182 FERC ¶ 61,137
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

ISO New England Inc. and New England Power Pool Participants Committee	Docket Nos. ER22-983-000 ER22-983-001

ORDER ON COMPLIANCE FILING

(Issued March 1, 2023)

1. On February 2, 2022, ISO New England Inc. (ISO-NE), joined by the New England Power Pool Participants Committee (NEPOOL) and the PTO Administrative Committee (PTO AC) on behalf of the New England Participating Transmission Owners (PTO), submitted proposed revisions to ISO-NE's Transmission, Markets, and Services Tariff (Tariff)[1] in compliance with the requirements of Order No. 2222,[2] which removes barriers to the participation of distributed energy resource aggregations in the capacity, energy, and ancillary services markets operated by Regional Transmission Organizations and Independent System Operators (RTO/ISO markets). In this order, we accept in part, and reject in part, ISO-NE's compliance filing, to become effective November 1, 2022 and November 1, 2026, as requested, subject to further compliance filings to be submitted within 30, 60, and 180 days of the date of issuance of this order, as discussed below. We also direct an informational filing within 30 days of the date of issuance of this order, as discussed below.

[1] Appendix A lists the Transmission, Markets, and Services Tariff (Tariff) sections filed by ISO-NE and accepted by the Commission. Capitalized terms that are not defined in this order have the meaning specified in Tariff, § I.2 Rules of Construction; Definitions.

[2] *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indepe. 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).

I. Background

2. In Order No. 2222, the Commission adopted reforms to remove barriers to the participation of distributed energy resource aggregations in the RTO/ISO markets.[3] The Commission modified section 35.28 of its regulations[4] pursuant to its authority under Federal Power Act (FPA) section 206[5] to require each RTO/ISO to revise its tariff to ensure that its market rules facilitate the participation of distributed energy resource aggregations. The Commission found that, by removing barriers to the participation of distributed energy resource aggregations in the RTO/ISO markets, Order No. 2222 will enhance competition and, in turn, help ensure that the RTO/ISO markets produce just and reasonable rates.

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

[3] *Id.* P 1.

[4] 18 C.F.R. § 35.28 (2021).

[5] 16 U.S.C. § 824e.

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

million megawatt-hours (MWh) or less in the previous fiscal year, unless the RERRA permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator.

II. Compliance Filing

4. In its February 2, 2022 compliance filing, ISO-NE states that its proposal includes Tariff modifications that create a pathway for Distributed Energy Resource Aggregations (DERAs) to participate in New England markets by: creating new, and modifying existing, market participation models for DERA use; establishing eligibility requirements for DERA participation, including size, location, information and data requirements; setting bidding parameters for DERAs; requiring metering and telemetry arrangements for DERAs and individual Distributed Energy Resources (DER); and providing for coordination with distribution utilities and RERRAs for DERA/DER registration, operations, and dispute resolution purposes.[7] ISO-NE states that its compliance filing includes Tariff revisions that would be effective on two separate dates.[8] First, ISO-NE proposes certain Tariff revisions to certain definitions (section I.2.2.), Small Generator Interconnection Procedures (SGIP) (section II, Schedule 23), and capacity market rules (sections III.12 and III.13) become effective November 1, 2022. Second, ISO-NE proposes that Tariff revisions to certain other definitions and several other Tariff sections including revisions to rules governing its energy and ancillary services markets become effective November 1, 2026.

5. On May 18, 2022, Commission staff issued a data request advising ISO-NE that additional information was necessary to process its February 2, 2022 compliance filing (Data Request).[9] On June 17, 2022, in Docket No. ER22-983-001, ISO-NE filed a response to the Data Request (Data Request Response).

III. Notices of Filings and Responsive Pleadings

6. Notice of ISO-NE's filing was published in the *Federal Register*, 87 Fed. Reg. 7168 (Feb. 8, 2022), with interventions and protests due on or before February 23, 2022. On February 11, 2022, Advanced Energy Management Association (AEMA) filed a motion to extend the time to file protests until April 1, 2022. On February 18, 2022, ISO-NE filed an answer supporting AEMA's motion. On February 18, 2022, the date for

[7] Transmittal at 2.

[8] *Id.* at 43.

[9] ISO New England Inc., New England Power Pool Participants Committee, Docket No. ER22-983-000, at 1 (filed May 18, 2022).

filing interventions, comments and protests was extended to and including April 1, 2022.[10]

7. Notice of ISO-NE's Data Request Response was published in the *Federal Register*, 87 Fed. Reg. 37,850 (June 24, 2022), with interventions and protests due on or before July 8, 2022.

