

187 FERC ¶ 61,022
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Chairman;
Allison Clements and Mark C. Christie.

New York Independent System Operator, Inc.

Docket Nos. ER23-2040-000
ER23-2040-003

ORDER ACCEPTING TARIFF REVISIONS

(Issued April 15, 2024)

1. On June 1, 2023, as amended on August 17, 2023 and February 13, 2024, pursuant to section 205 of the Federal Power Act (FPA)¹ and Part 35 of the Commission's regulations,² New York Independent System Operator, Inc. (NYISO) filed proposed revisions to its Open Access Transmission Tariff (OATT) and its Market Administration and Control Area Services Tariff (Services Tariff) to market rules applicable to distributed energy resources (DER) and Aggregations.³ In this order, we accept NYISO's proposed revisions to its OATT and Services Tariff, effective April 16, 2024 and December 31, 9998, as requested and direct NYISO to submit an informational filing, as discussed below.

¹ 16 U.S.C. § 824d.

² 18 C.F.R. pt. 35 (2023).

³ The tariff revisions accepted in Docket No. ER19-2276-000 (i.e., the 2019 DER Rules) define an Aggregation as a "Resource, comprised of two or more individual Generators, Demand Side Resources, or Distributed Energy Resources, or one or more individual Demand Side Resources, at separate points of interconnection and that are grouped and dispatched as a single unit by the ISO, and for which Energy injections, withdrawals and Demand Reductions are modeled at a single Transmission Node." NYISO, NYISO Tariffs, NYISO MST, § 2.1 MST Definitions – A (13.0.0). Capitalized terms used but not otherwise defined in this order have the meanings ascribed to them in the OATT and Services Tariff, as accepted in Docket No. ER19-2276-000, unless otherwise stated. References to "accepted Services Tariff" provisions likewise refer to those provisions accepted in Docket No. ER19-2276-000.

I. Background

2. On June 27, 2019, prior to the issuance of Order No. 2222, which requires RTOs/ISOs to remove barriers to the participation of DER aggregations,⁴ NYISO proposed and the Commission accepted revisions to its OATT and Services Tariff (2019 DER Rules) to establish a new participation model for DERs to participate in NYISO's markets via Aggregations (DER and Aggregation participation model).⁵ The rules established: (1) interconnection requirements for individual DERs; (2) maximum size requirements for each individual DER facility in an Aggregation; (3) locational requirements for DERs in an Aggregation; (4) requirements regarding metering, mitigation, and settlement of DERs in an Aggregation; and (5) dual participation requirements. With the exception of the tariff revisions concerning Meter Services Entities for Demand Side Resources, dual participation, and interconnection procedures made effective May 1, 2020, and the tariff revisions concerning resources with Energy Duration Limitations made effective March 1, 2021,⁶ NYISO proposed a flexible effective date for the DER and Aggregation participation model. NYISO committed to making a future compliance filing notifying the Commission at least two weeks prior to its proposed effective date that will specify the date on which the revised tariff language will take effect.⁷

3. In 2021, NYISO submitted proposed revisions to its Services Tariff and OATT in compliance with the requirements of Order No. 2222.⁸ In 2022 and 2023, the Commission accepted NYISO's tariff revisions,⁹ subject to one outstanding compliance obligation.¹⁰ NYISO's tariff revisions in compliance with the requirements of Order No. 2222 will take effect no later than December 31, 2026.¹¹

⁴ *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).

⁵ *N.Y. Indep. Sys. Operator*, 170 FERC ¶ 61,033 (2020) (2020 DER Order).

⁶ *N.Y. Indep. Sys. Operator*, Transmittal Letter, Docket No. ER19-2276-003, at 4 & n.16 (filed Feb. 24, 2020).

⁷ *N.Y. Indep. Sys. Operator*, ER19-2276-003, at 1-2 (Apr. 21, 2020) (Delegated Letter Order).

⁸ *N.Y. Indep. Sys. Operator*, Filing, Docket No. ER21-2460-000 (filed July 19, 2021) (Order No. 2222 Compliance Filing).

⁹ *N.Y. Indep. Sys. Operator*, 179 FERC ¶ 61,198, at P 1 (2022) (NYISO Compliance Order), *order on compliance*, 183 FERC ¶ 61,035 (2023).

II. NYISO's Filing

4. NYISO states that it proposes revisions to its OATT and Services Tariff that complement the market rules applicable to DERs and Aggregations, clarify and enhance the 2019 DER Rules, and are necessary to implement the DER and Aggregation participation model in its 2019 DER Rules. NYISO states that the proposed revisions: (1) provide for distribution utility review of individual DERs and Aggregations until the full set of Order No. 2222 rules take effect;¹² (2) establish a minimum capability requirement of 10 kW for individual DERs participating in an Aggregation; (3) clarify settlements for Aggregations containing one or more Energy Storage Resources; (4) establish rules for existing Resources to transition into the DER and Aggregation participation model; (5) clarify metering requirements for Aggregations; (6) modify the Market Mitigation rules related to Aggregation reference levels; (7) modify the methodology used to calculate load baselines for Demand Side Resources participating in DER Aggregations; (8) modify the NYISO Bid-Production Cost Guarantee payment and Day-Ahead Margin Assurance Payment calculations; and (9) make certain miscellaneous revisions and modifications to defined terms. NYISO also proposes a timeline for the previously approved phase out of its economic based Demand Side Ancillary Services Program (DSASP) and Day-Ahead Demand Response Program (DADRP) and a 12-month transition period for the resources participating in those programs to transition to the DER and Aggregation participation model.¹³

5. NYISO proposes an effective date of April 16, 2024 for most of the proposed revisions to the 2019 DER Rules regarding its DER and Aggregation participation model, and states that it will submit a notice to specify the same effective date for those 2019 DER Rules if the Commission accepts the instant filing.¹⁴ NYISO further proposes a flexible effective date of 12 months after the effective date of the DER and Aggregation

¹⁰ See *N.Y. Indep. Sys. Operator*, 183 FERC ¶ 61,035 at PP 25-26 (noting NYISO's statement that it will develop market rules that permit DERs participating in an Aggregation to provide the ancillary services that they are technically capable of providing).

¹¹ Notice of Extension of Time, Docket No. ER21-2460-004 (Dec. 1, 2022).

¹² NYISO explains that it has, in coordination with the utilities in New York, agreed on a targeted review period of 60 days for the distribution utility review but does not propose a hard deadline in its filing. First Deficiency Letter Response at 4.

¹³ Transmittal Letter at 2-3.

¹⁴ Second Deficiency Letter Response at 6. NYISO initially proposed a flexible effective date for both the 2019 DER Rules and the instant proposed revisions to the 2019 DER Rules. Transmittal Letter at 2-3.

participation model for certain tariff revisions related to the termination of the DSASP and DADRP.¹⁵

A. Distribution Utility Review

6. NYISO proposes to establish a process for the distribution utility to review potential safety and reliability impacts of DERs and Aggregations that connect to distribution system electric facilities prior to the DER's enrollment in NYISO-administered markets or whenever there is a material change to the DER's enrollment.¹⁶ NYISO explains that it will collect physical and operational information about DERs from the Aggregator, which will then be provided to the distribution utility. NYISO states that these tariff revisions will help maintain system reliability and are a necessary bridge to the required distribution utility review process that will be established as part of NYISO's Order No. 2222 compliance tariff revisions. NYISO clarifies that the proposed distribution utility review in the instant filing is only intended to be in effect until NYISO implements its Order No. 2222 compliance tariff revisions.¹⁷

7. NYISO also proposes a corresponding modification to clarify its authority to fully or partially derate a DER or an Aggregation if NYISO or the applicable distribution utility determines that a DER or Aggregation presents significant risk to the safe and reliable operation of the New York State transmission or distribution system.¹⁸ NYISO explains that if it exercises its authority under the proposed revisions, the DER or Aggregation will not be permitted to resume operation until NYISO, the distribution utility, and Aggregator are able to resolve the identified concerns.¹⁹

B. Minimum DER Size

8. As described further below, NYISO proposes to implement a 10 kW minimum capability for all individual DERs participating in an Aggregation. NYISO explains that it determined that there is a considerable amount of manual work that the 2019 DER Rules contemplate, including for registration, enrollment, monitoring and verification of

¹⁵ Transmittal Letter at 2-3.

¹⁶ *Id.* at 4 (NYISO, NYISO Tariffs, NYISO MST, § 4.1 MST (Market Services – General Rules) (28.0.0), § 4.1.10).

¹⁷ *Id.* at 5.

¹⁸ *Id.* (NYISO, NYISO Tariffs, NYISO MST, § 4.1 MST (Market Services – General Rules) (28.0.0), § 4.1.10).

¹⁹ *Id.*

DERs, and it is concerned about meeting tariff-directed deadlines and market participant expectations.²⁰

C. Settlements for Aggregations with Energy Storage Resources

9. NYISO proposes revisions to Services Tariff sections 7.2.8 and 4.1.10.1 to clarify settlements for Aggregations with one or more Energy Storage Resources. NYISO explains that Order No. 841 requires RTOs/ISOs to prevent resources using the energy storage participation model from paying twice for the same charging energy.²¹ NYISO explains that Services Tariff section 7.2.8 requires that, when a Load Serving Entity invoices a stand-alone Energy Storage Resource for its charging withdrawals at a retail rate, NYISO will issue a credit to the customer and assess a corresponding charge to the applicable Load Serving Entity for the same actual energy withdrawals. NYISO proposes revisions to Services Tariff section 7.2.8 to extend the settlement treatment applicable to stand-alone Energy Storage Resources to Aggregations containing one or more Energy Storage Resources. NYISO asserts that the proposed changes are necessary to maintain compliance with Order No. 841.²² NYISO also states that its 2019 DER Rules Transmittal Letter described that Aggregations of a single resource type “will be subject to the existing rules for that particular Resource type, along with the general rules applicable to all Aggregations.”²³

10. NYISO asserts that, although it is not explicitly required by Order No. 841, NYISO believes that it is appropriate to extend the settlement treatment to heterogeneous Aggregations that include at least one Energy Storage Resource in order to prevent an Energy Storage Resource from being charged twice for the same charging withdrawals no matter the type of Aggregation in which it participates. As such, NYISO also proposes a corresponding revision to accepted Services Tariff section 4.1.10.1 that will require each Energy Storage Resource participating in an Aggregation to use the same Load Serving Entity when a Load Serving Entity requires one or more Energy Storage Resources participating in an Aggregation to pay the retail rate for its energy withdrawal.²⁴ NYISO

²⁰ *Id.* at 6; *see infra* PP 32-35.

²¹ Transmittal Letter at 7 (citing *Elec. Storage Participation in Mkts. Operated by Reg’l Transmission Orgs. & Indep. Sys. Operators*, Order No. 841, 162 FERC ¶ 61,127, at P 326 (2018), *order on reh’g*, Order No. 841-A, 167 FERC ¶ 61,154 (2019), *aff’d sub nom. Nat’l Ass’n of Regul. Util. Comm’rs v. FERC*, 964 F.3d 1177 (D.C. Cir. 2020)).

²² *Id.* at 7-8.

²³ *Id.* at 8 (citing N.Y. Indep. Sys. Operator, Transmittal Letter, Docket No. ER19-2276-000, at 23 (filed June 27, 2019) (2019 DER Rules Transmittal Letter)).

