that Order No. 2222 recognizes that

⁵⁵¹ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁵⁵² *Id.* PP 292, 296.

⁵⁵³ Data Request Response at 42-43.

⁵⁵⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁵⁵⁵ *See* Services Tariff, § 4.1.10.7.1.

there are sufficient differences among regions to warrant flexibility in determining specific standardized criteria, and NYISO's lack of ability to identify and review distribution utility reliability criteria supports adopting NYISO's proposed reliability criteria.⁵⁵⁶ We agree with NYISO and Xcel that NYISO is not in a position to dictate the specific evaluation criteria to be considered by the Distribution Utility because NYISO lacks the expertise and authority to do so.⁵⁵⁷ At the same time, we recognize parties' concerns about lack of transparency, barriers to participation, and anticompetitive discrimination. We encourage NYISO to develop guidance documents that could include a set of illustrative review criteria. Importantly, as discussed further below, we direct NYISO to establish a more transparent process for identifying whether a proposed Aggregation poses significant risks to reliable and safe operation of the distribution system, which we believe will alleviate the parties' key concerns.⁵⁵⁸

268. Although we agree with NYISO and Xcel that NYISO lacks the expertise and authority to dictate the specific Distribution Utility review criteria, we find that NYISO does not address the scope of such criteria, as clarified in Order No. 2222-A. The Commission clarified in Order No. 2222-A that the potential impacts on distribution system reliability specifically refer to any incremental impacts from a resource's participation in a distributed energy resource aggregation that were not previously considered by the distribution utility during the interconnection study process for that resource.⁵⁵⁹ We find that, to demonstrate compliance with this requirement, NYISO must propose in its tariff that the scope of distribution utility review is limited to any incremental impacts that the utility has not previously considered. We find that section 4.1.10.7.1 of NYISO's tariff sets forth the Distribution Utility review process but contains no provision that limits the scope of the utility's review as the Commission required. In addition, NYISO does not respond to AEE, NRDC, and SFP's arguments about potential redundancy between NYISO's proposed Distribution Utility review process and Distribution Utilities' existing distribution system interconnection procedures,⁵⁶⁰ or to Commission staff's inquiry about incremental impacts.⁵⁶¹

⁵⁵⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 296.

⁵⁵⁷ NYISO Answer at 41-42; Xcel Answer at 6.

⁵⁵⁸ *See infra* P 269.

⁵⁵⁹ Order No. 2222-A, 174 FERC ¶ 61,197 at P 79 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 297).

⁵⁶⁰ While Xcel responds to this argument, it offers no opinion on New York State's interconnection requirements.

⁵⁶¹ *See* Data Request Response at 44-45 (responding merely that a Distribution Utility is allowed to review "incremental changes to a DER and Aggregation"). This

Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that revises its tariff to clarify that the scope of Distribution Utility review of distribution system reliability impacts is limited to incremental impacts from a resource's participation in an Aggregation that were not previously considered by the Distribution Utility during the interconnection study process for that resource.

269. Fourth, we find that NYISO does not propose in its tariff to require that the distribution utility provide a showing that explains any reliability findings, as required by Order No. 2222.⁵⁶² In Order No. 2222-A, the Commission stated that it expects that criteria proposed on compliance will require that an RTO/ISO decision to deny wholesale market access to a distributed energy resource for reliability reasons be supported by a showing that the resource presents significant risks to the reliable and safe operation of the distribution system.⁵⁶³ NYISO proposes in section 4.1.10.7.1 of its Services Tariff that NYISO, the Distribution Utility, and the Aggregator “shall evaluate the reliability and/or safety concerns identified by the Distribution Utility,” and “attempt to implement appropriate measures to mitigate the reliability and/or safety concern(s),” and that NYISO “may limit the capacity and/or wholesale market services a Distributed Energy Resource is authorized to supply to address the reliability and/or safety concerns communicated by the Distribution Utility.” We note that, in its Data Request Response, NYISO asserts that the Distribution Utility must provide an articulable justification if it finds any reliability and/or safety concern, and it lists some examples in its Data Request Response and explains that this information will be available to the Aggregator.⁵⁶⁴ However, NYISO's proposal does not include a requirement in its tariff for the Distribution Utility to submit such a showing. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that revises NYISO's tariff to require that a Distribution Utility submit, as necessary, a

response is irrelevant for purposes of addressing incremental reliability impacts and is appropriately mentioned below in our discussion of NYISO's proposed rules relating to modifications of Aggregations. See discussion *infra* Part IV.B.10.

⁵⁶² Order No. 2222, 172 FERC ¶ 61,247 at P 297; Order No. 2222-A, 174 FERC ¶ 61,197 at P 76 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 297).

⁵⁶³ Order No. 2222-A, 174 FERC ¶ 61,197 at P 76 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 292) (referencing the criteria by which the distribution utilities will determine whether a proposed distributed energy resource will pose “significant risks to the reliable and safe operation of the distribution system”).

⁵⁶⁴ Data Request Response at 43.

showing that a DER presents significant risks to the reliable and safe operation of the distribution system.⁵⁶⁵ We find that this further compliance requirement should alleviate the transparency concerns about NYISO's proposed reliability criteria raised by protesters, as mentioned above.

270. Fifth, we find that NYISO partially complies with the requirement in Order No. 2222 that the distribution utility have the opportunity to request that the RTO/ISO place operational limitations on an aggregation, or the removal of a distributed energy resource from an aggregation based on specific significant reliability or safety concerns that the distribution utility clearly demonstrates to the RTO/ISO and distributed energy resource aggregator on a case-by-case basis.⁵⁶⁶ NYISO proposes that: "The [NY]ISO may limit the capacity and/or wholesale market services a Distributed Energy Resource is authorized to supply to address the reliability and/or safety concerns communicated by the Distribution Utility." NYTOs argue that NYISO must limit wholesale services in such circumstances.⁵⁶⁷ We agree with NYTOs' suggestion to narrow NYISO's latitude to allow DER participation when presented with Distribution Utility concerns. Because, as discussed, we find that NYISO lacks the expertise and authority to dictate the specific Distribution Utility review criteria, we agree that NYISO must limit the services it authorizes a DER to supply if the Distribution Utility communicates unresolved reliability concerns. As discussed, such concerns must be provided through a showing in writing, which we find is necessary to ensure a transparent distribution utility review process. We thus direct NYISO on compliance to revise section 4.1.10.7.1 as follows: "The ISO ~~shall may~~ limit the capacity and/or wholesale market services a Distributed Energy Resource is authorized to supply to address the reliability and/or safety concerns communicated in writing by the Distribution Utility to the ISO to the extent such concerns are not resolved to the satisfaction of the Distribution Utility through the course of the enrollment process."

271. We disagree with NYTOs and Xcel that it is contrary to Order No. 2222 or otherwise unreasonable for NYISO to assume a DER raises no reliability or safety concerns if the Distribution Utility does not present them during the review period.⁵⁶⁸

⁵⁶⁵ In Order No. 2222, the Commission described examples that such a showing could take, such as "a signed affidavit or other evidence from the distribution utility that a [DER]'s participation in RTO/ISO markets would pose a significant risk to the safe and reliable operation of the distribution system," while also recognizing the need to allow for regional flexibility in developing review procedures appropriate to each particular RTO/ISO. Order No. 2222, 172 FERC ¶ 61,247 at PP 292, 293, 297.

⁵⁶⁶ *Id.* P 297.

⁵⁶⁷ NYTOs Protest at 17-18.

Order No. 2222 stated that “a lengthy review time or the lack of a deadline could erect a barrier to distributed energy resource participation in the RTO/ISO markets and may unduly delay participation. [Thus], we clarify that any distribution utility review must be completed within a limited, but reasonable amount of time.”⁵⁶⁹ We agree with NYISO that, if a positive response from a Distribution Utility were required, then the Distribution Utility could indefinitely toll expiration of the 60-day review period by being non-responsive. Such an outcome contravenes the requirement in Order No. 2222 that the review period must be completed within a reasonable time. We also note that NYTOs suggest that their concerns could be mitigated if NYISO provides the Distribution Utility notice at day 50 or 55 that it has yet to receive a report of the utility’s review, and that NYISO indicates a willingness to provide such a reminder.

272. We similarly disagree with NYTOs that it is contrary to Order No. 2222 for NYISO, the Distribution Utility, and the Aggregator to attempt to implement mitigation measures if the utility raises a reliability concern.⁵⁷⁰ NYTOs ask the Commission to instead require mitigation measures unless a Distribution Utility attests that a DER does not raise a reliability concern on the distribution system.⁵⁷¹ In establishing requirements for a distribution utility review period, the Commission explained in Order No. 2222 that it balanced protecting distribution system reliability against removing barriers to aggregations in the wholesale markets.⁵⁷² Importantly, the Commission emphasized “the ability of distribution utilities to review and comment on distributed energy resource participation in aggregations.” We find it consistent with Order No. 2222 that mitigation

⁵⁶⁸ See Services Tariff, § 4.1.10.7.1 (“If the [NY]ISO does not receive timely notification from the Distribution Utility pursuant to this Services Tariff Section 4.1.10.7.1, then the [NY]ISO will assume that the operation of the Distributed Energy Resource will not have a material reliability and/or safety impact on the applicable distribution system.”).

⁵⁶⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 295.

⁵⁷⁰ See Services Tariff, § 4.1.10.7.1 (“If a Distribution Utility notifies the [NY]ISO within sixty days that a Distributed Energy Resource’s participation in the [NY]ISO Administered Markets poses a significant threat to the reliability and/or safety of the Distribution Utility’s electric facilities, the [NY]ISO shall incorporate such finding(s) its review of the Distributed Energy Resource. The [NY]ISO, Distribution Utility, and Aggregator shall evaluate the reliability and/or safety concerns identified by the Distribution Utility, and attempt to implement appropriate measures to mitigate the reliability and/or safety concern(s).”).

⁵⁷¹ NYTOs Protest at 16-17.

⁵⁷² Order No. 2222, 172 FERC ¶ 61,247 at P 298.

measures like those NYISO proposes in the interest of reliability and safety are triggered only if the Distribution Utility provides comments on reliability and safety. We believe that it could be a barrier to Aggregations if an Aggregator must attempt to mitigate unidentified reliability concerns—which would be the case under NYTOs’ proposal—before participating in the NYISO wholesale markets.