8. The Acadia Center, Advanced Energy Economy (AEE), AEMA, American Public Power Association, Calpine Corporation, Central Maine Power Company and The United Illuminating Company, Conservation Law Foundation, Constellation Energy Generation, LLC, Edison Electric Institute, Energy New England, LLC, Enerwise Global Technologies, LLC, Environmental Defense Fund, Eversource Energy Service Company (Eversource),[11] FirstLight Power, Inc., Massachusetts Attorney General (Massachusetts AG), Massachusetts Climate Action Network, Massachusetts Electric Company, Nantucket Electric Company, Narragansett Electric Company, and New England Power Company, each doing business as National Grid, New England States Committee on Electricity (NESCOE), NRG Power Marketing LLC, Solar Energy Industries Association (SEIA), Sierra Club, Sustainable FERC Project and Natural Resources Defense Council, and Voltus, Inc. filed timely motions to intervene, and the Massachusetts Department of Public Utilities filed a timely notice of intervention. Centrica Business Solutions Optimize, LLC (Centrica) and the Maine Public Utilities Commission (Maine Commission) each moved to intervene out of time.

9. Supplemental comments were timely filed by the NEPOOL Participants Committee. A timely protest and comments were filed together by AEE, PowerOptions, and SEIA, as well as by AEMA. A timely protest, comment and request for deficiency letter was filed by Voltus. Timely comments and partial protest were filed by Massachusetts AG. Timely comments and limited protest were filed by Environmental Organizations.[12] Out-of-time comments were filed by U.S. Senators Sheldon Whitehouse, Edward J. Markey, Elizabeth Warren and Bernie Sanders (Whitehouse, et al. Comments).

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[10] ISO New England Inc. and New England Power Pool Participants Committee, Notice Extending Comment Period, Docket No. ER22-983-000 (issued Feb. 18, 2022).

[11] Eversource states that it is acting as agent for its electric utility company affiliates, The Connecticut Light and Power Company, Public Service Company of New Hampshire, and NSTAR Electric Company.

[12] Environmental Organizations are Acadia Center, Conservation Law Foundation, Environmental Defense Fund, Massachusetts Climate Action Network, Natural Resources Defense Council, Sierra Club, and the Sustainable FERC Project.

10. On April 19, 2022, the New England Public Utilities[13] filed an answer, and on April 20, 2022, ISO-NE filed an answer (ISO-NE April 20 Answer). On May 16, 2022, AEMA filed an answer, and AEE, Power Options and SEIA together filed an answer (AEE, PowerOptions, and SEIA Answer).

11. In response to ISO-NE's Data Request Response, on July 8, 2022, AEMA, AEE, PowerOptions, and SEIA filed a protest (AEE, AEMA, PowerOptions, and SEIA Data Request Response Protest). On July 25, 2022, ISO-NE filed an answer (ISO-NE July 25 Answer). On August 9, 2022, AEMA, AEE, PowerOptions, and SEIA filed an answer (AEE, AEMA, PowerOptions, and SEIA August 9 Answer).

IV. Discussion

A. Procedural Matters

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2021), the timely, unopposed motions to intervene and notice of intervention serve to make the entities that filed them parties to this proceeding. The entities that filed protests or comments but did not file motions to intervene are not parties to the proceeding.[14]

13. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d), we grant Centrica's and the Maine Commission's late-filed motions to intervene, given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

14. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2021), prohibits an answer to a protest or 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.

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[13] The New England Public Utilities are National Grid, Avangrid Networks, Inc. (Avangrid), and Eversource.

[14] *See* 18 C.F.R. § 385.211(a)(2). As part of AEE, PowerOptions, and SEIA's comments and protest, PowerOptions did not file a motion to intervene. As part of the New England Public Utilities' Answer, Avangrid filed an answer but did not file a motion to intervene. Although we do not grant party status to Power Options and Avangrid, we address their pleadings in this order.

B. Substantive Matters

15. As explained in further detail below, we find that ISO-NE's proposal partially complies with Order No. 2222. Accordingly, we accept in part and reject in part ISO-NE's instant compliance filing, subject to a further compliance filing. Specifically, we accept ISO-NE's compliance filing to become effective November 1, 2022 and November 1, 2026, subject to further compliance filings to be submitted within 30, 60, and 180 days of the date of issuance of this order, as discussed below. We also direct an informational filing within 30 days of the date of issuance of this order, as discussed below.