²⁴ *Id.*

explains that because its DER and Aggregation participation model was developed such that all bids, schedules, and settlements occur at the Aggregation level, NYISO is unable to accurately credit individual Energy Storage Resources within an Aggregation or to accurately assign the charges assessed between or among several Load Serving Entities. NYISO states that the proposed tariff revisions eliminate the need for NYISO to identify, within an Aggregation, which MWh of energy withdrawals by Energy Storage Resources must be invoiced at a wholesale level or retail level, and allow for accurate assessment of wholesale charges to the applicable Load Serving Entity.²⁵

D. Resource Transition to DER and Aggregation Participation Model

11. NYISO states that, during the development of the implementation procedures for the DER and Aggregation participation model, it identified the need to clarify the amount of capacity that will be assigned to an Aggregation when either a Special Case Resource (SCR)²⁶ or a Generator transitions to the DER and Aggregation participation model for the first time. NYISO proposes to clarify in accepted Services Tariff section 4.1.10.3 that the market rules addressing resources changing Aggregations also apply to resources that enter an Aggregation for the first time, such as when an SCR exits the SCR program and establishes itself as a DER.²⁷

12. NYISO proposes to modify accepted Services Tariff section 5.12.13.1 to establish the amount of capacity that an SCR or a Generator that has been participating in NYISO's markets and is entering an Aggregation for the first time may claim, without having to conduct a Dependable Maximum Net Capability test as a precondition to that new DER's capacity being added to the Aggregation. NYISO proposes that the maximum amount of capacity that the Aggregator can claim for a former SCR shall be the upper limit of capacity calculated for the SCR pursuant to Services Tariff section 5.12.11.1.1.²⁸ NYISO proposes the maximum amount of capacity that an

²⁵ *Id.* at 9.

²⁶ Special Case Resources are defined as "Demand Side Resources whose Load is capable of being interrupted upon demand at the direction of the ISO, and/or Demand Side Resources that have a Local Generator, which is not visible to the ISO's Market Information System and is rated 100 kW or higher, that can be operated to reduce Load from the NYS Transmission System or the distribution system at the direction of the ISO." NYISO, NYISO Tariffs, NYISO MST, § 2.19 MST (Definitions – S) (25.0.0).

²⁷ Transmittal Letter at 9.

²⁸ *Id.* at 10. NYISO also proposes a clarification to Services Tariff section 5.12.11.1.1 that when a DER seeks to transition to the SCR program, the capacity for the resource as an SCR will be calculated pursuant to existing rules that establish the capacity for SCRs.

Aggregator can claim for a Generator with an approved in-period Dependable Maximum Net Capability rating is the minimum of the Generator's approved in-period Dependable Maximum Net Capability rating and its Capacity Resource Interconnection Service. NYISO explains that the proposed rules: (1) allow the Aggregator to immediately claim the new DER's capacity in the Aggregation when the resource is transitioning from participating as an SCR or Generator; and (2) caps the amount of capacity that can be claimed by the Aggregation to the demonstrated capability (and/or Capacity Resource Interconnection Service limit for a Generator).²⁹

13. NYISO explains that SCR program rules require that an SCR demonstrate its maximum enrolled capability at least once a Capability Period. NYISO proposes to modify Services Tariff section 5.12.11.1 to require an SCR that transitions to become a DER within a Capability Period, when no mandatory event or performance test for the SCR occurs prior to transition, to participate in a performance test in the Capability Period after it becomes a DER. NYISO explains that this requirement is necessary to validate that an SCR that transitions to a DER was able to provide the amount of capacity that it was committed to provide through its Installed Capacity market offers as an SCR.³⁰

E. Metering Requirements for DER Aggregations and Demand Side Resources

14. As discussed further below, NYISO proposes ministerial revisions to clarify the entities subject to accepted Services Tariff section 13.3.1, including by adding the terms "DER" and "Aggregator" and removing the terms "Demand Reduction Provider" and "DSASP Provider" from certain provisions. NYISO also proposes to require an Aggregation to use one Meter Authority for all DERs in the Aggregation and to clarify that a single resource type Aggregation is not eligible to use Meter Services Entities.³¹

F. Aggregation Reference Levels

15. As discussed further below, NYISO proposes to eliminate the use of the Locational Based Marginal Price (LBMP)-based and Bid-based reference levels for Aggregations, thereby limiting Aggregations to using cost-based reference levels. NYISO explains that LBMP-based and Bid-based reference levels, which rely on 90-day historical data, may not produce an accurate estimate of the Aggregation's costs because Aggregations are permitted to change their DER composition on a monthly basis.³²

²⁹ *Id.* at 10-11.

³⁰ *Id.* at 11.

³¹ *Id.* at 12-13; *see infra* PP 68-69.

³² Transmittal Letter at 13-14; *see infra* PP 82-84.

G. Economic Customer Baseline Proxy Load Calculations

16. NYISO proposes to modify the methodology used to calculate Economic Customer Baseline Load for Demand Side Resources participating in DER Aggregations. NYISO explains that when a Demand Side Resource is dispatched for energy and/or regulation service, it uses a Proxy Load to stand in for the historic metered load, which uses a 10-day look back window for weekdays and three-day look back window for weekends and holidays. NYISO proposes to modify the Proxy Load to use the Demand Side Resource's telemetered load, plus its measured demand reductions, to avoid the protracted historical look back window. NYISO asserts that this change will result in more accurate Economic Customer Baseline Loads for all Demand Side Resources, and will be particularly effective for Demand Side Resources that are frequently dispatched.³³

17. NYISO proposes two additional changes for the modified Economic Customer Baseline Load methodology. First, NYISO proposes to clarify throughout OATT section 24 that a Demand Side Resource's "telemetered" load, rather than "actual" load, will be used to establish Economic Customer Baseline Load. NYISO asserts that the change to "telemetered" load more precisely defines the data that will be used.³⁴ Second, NYISO proposes to clarify an Aggregator's responsibility for providing data to NYISO. NYISO explains that these changes do not modify the substance of an Aggregator's reporting requirements, but instead provide greater precision to the tariff language.³⁵

H. Bid-Production Cost Guarantee Payment and Day-Ahead Margin Assurance Payment Calculations

18. NYISO explains that the 2019 DER Rules included eligibility criteria under which DERs and Aggregations are eligible for a Bid Production Cost Guarantee payment and Day-Ahead Margin Assurance Payment and addressed how such payments would be calculated. NYISO asserts that, in developing procedures and software for these payment calculations, NYISO identified additional necessary modifications to existing equations and defined terms to integrate DERs that include Demand Side Resources, specifically to clarify how actual energy (an input to both payment calculations) is determined for DERs and Aggregations.³⁶

³³ Transmittal Letter at 15.

³⁴ *Id.* at 16.

³⁵ *Id.*

³⁶ *Id.* at 16-17.

I. Miscellaneous Revisions and Modifications to Defined Terms

19. NYISO states that it proposes miscellaneous revisions to its Services Tariff that clarify the application of existing rules to DERs and Aggregations.³⁷ NYISO also proposes to amend certain definitions, including: (1) Energy Storage Resource; (2) Meter Service Entity; (3) Station Power; and (4) Wind and Solar Output Limit.³⁸

J. Requested Transition Period for Tariff Revisions Related to Termination of DSASP and DADRP

20. As discussed further below, NYISO states that it anticipates terminating the DSASP and DADRP 12 months after the date upon which the DER and Aggregation participation model becomes effective. NYISO explains this will provide a transition window to allow existing Resources to remain participants in its markets while facilitating DER and Aggregation registration and enrollment.³⁹

III. Notices and Responsive Pleadings

21. Notice of NYISO's filing was published in the *Federal Register*, 88 Fed. Reg. 37,527 (June 8, 2023), with interventions and protests due on or before June 22, 2023. The New York State Public Service Commission (New York Commission) filed a notice of intervention. Timely motions to intervene were filed by NRG Power Marketing LLC, Direct Energy Business Marketing, LLC, New York Transmission Owners,⁴⁰ Advanced Energy Management Alliance (AEMA),⁴¹ and Advanced Energy United (AEU).⁴² The New York Commission filed comments, and

³⁷ *Id.* at 17-20.

³⁸ *Id.* at 20-22.

³⁹ *Id.* at 23; *see infra* PP 97.

⁴⁰ New York Transmission Owners 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, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

⁴¹ AEMA states that its members include national DER companies and advanced energy management service and technology providers, including demand response providers. AEU and AEMA Protest at 1 n. 2.

⁴² AEU states that its members include owners, developers, and users of DER and Aggregation resources that are active participants in the NYISO wholesale markets.

AEU and AEMA filed a joint protest. On July 7, 2023, NYISO filed an answer to the comments and protest. On July 24, 2023, AEU and AEMA filed an answer to NYISO's answer.

22. On July 18, 2023, Commission staff issued a letter informing NYISO that its filing was deficient and requesting additional information necessary to process the filing (First Deficiency Letter). On August 17, 2023, NYISO filed a response (First Deficiency Letter Response).

23. Notice of NYISO's First Deficiency Letter Response was published in the *Federal Register*, 88 Fed. Reg. 57,446 (Aug. 23, 2023), with interventions and protests due on or before September 7, 2023. CPower, Inc. and Calpine Corporation filed timely motions to intervene. AEU and AEMA filed a protest to NYISO's First Deficiency Letter Response (AEU and AEMA Protest to First Deficiency Letter Response).

24. On September 29, 2023, NYISO filed a notice clarifying its intended effective date of October 19, 2023, for the proposed revisions related to the implementation of the DER and Aggregation participation model and for accepted 2019 DER Rules. On October 18, 2023, NYISO submitted a notice of an intended effective date of December 18, 2023 for its proposed tariff revisions.

25. On December 15, 2023, Commission staff issued a letter informing NYISO that its filing was deficient and requesting additional information necessary to process the filing (Second Deficiency Letter). On February 13, 2024, NYISO filed a response and proposed an effective date of April 16, 2024 for the proposed revisions related to the implementation of the DER and Aggregation participation model (Second Deficiency Letter Response).

26. Notice of NYISO's Second Deficiency Letter Response was published in the *Federal Register*, 89 Fed. Reg. 13,075 (Feb. 21, 2024), with interventions and protests due on or before March 5, 2024. AEU and AEMA filed a protest to NYISO's Second Deficiency Letter Response (AEU and AEMA Protest to Second Deficiency Letter Response).

IV. Discussion

A. Procedural Matters

27. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2023), the notice of intervention and the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

28. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2), prohibits an answer to a protest or an 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

29. We find that NYISO's proposed revisions, submitted pursuant to FPA section 205, are just and reasonable and not unduly discriminatory or preferential, and, therefore, we accept NYISO's instant proposal, subject to an informational filing, as discussed below. We agree with NYISO that the proposed revisions enhance and clarify its 2019 DER Rules and are necessary to implement its DER and Aggregation participation model. We further find that the instant proposal will enable DERs and Aggregations to participate in NYISO's energy, ancillary services, and capacity markets, which removes barriers to entry and enhances opportunities for resources that cannot currently participate or cannot fully participate using NYISO's existing participation models.