273. Sixth, we find that NYISO’s proposed Distribution Utility review process is partially compliant with the information sharing requirements of Order No. 2222.⁵⁷³ We find that NYISO’s proposal complies with the requirement that the specific information regarding a distributed energy resource that is provided by a distribution utility to an RTO/ISO as part of the distribution utility review process be shared with the distributed energy resource aggregator.⁵⁷⁴ In its Data Request Response, NYISO explains that the Distribution Utility must notify NYISO and the Aggregator of its findings, including all information and data necessary to support its decision.⁵⁷⁵ NYISO explains that, once provided, the information will be uploaded into NYISO’s Aggregation system and will be viewable therein by the Aggregator. However, we find that NYISO partially complies with the requirement that each RTO/ISO must share with distribution utilities any necessary information and data collected under Section IV.F of this final rule about the individual distributed energy resources participating in a distributed energy resource aggregation.⁵⁷⁶ Under NYISO’s proposal, NYISO provides to the Distribution Utility “the physical and operational data collected for the [DER] upon the Resource’s enrollment” in NYISO’s markets. NYTOs argue that NYISO should have an obligation to collect all necessary data and transmit it to the Distribution Utility. We agree. NYISO contends that it will provide the applicable Distribution Utility with all of the information that it collects at each DER and Aggregation’s enrollment. However, as discussed previously, NYISO submitted an incomplete proposal of information and data requirements for Aggregations.⁵⁷⁷ Thus, in conjunction with our earlier directive to NYISO to propose information and data requirements in its tariff, we require NYISO to explain on compliance what data it will provide to the Distribution Utility to facilitate the review process so that the Commission may evaluate compliance with the coordination requirement noted above. As NYISO notes in its Answer, we encourage it to work with Distribution Utilities to identify a common set of data that all utilities require. We finally note that the Commission stated in Order No. 2222 its expectation that state and local

⁵⁷³ *Id.* P 292; Order No. 2222-A, 174 FERC ¶ 61,197 at P 75.

⁵⁷⁴ Order No. 2222-A, 174 FERC ¶ 61,197 at P 75.

⁵⁷⁵ Data Request Response at 43.

⁵⁷⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 292.

⁵⁷⁷ *See supra* PP 171-172.

interconnection processes provide the necessary information to inform distribution utility review.⁵⁷⁸

274. Lastly, we find that NYISO's proposal complies with the requirement to revise its tariff to incorporate dispute resolution provisions as part of its proposed distribution utility review process.⁵⁷⁹ NYISO states that entities that seek to enroll a DER or register an Aggregation for participation in NYISO's markets will be able to use the existing dispute resolution procedures under section 11 of the Services Tariff to resolve related concerns arising under NYISO's market rules, such as NYISO's decision whether to permit a DER to participate in its markets.⁵⁸⁰ We disagree with AEE and AEMA, who argue that more detail or clarity is needed, including about the RERRA's authority, consistent with our findings below,⁵⁸¹ because Order No. 2222 did not require each RTO/ISO to specify provisions explaining the disputes that the RERRA should adjudicate. We also deny AEMA's request that Aggregators have the opportunity to challenge utility determinations. As an initial matter, we believe that our directive above that NYISO establish a showing requirement for distribution utility reliability findings⁵⁸² should help facilitate resolution of reliability concerns earlier in the process. However, as to disputes over the substantive determinations that Distribution Utilities make about reliability and safety on the distribution system, parties must resolve such specific disputes before the state or local regulator, not before NYISO.

275. In addition to the fundamental requirements of Order No. 2222 relating to the role of distribution utilities discussed above, we agree with NYTOs that NYISO must correct several typographical errors as part of its further compliance filing. Specifically, NYISO must revise section 4.1.10.7.1 of its Services Tariff as follows: "If a Distribution Utility notifies the ISO within sixty days that a Distributed Energy Resource's participation in the ISO Administered Markets poses a significant threat to the reliability and/or safety of the Distribution Utility's electric facilities, the ISO shall incorporate such finding(s) in its review of the Distributed Energy Resource." NYISO must revise section 4.1.10.7.2 as follows: "Such coordination shall be consistent with the requirements set forth in the ISO's manuals, including the Day-Ahead Scheduling Manual, Transmission and Dispatch Manual, and Emergency Operations Manual." NYISO must also revise section 4.1.10.7.2 as follows: "An Aggregator shall identify to the applicable Distribution Utility, or the Transmission Owner (if it is a different entity from the applicable

⁵⁷⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 294.

⁵⁷⁹ *Id.* P 299.

⁵⁸⁰ Transmittal at 44; Data Request Response at 46.

⁵⁸¹ *See infra* PP 302-304.

⁵⁸² *See supra* P 269.

Distribution Utility), the Generator(s), Demand-Side Resource(s), and/or Distributed Energy Resource(s) within its Aggregation that will be operated to meet a NYISO-issued schedule prior to the dispatch of any Generator, Demand Side Resource or Distributed Energy Resource participating in an Aggregation in accordance with the ISO Procedures.”

c. Ongoing Operational Coordination

276. To implement section 35.28(g)(12)(ii)(g) of the Commission’s regulations, 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.⁵⁸³ 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.⁵⁸⁴ To account for different regional approaches and to provide flexibility, the Commission did not prescribe specific protocols or processes for the RTOs/ISOs to adopt as part of the operational coordination requirements but rather allowed each RTO/ISO to develop an approach to ongoing operational coordination.⁵⁸⁵

277. In Order No. 2222, the Commission also required each RTO/ISO to revise its tariff to apply any existing resource non-performance penalties to a distributed energy resource aggregation when the aggregation does not perform because a distribution utility overrides the RTO’s/ISO’s dispatch.⁵⁸⁶ In addition, the Commission declined to establish a generic requirement for RTOs/ISOs with respect to liability provisions, stating that it was not persuaded that all distribution providers face similar liability concerns, and that these concerns should be addressed through standardized liability provisions in RTO/ISO tariffs.⁵⁸⁷

⁵⁸³ Order No. 2222, 172 FERC ¶ 61,247 at P 310.

⁵⁸⁴ *Id.*

⁵⁸⁵ *Id.* P 311.

⁵⁸⁶ *Id.* P 312.

⁵⁸⁷ *Id.* P 313.

i. Filing

278. Regarding ongoing operational coordination, NYISO states that it has worked with NYTOs to identify and develop appropriate operating procedures and protocols to facilitate simultaneous participation in the NYISO-administered markets and in programs or markets operated to meet the needs of distribution systems located in the NYCA.⁵⁸⁸ NYISO proposes tariff modifications to incorporate Aggregation-specific operating procedures and processes in its Services Tariff in compliance with Order No. 2222. NYISO states that new section 4.1.10.7.2 of the Services Tariff directs NYISO, the Aggregator, and Transmission Owner to coordinate scheduling and dispatch for all generators, Demand Side Resources, and DER participating in an Aggregation. In particular, NYISO states that the aggregator will be responsible for: (1) submitting bids; (2) updating bids as necessary to address unit derates and distribution system conditions affecting the Aggregation; (3) communicating to the Distribution Utility the specific facilities it intends to dispatch to meet the NYISO-issued schedule; and (4) meeting NYISO-issued schedule and dispatch. NYISO states that the Distribution Utility will be responsible for advising the aggregator of any distribution system conditions affecting the Aggregation (e.g., line outages, limitations, or disruptions), evaluating the resource mix provided by the aggregator, and identifying any individual resources that cannot be dispatched due to distribution system conditions, and communicating any derates (or no-operation orders) to the aggregator.

ii. Protests

279. NYAPP argues that the operational coordination provisions are not suitable for small utilities and should not be applied to NYAPP members at this time.⁵⁸⁹ NYAPP requests that the Commission require NYISO to establish suitable coordination tariff provisions that account for the needs of small utilities.

280. With regard to intra-day coordination between NYISO, Distribution Utility, and Aggregator, some parties oppose language in proposed Services Tariff section 4.1.10.7.2. AEMA opposes the proposed language because it charges the Aggregator a non-performance penalty even if the non-performance is due to a Distribution Utility override.⁵⁹⁰ As an example, AEMA explains that NYISO's real-time market closes 75-minutes before the operating hour and, if an Aggregator does not receive Distribution Utility notification that its Aggregations cannot be operated as scheduled until after the real-time market closes, the Aggregator will not have the opportunity to update the schedules to reflect the change that is outside of its control. AEE, NRDC, and SFP raise a similar concern.

⁵⁸⁸ Transmittal at 44-46.

⁵⁸⁹ NYAPP Protest at 14-15.

⁵⁹⁰ AEMA Protest at 17-18.

AEE, NRDC, and SFP argue that, under NYISO's proposal, Aggregations would face charges and penalties for failure to follow NYISO dispatch even if that failure is the result of a Distribution Utility notification that occurs within the 75-minute window prior to the operating hour, at which point it is too late for the Aggregation to update its bid.⁵⁹¹ They state that it is unreasonable to subject an Aggregator to risk of penalties for situations beyond its control. AEMA states that NYISO should be directed to include a mechanism in its tariff to dispute these charges and penalties that arise from Distribution Utility overrides. AEE, NRDC, and SFP state that Commission should require NYISO to submit a further compliance filing that ensures that DER Aggregators are not subject to unreasonable risk of penalties.

281. NYTOs state that proposed Services Tariff section 4.1.10.7.2 is insufficient because it does not mandate that the Aggregator provide the data necessary for the Distribution Utility to perform a proper assessment of the Aggregator's day-ahead plan.⁵⁹² NYTOs argue that the Aggregator should be required to provide the specific resources to the Distribution Utility, by hour and by wholesale market service, as such data is required for the Distribution Utility to fulfill its obligation to assess whether the Aggregators' individual DER dispatch would pose a significant risk to the safety and reliability of its distribution system.

282. In addition, NYTOs argue that the Distribution Utility should not be prevented from derating or declaring a DER to be unavailable in real-time when circumstances warrant and consistent with applicable state and local interconnection protocols.⁵⁹³ They note that proposed section 4.1.10.7.2 provides that the Distribution Utility may derate or declare a DER to be unavailable in certain circumstances, whereas Order No. 2222 recognized that an individual DER participating in an Aggregation remains subject to state and local interconnection protocols.⁵⁹⁴

iii. Answers

283. NYISO urges the Commission to reject AEMA's argument that NYISO should not assess non-performance penalties to Aggregations when an Aggregation is unable to comply with dispatch instructions due to a reliability action taken by the Distribution Utility.⁵⁹⁵ According to NYISO, its proposed rule is consistent with how generators are

⁵⁹¹ AEE, NRDC, and SFP Protest at 21.

⁵⁹² NYTOs Protest at 18-19.

⁵⁹³ *Id.* at 18.

⁵⁹⁴ *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 294, 298).

⁵⁹⁵ NYISO Answer at 44.

treated today when their output is limited by NYISO or a Transmission Owner to protect reliability. NYISO further argues that the Aggregation is the only entity that could act to prevent the issues from arising by: (1) developing resources that are properly scaled to the capability of the local distribution system; (2) limiting its bids when the Distribution Utility's distribution system is likely to be affected by limitations; or (3) paying for distribution system upgrades to improve deliverability.

284. AEMA opposes NYTOs' suggested revisions to Services Tariff section 4.1.10.7.2, which would require Aggregators to provide hourly schedules for each DER within a DER Aggregation to indicate how the Aggregator would dispatch the DER Aggregation to comply with its day-ahead wholesale market schedule.⁵⁹⁶ AEMA asserts that the information necessary for a Distribution Utility to conduct any reliability or safety risks review may be unduly burdensome for Aggregators to provide, and should be fully deliberated on by stakeholders.

iv. Data Request Response

285. In its Data Request, Commission staff asked NYISO to specify what information and data will be shared during operations and how this information will be shared.⁵⁹⁷ In response, NYISO states that it has worked with Distribution Utilities to develop the data and communication flows necessary to maintain the safe and reliable dispatch of Aggregations, which will be refined over time.⁵⁹⁸ NYISO states that it will be in continuous communication with Distribution Utilities about the status of Aggregations and individual DERs.⁵⁹⁹ NYISO states that it expects to finalize its specific coordination procedures and practices in mid-2022. NYISO further explains the schedule for information exchanges⁶⁰⁰ that will take place among NYISO, the Distribution Utility, and Aggregator to inform the Aggregator's bidding and dispatch plan, and to facilitate wholesale market settlements.⁶⁰¹ In circumstances where it may be necessary for

⁵⁹⁶ AEMA Answer at 4-5.

⁵⁹⁷ Data Request at 15-16.

⁵⁹⁸ Data Request Response at 48.

⁵⁹⁹ NYISO specifies the information that will be communicated among the Distribution Utility, NYISO, and the Aggregator. *Id.*

⁶⁰⁰ For example, up until 3:00 PM two days before dispatch, the Distribution Utility and/or Transmission Owner will notify the Aggregator, and in some cases the DER, of planned maintenance on their systems that may affect operations. NYISO includes a more complete schedule in its Data Request Response at 49-51.

⁶⁰¹ Data Request Response at 49.

Distribution Utilities to override NYISO dispatch, NYISO explains that the Distribution Utility must communicate curtailment instructions to NYISO and the Aggregator, after which the Aggregator shall update its day-ahead and real-time bids to resolve the concern.⁶⁰² NYISO states that it will include its coordination protocols in its forthcoming Aggregation Manual, which it is currently developing, as well as in future updates to other manuals.

i. Data Request Response Protests

286. AEE requests that NYISO provide more information on the process for data flow between the Aggregator, Distribution Utilities, RERRAs, and NYISO.⁶⁰³ AEE states that NYISO proposes requiring DER Aggregators to communicate information to Distribution Utilities, which they do not have access to, using outdated technology that is incompatible with real-time operation.

287. AEE states that NYISO's responses delegate almost all of the coordination responsibilities to the DER Aggregator and the Distribution Utility, which is to be done via telephone or email, and requires that the "[t]he Distribution Utility and/or Transmission Owner will notify the Aggregator (or, in some cases, the individual DER) of planned distribution and/or transmission system maintenance that may impact operations."⁶⁰⁴ AEE asserts that NYISO does not explain: (1) how this information relates directly to a specific DER Aggregation; (2) how this information will "allow the Aggregator to bid in a manner consistent with distribution system conditions[;]"⁶⁰⁵ or (3) what determines whether the Aggregator or the individual DER will even be notified.⁶⁰⁶

288. With respect to NYISO's proposal on how the Aggregator will notify individual DERs that it intends to meet its day-ahead market schedule to the Distribution Utility, AEE claims that it is not feasible for Aggregators of thousands of small facilities to rely on communication products developed and standardized for the operations of large, centralized generators, and it is not clear that this is manageable for Distribution Utilities.⁶⁰⁷ AEE adds that this results in a situation in which resources that are not large, centralized

⁶⁰² *Id.* at 51-52.

⁶⁰³ AEE Protest on Data Request Response at 11-12.

⁶⁰⁴ *Id.* at 12 (citing Data Request Response at 49).

⁶⁰⁵ *Id.* (citing Data Request Response at 48).

⁶⁰⁶ *Id.* at 12.

⁶⁰⁷ *Id.* at 13.

generators face unjust and unreasonable barriers to participation in the markets through Aggregation.

ii. Commission Determination

289. We find that NYISO's proposal partially complies with the operational coordination requirements of Order No. 2222. We find that NYISO's proposal complies with the requirement that the distributed energy resource aggregator must report to the RTO/ISO any changes to its offered quantity and related distribution factors that result from distribution line faults or outages.⁶⁰⁸ Consistent with this requirement, under NYISO's proposal, when a Distribution Utility notifies an Aggregator that a resource participating in its Aggregation must be derated or forced out of service, the Aggregator must promptly update its day-ahead and/or real-time market bids, in accordance with NYISO's bidding requirements.⁶⁰⁹

290. We also find that NYISO's proposal complies with the requirement 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.⁶¹⁰ Under NYISO's proposal, a Distribution Utility has "the authority to derate, or declare as unavailable for dispatch" a DER that is interconnected to the Distribution Utility's electrical facilities "when the utility determines that [the DER] is reasonably expected to pose a threat to the reliability" of the distribution system.⁶¹¹ We find that this authority is consistent with the requirement in Order No. 2222 to 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.⁶¹² While NYTOs suggest that NYISO's proposal would prevent Distribution Utilities from derating or declaring a DER to be unavailable in certain circumstances, NYTOs do not explain under what circumstances the Distribution Utility is inhibited from maintaining the reliable and safe operation of the distribution system. We are also not persuaded by NYTOs' argument that NYISO's proposal is inconsistent with the Commission's reference to state and local interconnection processes in Order No. 2222.⁶¹³ In Order No. 2222, the

⁶⁰⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 310.

⁶⁰⁹ Transmittal at 45; Services Tariff, §§ 4.2 & 4.4.

⁶¹⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 310.

⁶¹¹ Services Tariff, § 4.1.10.7.2.

⁶¹² Order No. 2222, 172 FERC ¶ 61,247 at P 310.

Commission enumerated its expectation that, because DERs would not be subject to the Commission's interconnection jurisdiction, state and local processes would allow for studying distribution system impacts.⁶¹⁴ We find nothing inconsistent between that expectation and the authority that NYISO provides Distribution Utilities to derate or declare a DER unavailable for dispatch.

291. In addition, we find that NYISO's proposal partially complies with the requirement to revise its tariff to apply existing resource non-performance penalties to a distributed energy resource aggregation when the aggregation does not perform because a distribution utility overrides RTO/ISO dispatch.⁶¹⁵ Consistent with Order No. 2222, NYISO's proposal applies non-performance penalties and charges to Aggregations unable to meet their Base Point Signal due to distribution system reliability and/or safety concerns.⁶¹⁶ We disagree with protesters who argue that NYISO should not assess non-performance penalties to Aggregations when an Aggregation is unable to comply with dispatch instructions due to a reliability action taken by the Distribution Utility. The Commission already addressed this issue in Order No. 2222.⁶¹⁷ We find that NYISO's proposal is consistent with Order No. 2222 because it applies existing resource non-performance penalties to Aggregations (i.e., the same penalties that NYISO applies to generators) even in the case of a Distribution Utility override. We also decline AEE, NRDC, and SFP's request to require NYISO to ensure that DER Aggregators are not subject to unreasonable risk of penalties. We recognize concerns that NYISO's proposal may subject an Aggregator to risk of penalties for situations beyond its control; however, as the Commission stated in Order No. 2222, this requirement will incentivize distributed energy resource aggregators to register individual distributed energy resources on less-constrained portions of distribution networks in order to minimize the likelihood of incurring non-performance penalties.⁶¹⁸ As to AEMA's request for a tariff mechanism to

⁶¹³ NYTOs Protest at 18 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 294, 298).

⁶¹⁴ Order No. 2222, 172 FERC ¶ 61,247 at PP 294, 298.

⁶¹⁵ *Id.* P 312.

⁶¹⁶ Transmittal at 45; Services Tariff, § 4.1.10.7.2.

⁶¹⁷ *Compare* Order No. 2222, 172 FERC ¶ 61,247 at P 309 (noting that developers argue that the aggregator should not be assessed penalties due to an outage caused by the distribution system operator's controls), *with* Order No. 2222, 172 FERC ¶ 61,247 at P 312 (requiring application of existing resource non-performance penalties to a distributed energy resource aggregation when the aggregation does not perform because a distribution utility overrides the RTO's/ISO's dispatch).

⁶¹⁸ Order No. 2222, 172 FERC ¶ 61,247 at P 312.

dispute an Aggregation's non-performance penalties due to Distribution Utility overrides, we believe that NYISO's existing dispute resolution procedures would apply to such non-performance penalties.⁶¹⁹

292. However, we find that NYISO's proposed tariff revisions lack specificity regarding the existing resource non-performance penalties that would apply to an Aggregation when a Distribution Utility overrides NYISO's dispatch. While NYISO's tariff indicates that "Aggregations that are unable to operate to achieve [NY]ISO's dispatch due to the direction of the Distribution Utility will remain subject to any charges or penalties that may apply," NYISO does not specify what penalties apply.⁶²⁰ Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that revises its tariff to specify the existing non-performance penalties that will apply to an Aggregation when the Aggregation does not perform because a Distribution Utility overrides NYISO's dispatch.

293. We find that NYISO's proposal partially complies with the requirement to revise its tariff to 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.⁶²¹ NYISO's proposed Services Tariff language defines the roles and responsibilities of each party in the process of operational coordination and establishes Aggregation-specific operating procedures.⁶²²

294. However, we find that NYISO's tariff does not sufficiently address data flows and communication between NYISO, the Aggregator, and the Distribution Utility, and thus, we direct NYISO, as part of its compliance filing, to revise its tariff to describe what data and information will be communicated and define more clearly the communication that will occur in this coordination process.⁶²³ We encourage NYISO to work with

⁶¹⁹ Services Tariff, § 11.1.

⁶²⁰ Services Tariff, § 4.1.10.7.2 ("Aggregations that are unable to operate to achieve the ISO's dispatch due to the direction of the Distribution Utility will remain subject to any charges or penalties that may apply.").

⁶²¹ Order No. 2222, 172 FERC ¶ 61,247 at P 310.

⁶²² Services Tariff, § 4.1.10.7.2.