30. Specifically, we find that the proposed distribution utility review will facilitate the review of potential reliability and safety impacts of DERs. We note that NYISO expects that the distribution utility review period will be targeted at 60 days, and that the proposed distribution utility review will be superseded once NYISO implements its Order No. 2222 compliance tariff revisions. We also find appropriate NYISO's proposal to ensure that the settlement mechanism for Aggregations containing Energy Storage Resources is consistent with Order No. 841's requirement that electric storage resources not pay twice for the same charging withdrawals and to extend that settlement treatment to heterogeneous Aggregations containing Energy Storage Resources.⁴³ Further, we find NYISO's proposal regarding the transition of existing SCRs and Generators to DERs participating in an Aggregation streamlines resource transition while ensuring that the capacity that the Aggregator can claim for those Resources is restricted to its demonstrated capacity. Finally, we find that NYISO's other proposed revisions clarify NYISO's requirements for DERs and Aggregations and improve the precision of the tariff language.

31. In addition to the components of NYISO's filing described above, NYISO's instant filing contains tariff revisions regarding a 10 kW minimum capability requirement for individual DERs participating in an Aggregation, metering requirements for single Resource type Aggregations, Aggregation reference levels, and a transition period for demand response resources participating in the DSASP and DADRP. These portions of NYISO's proposal are contested and we discuss them in more detail below.

⁴³ Order No. 841, 162 FERC ¶ 61,127 at P 326.

1. 10 kW Minimum Capability Requirement

a. NYISO's Filing

32. NYISO explains that the 2019 DER Rules established minimum offer requirements and maximum size requirements applicable to DERs and Aggregations. NYISO states that the 2019 DER Rules did not propose a minimum capability requirement for individual DERs participating in an Aggregation.⁴⁴

33. NYISO explains that it is in the process of completing the first stage of software development to implement the DER and Aggregation participation model, which will allow DERs and Aggregations to fully participate in NYISO-administered markets. NYISO also explains that it is developing additional software and automation features to be deployed in 2024 to automate certain work. NYISO asserts that there is a considerable amount of administrative work that the rules currently contemplate, such as components of the DER and Aggregation registration and enrollment process, as well as monitoring and verifying individual DER performance.⁴⁵ NYISO states that it is “concerned about meeting tariff-directed deadlines and Market Participant expectations when Aggregations with hundreds, or more than a thousand, very small, individual DER enroll in the NYISO-administered markets.”⁴⁶

34. NYISO asserts that it proposes to implement a 10 kW minimum capability requirement for all individual DERs participating in an Aggregation to effectively administer the DER program. NYISO explains that it understands that its proposed 10 kW minimum capability requirement limits the ability of small residential and other facilities utilizing load management and emergency back-up generation or home energy storage to participate in an Aggregation. NYISO asserts, however, that at this time the proposed requirement balances the need for efficient administration of the NYISO-administered wholesale markets with the value that small facilities can reliably provide the bulk power system and is essential to the efficient implementation of the DER and Aggregation participation model.⁴⁷

35. NYISO asserts that it has not ruled out reducing or eliminating the minimum individual DER capability requirement and has already begun working with stakeholders to understand their concerns and has committed to evaluating the capability and use cases of small facility Aggregation. NYISO states that continuing discussions with

⁴⁴ Transmittal Letter at 5-6.

⁴⁵ *Id.* at 6.

⁴⁶ *Id.*

⁴⁷ *Id.*

stakeholders will provide both NYISO and its stakeholders a useful framework to consider how best to accommodate small facilities, and where appropriate, identify modifications to NYISO's DER and Aggregation market rules.⁴⁸

b. Comments and Protests

36. AEU and AEMA and the New York Commission assert that NYISO's proposed 10 kW minimum capability requirement is unduly restrictive and imposes a barrier for DERs to participate in NYISO-administered markets.⁴⁹ The New York Commission asserts that, as NYISO acknowledges in its filing, the 10 kW minimum capability requirement would likely exclude most, if not all, residential and other small retail DERs from participating in NYISO's wholesale markets.⁵⁰

37. AEU, AEMA, and the New York Commission also assert that NYISO's 10 kW minimum capability requirement is inconsistent with the directives and the intent of Order No. 2222. They argue that the proposal is inconsistent with Order No. 2222, because the Commission expressly declined to establish minimum capability requirements for individual DERs to participate in an Aggregation because the Aggregation would act as a single resource and the DER Aggregator would take on the role of the market-facing entity, responsible for meeting applicable requirements.⁵¹ AEU and AEMA argue that NYISO's proposal will prevent Aggregations of DERs from selling all of the wholesale services they are technically capable of providing and presents an undue barrier to market participation that will undermine competition and reliability.⁵²

38. The New York Commission further argues that NYISO's proposal would eliminate the opportunity for a significant number of smaller DERs to participate in Aggregations, and restrict the magnitude of benefits of DER participation to the markets and the grid.⁵³ For example, based on its existing clean energy policies, the New York Commission states that New York State expects to see a significant increase in statewide DERs in the next few years, including distributed solar facilities⁵⁴ and energy storage

⁴⁸ *Id.* at 6-7.

⁴⁹ AEU and AEMA Protest at 3-6; New York Commission Comments at 3-4.

⁵⁰ New York Commission Comments at 4.

⁵¹ AEU and AEMA Protest at 4; New York Commission Comments at 4.

⁵² AEU and AEMA Protest at 2, 6.

⁵³ New York Commission Comments at 4-5.

resources.⁵⁵ According to the New York Commission, if NYISO imposes its proposed size restriction, it would eliminate the opportunity for a significant number of these smaller facilities to participate in Aggregations, and to otherwise provide benefits to the markets and the grid.⁵⁶ Further, the New York Commission states that the Commission previously noted that DERs possess valuable characteristics that could benefit the bulk electric system, including but not limited to, the ability to co-locate with load and provide associated benefits, respond rapidly to near-term generation or transmission reliability-related requirements, and enhance reliability and reduce system costs.⁵⁷

39. The New York Commission however, acknowledges NYISO's existing software and operational limitations.⁵⁸ Moreover, the New York Commission acknowledges the need to ensure grid reliability and resilience and recognizes NYISO's concerns about incorporating these resources into the NYISO system given those limitations. The New York Commission states that maintaining grid reliability and resilience is a core interest of theirs and states that "efforts to modify the Tariffs governing Aggregations in New York must be approached methodically so that these rules can be implemented in a safe and responsible manner."⁵⁹ Therefore, the New York Commission requests that the Commission approve NYISO's proposed 10 kW minimum capability requirement, subject to the condition that NYISO submit future compliance filings on an annual basis detailing NYISO's progress and timeline to enable DERs with a capability less than 10 kW to participate in NYISO's markets.⁶⁰ The New York Commission also requests that the Commission direct NYISO to examine the telemetry requirements for Aggregations to ensure they are appropriate and reasonable to facilitate the participation

⁵⁴ *Id.* at 4 (citing *In the Matter of the Advancement of Distributed Solar*, Order Expanding NY-Sun Program, Case 21-E-0629 (N.Y. Pub. Serv. Comm'n Apr. 14, 2022) (targeting 10 gigawatts (GW) of distributed solar statewide by 2030, including 150 megawatts (MW) of residential solar projects in New York City alone)).

⁵⁵ *Id.* (citing *In the Matter of Energy Storage Deployment Program*, New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage, Case 18-E-0130 (N.Y. Pub. Serv. Comm'n Dec. 28, 2022) (targeting 200 MW of retail storage statewide by 2030)).

⁵⁶ *Id.* at 4-5.

⁵⁷ *Id.* at 5 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 4).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.* at 5-6.

of small DERs.⁶¹ AEU and AEMA argue that NYISO has not supported its assertions that allowing residential DERs to access the NYISO markets is unworkable.⁶²

c. Answers

40. In response to AEU and AEMA's protest, NYISO states that the fact that the DER and Aggregation participation model will schedule, dispatch, and settle Aggregations as a single resource does not eliminate the need for NYISO to obtain, review, and verify individual DER data to determine how an Aggregation can participate in the wholesale markets and whether an Aggregation is capable of reliably providing the services it offers.⁶³ For example, NYISO asserts that individual DER data is needed to verify compliance with: accepted Services Tariff section 4.1.10.1, to verify that Aggregations are not offering any DER that is participating in NYISO's markets in a different Aggregation or as an individual Resource; accepted Services Tariff section 4.1.10.2, which requires individual DER in an Aggregation to be electrically connected to the same Transmission Node; and accepted Services Tariff section 4.1.11, which provides dual participation rules. NYISO argues that these individual DER data touchpoints are critical to developing NYISO's record of each Aggregation's market participation opportunities and capabilities, as well as any potential operating restrictions.⁶⁴ NYISO states that the market rules requiring the collection and tracking of individual DER data were accepted by the Commission in the 2020 DER Order.⁶⁵

41. NYISO states that when an Aggregator submits a new Aggregation enrollment request, NYISO staff will, for example, review each DER in an Aggregation to: (1) confirm that the Aggregator has a contractual right to represent the DER in NYISO-administered markets; (2) check the DER's utility bill to confirm the DER's physical location, utility account number, zone, and metering infrastructure information; (3) review a Load Reduction Plan for each Demand Side Resource; and (4) review the interconnection agreement for each DER that will inject energy onto a distribution system and verify the DER's enrollment data are consistent with the applicable interconnection agreement.⁶⁶ NYISO also states that, for example, it will, for each DER participating in

⁶¹ *Id.* at 6.

⁶² AEU and AEMA Protest at 3-6.

⁶³ NYISO Answer at 3-4.

⁶⁴ *Id.* at 4-5.

⁶⁵ *Id.* at 4 (citing NYISO, NYISO Tariffs, NYISO MST, § 4.1 MST (Market Services – General Rules) (17.0.0), § 4.1.10.1).

⁶⁶ *Id.* at 5-6 (citing N.Y. Indep. Sys. Operator, Inc., *Aggregation Manual*, at

an Aggregation, collect and review all Installed Capacity market documentation and work with the applicable distribution utility to exchange enrollment information and maintain a common understanding of the DER's capabilities and any distribution system limitations. NYISO states that changes to certain DER attributes after enrollment (such as alternate telemetry plan, energy duration for storage assets, capability, or temperature sensitivity) will also trigger NYISO review.⁶⁷ NYISO asserts that these processes are not, and likely cannot reasonably be, automated.⁶⁸

42. NYISO contends that AEU and AEMA's argument that NYISO must enumerate in detail why the work involved in monitoring and verifying individual DER performance would be difficult and time-consuming would require NYISO to do far more than required under FPA section 205 to support the proposal and asserts that the Commission has routinely accepted evidentiary showings comparable to what NYISO included in its filing.⁶⁹

43. In addition, NYISO expresses concern regarding the limited amount of time in which NYISO staff are expected to complete these processes. NYISO states that, under the 2019 DER Rules, market participants must provide NYISO with at least 30 days' notice of their intent to enter or change an Aggregation.⁷⁰ Because a DER can only enter or switch Aggregations on the first of the month, NYISO asserts that NYISO must then complete the enrollment and administrative work within 15 to 25 days in order for the DER's capability to be reflected in the new Aggregation at the beginning of the subsequent month following the 30-day window.⁷¹ NYISO explains that because DERs and Aggregations may only begin participating in the NYISO-administered markets at the beginning of a calendar month and NYISO expects to complete its DER enrollment procedures after the conclusion of the distribution utility review, depending on when a distribution utility completes its review and provides the results of that review to NYISO, sec. 4.2 (June 2023)). The manual was presented to the NYISO's Business Issues Committee for final review and approval on July 12, 2023 and passed unanimously.

⁶⁷ *Id.* at 6 n.24.

⁶⁸ *Id.* at 6.