⁶²³ Order No. 2222, 172 FERC ¶ 61,247 at P 310 ("[E]ach RTO/ISO [is required] 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. . . ."); *see also id.* P 279 ("We agree with commenters that coordination requirements should not create undue barriers to entry for distributed energy resource aggregations.").

stakeholders as it develops tariff language that identifies the data and information that should be shared to operate the system both reliably and efficiently, and the process under which this information will be shared. We also encourage NYISO to consider with its stakeholders whether hourly data is necessary for ongoing operational coordination.

d. Role of Relevant Electric Retail Regulatory Authorities

295. To implement section 35.28(g)(12)(ii)(g) of the Commission's regulations, in Order No. 2222, the Commission required each RTO/ISO to specify in its tariff, as part of the market rules on coordination between the RTO/ISO, the distributed energy resource aggregator, and the distribution utility, how each RTO/ISO will accommodate and incorporate voluntary RERRA involvement in coordinating the participation of aggregated distributed energy resources in RTO/ISO markets.⁶²⁴ The Commission noted that possible roles and responsibilities of RERRAs in coordinating the participation of distributed energy resource aggregations in RTO/ISO markets may include, but are not limited to: developing interconnection agreements and rules; developing local rules to ensure distribution system safety and reliability, data sharing, and/or metering and telemetry requirements; overseeing distribution utility review of distributed energy resource participation in aggregations; establishing rules for multi-use applications; and resolving disputes between distributed energy resource aggregators and distribution utilities over issues such as access to individual distributed energy resource data.⁶²⁵ The Commission required that any such role for RERRAs in coordinating the participation of distributed energy resource aggregations in RTO/ISO markets be included in the RTO/ISO tariffs and developed in consultation with the RERRAs.⁶²⁶

296. Further, the Commission stated that, to the extent that metering and telemetry data comes from or flows through distribution utilities, the Commission required that RTOs/ISOs coordinate with distribution utilities and the RERRAs to establish protocols for sharing metering and telemetry data that minimize costs and other burdens and address concerns raised with respect to customer privacy and cybersecurity.⁶²⁷

⁶²⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 322.

⁶²⁵ *Id.* P 324. The Commission also noted that the roles delineated in California Independent System Operator Corporation's (CAISO's) Distributed Energy Resource Provider tariff provisions may provide an example of how RERRAs could be involved in coordinating the participation of distributed energy resource aggregations in RTO/ISO markets. *Id.* P 323.

⁶²⁶ *Id.* P 324.

⁶²⁷ *Id.*

297. In Order No. 2222-A, the Commission explained that, consistent with the goals of Order No. 2222, the Commission will evaluate on compliance whether an RTO's/ISO's proposal delineates a role for RERRAs that would result in unjust and unreasonable limits on the participation of distributed energy resource aggregators in wholesale markets.⁶²⁸

i. Filing

298. NYISO proposes new section 4.1.10.7.3 of the Services Tariff to include voluntary RERRA involvement in coordinating the participation of Aggregations.⁶²⁹ Specifically, NYISO proposes to require each Aggregator to ensure that its Aggregation and the individual resources within the Aggregation comply with all applicable rules and regulations promulgated by the RERRA and included in a Distribution Utility's tariff. NYISO also proposes a voluntary role for RERRAs to both review and submit relevant information to NYISO during coordination. Specifically, NYISO proposes that it shall provide to each DER's RERRA the physical and operational data collected for the DER upon request. Further, NYISO proposes that the RERRA shall have the opportunity to submit information to NYISO that will aid in NYISO's determination of the capacity and/or wholesale market services a DER is authorized to supply. NYISO proposes to consider such information provided by the RERRA in its evaluation of a DER.

ii. Protests

299. AEE, NRDC, and SFP assert that NYISO provides limited information about the proposed role of the RERRA.⁶³⁰ Specifically, they state that the nature of RERRA review, the potential scope of concerns a RERRA may identify, and how such concerns will be considered by NYISO are not defined in NYISO's filing. They also state that NYISO does not explain why additional RERRA review provisions are necessary above and beyond the distribution interconnection standards New York state regulators put in place, or how the RERRA provisions interact with the distribution interconnection standards. AEE, NRDC, and SFP further state that NYISO offers a vague definition of RERRA, which could encompass not only the New York Commission, but also additional entities such as cooperative utilities and municipalities. They urge the Commission to direct NYISO to provide further details regarding the scope of RERRA review in its tariff because such details will likely affect rates, terms, and conditions, and could result in barriers to participation for DERs.

⁶²⁸ Order No. 2222-A, 174 FERC ¶ 61,197 at P 83 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 130, 279).

⁶²⁹ Transmittal at 46.

⁶³⁰ AEE, NRDC and SFP Protest at 21-22.

iii. Answer

300. First, NYISO argues that its proposed definition of RERRA is the definition of the term provided by the Commission in Order No. 719 and reiterated in Order No. 2222.⁶³¹ Second, NYISO argues that its proposal is consistent with the requirements for CAISO's Distributed Energy Resource Provider model referenced by the Commission as an example of RERRA coordination in Order No. 2222.⁶³² NYISO claims that its proposed requirements provide a mechanism for voluntary RERRA involvement and give the RERRA discretion to decide its level of involvement.⁶³³ NYISO anticipates that there may be a wide variety of RERRAs with varying levels of capabilities and interest in coordinating with NYISO.

iv. Data Request Response

301. In its Data Request, Commission staff asked NYISO whether RERRAs will have a role in coordinating the participation of Aggregations in NYISO's markets.⁶³⁴ In response, NYISO clarifies that RERRAs will play a role but that it will be optional.⁶³⁵ Specifically, NYISO explains that the New York Commission has developed New York SIRs and an application process applicable to new distributed generation with a capacity of 5 MW or less.⁶³⁶ NYISO also explains that the New York Commission has rules related to the safety and reliability of the distribution system, metering and telemetry, data use, and disputes between utilities and their customers. NYISO states that it is not aware of specific New York Commission coordination with Distribution Utilities regarding the evaluation of the safety and reliability impacts of DER or DER modifications for wholesale market participation. NYISO notes that the actual evaluation performed by a Distribution Utility will be informed by the rules and requirements established by the RERRA (e.g., a New York SIR interconnection agreement).

v. Commission Determination

302. We find that NYISO's proposal partially complies with the Order No. 2222 requirements regarding the role of RERRAs. More specifically, we find that NYISO's

⁶³¹ NYISO Answer at 45-46.

⁶³² *Id.* at 46.

⁶³³ *Id.* at 47.

⁶³⁴ Data Request at 16-17.

⁶³⁵ Data Request Response at 52.

⁶³⁶ *Id.* at 53.

proposal, which requires the Aggregator to comply with RERRA requirements, establishes a role for RERRAs and therefore complies with the requirement to specify how each RTO/ISO will accommodate and incorporate voluntary RERRA involvement in coordinating the participation of aggregated distributed energy resources in RTO/ISO markets.⁶³⁷ As NYISO explains, proposed section 4.1.10.7.3 of the Services Tariff requires each Aggregator to ensure that its Aggregation and the individual resources within the Aggregation comply with all applicable rules and regulations promulgated by the RERRA and included in a Distribution Utility's tariff. Recognizing that Local Regulatory Authorities have authority over matters within their jurisdiction related to coordinating the participation of Distributed Energy Resource Aggregations in NYISO's markets that are reflected in their rules and regulations, we find that requiring DER Aggregators to comply with relevant retail regulatory authority rules and regulations as the means for voluntary participation in coordination is sufficient for compliance with the requirement of Order No. 2222. As NYISO notes, the Commission in Order No. 2222 expressly cited the CAISO Tariff as an example of how RERRAs could be involved, and CAISO requires—like NYISO does here—that distributed energy resource providers comply with applicable requirements of the local regulatory authority.⁶³⁸ With regard to AEE, NRDC and SFP's concern that NYISO does not explain how the RERRA provisions interact with distribution interconnection standards, we find that NYISO's proposal would encompass any existing requirements, including distribution interconnection standards.

303. We disagree with AEE, NRDC, and SFP's concern that NYISO's definition of RERRA is vague because it could encompass additional parties beyond the New York Commission. Order No. 2222 defined RERRA as "the entity that establishes retail electric prices and any retail competition policies for customers, such as the city council for a municipal utility the governing board of a cooperative utility, or the state public utility commission."⁶³⁹ We agree with NYISO that its proposed definition of RERRA as "the entity that establishes the retail electric prices and competition policies for retail electric customers"⁶⁴⁰ is consistent with the definition specified in Order No. 2222, which contemplated other entities beyond the state public utility commission.

304. We find that NYISO's proposal to provide an additional role for the RERRA in information sharing of physical and operational data on DERs partially complies with

⁶³⁷ Order No. 2222, 172 FERC ¶ 61,247 at P 322.

⁶³⁸ *Id.* P 323.

⁶³⁹ *Id.* P 33 n.65 (citing *Wholesale Competition in Regions with Organized Elec. Mkts.*, Order No. 719, 125 FERC ¶ 61,071, at P 158 (2008)).

⁶⁴⁰ Transmittal at 37.

Order No. 2222. We find that NYISO's proposal accommodates a voluntary role for RERRAs related to information sharing, consistent with Order No. 2222. We believe that AEE, NRDC, and SFP's concerns that these RERRA review provisions are not necessary are misplaced because the RTOs/ISOs were required by the Commission in Order No. 2222 to specify in their tariffs how to accommodate and incorporate voluntary RERRA involvement in coordinating DER aggregation participation in the wholesale markets.⁶⁴¹ Further, we are not persuaded by AEE, NRDC, and SFP's argument that NYISO should provide further details on the scope of the RERRA review, as NYISO defines the voluntary role of the RERRA as one of providing information to aid NYISO's review of a DER.

305. However, we find that NYISO's proposal creates a potential undue barrier to entry for DER Aggregations because they will not have access to the information that a RERRA provides about them to NYISO, which may affect their access to the NYISO market, and therefore does not fully comply with Order No. 2222.⁶⁴² Thus, we direct NYISO to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises section 4.1.10.7.3 of its Services Tariff to require that any information provided by the RERRA to NYISO about a specific Aggregation under this provision must be shared with the Aggregator.

10. Modifications to List of Resources in Aggregation

306. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(e) to the Commission's regulations to require each RTO/ISO to establish market rules that address modification to the list of resources in a distributed energy resource aggregation.⁶⁴³ The Commission required each RTO/ISO to revise its tariff to specify that distributed energy resource aggregators must update their lists of distributed energy resources in each aggregation (i.e., reflect additions and subtractions from the list) and any associated information and data, but that, when doing so, distributed energy resource aggregators will not be required to re-register or re-qualify the entire distributed energy resource aggregation.⁶⁴⁴ The Commission noted that any modification triggers the distribution utility review process.

307. However, the Commission stated that it may be appropriate for each RTO/ISO to abbreviate the distribution utility's review of modifications to the distributed energy

⁶⁴¹ Order No. 2222, 172 FERC ¶ 61,247 at P 322.

⁶⁴² *Id.* P 279 ("We agree with commenters that coordination requirements should not create undue barriers to entry for distributed energy resource aggregations.").

⁶⁴³ *Id.* P 335.

⁶⁴⁴ *Id.* P 336.

resource aggregations.⁶⁴⁵ The Commission explained that, because the impacts of modifications may often be minimal, an abbreviated review process should be sufficient for the distribution utility to identify the cases where an addition to the list of resources might pose a safety or reliability concern. The Commission further explained that modifications to the list of resources in a distributed energy resource aggregation, and the resulting distribution utility and RTO/ISO review of those changes, could occasionally indicate changes to the electrical characteristics of the distributed energy resource aggregation that are significant enough to potentially adversely impact the reliability of the distribution or transmission systems and justify restudy of the full distributed energy resource aggregation. However, the Commission stated, it did not believe that, even in such circumstances, participation of the distributed energy resource aggregation would need to be paused during the review of modifications or restudy. The Commission stated that aggregators should be able to continue to bid the unmodified portion of their aggregation into RTO/ISO markets.