⁶⁹ *Id.* at 8 (citing *N.Y. Indep. Sys. Operator, Inc.*, 178 FERC ¶ 61,101, at P 23 (2022); *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at 61,285 (2015); *PJM Interconnection, L.L.C.*, 182 FERC ¶ 61,143, at 62,087 (2023)).

⁷⁰ *Id.* (citing NYISO, NYISO Tariffs, NYISO MST, § 4.1 MST (Market Services – General Rules) (17.0.0), § 4.1.10.3).

⁷¹ *Id.* at 8-9. NYISO expects the distribution utility review process to be completed in 60 days. First Deficiency Letter Response at 4.

the time between the completion of the distribution utility review and the DER's participation may be longer than 30 days.⁷² NYISO asserts that if the Commission rejects its 10 kW minimum capability proposal, there is significant risk that NYISO will not be able to meet the 30-day administrative timelines and that DERs may be prevented from entering the market until the enrollment processes can be completed.⁷³

44. NYISO contends that its experience integrating small end-use consumers in its demand response programs illustrates how the costs of integrating DER with a capability less than 10 kW outweigh the benefits at this time. NYISO explains that, under its current rules, small end-use consumers have the opportunity to provide demand reductions as SCRs both individually and as part of a Small Customer Aggregation. NYISO explains that, typically, small end-use consumers in a Small Customer Aggregation do not have metering infrastructure that complies with NYISO's measurement and verification requirements. NYISO explains that the Responsible Interface Parties enrolling participants in a Small Customer Aggregation must propose and NYISO must approve a methodology for measuring aggregation performance.⁷⁴ NYISO argues that considering the volume of work necessary to integrate DER, it believes it would be a more efficient use of staff time to focus on facilities that bring greater capability to the market for the same or similar effort.⁷⁵

45. In their answer, AEU and AEMA argue that NYISO's justification for the 10 kW minimum capability requirement—that its review period for individual DERs is time-limited and that NYISO may be unable to complete the required review process within the allowed window when a large volume of individual DERs enroll at the same time—is unpersuasive because under the proposal small DERs would be prevented from entering the market entirely, not just until enrollment delays can be overcome.⁷⁶

d. First Deficiency Letter Response and Protest

46. NYISO reiterates that it considered other potential software modifications and market rules to reduce the burden of administering its DER and Aggregation participation model, but that it determined that neither would solve NYISO's concern while still permitting deployment of the model in 2023. NYISO explains that it could not timely automate software without significantly increasing staffing and states that market rule

⁷² NYISO Answer at 8 n.32.

⁷³ *Id.* at 9.

⁷⁴ *Id.* at 10-11.

⁷⁵ *Id.* at 10-12.

⁷⁶ AEU and AEMA Answer at 4.

modifications would come at the expense of NYISO oversight by requiring NYISO to rely on an Aggregator's word that individual DERs comply with all NYISO rules and requirements. NYISO states that it therefore determined that the most efficient method by which it could reduce the anticipated administrative burden was to establish a minimum DER size requirement.⁷⁷

47. NYISO reiterates that its 10 kW minimum capability requirement is based on its experience with the Emergency Demand Response Program (EDRP) and SCR program, which NYISO asserts are the closest in kind to the DER and Aggregation model. NYISO states that, as of July 2023, in the total New York Control Area, there were 6,475 resources with a capability of less than 10 kW in the EDRP and SCR program, which provide a total 7.3 MW of capability.⁷⁸ NYISO states this represents 66% of all resources in the EDRP and SCR program, but only 0.58% of MW capability.⁷⁹

48. NYISO asserts that it does not currently have sufficient resources to timely and efficiently administer the monthly enrollment processes if several thousand end-use customers seek to enroll in the markets at once. NYISO asserts that enabling participation by smaller DERs would require more staff and new software and the development of new market rules, which will increase costs to electric consumers for, likely, a *de minimis* amount of additional capacity. NYISO argues that these costs are difficult to justify considering that there are other opportunities for small DER participation through the EDRP and SCR program and New York State programs.⁸⁰ NYISO asserts that, through its evaluation of EDRP and SCR program enrollment, NYISO sought to identify a minimum size that balanced market access with efficient use of those limited resources, and that the proposed 10 kW minimum capability requirement reflects NYISO's belief that the costs of small DER integration at this time outweigh the benefits to New York's consumers.⁸¹

49. NYISO also confirms that it is not proposing an end-date for its 10 kW minimum capability requirement and that the requirement will not be superseded by its Order No. 2222 compliance tariff revisions.⁸²

⁷⁷ First Deficiency Letter Response at 13.

⁷⁸ *Id.* at 14. NYISO also notes that the 1-9 kW range includes 1,833 individual end-use customers participating in Small Customer Aggregations, which provide a total of 0.2 MW of capability. *Id.* at 14 n.47.

⁷⁹ *Id.* at 14.

⁸⁰ *Id.* at 15

⁸¹ *Id.* at 16.

50. AEU and AEMA contend that NYISO failed to provide adequate responses to staff's questions regarding the 10 kW minimum capability requirement.⁸³ Specifically, AEU and AEMA argue that it is inappropriate for NYISO to use historical participation in the EDRP and SCR program to justify and serve as the primary basis for NYISO's 10 kW limit in the new DER and Aggregation participation model. They contend that NYISO should be forward-looking to account for projected growth in mass-market DERs needed to meet state policies, such as New York's proposal to increase its 2030 target for energy storage from 3 GW to 6 GW.⁸⁴

51. AEU and AEMA also argue that it is inappropriate for NYISO to compare the EDRP and SCR program to the DER and Aggregation participation model because the resource types and sizes are different. AEU and AEMA contend that the resources participating in these programs are different from injection resources like solar, power walls, and electric vehicles that will likely participate in the DER and Aggregation participation model. AEU and AEMA contend that one of the key benefits of the DER and Aggregation participation model is to enable certain DER technologies to provide valuable grid services through a participation model that more accurately accounts for their operational characteristics and attributes compared to existing programs.⁸⁵

52. AEU and AEMA also contend that NYISO has not sufficiently explained why it cannot rely on an Aggregator statement that the individual DERs in the Aggregation meet all of NYISO's rules and requirements and why NYISO needs so much information and visibility into individual resources, especially if NYISO expects these resources to have a small contribution to the system.⁸⁶ AEU and AEMA assert that NYISO should find a way to accommodate resources by hiring more staff or requesting a Commission waiver, rather than taking the "blunt action" of blocking an entire customer class.⁸⁷

53. Finally, AEU and AEMA argue that NYISO's failure to propose an end-date for the 10 kW minimum capability requirement and its aim to keep the requirement in its Order No. 2222 compliance revisions should be interpreted as a clear violation of the intent and requirements of Order No. 2222. AEU and AEMA assert that, at minimum,

⁸² *Id.*

⁸³ AEU and AEMA Protest to First Deficiency Letter Response at 2.

⁸⁴ *Id.* at 3.

⁸⁵ *Id.* at 3-4.

⁸⁶ *Id.* at 5.

⁸⁷ *Id.* at 5-6.

NYISO should be required to lift the minimum capability requirement when the Order No. 2222-compliant tariff revisions take effect.⁸⁸

e. Second Deficiency Letter Response and Protest

54. NYISO reiterates that its proposal is based on reasonable expectations related to the organizational effort required to administer its DER and Aggregation participation model effectively and efficiently. NYISO also continues to state that its proposal is based on its experience administering the SCR program and EDRP, which require significant manual work to enroll, manage, and track performance of small Demand Side Resources.⁸⁹

55. NYISO asserts that its DER and Aggregation participation model is ready to be implemented immediately upon Commission acceptance of the tariff revisions to allow DERs to participate in the market. NYISO states that seven entities have already submitted Aggregator registration materials and that three have successfully completed the full registration process, which means those three entities can be granted the appropriate market access and privileges of an Aggregator as soon as the Commission accepts the tariff revisions.⁹⁰

56. NYISO also reiterates that it has an established, robust program for small resource participation in its wholesale markets, and that small DERs can participate in New York State and utility-operated programs. NYISO argues that, given these other opportunities for market participation, the Commission should consider whether rejecting its proposal on the minimum capability requirement would meaningfully improve the opportunities for small DERs' participation and justify delaying implementation of the model for all DERs.⁹¹

57. NYISO contends that the questions posed in both deficiency letters suggest that the Commission may have preferred that NYISO develop one or more alternatives to its proposal, but NYISO asks the Commission to limit its consideration to whether the tariff revisions are just, reasonable, and not unduly discriminatory and not whether hypothetical alternatives might be preferable. NYISO states that its proposed 10 kW minimum capability requirement is a necessary component of its proposed revisions and its DER and Aggregation participation model. Accordingly, NYISO asserts that, if the Commission determines that the proposed 10 kW minimum capacity requirement is not

⁸⁸ *Id.* at 7.

⁸⁹ Second Deficiency Letter Response at 3.

⁹⁰ *Id.* at 3-4.

⁹¹ *Id.* at 4-5.

just and reasonable, NYISO cannot implement the remainder of the proposal. NYISO states that, if the Commission determines it has authority to modify the proposed 10 kW minimum capability requirement, a point which NYISO states it does not concede, then NYISO does not consent to the Commission modifying the proposal or the Commission accepting the revisions without the inclusion of the 10 kW minimum capability requirement.⁹²

58. NYISO states that, if the Commission rejects its filing, “NYISO will have to undertake a significant multi-year process to develop new market rules” that will delay DER and Aggregation participation in NYISO’s markets.⁹³ NYISO asserts that it would need to develop new market rules related to: Distribution Utility/Transmission Owner coordination procedures, DER enrollment requirements, metering and telemetry requirements, performance measurement and auditing, and Aggregation composition requirements. NYISO states that it is committed to evaluating its DER and Aggregation participation model going forward and that experience administering the DER and Aggregation participation model with individual facilities as small as 10 kW will provide it with essential data on the feasibility of reducing the minimum capability.⁹⁴

59. NYISO notes that there is significant uncertainty regarding future DER penetration, which will depend on, among other things: (1) currently unknown and changing costs, such as Aggregator fees, metering and telemetry costs; (2) non-wholesale market revenues and incentives, such as utility-operated DER programs and state/federal tax incentives; (3) NYISO’s market rules; and (4) wholesale prices for energy, ancillary services, and capacity. NYISO states that evaluating the administrative challenges faced, in the context of the contribution existing small Demand Side Resources provide to total system capability, is reasonable, appropriate and the best proxy available to consider the known and unknown factors that are expected to influence future DER penetration.⁹⁵ NYISO reiterates that it considered multiple options to balance the potential benefits of wholesale market access with NYISO’s ability to effectively and efficiently administer the DER and Aggregation participation model, and that the 10 kW minimum capability requirement is a just, reasonable, and efficient method to address its administrative concerns and begin DER and Aggregation integration.⁹⁶

⁹² *Id.* at 5-6.

⁹³ *Id.* at 6.

⁹⁴ *Id.* at 7.

⁹⁵ *Id.* at 8.

⁹⁶ *Id.* at 9.