308. To the extent that an RTO/ISO requires distributed energy resource aggregators to provide information on the physical or operational characteristics of its distributed energy resource aggregation, the Commission required each RTO/ISO to revise its tariff to ensure that distributed energy resource aggregators must update such information if any modification to the list of resources participating in the aggregation results in a change to the aggregation's performance.⁶⁴⁶ The Commission found that this requirement will ensure that the RTOs/ISOs have accurate and current information about the physical and operational characteristics of the distributed energy resource aggregations that are participating in their markets, with minimal administrative burden.

309. In Order No. 2222-A, the Commission explained that, occasionally, the removal of a distributed energy resource, particularly a large resource, from an aggregation could drastically change the operation and configuration of an aggregation on the distribution

⁶⁴⁵ *Id.* P 337.

⁶⁴⁶ *Id.* P 338.

system and would need to be examined by a distribution utility.⁶⁴⁷ However, the Commission stated, because such drastic impacts will likely be the exception more than the rule, the Commission encouraged RTOs/ISOs to propose abbreviated distribution utility review processes for modifications to existing aggregations. For example, the Commission noted, an RTO/ISO may propose an abbreviated distribution utility review process as a default when an existing aggregation is modified but allow for a more fulsome review when a modification surpasses some materiality threshold or meets certain criteria.

a. Filing

310. NYISO states that its DER and Aggregation participation model facilitates modifications to Aggregations on a regular basis, subject to certain rules.⁶⁴⁸ NYISO proposes to require at least 90-days' notice if an individual facility wants to change Aggregations to a different Aggregation of the same Aggregation type.⁶⁴⁹ NYISO explains that it previously required 30-days' notice, as accepted by the Commission in the 2019 Aggregation Filing, and it now proposes 90 days to accommodate the Distribution Utility review period directed by Order No. 2222.⁶⁵⁰ As noted earlier, NYISO proposes that a "Distribution Utility shall have sixty (60) calendar days to review the reliability and safety impact of each new Distributed Energy Resource connecting to its electric facilities that seeks to participate in the [NY]ISO Administered Markets, and any incremental change to an Aggregation."⁶⁵¹

311. NYISO explains that, when an individual facility changes Aggregations, NYISO must complete a set of administrative tasks to ensure NYISO's systems accurately reflect the switch.⁶⁵² NYISO states that, when an Aggregation seeks to increase the amount of

⁶⁴⁷ Order No. 2222-A, 174 FERC ¶ 61,197 at P 71 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 337).

⁶⁴⁸ Transmittal at 35-37.

⁶⁴⁹ *Id.* at 35 (citing Services Tariff, § 4.1.10.3). *See* Services Tariff, § 4.1.10.3 ("Subject to the requirement that all of the Resources in an Aggregation must be electrically connected to the same [NY]ISO-identified Transmission Node, an individual Resource may leave its current Aggregation and/or join a new Aggregation to be effective at the start of a calendar month, but must provide at least ninety (90) calendar days notice of its intent to change Aggregations.").

⁶⁵⁰ Transmittal at 35-36.

⁶⁵¹ *See supra* PP 262, 267; Services Tariff, § 4.1.10.7.1.

UCAP it is qualified to sell, it will need to undergo a supplemental Dependable Maximum Net Capability test to demonstrate its updated capacity before it will be able to offer the UCAP of the new facility in an ICAP auction. NYISO states that, likewise, if a DER leaves an Aggregation, the DER's ICAP will be removed from the original Aggregation's ICAP on the last day of the capability month. NYISO states that, if a DER wants to switch participation models, it can only do so prior to the start of the Capability Year. This rule, according to NYISO, allows NYISO to timely and accurately complete its load forecasts.⁶⁵³

b. Protests

312. AEE, NRDC and SFP request that the Commission reject the proposed 90-day period and direct NYISO to revert back to the 30-day notice period.⁶⁵⁴ They contend that NYISO has not justified why its current 30-day period is no longer sufficient. They note that NYISO supports its proposal by citing to Order No. 2222, but they argue that there is no requirement in Order No. 2222 for a full 60-day review period for modifications. They contend that this extended time period is unnecessarily burdensome. AEE, NRDC, and SFP argue that NYISO's proposed 90-day review period exceeds the period of 60 days the Commission deemed reasonable for reviewing the initial inclusion of a DER in an aggregation. AEMA similarly argues that NYISO fails to justify why the maximum 60-day period is necessary.⁶⁵⁵ AEMA contends that NYISO's proposal decreases flexibility for Aggregators to adjust Aggregations.

313. In addition, AEMA opposes NYISO's proposal to subject any change to utility review—such as one kW—because this is a barrier to participation.⁶⁵⁶ AEMA requests that the Commission direct NYISO to conduct a stakeholder process to refine the trigger for review of modifications.

314. NYTOs argue that all changes should be subject to review.⁶⁵⁷ They recommend that the Commission require NYISO to strike “incremental” from the first paragraph of section 4.1.10.7.1.

⁶⁵² Transmittal at 36.

⁶⁵³ *Id.* at 36-37.

⁶⁵⁴ AEE, NRDC, and SFP Protest at 16-17.

⁶⁵⁵ AEMA Protest at 16.

⁶⁵⁶ *Id.* at 16-17.

⁶⁵⁷ NYTOs Protest at 14-15.

c. Answers

315. In response to protests of the notice and review periods for modifications, NYISO states that it proposed a 60-day review period for Distribution Utilities after careful consideration and consultation with utilities, and such period is appropriate for New York.⁶⁵⁸ NYISO explains that those utilities expressed the need, at least at the outset, to be afforded the full 60-day review. NYISO reiterates that Distribution Utilities are not required to use the full 60-day period, and NYISO will work on a case-by-case basis to complete reviews in under 60 days if possible.⁶⁵⁹ NYISO also reiterates that its accepted market rules require that NYISO receive at least 30-days' notice of a facility's intent to change Aggregations. NYISO states, however, that it expects that it can complete a portion of its work simultaneously with the Distribution Utility's evaluation but that NYISO will still need time to complete its administrative work after the Distribution Utility completes its evaluation.

316. Similarly, NYTOs oppose the request for a 30-day deadline for Distribution Utility review.⁶⁶⁰ They contend that 60 days is necessary to ensure adequate opportunity for review and to have reasonable degrees of confidence in conclusions and recommendations.

317. Xcel also expresses concern that limiting the time period for reviewing modifications could have negative impacts on safety and reliability.⁶⁶¹ Xcel acknowledges that some reviews will be fairly standardized, especially as utilities gain experience. But Xcel notes that, in the early days of implementation of Order No. 2222, there is the potential to see significant changes in Aggregations as the market adapts to Aggregations and as they seek to provide new and greater numbers of services. Xcel notes that certain changes may require more in-depth study, adding to a stack of other new or changed circumstances that are on the utility's plate to study.

318. In reply to AEMA's protest about the trigger for review of modifications, NYISO states that it does not support a *de minimis* threshold to exempt changes from Distribution Utility review at this time.⁶⁶² NYISO maintains that it is not possible to identify a universally appropriate *de minimis* threshold. Similarly, NYTOs state that the Distribution Utilities need to be afforded an opportunity to fully understand any changed

⁶⁵⁸ NYISO Answer at 41.

⁶⁵⁹ *Id.* at 39 n.93 (citing Transmittal at 44).

⁶⁶⁰ NYTOs Answer at 6.

⁶⁶¹ Xcel Answer at 8-9.

⁶⁶² NYISO Answer at 40.

Aggregation and to make the determination as to its impact on the safety and reliability of the distribution system.⁶⁶³ According to NYTOs, a *de minimis* exemption is not required by Order No. 2222 and such an exemption would also be unjust and unreasonable.

According to NYTOs, materiality of a modification to a DER Aggregation should not be governed by an arbitrary wattage threshold, and any modification to a DER Aggregation that poses a significant risk to the safety and reliability of the distribution system would be material and, consequently, NYISO's proposal correctly does not establish a materiality threshold for changes to Aggregations to allow for Distribution Utility review but defers such decisions to the Distribution Utilities. NYTOs contend that Distribution Utilities must have visibility into DER/Aggregation composition, interrelationships and characteristics to ensure reliable and safe operations.

319. Lastly, agreeing with NYTOs' concerns about the term "incremental" in Services Tariff section 4.1.10.7.1, NYISO requests that the Commission direct it to replace "incremental" with "any."⁶⁶⁴

d. Data Request Response

320. In its Data Request, Commission staff asked NYISO to support its requirement that individual facilities rather than the Aggregator must provide notice when an individual facility wants to change Aggregations.⁶⁶⁵ In response, NYISO explains that the Commission previously accepted the requirement in NYISO's 2019 Aggregation Filing that an individual resource must provide at least 30 days' notice of its intent to change Aggregations.⁶⁶⁶ NYISO states that it is not NYISO's intention to require an individual resource to provide the necessary notice. NYISO states that it expects that the Aggregator will provide the required notice in most cases. NYISO explains that its tariff provides flexibility and does not foreclose the opportunity for an individual DER to submit notification that it wants to leave its Aggregation or to change Aggregations.

321. Commission staff also asked NYISO to 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.⁶⁶⁷ Commission staff also asked NYISO to explain whether it considered if removal of a small resource would be less likely to have distribution system impacts and should thus require less time to review. NYISO

⁶⁶³ NYTOs Answer at 4-6.

⁶⁶⁴ NYISO Answer at 40.

⁶⁶⁵ Data Request at 17.

⁶⁶⁶ Data Request Response at 54-55.

⁶⁶⁷ Data Request at 18.

explains that New York Distribution Utilities have advised that they may need up to 60 days to evaluate modifications.⁶⁶⁸ NYISO states that it considered whether small changes to an Aggregation would require a shorter timeline for review and believes that such minor modifications would require less than 60 days to review. However, NYISO does not believe that a uniformly applicable *de minimis* exemption is appropriate because conditions on the distribution systems vary and conditions can vary even within a distribution system from network to network. NYISO states that the particular facts and circumstances of a modification may require up to 60 days to evaluate.

322. Commission staff also asked how NYISO plans to work with Distribution Utilities on a case-by-case basis to facilitate expedient review of DERs.⁶⁶⁹ NYISO explains that it will support the Distribution Utilities on a case-by-case basis by answering questions, working with the Aggregator if additional information is required to evaluate a new or modified DER (or Aggregation), and providing other assistance as needed.⁶⁷⁰ NYISO also states that it may notify the Distribution Utility if it believes the new or modified DER (or Aggregation) should be subject to an abbreviated review process.

e. Commission Determination

323. We find that NYISO's proposal partially complies with the requirement in Order No. 2222 to establish market rules that address modification to the list of resources in a distributed energy resource aggregation.⁶⁷¹ Specifically, Services Tariff section 4.1.10.3 states that "an individual Resource may leave its current Aggregation and/or join a new Aggregation, but must provide at least ninety (90) calendar days notice of its intent to change Aggregations." In addition, Services Tariff section 4.1.10.7.1 provides Distribution Utilities with 60 calendar days to review the reliability and safety impact of any incremental change to an Aggregation.⁶⁷² As NYISO notes, it proposes to increase its existing 30-day notice requirement to 90 days because NYISO proposes a 60-day review period of modifications by Distribution Utilities. As discussed below, we find that NYISO's proposal is reasonable and does not conflict with the requirements of Order No. 2222.

⁶⁶⁸ Data Request Response at 56.

⁶⁶⁹ Data Request at 18.

⁶⁷⁰ Data Response at 56.

⁶⁷¹ Order No. 2222, 172 FERC ¶ 61,247 at P 335.

⁶⁷² See Services Tariff, § 4.1.10.7.1 ("A Distribution Utility shall have sixty (60) calendar days to review the reliability and safety impact of each new Distributed Energy Resource connecting to its electric facilities that seeks to participate in the ISO Administered Markets, and any incremental change to an Aggregation.").

324. We disagree with AEMA that the 60-day period for Distribution Utility review of modifications is unjustified and decreases flexibility for Aggregators. As discussed above, we find that NYISO complies with the requirement that distribution utilities have no more than 60 days to review aggregations.⁶⁷³ We find that, based on the record, this 60-day review period is reasonable because it will ensure that Distribution Utilities in New York have an adequate opportunity to review modifications to Aggregations.⁶⁷⁴ As Xcel notes, certain modifications may require more in-depth study, and may arise when there are other modifications or newly-registered Aggregations that the Distribution Utility must review concurrently.⁶⁷⁵ Moreover, while the Commission stated in Order No. 2222 that it may be appropriate for each RTO/ISO to abbreviate the distribution utility's review of modifications to the distributed energy resource aggregations, the Commission did not require the RTOs/ISOs to abbreviate this review period.⁶⁷⁶ We find that, for the reasons discussed above, NYISO sufficiently supported its need for a 60-day review period for modifications to Aggregations.

325. However, although we find that the 60-day review period is reasonable, we agree with the NYTOs that the proposed tariff language—"any *incremental* change"—must be revised so that this review period applies to *any* change to an Aggregation. As the Commission stated in Order No. 2222, "*any modification* of a distributed energy resource

aggregation will trigger distribution utility review."⁶⁷⁷ Accordingly, we direct NYISO file within 60 days of the date of issuance of this order, a further compliance filing that revises section 4.1.10.7.1 so that Distribution Utilities may review the reliability and safety impact of "any change to an Aggregation." As part of that further compliance filing, we direct NYISO to delete the word "incremental" from the following language proposed in section 4.1.10.7.1: "The ISO shall also provide to the Distribution Utility individual Distributed Energy Resource physical and operational data necessary to

⁶⁷³ See *supra* P 262.

⁶⁷⁴ Order No. 2222-A, 174 FERC ¶ 61,197 at P 72 ("[We] reiterate that any proposed review period must be shown to be reasonable based on what is being reviewed.").

⁶⁷⁵ Xcel Answer at 9.

⁶⁷⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 337.

⁶⁷⁷ *Id.* (emphasis added). While the Commission said in Order No. 2222 that the distribution utility review process is triggered by "incremental changes," we do not believe that the Commission meant to limit the scope of this review process only to certain changes. Order No. 2222, 172 FERC ¶ 61,247 at P 292. The Commission reiterated in Order No. 2222-A that "any modification triggers the distribution utility review process." Order No. 2222-A, 174 FERC ¶ 61,197 at P 71.

evaluate incremental changes to an Aggregation.” Consistent with the Commission’s statement that distribution utility review period applies to all modifications, these utilities should have the necessary information to evaluate all changes, not just incremental changes.

326. In addition, we disagree with AEE, SFP, and NRDC that the 90-day notice period is unjustified, burdensome, and exceeds the time period that the Commission established for the initial review of Aggregations. The protested 90-day notice period comprises 60 days for Distribution Utility review of modifications and 30 days for NYISO to complete its administrative tasks to ensure NYISO’s systems accurately reflect the change. The Commission previously found NYISO’s 30-day notice period just and reasonable, and the instant proposal again allocates NYISO 30 days.⁶⁷⁸ NYISO explains that, for modifications to Aggregations, NYISO must complete a set of administrative tasks to ensure NYISO’s systems accurately reflect the switch. NYISO states that its rules were developed to provide flexibility to individual facilities and Aggregations, while accommodating the administrative and operational needs of NYISO.⁶⁷⁹ For example, NYISO explains that, if a modified Aggregation wants to increase the amount of UCAP it is qualified to sell in NYISO’s capacity market the Aggregation will need to conduct a supplemental Dependable Maximum Net Capability test to prove the updated capability. Given that NYISO uses month-to-month rather than annual delivery periods, we find that it is reasonable for NYISO to continue to have 30 days for administrative tasks such as these to facilitate participation of modified Aggregations in NYISO’s markets and that doing so does not create undue barriers to entry for Aggregations, consistent with Order No. 2222.⁶⁸⁰

327. We are not persuaded by AEMA’s request to exempt certain modifications from Distribution Utility review because that request is inconsistent with Order No. 2222, where the Commission found that “any modification of a distributed energy resource aggregation will trigger distribution utility review.”⁶⁸¹

328. As discussed above, NYISO must, on further compliance, revise its tariff to specify that Aggregators must update their lists of DERs in each Aggregation, and any associated information and data.⁶⁸² On compliance, we will evaluate whether, to the extent that NYISO requires Aggregators to provide information on the physical or

⁶⁷⁸ 2020 Aggregation Order, 170 FERC ¶ 61,033 at PP 11, 34.

⁶⁷⁹ Transmittal at 36.

⁶⁸⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 278.

⁶⁸¹ *Id.* P 337; *see* Order No. 2222-A, 174 FERC ¶ 61,197 at P 71.

⁶⁸² *See supra* PP 170-172.

operational characteristics of its Aggregation, NYISO revised its tariff to ensure that Aggregators must update such information if any modification to the list of resources participating in the aggregation results in a change to the aggregation's performance.⁶⁸³ Finally, we will also evaluate whether Aggregators that update their lists need not re-register or re-qualify the entire Aggregation, as the Commission stated in Order No. 2222.⁶⁸⁴

11. Market Participation Agreements

329. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(h) to the Commission's regulations to require each RTO/ISO to establish market rules that address market participation agreements for distributed energy resource aggregators.⁶⁸⁵ The Commission required each RTO/ISO to revise its tariff to include a standard market participation agreement that defines the distributed energy resource aggregator's role and responsibilities and its relationship with the RTO/ISO, which an aggregator is required to execute before it can participate in the RTO/ISO markets. The Commission stated that this market participation agreement must include an attestation that the distributed energy resource aggregator's aggregation is compliant with the tariffs and operating procedures of the distribution utilities and the rules and regulations of any RERRA.

330. The Commission required that the market participation agreements that the RTOs/ISOs include in their tariffs not limit the business models under which distributed energy resource aggregators can operate.⁶⁸⁶ The Commission explained that allowing distributed energy resource aggregators with varying business models to be included in such agreements should increase the ability of the distributed energy resource aggregators, and resources within such aggregations, to participate in the RTO/ISO markets. The Commission stated that permitting RTO/ISO prohibitions against certain business models in their market participation agreements is not necessary given a distributed energy resource aggregator's duty to adhere to RTO/ISO market rules, the attestation requirement that the Commission required to be included in the market participation agreements, as well as the ability of RTOs/ISOs to craft any necessary safeguards short of business model prohibitions within these agreements.⁶⁸⁷

⁶⁸³ Order No. 2222, 172 FERC ¶ 61,247 at P 338.

⁶⁸⁴ *Id.* P 336.

⁶⁸⁵ *Id.* P 352.

⁶⁸⁶ *Id.* P 353.

⁶⁸⁷ *Id.* P 356.

331. The Commission stated that, with the exception of the attestation requirement and prohibition of business model limitations, it will not specify the exact terms and conditions of the market participation agreements.⁶⁸⁸ The Commission stated that this approach will give the RTOs/ISOs and stakeholders flexibility to develop appropriate agreements for their regions, and increase the ability of the distributed energy resource aggregators, and resources within such aggregations, to participate in RTO/ISO markets by better tailoring agreements to the operating conditions and needs of those markets, and thereby help to enhance competition in the markets. The Commission stated that it will evaluate the reasonableness of such proposals on compliance. The Commission noted that RTOs/ISOs and stakeholders may choose to include additional parties or incorporate related agreements in the proposed market participation agreements.⁶⁸⁹

a. Filing

332. NYISO states that its existing processes address the directives of Order No. 2222 in several ways.⁶⁹⁰ NYISO explains that, under its existing DER Aggregation rules, an Aggregator must execute a Service Agreement under the Services Tariff and comply with NYISO's Aggregation registration and DER enrollment requirements.⁶⁹¹ NYISO states that the Service Agreement requires the customer to affirm that it has met all applicable requirements in the Services Tariff, which includes the market rules for DER Aggregation. With respect to the attestation requirement, NYISO proposes the following revision to section 4.1.10.5 of its Services Tariff: "Prior to an Aggregation's participation in the wholesale market, and each individual facility's participation in an Aggregation, the [a]ggregator shall attest that the individual facility(ies) and Aggregation have been authorized to participate in the ISO-administered markets by the applicable Distribution Utility and [RERRA]."

b. Protest

333. NYTOs argue that NYISO's proposed attestation requirement is impermissibly vague because it fails to provide sufficient details about sequencing and the Distribution Utility's role and responsibilities in the authorization process.⁶⁹²

⁶⁸⁸ *Id.* P 354.

⁶⁸⁹ *Id.* P 355.

⁶⁹⁰ Transmittal at 12, 46-47.

⁶⁹¹ *Id.* at 47.

⁶⁹² NYTOs Protest at 9-10.

c. Answer

334. NYISO responds that NYTOs' concerns present a "what comes first, the chicken or the egg" problem.⁶⁹³ NYISO states that NYTOs propose that the Distribution Utility review period should not begin until the Aggregator submits the attestation that it has met the criteria for wholesale market participation. However, NYISO contends, the Aggregator will not be able to do that, because one of the criteria is compliance with Distribution Utility tariffs and operating procedures, and such compliance may depend upon the result of the Distribution Utility's review of impacts to the distribution system.

d. Commission Determination

335. We find that NYISO's proposal partially complies with the Order No. 2222 requirement to establish market rules that address market participation agreements for distributed energy resource aggregators.⁶⁹⁴ Specifically, NYISO requires that an Aggregator must execute a Service Agreement under the Services Tariff.⁶⁹⁵ We find that NYISO's use of its existing Service Agreement under the Services Tariff complies with the requirement to include a standard market participation agreement that defines the distributed energy resource aggregator's role and responsibilities and that it must execute before participating in NYISO's markets.⁶⁹⁶ We note that, in order to take service, an Aggregator must complete and deliver a Service Agreement to NYISO, which is consistent with the Commission's statement that the aggregator is required to execute the market participation agreement before it can participate in the RTO/ISO markets.⁶⁹⁷ Moreover, by signing the Service Agreement, an Aggregator agrees to satisfy all obligations under the terms and conditions of the Services Tariff as well as represents and

⁶⁹³ NYISO Answer at 13-14.