60. NYISO states that the 10 kW minimum capability requirement will primarily impact residential facilities that use controllable smart home loads, energy storage, and/or rooftop solar. NYISO explains that it did not develop a quantitative analysis of the expected number of DERs that would be affected nor the amount of impacted kW attributable to the proposal because such analysis would have been “based on supposition” given that NYISO would have to assume that the facilities could both qualify to participate and would choose to do so.⁹⁷ NYISO states that it has reviewed data on demand response resources, both those participating in NYISO’s wholesale programs and those participating in utility-operated programs, the types and quantities of installed distributed generation, and its projections of distributed generation growth. NYISO asserts that, although (for example) a New York State database reports a total of 172,434 solar photovoltaic installations with less than 10 kW nameplate capacity, it is highly unlikely that most of those DERs would qualify to provide services as part of an Aggregation due to applicable metering requirements and/or technical capability (i.e., because rooftop solar is non-dispatchable on its own).⁹⁸ NYISO also explains that even among those resources that do meet the requirements to participate as part of an Aggregation, not all would choose to participate given that there are multiple alternative participation opportunities for small DERs, such as NYISO’s SCR program, in which small DERs able to control their demand are eligible to participate in the capacity market and receive energy payments with lower participation requirements; utility demand response programs; or the New York State Value of DER program, which compensates DERs for energy, capacity, environmental attributes, demand reductions, locational system relief, and community credits.⁹⁹

61. AEU and AEMA state that they do not want to see further delay to implementation of the DER and Aggregation participation model, which would harm DER providers not excluded by the 10 kW minimum capability requirement, but assert that NYISO’s claims do not justify blocking participation of DERs less than 10 kW in size indefinitely. AEU and AEMA continue to assert that the 10 kW minimum threshold is unjust, unreasonable, and unduly discriminatory, and that indefinite application of the 10 kW minimum capability requirement excludes an entire class of customers and does not meet the goals and directives of Order No. 2222.¹⁰⁰

62. AEU and AEMA argue that, if the Commission accepts the requirement as necessary to enable timely implementation of the DER and Aggregation participation

⁹⁷ *Id.* at 10-11.

⁹⁸ *Id.*

⁹⁹ *Id.* at 11.

¹⁰⁰ AEU and AEMA Protest to Second Deficiency Letter Response at 3.

model, then the Commission should also direct NYISO to identify and adhere to a timeline for lifting the exclusion of DERs less than 10 kW in size as expeditiously as possible. AEU and AEMA note that NYISO has no current plans to address concerns around participation of small DERs, and assert that, without a directive from the Commission requiring NYISO to address the barrier to participation, it will not be a priority for NYISO.¹⁰¹ AEU and AEMA request that the Commission allow the DER and Aggregation participation model to go into effect while taking action to ensure that NYISO's proposed 10 kW minimum capability requirement does not remain indefinitely.¹⁰²

f. Commission Determination

63. We find that the proposed 10 kW minimum capability requirement is just and reasonable and not unduly discriminatory or preferential. We find NYISO has demonstrated that, at this time and based on the record herein, the 10 kW minimum capability requirement reasonably balances the benefit of enabling NYISO to implement its DER and Aggregation participation model immediately against the drawback of maintaining a limited barrier to certain DERs so that NYISO may feasibly enroll and monitor individual DERs in an Aggregation and efficiently administer the wholesale markets.

64. NYISO has demonstrated that there would likely be a considerable administrative burden associated with including sub-10 kW DERs in its DER and Aggregation participation model at this time because NYISO does not currently have the staff, processes, or software to timely review the expected number of DERs below that size. We note that NYISO has stated, based on its experience with the EDRP and SCR program, that the amount of capability (MW) that would be excluded by the 10 kW minimum capability requirement is likely relatively small at this time. We also acknowledge that, as NYISO explains, there is significant uncertainty regarding DER penetration in NYISO's markets, in part due to the potential for participation in utility-operated DER markets/programs.¹⁰³

65. NYISO explains that, since the January 2020 order accepting the 2019 DER Rules, it has been developing implementation details for the DER and Aggregation participation model in its stakeholder process and developing software improvements, and it is now ready to implement the DER and Aggregation participation model for resources at or above 10 kW. We find that, given the record in this proceeding, it is reasonable for NYISO to establish a minimum capability requirement that enables NYISO to immediately implement its DER and Aggregation participation model so that DERs

¹⁰¹ *Id.* at 3-4.

¹⁰² *Id.* at 4.

¹⁰³ Second Deficiency Letter Response at 8.

10 kW and larger may participate under the model. We further note that small resources under 10 kW will still have opportunities to participate in the EDRP and SCR program, as well as New York State and utility programs for DERs.

66. With respect to protesters' arguments that allowing indefinite application of NYISO's 10 kW minimum capability requirement would be arbitrary and capricious and contrary to the requirements of Order No. 2222, we note that, although the Commission declined to require RTOs/ISOs to adopt a minimum capability requirement,¹⁰⁴ it did not find that such a requirement would be unjust and unreasonable or unduly discriminatory.

67. While NYISO has stated that the threshold requirement will not be superseded by its Order No. 2222 compliance tariff revisions and it has not proposed an end date for the requirement, at the same time NYISO indicates that it has not ruled out reducing or eliminating the minimum capability requirement, that it is committed to evaluating the capability and use cases of small facility Aggregation, and that experience administering the DER and Aggregation participation model will provide NYISO with essential data on the feasibility of reducing the minimum capability that, when combined with NYISO's administration of Small Customer Aggregations in the SCR program, will inform future market rule enhancements.¹⁰⁵ Given NYISO's commitment to continue its evaluation in this regard, we direct NYISO to submit an informational filing within two years of the date of issuance of this order describing: (1) its experience administering the DER and Aggregation participation model; (2) its views on the feasibility of the participation of DERs smaller than 10 kW in its DER and Aggregation participation model; (3) the estimated effect that the 10 kW minimum capability requirement has had on potential participation, including on the total number of DERs under 10 kW in the New York Control Area; and (4) an update on NYISO's discussions with its stakeholders concerning the participation of DERs smaller than 10 kW. The Commission will notice this report for comment.

2. Single Resource Type Aggregation Metering Requirements

a. NYISO's Filing

68. NYISO states that its 2019 DER Rules included a comprehensive set of metering requirements applicable to DERs and Aggregations, but that it has identified a limited number of tariff revisions necessary to effectively administer and settle Aggregations.¹⁰⁶ Under the 2019 DER Rules, a DER Aggregation is defined as “[a]n Aggregation consisting of one or more Demand Side Resources, or two or more different Resource

¹⁰⁴ Order No. 2222, 172 FERC ¶ 61,247 at P 180.

¹⁰⁵ Transmittal Letter at 6-7; Second Deficiency Letter Response at 7.

¹⁰⁶ Transmittal Letter at 12.

types, as described in Section 4.1.10 of the Services Tariff.”¹⁰⁷ Among other revisions, NYISO states that it proposes to add section 13.3.1.4 to the Services Tariff to clarify that an Aggregator may only utilize one Meter Authority for all individual DERs in an Aggregation by adding language that states that all resources in an Aggregation must use the same Meter Authority; that a DER Aggregation may use the applicable Member System, a qualified Meter Services Entity,¹⁰⁸ or a municipal electric utility (where applicable) as its Meter Authority; and that single Resource type Aggregations (e.g., an Aggregation comprised of only Energy Storage Resources) are not eligible to use Meter Service Entities as their Meter Authority.¹⁰⁹

69. NYISO also proposes to update the terms used in accepted Services Tariff section 13.3.1 to clarify the entities subject to the metering requirements in the tariff section. NYISO proposes to add “DER” to the Services Tariff section 13.3 title, which NYISO asserts clarifies NYISO’s original intent that section 13.3.1 apply only to DER Aggregators. NYISO also proposes to add the term “Aggregator” in advance of the implementation of the DER and Aggregation participation model and remove the demand resource provider terms upon the date that the DADRP and DSASP are terminated.¹¹⁰ NYISO also proposes to modify Services Tariff section 13.3.1.1 to reorder the list of entities eligible to provide metering and meter data services to DER Aggregations and Demand Side Resources and to require an Aggregator to notify NYISO of the specific metering and meter data services that the relevant Meter Authority has agreed to provide for each Aggregation.¹¹¹

b. Protest

70. AEU and AEMA argue that NYISO’s proposal to limit the ability to use a third-party metering service in homogenous Aggregations that do not include demand response discriminatorily restricts the metering options for these types of Aggregations.¹¹²

¹⁰⁷ NYISO, NYISO Tariffs, NYISO MST, § 2.4 MST (Definitions – D) (15.0.0).

¹⁰⁸ A Meter Services Entity is defined, under the 2019 DER Rules, as “[a]n entity registered with the ISO and authorized to provide metering and meter data services, as applicable, to an Aggregator, Responsible Interface Party or Curtailment Service Provider.” NYISO, NYISO Tariffs, NYISO MST, § 2.13 MST (Definitions – M) (21.0.0).

¹⁰⁹ Transmittal Letter at 13 (citing NYISO, NYISO Tariffs, NYISO MST, § 13 MST (Metering) (15.0.0), § 13.3.1.4).

¹¹⁰ *Id.*

¹¹¹ *Id.* at 14.

AEU and AEMA contend that NYISO does not explain or justify why its proposal to restrict single Resource type Aggregations from using a Meter Service Entity and to require that single Resource type Aggregations use only the applicable Member System as their Meter Authority is necessary to comply with what AEU and AEMA argue is the primary intent of new proposed Services Tariff section 13.3.1.4, that all individual resources in an Aggregation use the same Meter Authority.¹¹³

71. AEU and AEMA contend that eliminating the option for Aggregations of the same resource type to utilize a Meter Service Entity would create an uneven playing field for homogenous compared to heterogenous Aggregations, create an unnecessary barrier, add administrative complexity, and raise costs. AEU and AEMA allege that single Resource type Aggregators that are not comprised solely of demand response assets would have to request the transmission owner or distribution utility to install required and sufficient metering and telemetry equipment, which can be a lengthy process, arbitrarily limiting the ability of a subset of Aggregation types to utilize third-parties or Meter Service Entities to provide metering and/or meter data services would unduly expose single Resource type Aggregations to risk of delays and increased costs. AEU and AEMA contend that NYISO has not provided any compelling reason justifying this disparate treatment. AEU and AEMA argue that eliminating the option to use a Meter Service Entity as the Meter Authority presents a barrier to participation without any apparent rationale or purpose and is therefore unjust and unreasonable and should be rejected.¹¹⁴

c. Answers

72. NYISO responds that AEU and AEMA's protest mischaracterizes NYISO's proposal, is outside the scope of the proceeding, and amounts to relitigating an issue that was previously decided on the merits.¹¹⁵ NYISO states that its 2019 DER Rules Transmittal Letter proposed to establish a framework for Aggregators of a DER Aggregation, Responsible Interface Parties, and Curtailment Service Providers to obtain wholesale metering and/or meter data services from a third-party Meter Service Entity, but also proposed that single Resource type Aggregations would be "subject to the existing metering and telemetry rules for that Resource type."¹¹⁶ NYISO contends that the 2019 DER Rules filing made clear that only Aggregators of DER Aggregations (and specified other entities) were permitted to utilize Meter Service Entities, that AEU and

¹¹² AEU and AEMA Protest at 2.

¹¹³ *Id.* at 6-7.

¹¹⁴ *Id.* at 7-8.

¹¹⁵ NYISO Answer at 12-13.

¹¹⁶ *Id.* at 13 (quoting 2019 DER Rules Transmittal Letter at 52-53, 60).

AEMA both intervened and filed comments and answers in the 2019 DER Rules proceeding, and specifically commented on the metering requirements, but did not address the proposed rule that only an Aggregator of DER Aggregations would be eligible to utilize a Meter Service Entity.¹¹⁷ NYISO states that, in its 2020 DER Order, the Commission concluded that NYISO's proposal regarding third-party Meter Service Entities was just and reasonable.¹¹⁸

73. NYISO argues that the instant filing does not propose to modify the substantive rules regarding the use of Meter Service Entities, but instead that the change to NYISO's market rules made by the addition of proposed section 13.3.1.4 is to clarify that an Aggregation must use the same Meter Authority for the entire Aggregation. NYISO contends that its filing does not propose a new rule related to the type of Meter Authority that a single resource type Aggregation is permitted to use. NYISO states that it proposes adding "DER" to the section 13.3 title, clarifying that NYISO intended section 13.3.1 to apply only to DER Aggregations in its 2019 DER Rules. NYISO states that single Resource type Aggregations, except those composed only of Demand Side Resources, are required to obtain metering and meter data services from the applicable Member System, and AEU and AEMA's protest is outside the scope of this proceeding because it impermissibly seeks to modify a separate FPA section 205 proposal. NYISO asserts that AEU and AEMA have not identified any changed circumstances that necessitate revising the 2020 DER Order and should be prohibited from re-litigating this issue.¹¹⁹

74. AEU and AEMA argue that it is NYISO that is attempting to relitigate the terms under which Aggregators of DER Aggregations may use Meter Service Entities. AEU and AEMA state that NYISO's 2019 DER Rules defined an Aggregator as, among other things, "a Resource comprised of two or more individual Generators" and revised section 13 of the Services Tariff to allow Aggregators to obtain wholesale metering and/or meter services from a Meter Service Entity.¹²⁰ AEU and AEMA state that in NYISO's July 2021 Order No. 2222 compliance filing, NYISO modified the definition of Aggregation to be, among other things "a Resource comprised of one or more individual Generators," and that its definition allows both Generators and Demand Side Resources to qualify as DERs.¹²¹

¹¹⁷ *Id.* at 13-14.

¹¹⁸ *Id.* at 14 (citing 2020 DER Order, 170 FERC ¶ 61,033 at P 72).

¹¹⁹ *Id.* at 14-15.

¹²⁰ AEU and AEMA Answer at 5-6.

¹²¹ *Id.* at 6-8 (quoting Order No. 2222 Compliance Filing at 42, 14).

75. AEU and AEMA contend that neither the 2019 DER Rules Transmittal Letter nor NYISO's Order No. 2222 compliance filing specified that Generators and/or DERs in a DER Aggregation must not be of a single resource type, but NYISO's instant filing proposed that single Resource type Aggregations must only use the applicable Member System for wholesale metering and/or meter data services, which would explicitly prohibit an Aggregator of DER Aggregations that consist of the same resource type Generators and DERs to use a Meter Service Entity. AEU and AEMA assert that they reasonably assumed that the words in the 2019 DER Rules Transmittal Letter that "'an Aggregator of a DER Aggregation . . . may obtain wholesale metering and/or meter data service from . . . a new third-party entity—Meter Services Entity' do not require that the constituents of DER Aggregations be of different resource types or technologies to be eligible to obtain services from a [Meter Service Entity]." ¹²² AEU and AEMA state that they do not contest the 2020 DER Order because they reasonably agreed with the Commission's determination that an Aggregator of a DER Aggregation may use a Meter Service Entity without any further restrictions on the resource types and technologies within DER Aggregations. AEU and AEMA assert that NYISO has not identified any changed circumstances that necessitate revising the 2020 DER Order and that necessitate elimination of the option for Aggregations of the same resource type to utilize a Meter Service Entity. ¹²³

d. First Deficiency Letter Response and Protest

76. NYISO reiterates that in the 2019 DER Rules, NYISO proposed, and the Commission accepted, to allow Aggregators of DER Aggregations, as well as Responsible Interface Parties and Curtailment Service Providers, to utilize Meter Service Entities. NYISO explains that the 2019 DER Rules were not intended to expand opportunities for third-party metering, but rather to maintain existing opportunities for Demand Side Resources in the absence of previously effective New York State regulations. NYISO explains that NYISO has previously permitted certain third-party metering services as allowed under state regulations, and that New York State previously allowed such metering services, but that the New York Commission recently terminated its third-party metering programs. NYISO's 2019 DER Rules set out a framework for Aggregators of DER Aggregations, as well as Responsible Interface Parties and Curtailment Service Providers, to use Meter Service Entities as a replacement for existing New York Commission requirements that were used to certify Meter Service Entities. ¹²⁴

¹²² *Id.* at 7 (quoting 2019 DER Rules Transmittal Letter at 52-53).

¹²³ *Id.*

¹²⁴ First Deficiency Letter Response at 16-18.

77. NYISO states that at no time did NYISO contemplate allowing single Resource type Aggregations to use a Meter Service Entity because (1) NYISO intended to replace the New York Commission requirements for existing demand response programs; (2) NYISO sought to extend the opportunity to use third-party providers to Demand Side Resources participating in the DER and Aggregation participation model; and (3) NYISO wanted to harmonize the metering rules for single Resource type Aggregations with the rules for stand-alone Generators, which is consistent with its DER and Aggregation market design for single Resource type Aggregations.¹²⁵ NYISO explains that its 2019 DER Rules Transmittal Letter proposed that “[a]n Aggregation that is only composed 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 applicable to all Aggregations,” which would help maintain comparability among single Resource type Aggregations and stand-alone resources of the same type so as not to unduly advantage any one participation model or another.¹²⁶

78. AEU and AEMA argue that preventing single Resource type Aggregations from using Meter Service Entities is illogical because these Aggregations have more in common with Aggregations than with individual resources, especially with respect to metering, since they are comprised of multiple, smaller component DERs, and because doing so will result in the strange scenario where an Aggregation of one resource will have the ability to use a Meter Service Entity, but, if another resource of that type is added, the Meter Service Entity cannot be used because it becomes a single Resource type Aggregation.¹²⁷ AEU and AEMA also contend that NYISO’s proposal raises concerns regarding undue discrimination because, rather than unduly advantaging one participation model over another, preventing single Resource type Aggregations from using Meter Service Entities unduly disadvantages Aggregations of a single resource type relative to other DER Aggregations.¹²⁸

e. Commission Determination

79. We find that NYISO’s proposed revisions to its metering requirements, including third-party metering, are just and reasonable and not unduly discriminatory or preferential. We agree with NYISO that its 2019 DER Rules established, and the Commission accepted, the market rule that permits only Aggregators of “DER Aggregations” to use third-party Meter Service Entities for metering and meter data services. NYISO’s 2019 DER Rules included a consistent and clear distinction between

¹²⁵ *See id.* at 18.

¹²⁶ *Id.* at 18-19 (quoting 2019 DER Rules Transmittal Letter at 23).

¹²⁷ AEU and AEMA Protest to First Deficiency Letter Response at 8-9.

¹²⁸ *Id.* at 9.

“DER Aggregations” and “single Resource type Aggregations.” NYISO’s accepted Services Tariff revisions in that proceeding specifically define a “DER Aggregation” as “[a]n Aggregation consisting of one or more Demand Side Resources, or two or more different Resource types”¹²⁹ Further, the tariff language at section 4.1.10.1 establishes a clear distinction between “Aggregations comprised of a single Resource type,” which “shall follow the rules associated with that Resource type,” and “Aggregations that are comprised of more than one Resource type, and Aggregations comprised of only Demand Side Resources,” which “shall follow the rules associated with DER Aggregations.”¹³⁰

80. While AEU and AEMA point to NYISO’s definition of an Aggregation, their filings ignore that NYISO has also defined a subset of Aggregations, “DER Aggregations,” to have a specific meaning when used in the tariff, and which must be differentiated from “single Resource type Aggregations.” In setting out its 2019 DER Rules, NYISO clearly stated that its revisions would allow “Aggregators of *DER Aggregations*” to utilize Meter Service Entities, not Aggregators of *Aggregations*, generally.¹³¹ As such, the 2019 DER Rules did not create an allowance for Aggregators of single Resource type Aggregations to utilize third-party Meter Service Entities, but only for Aggregators of DER Aggregations (and certain other specified entities). Rather, the 2019 DER Rules clearly stated that single Resource type Aggregations were required to follow the rules applicable to their resource type. NYISO’s revisions proposed here do not change those rules and instead only clarify that the rules for Aggregators of DER Aggregations do not apply to Aggregators of single resource type Aggregations.

81. We note that, contrary to AEU’s and AEMA’s assertions, NYISO’s 2019 DER Rules Transmittal Letter was consistent with its tariff revisions, explaining:

An Aggregation’s mix of Resource types will determine which market rules apply to that Aggregation. An Aggregation that is composed of a single Resource type, with the exception of Demand Side Resources, will be subject to the market rules applicable to that Resource type. . . . An Aggregation that includes more than one Resource type, only Demand Side Resources, or facilities participating as Distributed Energy Resources will be referred to as a “DER

¹²⁹ NYISO, NYISO Tariffs, NYISO MST, § 2.4 MST (Definitions – D) (15.0.0).

¹³⁰ NYISO, NYISO Tariffs, NYISO MST, § 4.1 MST (Market Services – General Rules) (17.0.0), § 14.1.10.1).

¹³¹ See Transmittal Letter at 52; NYISO, NYISO Tariffs, NYISO MST, § 13 MST (Metering) (2.0.0), § 13.3.1 (emphasis added).

Aggregation” and will be subject to certain DER Aggregation-specific rules.¹³²

3. Aggregation Reference Levels

a. NYISO’s Filing

82. NYISO states that it uses reference levels to test offers (Bids) that market participants submit against NYISO’s estimate of how a competitive supplier would offer the same resource or set of resources into the energy and ancillary services markets, and that the 2019 DER Rules allowed Bid-based, LBMP-based, and cost-based reference levels for Aggregations. NYISO now proposes to eliminate the use of LBMP-based and Bid-based references levels for Aggregations.¹³³

83. NYISO explains that LBMP-based and Bid-based reference levels are computed based on 90-day historical data and that the 2019 DER Rules allow Aggregations to change their resource composition on a monthly basis. NYISO argues that using a Bid or LBMP-based reference level that relies on historical data may not produce an accurate estimate of the Aggregation’s costs because the DERs participating in the Aggregation have changed. NYISO proposes to implement cost-based references for incremental energy in a manner that will enable an Aggregator to dynamically reflect different DER technologies within an Aggregation and advise NYISO of which DERs are available on an hourly basis to inform the final reference level costs. NYISO also states that time-based and non-dollar parameters will be used to develop bid-based, engine-type-based or NYISO determined reference levels.¹³⁴

84. NYISO states that cost-based references will be calculated using approved cost data from NYISO’s Reference Level Software, using each resource type’s heat rate multiplied by fuel and emissions costs, plus other variable operating costs, and risk and opportunity costs, and that the costs applied for the different expressions in the equation will differ based on individual DER type. NYISO asserts that market participants will have the option to consult with NYISO to determine unique references for their Aggregations. NYISO also states that NYISO’s Mitigation References department will create a list of average marginal costs for different resource types, that Aggregation

¹³² 2019 DER Rules Transmittal Letter at 13. NYISO reiterated this distinction throughout its 2019 DER Rules Transmittal Letter. *Id.* at 23-24; 92 (discussing rules for “homogenous Aggregations” participating in the capacity market and explaining rules for a “transformation of a DER Aggregation to a single Resource type Aggregation” and then discussing rules for “DER Aggregations”).