⁶⁹⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 352.

⁶⁹⁵ See Services Tariff, § 9.1 ("Each Customer requesting to schedule, take or provide any services under the [NY]ISO Services Tariff must apply to the

[NY]ISO To apply, the Customer shall complete and deliver a Service Agreement (in the form of Attachment A) and an Application to the [NY]ISO.").

⁶⁹⁶ Order No. 2222, 172 FERC ¶ 61,247 at P 352.

⁶⁹⁷ See *id.* P 352; Services Tariff, § 9.1. We also note that the executed Service Agreements that conform to the form of Service Agreement, which we find complies with the requirements of Order No. 2222, should be reported in NYISO's Electric Quarterly Reports, retained and made available for public inspection, consistent with the Commission's requirements. *Revised Pub. Util. Filing Requirements*, Order No. 2001, 99 FERC ¶ 61,107, at P 196 (2002); 18 C.F.R. § 35.1(g)(2021).

warrants that it has met all requirements applicable to Aggregators set forth in Services Tariff.⁶⁹⁸ Those requirements include tariff provisions that define the roles and responsibilities of the Aggregator, such as the attestation requirement, though, as we explain below, the attestation as proposed does not comply with Order No. 2222. We also find that there are no provisions in the Services Tariff or Service Agreement that limit the business models under which Aggregators can operate, consistent with Order No. 2222.⁶⁹⁹ In these respects, we find that NYISO's proposal complies with Order No. 2222.

336. However, we find that NYISO's proposed attestation, in section 4.1.10.5 of its Services Tariff, does not comply with the requirement that the distributed energy resource aggregator must attest that its aggregation complies with the tariffs and operating procedures of the distribution utilities and the rules and regulations of any RERRA.⁷⁰⁰ The Commission stated that this requirement serves to ensure that a distributed energy resource aggregator complies with the tariffs and operating procedures of the distribution utilities, and the rules and regulations of any RERRA.⁷⁰¹ We find that NYISO's proposal does not comply because NYISO's proposed attestation in section 4.1.10.5 requires the Aggregator to attest that the Distribution Utility and RERRA have authorized the individual facilities and Aggregation to *participate in the wholesale markets*. Consistent with the specific requirement of Order No. 2222, this attestation should instead address compliance with the tariffs and operating procedures of the Distribution Utility and rules and regulations of any RERRA.

337. Accordingly, we direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing that revises the requirement in section 4.1.10.5 of its Services Tariff to specify that the Aggregator must attest to its compliance with the tariffs and operating procedures of the Distribution Utilities and the rules and regulations of any RERRA, consistent with the requirement of Order No. 2222.

338. With respect to NYTOs' concern that NYISO's attestation fails to provide sufficient details about sequencing and the Distribution Utility's role and responsibilities in the authorization process, we find this concern to involve implementation details beyond the scope of the Order No. 2222 attestation requirement. We encourage NYISO to coordinate with Aggregators and the Distribution Utilities to develop these implementation details and to include them in the business manual for Aggregations.

⁶⁹⁸ Form of Service Agreement, § 2.0.

⁶⁹⁹ Order No. 2222, 172 FERC ¶ 61,247 at P 353.

⁷⁰⁰ *Id.* P 352.

⁷⁰¹ *Id.*

12. Effective Date

339. In Order No. 2222, the Commission required each RTO/ISO to propose a reasonable implementation date, together with adequate support explaining how the proposal is appropriately tailored for its region and implements Order No. 2222 in a timely manner.⁷⁰² The Commission stated that it will establish on compliance the effective date for each RTO's/ISO's compliance filing.

a. Filing

340. NYISO states that it has already implemented several aspects of its 2019 Aggregation Filing consistent with the schedule proposed and accepted in that proceeding.⁷⁰³ NYISO further states that it will continue to develop software and hardware modification necessary to implement its DER and Aggregation participation model. NYISO currently anticipates that the modifications, testing, and deployment of its 2019 Aggregation Filing will be ready in the fourth quarter of 2022.

341. NYISO also currently anticipates that the software and hardware modifications, testing, and deployment necessary to implement its DER and Aggregation tariff revisions in this filing will be ready in the fourth quarter of 2022.⁷⁰⁴ NYISO states that it is unable to propose a precise effective date for the tariff revisions described in this filing at this time due to the ongoing software development, testing, and deployment that must be completed prior to the revisions becoming effective. NYISO states that, consistent with previous matters in which it has requested a flexible effective date contingent upon the completion of software upgrades, it proposes to submit a compliance filing at least two weeks prior to the proposed effective date that will specify the date on which the tariff revisions will take effect. NYISO states that, consistent with Commission precedent, such filing will provide adequate notice to the Commission and market participants of the implementation of the tariff revisions for DER and Aggregations.⁷⁰⁵ NYISO also states that it anticipates proposing an effective date for the tariff revisions in this filing that is the same date as the remaining tariff revisions that need to be implemented for the 2019 Aggregation Filing.⁷⁰⁶

⁷⁰² *Id.* P 361.

⁷⁰³ Transmittal at 48.

⁷⁰⁴ *Id.*

⁷⁰⁵ *Id.* (citing, e.g., *N.Y. Indep. Sys. Operator, Inc.*, 151 FERC ¶ 61,057, at P 20 (2015)).

⁷⁰⁶ *Id.* at 48-49.

b. Data Request Response

342. In its Data Request, Commission staff asked NYISO to provide a timeline for NYISO's anticipated software modifications, testing, and deployment.⁷⁰⁷ NYISO states that it continues to expect to implement its DER and Aggregation participation model in the fourth quarter of 2022.⁷⁰⁸ However, NYISO notes that this timeline does not account for changes to the software and applications required by the Commission, or in response to new issues that may arise. NYISO asserts that once the Commission issues an order on its compliance filing, NYISO will work to identify software changes necessary to meet the Commission's directives which may delay the implementation schedule.

c. Data Request Response Protest

343. AEE contends that, while NYISO repeatedly asserts a potential for delay in implementation of the DER participation model previously approved by the Commission if it is required to make changes to that model in compliance with Order No. 2222, NYISO has not sufficiently justified this delay or provided an estimate with respect to timing of implementation.⁷⁰⁹ AEE adds that, while the need for a degree of expediency is legitimate, it is also important to provide the industry and DER owners and Aggregators with clear and certain rules to follow. AEE requests that NYISO provide more details including clear justification for the delay and an estimate of the potential timing for the implementation of the participation model the Commission previously approved, as well as changes to that participation model necessary to comply and the latter-issued Order No. 2222.

d. Commission Determination

344. We find that NYISO's proposed implementation timeline in the fourth quarter of 2022 complies with the effective date requirements of Order No. 2222. NYISO proposes a reasonable implementation date, with adequate support to explain how the proposal is appropriately tailored for its region and implements Order No. 2222 in a timely manner.⁷¹⁰ We direct NYISO to file, within 60 days of the date of issuance of this order, a further compliance filing proposing an effective date by which it will allow DERs in heterogeneous Aggregations to provide all of the ancillary services that they are technically capable of providing through aggregation, as discussed above,⁷¹¹ and to

⁷⁰⁷ Data Request at 19.

⁷⁰⁸ Data Request Response at 57.

⁷⁰⁹ AEE Protest to Comments on Data Request Response at 3-4.

⁷¹⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 361.

propose an effective date for its compliance filing in the fourth quarter of 2022 at least two weeks prior to the proposed effective date, as NYISO proposes to do.

The Commission orders:

(A) NYISO's compliance filing is hereby accepted, subject to a further compliance filing, as discussed in the body of this order.

(B) NYISO is hereby directed to submit a further compliance filing, within 60 days of the date of issuance of this order, as discussed in the body of this order.

⁷¹¹ See *supra* P 93.

(C) NYISO is hereby directed to propose an effective date for its compliance filing in the fourth quarter of 2022, as discussed in the body of this order.

By the Commission. Commissioner Danly is concurring with a separate statement attached.

Commissioner Clements is concurring in part and dissenting in part with a separate statement attached.

(S E A L)

Debbie-Anne A. Reese,
Deputy Secretary.

Appendix A

Tariff Records Filed

New York Independent System Operator, Inc.

FERC FPA Electric Tariff

NYISO Tariffs

Docket No. ER21-2460-000

Effective Date To Be Determined

[NYISO OATT, 32.1 OATT Att Z Application \(14.0.0\)](#)

[NYISO OATT, 32.5 OATT Att Z Appendices \(21.0.0\)](#)

[NYISO MST, 2.1 MST Definitions - A \(15.0.0\)](#)

[NYISO MST, 4.1 MST Market Services - General Rules \(20.0.0\)](#)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket Nos. ER21-2460-000
ER21-2460-001

(Issued June 17, 2022)

DANLY, Commissioner, *concurring*:

1. I concur with this order on the compliance filing¹ submitted by the New York Independent System Operator, Inc. (NYISO) pursuant to Order No. 2222.² I dissented from Order No. 2222 because I disagreed that the Commission should exercise jurisdiction over the participation of Distributed Energy Resources in markets administered by Regional Transmission Organizations or Independent System Operators (collectively, RTOs).³ My concern was that the Commission should not be in the business of micro-managing RTO activities that mostly affect the distribution system which is primarily within the jurisdiction of the states.

2. NYISO made a good faith effort to comply with Order No. 2222. While I continue to disagree with Order No. 2222 itself, I agree that NYISO failed to fully comply with its scores of dictates. I do not envy NYISO the compliance task we imposed upon it. One hundred percent compliance probably is impossible in a first, or perhaps even second, attempt. We shall see.

3. This underscores my original concern about the Commission's intrusive interference into the administration of RTO markets and distribution-level systems. Order No. 2222 not only took over many state powers but also—as confirmed today—permits RTOs extremely limited discretion to do anything other than step in line with the Commission's directives for how every little thing should work. Parties should keep that in mind when responding to the Commission's other sweeping rulemakings which are currently pending.⁴

¹ *New York Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,198 (2022).

² *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197, *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021).

³ See Order No. 2222, 172 FERC ¶ 61,247 (Danly, Comm'r, dissenting); Order No. 2222-A, 174 FERC ¶ 61,197 (Danly, Comm'r, dissenting).