¹³³ Transmittal Letter at 13-14.

¹³⁴ *Id.* at 14.

energy offers may include a resource type from the NYISO-created list for each hour to indicate the highest cost resource that is available to produce energy for the applicable hour, that the NYISO-estimated marginal cost of that highest cost DER will be used as the reference level for the entire Aggregation for that hour, and that if the Market Participant does not select a specific resource type, or picks an invalid resource type, then the NYISO-estimated marginal cost of the lowest cost DER in the Aggregation will be used as the reference level for the entire Aggregation for that hour.¹³⁵

b. Protest

85. AEU and AEMA argue that NYISO's proposal to eliminate bid-based and LBMP-based reference prices will result in unnecessary complexity and potential over-mitigation of demand response resources participating in an Aggregation.¹³⁶ AEU and AEMA contend that NYISO's justification, that Bid-based and LBMP-based reference levels are based on 90-day historical data while components of DERs comprising an Aggregation can shift on a monthly basis, is predicated on the "questionable assumption" that significant numbers of DERs will change Aggregations each month.¹³⁷ AEU and AEMA state that, rather than allowing Bid-based and LBMP-based reference levels in cases where the composition of the Aggregation (on net) has not changed, or identifying other solutions, NYISO takes the "drastic measure" of eliminating these options.¹³⁸

86. AEU and AEMA argue that this proposal will cause significant administrative complexity and many disputes. AEU and AEMA state that NYISO acknowledges that costs will vary by individual DER types and allows market participants to work with NYISO to determine unique references. However, to accurately reflect Aggregation costs, cost-based references will need to take into account opportunity, risk and other costs, which are factors that are changing constantly and that differ by customer, resource, and circumstance. AEU and AEMA allege that incorporating such costs will be difficult and will require many Aggregations to consult extensively with NYISO. AEU and AEMA assert that they are unaware of any market that has established generically applicable cost bases for demand response, whose costs are entirely based on opportunity costs, which will vary by load reduction approach and could change weekly, daily, or even hourly. AEU and AEMA assert that it may not be possible to develop cost-based demand response references.¹³⁹

¹³⁵ *Id.*

¹³⁶ AEU and AEMA Protest at 2.

¹³⁷ *Id.* at 8.

¹³⁸ *Id.*

87. AEU and AEMA contend that Bid-based and LBMP-based reference levels would more appropriately account for such factors and would simplify the administrative burden for both Aggregations and NYISO. AEU and AEMA also assert that load reduction resources participating as part of an Aggregation should not be subject to market power mitigation or reference cost levels.¹⁴⁰

c. Answers

88. NYISO explains that, as it developed the implementation details for its DER and Aggregation participation model, it realized that the flexibility provided to Aggregators regarding how they design and offer their Aggregations does not align with the intent of LBMP-based and Bid-based reference levels. NYISO asserts that, unlike a traditional generator, an Aggregation's composition can change monthly and the individual DERs an Aggregator uses to meet its schedule or dispatch instructions can change by the hour.¹⁴¹

89. NYISO also states that, while Demand Side Resources participating in NYISO's energy market as DADRP resources are not typically required to develop cost-based reference levels for bids at or below \$1,000/MWh, Demand Side Resources must work with NYISO to develop a cost-based reference level, in accordance with Services Tariff section 23.7.4.2, before seeking to place bids at a price greater than \$1,000/MWh.¹⁴²

90. NYISO states that it agrees that an accurate cost-based reference level for an Aggregation may need to take into account opportunity, risk and incremental site specific costs, and argues that its market rules and reference level system already enable NYISO to incorporate these costs into an Aggregation's reference level and update that level on a daily or hourly basis and, therefore, address AEU and AEMA's concerns.¹⁴³ NYISO asserts that, even if the use of LBMP-based and Bid-based references would ease the expected administrative burden, use of these reference levels would be inconsistent with the intended purpose of references levels, which is to serve as a reasonable proxy for the expected Aggregation offers.¹⁴⁴

¹³⁹ *Id.* at 8-9.

¹⁴⁰ *Id.* at 9.

¹⁴¹ NYISO Answer at 17.

¹⁴² *Id.* at 16 n.52.

¹⁴³ *Id.* at 18-19.

¹⁴⁴ *Id.* at 19.

91. AEU and AEMA disagree with NYISO that its concerns are addressed by NYISO's reference level development process, and reiterate that for many DERs, and especially demand response, developing cost-based reference levels will require extensive consultation with NYISO. AEU and AEMA reiterate that, because cost factors for resources like demand response are highly variable and constantly changing, accurately capturing them will be difficult or impossible.¹⁴⁵ AEU and AEMA argue that this restriction is unnecessary, at least for some Aggregations, noting that demand response is already exempted from mitigation in the capacity market except in rare circumstances. AEU and AEMA request that the Commission clarify that Aggregations comprised exclusively of Demand Response will not be subject to mitigation given the Commission's prior findings excluding demand response from buyer-side mitigation rules.¹⁴⁶

92. AEU and AEMA also argue that it is clear that the two concerns underlying NYISO's justification for restricting DER Aggregations from using Bid-based and LBMP-based reference prices will not apply to all Aggregations. AEU and AEMA argue that, at minimum, these reference levels should be allowed for Aggregations that do not change within the lookback period or that do not use different resources to respond hour-by-hour. AEU and AEMA argue that requiring demand response resources submit to mitigation and cost-based reference prices that will be difficult if not impossible for demand response resources to develop will virtually guarantee that demand response resources will remain emergency-only resources. AEU and AEMA argue that NYISO will, therefore, deny itself access to additional flexibility that it would gain from transitioning less flexible SCRs into dispatchable DERs.¹⁴⁷

d. First Deficiency Letter Response and Protest

93. NYISO explains that, for traditional units, it will be able to use its own reference level cost data, obtained from existing generators, to determine an estimate of marginal cost for a given resource type, but for new or less common resources, NYISO will consider external data sources, such as information from the National Renewable Energy Laboratory, the Energy Information Administration, other ISOs/RTOs, manufacturers, and asset owners. NYISO states it can use this information to create a baseline for marginal costs, which it can expand on as NYISO gains experience with these resources.¹⁴⁸ Further, NYISO notes that input from resource owners is a longstanding, Tariff-

¹⁴⁵ AEU and AEMA Answer at 8-9.

¹⁴⁶ *Id.* at 9-10 (citing NYISO Compliance Order, 179 FERC ¶ 61,102 at P 35).

¹⁴⁷ *Id.* at 10-11.

¹⁴⁸ First Deficiency Letter Response at 19.

recognized component of the cost-based and ISO-determined reference level development process.¹⁴⁹

94. AEU and AEMA argue that, although NYISO asserts that it historically has relied on information obtained from outside sources for developing average marginal costs for new or less common resources, NYISO does not mention any data related to demand response and no such sources of information for demand response exist. AEU and AEMA reiterate that demand side resources have not typically been required to develop cost-based reference levels, are only required to do so in one specific instance, and state that they are unaware of any instance in which anyone has attempted to exercise that option, likely because of the difficulty of doing so.¹⁵⁰

e. Commission Determination

95. We find that NYISO's proposed elimination of Bid-based and LBMP-based reference levels for Aggregations is just and reasonable and not unduly discriminatory or preferential. We agree with NYISO that, because Aggregations may change their composition monthly, and Bid-based and LBMP-based reference levels are based on 90-day historical data, Bid-based and LBMP-based reference levels may not be accurate for Aggregations. AEU and AEMA acknowledge that if an Aggregation has changed within the past 90 days, the Bid-based and LBMP-based reference levels would not be accurate.

96. We also disagree with AEU and AEMA's assertion that NYISO has not sufficiently explained its methodology for cost-based reference levels for demand response resources. As NYISO explains, its cost-based reference level methodology and software already enable NYISO to incorporate opportunity, risk, and incremental site-specific costs from the Aggregator into an Aggregation's reference level and update that level on a daily or hourly basis. NYISO explains that for default reference levels for new or less common resources, NYISO will consider external data sources, such as information from the National Renewable Energy Laboratory, the Energy Information Administration, other ISOs/RTOs, manufacturers, and asset owners. NYISO states that it can use this information to create a baseline for marginal costs, which it can expand on as it gains experience with these resources. We also note NYISO's explanation that resource owners may provide input regarding the appropriate cost-based reference level. We agree with NYISO that, while cost-based reference levels may be more administratively burdensome for Aggregations, cost-based reference levels are necessary to ensure accurate Aggregation reference levels.

¹⁴⁹ *Id.* at 21 n.66 (citing NYISO, NYISO Tariffs, NYISO MST, § 23.3 MST attach. H (Criteria for Imposing Mitigation Measures) (29.0.0), § 23.3.1.4.1.3).

¹⁵⁰ AEU and AEMA Protest to First Deficiency Letter Response at 10.

4. Transition Period for Demand Response Resources

a. NYISO's Filing

97. NYISO states that in the 2019 DER Rules, NYISO included a proposal to terminate the DSASP and DADRP, which will be replaced by the market rules for DERs and Aggregations. NYISO states that it anticipates terminating those two programs 12 months after the date upon which the DER and Aggregation participation model becomes effective, and that NYISO will use that overlap to transition existing DSASP and DADRP resources from their respective programs into the DER and Aggregation participation model. NYISO states that this transition period is necessary to facilitate DER and Aggregation registration and enrollment and to establish the applicable metering and telemetry infrastructure, and will allow existing resources to remain market participants while these processes are ongoing. NYISO asserts that it may lengthen the transition window if unforeseen circumstances arise that would materially impact the ability of DSASP and DADRP resources to complete the transition process within 12 months.¹⁵¹ As discussed above, NYISO proposes a flexible effective date for the tariff revisions terminating the DSASP and DADRP and plans to notify the Commission of the effective date of those tariff provisions at least two weeks prior to the proposed effective date.¹⁵²

b. Protest

98. AEU and AEMA argue that NYISO's proposal to terminate the DSASP and DADRP 12 months after the DER and Aggregation participation model becomes effective may not be a sufficient amount of time and will leave DER providers with little recourse if transmission owners fail to make adequate progress toward establishing the applicable metering and telemetry infrastructure. AEU and AEMA explain that, with the transmission owners' current proposed equipment and communication specifications, it would take Aggregators approximately nine months to get resources ready to participate in the DER and Aggregation participation model, leaving only three months to work with transmission owners to clearly define the connection parameters and required equipment. AEU and AEMA also explain that Remote Terminal Units, relied upon by the transmission owners that currently do have some level of specification in place, are expensive to acquire and maintain and make smaller Aggregations uneconomic, and transmission owners do not have incentives to resolve this barrier to participation. AEU and AEMA argue that NYISO, which requires Aggregators communicate their Aggregations' telemetry to the transmission owners, should be responsible for ensuring

¹⁵¹ Transmittal Letter at 23.

¹⁵² *Id.* at 2; *see also* NYISO October 18, 2023 Notice of Intended Effective Date at 3.

that transmission owners develop specifications that can support multiple Aggregations at costs that do not present a barrier to participation. AEU and AEMA argue that in light of these barriers, the proposed transition period to sunset the current DSASP and DADRP models is unjust and unreasonable, and, instead, NYISO should define the transition period in relation to each transmission owners' readiness to incorporate an aggregation into its system, such that the 12-month timeline would begin once the first Aggregation has been connected successfully to a transmission owner, on a transmission owner-specific basis.¹⁵³

c. Answers

99. NYISO responds that its proposed 12-month transition period for existing DSASP and DADRP participants to move to the DER and Aggregation participation model was determined after consulting with New York's transmission owners, market participants participating in the DSASP and DADRP, and stakeholders. NYISO asserts that recent communications with New York's transmission owners and demand response participants confirm significant progress is being made to establish the telemetry infrastructure requirements necessary for the transition. NYISO states that it understands that New York's transmission owners are either actively working to establish, or have published, the requirements for Aggregator connection to their metering and telemetry systems. NYISO states that it remains committed to enabling a smooth transition and, as it stated in the filing transmittal, it may lengthen the transition window if unforeseen circumstances arise that materially impact the ability of DSASP and/or DADRP resources to complete the transition process within 12 months.¹⁵⁴

100. NYISO argues that AEU and AEMA's alternative proposal that NYISO establish multiple 12-month transition periods, one for each transmission owner, would increase the administrative burden and costs to NYISO without providing any extra benefit for DSASP and DADRP resources.

101. AEU and AEMA state that they disagree with NYISO's evaluation of progress being made by transmission owners to establish or publish requirements for Aggregator connection to their metering and telemetry systems, and argue that additional intervention from the Commission is warranted. AEU and AEMA contend that only one transmission owner has published requirements for an Aggregator, and those requirements make it impossible for an Aggregation of multiple resources to establish the required connection, presenting an impossible barrier for any Aggregation.¹⁵⁵

¹⁵³ AEU and AEMA Protest at 10-12.

¹⁵⁴ NYISO Answer at 20-21.

¹⁵⁵ AEU and AEMA Answer at 12-13.

d. Commission Determination

102. We find that NYISO's proposed 12-month transition period for the elimination of the DADRP and DSASP programs is just and reasonable. NYISO has adequately explained that its proposed transition period is based on stakeholder support and consultation with the transmission owners. NYISO has indicated that it will extend the transition period if needed. We disagree with AEU and AEMA that the transition period should be transmission owner-dependent, because, as NYISO notes, that approach could create unnecessary confusion and costs for NYISO and market participants without demonstrated benefits. We direct NYISO to notify the Commission of the effective date of the tariff record terminating the DSASP and DADRP at least two weeks prior to the proposed effective date of the tariff record, as NYISO proposes to do.¹⁵⁶

The Commission orders:

(A) We accept NYISO's revisions related to its DER and Aggregation participation model, effective April 16, 2024, as requested, subject to an informational filing to be submitted within two years of the date of issuance of this order, as discussed above.

(B) We accept NYISO's revisions related to the termination of the DADRP and DSASP, effective December 31, 9998, as requested. NYISO is hereby directed to notify

the Commission, at least two weeks prior to the proposed effective date, as to the precise effective date, as discussed above.

By the Commission. Chairman Phillips and Commissioner Clements are concurring with a joint separate statement attached.

¹⁵⁶ When NYISO notifies the Commission of the precise effective date of these Tariff records, NYISO should use the eTariff Type of Filing Code 150 – Data Response/ Supplement the Record.

Commissioner Christie is concurring with a separate statement attached.

(S E A L)

Debbie-Anne A. Reese,
Acting Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket No. ER23-2040-000
ER23-2040-003

(Issued April 15, 2024)

PHILLIPS, Chairman, CLEMENTS, Commissioner, *concurring*:

1. We support today's order accepting New York Independent System Operator, Inc.'s (NYISO) proposed revisions to its distributed energy resource (DER) participation rules, including a 10 kW minimum capability requirement for any individual DER to participate in a DER aggregation. We do not, however, arrive at this finding lightly.
2. Commenters, including the New York State Public Service Commission (New York Commission), express serious concerns that the 10 kW minimum capability requirement will likely exclude most, if not all, residential and other small retail DERs from participating in NYISO's wholesale markets and thereby restrict the benefits DERs provide to those markets and to the grid.¹ The New York Commission states that it expects to see a significant increase in DERs in the next few years, including distributed solar facilities and energy storage resources, spurred by existing New York State policies.² So while NYISO presents evidence that participation of DERs smaller than 10 kW is likely small (in capacity terms) today,³ there is also evidence that this could change in the near future.

¹ New York Commission Comments at 4-5; AEU and AEMA Protest at 3-6.

² New York Commission Comments at 4 (citing *In the Matter of the Advancement of Distributed Solar*, Order Expanding NY-Sun Program, Case 21-E-0629 (N.Y. Pub. Serv. Comm'n Apr. 14, 2022) (targeting 10 gigawatts (GW) of distributed solar statewide by 2030, including 150 megawatts (MW) of residential solar projects in New York City alone); and *In the Matter of Energy Storage Deployment Program*, New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage, Case 18-E-0130 (N.Y. Pub. Serv. Comm'n Dec. 28, 2022) (targeting 200 MW of retail storage statewide by 2030)).

³ First Deficiency Letter Response at 14. NYISO presents data on the participation of resources with a capability below 10 kW in NYISO's Emergency Demand Response Program and Special Case Resource program. These data show that these resources accounted for 7.3 MW of capability in 2023, or 0.58% of the total capability participating in those programs.

3. Despite commenters' valid concerns about the potential limiting effect of the 10 kW minimum capability requirement in the future, we conclude that it is just and reasonable and not unduly discriminatory or preferential at this time and based on the record before us. We find persuasive NYISO's explanation that the 10 kW minimum capability requirement is necessary for NYISO to implement its DER participation model immediately and that the lack of such a requirement would substantially delay rollout of the participation model.⁴

4. Rejecting NYISO's filing would therefore have significantly delayed DERs' eligibility to participate in NYISO's markets—thereby depriving NYISO and market participants an opportunity to gain valuable experience that can improve the participation model going forward.⁵ Because NYISO provided sufficient support that the 10 kW minimum capability requirement strikes a reasonable balance between minimizing barriers to DER participation and achieving a model that NYISO may efficiently administer in the near term, we find this limitation acceptable.

5. The Commission stated in Order No. 2222 that it was revising its regulations to remove barriers to DER participation in RTO/ISO markets⁶ to “allow distributed energy resources to provide all services that they are technically capable of providing through aggregation.”⁷ The Commission reasoned that DERs possess valuable characteristics that can enhance reliability and reduce system costs,⁸ and thus facilitating their participation will enhance competition and help to ensure that RTO/ISO markets produce just and reasonable rates.⁹

⁴ Second Deficiency Letter Response at 5-6.

⁵ Second Deficiency Letter Response at 7 (“Experience administering the DER and Aggregation participation model with individual facilities as small as 10 kW will provide the NYISO essential data on the feasibility of reducing the minimum capability even further[.]”).

⁶ *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order No. 2222, 172 FERC ¶ 61,247, at P 1 (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).

⁷ *Id.* P 130.

⁸ *See id.* P 4.

⁹ *Id.* P 3. Also, notably, the Commission declined to require RTOs/ISOs to adopt minimum capacity requirements for individual DERs, reasoning that they are “not necessary” because each individual DER will participate in the market via an aggregation, which acts as a single resource. *Id.* PP 180-181. While we believe that

6. We are only now leaving the starting gates in unlocking the potential of DERs to provide reliability value to our grid, but that value will be essential to ensuring we meet new and emerging reliability challenges in the future in an efficient manner that protects customers. To date, NYISO has been at the forefront of developing a participation model for DERs and seeking to implement that model expeditiously. We urge NYISO to build on that good work and to honor its stated commitment to work with its stakeholders to reassess the 10 kW minimum capability requirement as it gains experience implementing its DER participation model.¹⁰ We are encouraged by NYISO's statement that "[t]he ultimate goal of these efforts is to propose a set of market rules for small facilities that enhance grid reliability and resilience, reduce consumer costs, and lower barriers to entry for small resources."¹¹

For these reasons, we respectfully concur.

Willie L. Phillips
Chairman

Allison Clements
Commissioner

NYISO has justified its 10 kW minimum capability requirement based on the record here, we emphasize that NYISO is the only RTO/ISO that has proposed such a requirement.

¹⁰ See NYISO Transmittal at 6-7; NYISO Second Deficiency Letter Response at 7.

¹¹ NYISO Transmittal at 7.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket Nos. ER23-2040-000
ER23-2040-003

(Issued April 15, 2024)

CHRISTIE, Commissioner, *concurring*:

1. I concur in the finding in today's order that NYISO's proposed revisions to the 2019 DER Rules are just and reasonable and not unduly discriminatory or preferential under Federal Power Act (FPA) section 205.
2. Much is said in this record about NYISO's proposal to implement a 10 kW minimum capability requirement for all individual DERs participating in an Aggregation. In its initial filing in this docket, NYISO explained that this proposal:

balances the need for efficient administration of the NYISO-administered wholesale markets with the value that small facilities can reliably provide the bulk power system, and is essential to the efficient implementation of the DER and Aggregation participation model. Accommodating resources below 10 kW is expected to require market rule enhancements, and potentially additional software changes, that the NYISO has not developed yet.¹

NYISO – in what can only be described as a Groundhog Day experience – was required to repeatedly explain the same.²

¹ Transmittal at 6. I note too that today's order apparently has blinders on to that portion of NYISO's explanation that weighed "*the value that small facilities can reliably provide the bulk power system*," that is part of NYISO's reasoning. *Compare id.* (emphasis added), *with id.* P 63 ("... NYISO has demonstrated that, at this time and based on the record herein, the 10 kW minimum capability requirement reasonably balances the benefit of enabling NYISO to implement its DER and Aggregation participation model immediately against the drawback of maintaining a limited barrier to certain DERs so that NYISO may feasibly enroll and monitor individual DERs in an Aggregation and efficiently administer the wholesale markets."). No matter; it is in the record and it is what NYISO said.

² See, e.g., First Deficiency Letter Response at 12-16; Second Deficiency Letter Response (*in its entirety*). I was not consulted nor asked my opinion on the issuance of either Deficiency Letter. I commend NYISO for airing its suspicions that "[t]he

3. In addition to again and again offering detailed reasoning in support of its proposal, NYISO made clear that while it would continue to gain experience in this area and – as RTOs do – would continue its evaluation based on those experiences:

*At this time, the NYISO is not proposing an end-date for its 10 kW minimum capability requirement, nor does it propose that this requirement would be superseded by its Order No. 2222 compliance tariff revisions.*³

4. Therefore, and based on this record, today's order states in no uncertain terms:

*[The Commission] find[s] that the proposed 10 kW minimum capability requirement is just and reasonable and not unduly discriminatory or preferential.*⁴

For these reasons, I respectfully concur.

Mark C. Christie
Commissioner

questions posed in the First and Second Deficiency Letters suggest that the Commission may be concerned about the proposed 10 kW minimum capability requirement and may have preferred the NYISO to develop one or more alternatives to its proposal.” Second Deficiency Letter Response at 5. I also commend NYISO for (i) reminding this Commission of its obligations under FPA section 205 to limit its review to what is just and reasonable and not unduly discriminatory or preferential and (ii) correctly requesting that this Commission “limit its consideration to whether the tariff revisions proposed in the June 1 Filing, taken as a whole, are just, reasonable, and not unduly discriminatory, and not on whether hypothetical alternatives to the June 1 Filing might be preferable.” *Id.*

³ First Deficiency Letter Response at 16 (emphasis added).

⁴ Order at P 63 (emphasis added).