⁴ See *Improvements to Generator Interconnection Procedures & Agreements*, 179

For these reasons, I respectfully concur.

James P. Danly
Commissioner

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket Nos. ER21-2460-000
ER21-2460-001

(Issued June 17, 2022)

CLEMENTS, Commissioner, *concurring in part and dissenting in part*:

1. Although I was not serving at the Commission for the issuance of Order No. 2222, I am pleased that the Commission took that significant step to remove barriers to entry for the participation of distributed energy resources (DERs). Enabling DER participation in the market is crucial to ensuring that markets remain reliable, efficient, and economic. DERs can often be interconnected much more quickly than traditional resources and can be located on areas on the grid that allow for more system flexibility, in turn providing the opportunity for relatively low-cost and near-term resilience and reliability gains. Issuing this order,¹ as well as the concurrent order on CAISO's compliance with Order No. 2222,² is critical to ensuring that these resources have fair access to regional markets, and I support most of the determinations in each order. I write separately, however, because I am concerned that a subset of the determinations in the Majority Order undercut the goals the Commission sought to achieve in issuing Order No. 2222.

2. Specifically, I am concerned that the Majority Order's finding that Order No. 2222 does not require NYISO to accommodate a specific type of DER³ erodes the rule's plain requirement that an RTO/ISO's rules may not "prohibit any particular type of [DER] technology from participating in [DER] aggregations."⁴ It sets precedent that may, in the future, allow RTO/ISOs to prevent the participation of other resource types. In order to accept NYISO's compliance proposal as technology neutral,⁵ it accepts a strained

¹ *New York Independent System Operator, Inc.*, 179 FERC ¶ 61,198 (2022) (Majority Order).

² *California Independent System Operator Corporation*, 179 FERC ¶ 61,197 (2022) (CAISO).

³ Majority Order at PP 112, 64 n.118.

⁴ *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247, at P 141 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197 (2021), *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021). *See also* Order No. 2222, 172 FERC ¶ 61,247 at P 114 n.277.

justification by NYISO that results, as a practical matter, in the Commission altering the requirements of Order No. 2222 and preventing a type of DER from being able to provide the services in NYISO's market that it is technically capable of providing.⁶

3. NYISO argues that it is necessary to exclude energy efficiency from participating in DER aggregations because energy efficiency does not meet NYISO's general eligibility rules, which require that most resources⁷ seeking to offer capacity in NYISO "be able to participate in the NYISO's Energy market and be able to respond to and perform in a manner consistent with the directions and control of NYISO."⁸ The Commission accepts this barrier to participation, incorrectly finding that "Order No. 2222 does not require NYISO to change its existing market qualification and performance requirements."⁹ An express purpose of Order No. 2222 was to "remove the barriers that qualification and performance requirements currently pose to the participation of distributed energy resources in the RTO/ISO markets."¹⁰ Accordingly, the Commission should require NYISO to revise its DER aggregation participation model, or its other requirements, to accommodate the characteristics of energy efficiency, and any future DER technologies in compliance with Order No. 2222, instead of bending the clear requirements of the rule to get to yes.¹¹ For the same reasons, I would have voted to find

⁵ Majority Order at PP 64, 110-112.

⁶ Energy efficiency is able to participate as a supply-side resource and is included in the proposed definition of a DER in all of the other RTO/ISOs with a capacity market. In practice, the State of New York has robust retail-level energy efficiency programs, and it is not clear that energy efficiency providers in NYISO would prefer to participate as part of an aggregation providing capacity into NYISO. However, the point of Order No. 2222 is to provide the option—to ensure that any resource that is technically capable of providing wholesale services through aggregation is eligible to do so.

⁷ NYISO's tariff has exceptions for "Responsible Interface Parties." A Responsible Interface Party is defined as "A Customer that is authorized by the ISO to be the Installed Capacity Supplier for one or more Special Case Resources and that agrees to certain notification and other requirements as set forth in this Services Tariff and in the ISO Procedures." Services Tariff, Definitions, R (Responsible Interface Party).

⁸ NYISO Answer at 47, 48.

⁹ Majority Order at P 112. *See also id.* P 64, n. 118.

¹⁰ Order No. 2222, 172 FERC ¶ 61,247 at P 26.

¹¹ I recognize the complexity of developing the market design updates and tariff rules necessary to accommodate energy efficiency as a supply-side resource and would have granted NYISO's request for sufficient time to develop the necessary changes

that NYISO's definition of DER is not compliant in its failure to fully accommodate the broad range of resources that Order No. 2222 contemplates.¹²

4. I have carefully considered other areas in this important order, and the *CAISO* order, where the Commission has decided to provide flexibility in complying with the letter of the final Order No. 2222 requirements. These areas include the minimum size of aggregation requirements,¹³ specific review criteria regarding reliability,¹⁴ the role of the

without delaying implementation of the rest of NYISO's compliance filing.

¹² NYISO defines a Distributed Energy Resource as "(i) a facility comprising two or more Resource types behind a single point of interconnection with an Injection Limit of 20 MW or less; or (ii) a Demand Side Resource; or (iii) a Generator with an Injection Limit of 20 MW or less, that is electrically located in the [New York Control Area]." NYISO Transmittal Letter at 14. A Demand Side Resource, in turn, must be "capable of controlling demand by either curtailing its Load or by operating a Local Generator to reduce Load from the [New York State] Transmission System and/or the distribution system at the direction of the ISO, in a responsive, measurable and verifiable manner within time limits . . . ," among other requirements. Services Tariff, Definitions, D (Demand Side Resource). This narrower definition significantly limits DER participation compared to the scope of what the Commission envisioned in Order No. 2222 and in its regulations. 18 C.F.R. § 35.28 (2021); Order No. 2222, 172 FERC ¶ 61,247 at P 114 ("any resource located on the distribution system, any subsystem thereof or behind a customer meter"). *See also* Order No. 2222, 172 FERC ¶ 61,247 at P 114 ("These resources may include, but are not limited to, resources that are in front of and behind the customer meter, electric storage resources, intermittent generation, distributed generation, demand response, energy efficiency, thermal storage, and electric vehicles and their supply equipment – as long as such a resource is 'located on the distribution system, any subsystem thereof or behind a customer meter.'"); at P 115 ("[W]e clarify that energy efficiency and demand response resources are capable of providing demand reductions at customer sites, and therefore 'customer sites capable of demand reduction' may meet the definition of a distributed energy resource."); and at P 141 ("We find that limiting the types of technologies that are allowed to participate in RTO/ISO markets through a distributed energy resource aggregator would create a barrier to entry for emerging or future technologies, potentially precluding them from being eligible to provide all of the capacity, energy, and ancillary services that they are technically capable of providing.").

¹³ The Majority Order finds, without discussion, that NYISO complies with the requirement that each RTO/ISO implement a minimum size requirement not to exceed 100 kW for all distributed energy resource aggregations. Majority Order at P 18. However, NYISO proposed a 100 kW minimum *offer* threshold that applies separately to energy injections, energy withdrawals, and demand reductions. NYISO Transmittal at 24. This effectively creates a minimum size requirement of at least 200 kW for

relevant electric retail regulatory authorities (RERRAs),¹⁵ and NYISO's proposal to require 90-days' notice to implement certain modifications to a DER aggregation.¹⁶ I

heterogenous aggregations that are capable of both injections and demand reductions. While there may be compelling reasons to grant NYISO an exception from the rule, those reasons are not explained in Majority Order.

¹⁴ The Majority Order finds that NYISO may simply defer to distribution utilities and need not specify criteria by which the distribution utilities will determine whether 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. Majority Order at P 267. This finding is, at best, a strained interpretation of Order No. 2222, which directs RTOs/ISOs to provide "specific review criteria that the distribution utilities *should* use." Order No. 2222, 172 FERC ¶ 61,247 at P 293 (emphasis added). *See also CAISO*, 179 FERC ¶ 61,197 at PP 206-207 (finding CAISO may defer to distribution utilities regarding reliability criteria to be used).

¹⁵ The Majority Order finds that Order No. 2222's requirement that RTOs and ISOs specify voluntary roles for RERRA may be met by a mere reference that the DER aggregator has complied with RERRA requirements. Majority Order at P 302; *see also CAISO*, 179 FERC ¶ 61,197 at PP 237-238. But the purpose of Order No. 2222's requirement should be understood to ensure that all interested parties would be aware of the bounds of any voluntary RERRA involvement, should any RERRA so volunteer. To the extent that RTOs and ISOs intend RERRAs to have greater involvement than what is specified in the tariff, or the RERRAs wish to have greater involvement on their own accord, parties, including DER aggregators, may be forced to negotiate that involvement after the fact, and to do so without clear boundaries.

¹⁶ The Majority Order accepts NYISO's proposal for a 60-day distribution utility review period combined with a 30-day period for "administrative tasks." Majority Order at PP 323, 326; NYISO Transmittal at 36. Yet Order No. 2222 did not provide additional time for RTOs and ISOs to conduct "administrative tasks", and NYISO has not specifically justified its need for the additional 30-day period otherwise (and indeed, the Majority Order acknowledges NYISO's admission that it can conduct some of those tasks concurrently with the 60-day period; *see* Majority Order at P 315). Order No. 2222-A set an expectation that "60 days should be the maximum time needed for most distribution utility reviews" and additional time could be justified for "unusual circumstances." Order No. 2222-A, 174 FERC ¶ 61,197 at P 72. The Majority Order appears to reason that because NYISO has differentiated this additional 30 days by tasks that *it* needs to complete rather than what the distribution utilities need to complete, its request does not conflict with Order No. 2222-A's reasoning that "a lengthy review time . . . could erect a barrier to distributed energy resource participation in the RTO/ISO markets and may unduly delay participation." *Id.* at P 72. But whatever is being done in those 90 days,

recognize that when evaluating compliance with a multi-faceted rule such as Order No. 2222, the Commission must make hard decisions about when to grant flexibility and when to adhere to the letter of the rule. While my preference would have been to err closer to the letter of the rule on those issues, I can concur with the outcomes as they stand in the broader scope of this order.

5. The success of Order No. 2222 and its subsequent orders depends on the thoughtful implementation of the Commission's mandates. While I disagree with the Majority Order's decision to approve a market rule that prevents a DER technology type from offering the services it is capable of providing to the market, I am encouraged by the preponderance of the compliance approach contained in the Majority's Order here and in *CAISO*. I remain hopeful that, as the Commission evaluates future compliance filings of Order No. 2222, it will strike the right balance between offering flexibility and upholding its requirements as written.

For these reasons, I respectfully concur in part and dissent in part.

Allison Clements
Commissioner

and by whom, it is 50% longer than the 60 days that Order No. 2222 envisioned, and it is 50% longer than the 60 days it takes for NYISO to complete the *initial* registration. Majority Order at P 260. In other words, the extra flexibility afforded to NYISO may ultimately result in less flexibility for DERs.