16. As a preliminary matter, we find that ISO-NE has complied with the requirements of Order No. 2222 to: (1) propose definitions for distributed energy resource and distributed energy resource aggregator that are consistent in scope and applicability with the Commission's definitions;[15] (2) limit the participation of resources in RTO/ISO markets through a distributed energy resource aggregator that are receiving compensation for the same services as part of another program;[16] (3) establish a minimum size requirement for distributed energy resource aggregations that does not exceed 100 kW;[17] (4) propose a maximum capacity requirement for individual distributed energy resources participating in its markets through a distributed energy resource aggregation;[18] (5) allow a single qualifying distributed energy resource to avail itself of the proposed distributed energy resource aggregation rules by serving as its own distributed energy resource aggregator;[19] (6) establish locational requirements for distributed energy resources to participate in a distributed energy resource aggregation that are as geographically broad as technically feasible;[20] (7) establish market rules that address distribution factors and

[15] Order No. 2222, 172 FERC ¶ 61,247 at PP 114, 115, 118; Transmittal at 8-10; Tariff, § I.2.2.

[16] Order No. 2222, 172 FERC ¶ 61,247 at PP 159-164; Transmittal at 22; Data Request Response at 14; Tariff, § III.13.1.4A; Tariff, § III.6.7(c)(i)(1).

[17] Order No. 2222, 172 FERC ¶ 61,247 at P 171; Transmittal at 14, 25 (citing Tariff, § III.14.2); Tariff, § III.6.1(b); Tariff, § III.6.3.

[18] Order No. 2222, 172 FERC ¶ 61,247 at P 179; Transmittal at 25. Tariff, § III.6.5(b).

[19] Order No. 2222, 172 FERC ¶ 61,247 at P 185; Tariff, § III.6.1(a).

[20] Order No. 2222, 172 FERC ¶ 61,247 at PP 204-207; Transmittal at 14, 25-27. Tariff, § III.6.2.

bidding parameters for distributed energy resource aggregations;[21] (8) incorporate voluntary RERRA involvement in coordinating the participation of aggregated distributed energy resources in RTO/ISO markets;[22] and (9) establish market rules that address market participation agreements for distributed energy resource aggregators.[23] ISO-NE's compliance with these requirements is not contested in this proceeding. We address the remaining compliance requirements and comments and protests below.

1. Small Utility Opt-In

17. In Order No. 2222, the Commission added section 35.28(g)(12)(iv) to the Commission's regulations to provide that RTOs/ISOs may not accept bids from distributed energy resource aggregators aggregating customers of small utilities unless the RERRA allows such customers of small utilities to participate in distributed energy resource aggregations (i.e., to opt in).[24] Specifically, the Commission directed each RTO/ISO to amend its market rules as necessary to (1) accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed more than 4 million MWh[25] in the previous

[21] Order No. 2222, 172 FERC ¶ 61,247 at PP 225-229; Transmittal at 27-29; Tariff, § III.1.10.1A; Tariff, § III.1.10.1A(l); Tariff, § III.1.10.1A(m).

[22] Order No. 2222, 172 FERC ¶ 61,247 at PP 322-324; Transmittal at 38-39; Tariff § III.6.7.

[23] Order No. 2222, 172 FERC ¶ 61,247 at PP 352-356; Transmittal at 40; Tariff, Attachment A (Market Participant Service Agreement); Tariff, § III.6.7(d)(i)(2). We also note that the executed agreements that conform to the Market Participant Service Agreement, which we find complies with the requirements of Order No. 2222, should be reported in ISO-NE's Electric Quarterly Reports, retained, and made available for public inspection, consistent with the Commission's requirements. *Revised Pub. Util. Filing Requirements*, Order No. 2001, 99 FERC ¶ 61,107, at P 196 (2002); 18 C.F.R. § 35.1(g) (2021).

[24] Order No. 2222, 172 FERC ¶ 61,247 at P 56.

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

fiscal year, and (2) not accept bids from distributed energy resource aggregators if its aggregation includes distributed energy resources that are customers of utilities that distributed 4 million MWh or less in the previous fiscal year, unless the RERRA permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator (small utility opt-in).[26] The Commission also required each RTO/ISO to explain how it will implement this small utility opt-in, noting that an RTO/ISO may choose to implement this requirement in a similar manner as it currently implements the small utility opt-in provision under Order No. 719-A.[27] In Order No. 2222-A, denying a request for clarification, the Commission found that the small utility opt-in established in Order No. 2222 applies to energy efficiency resources.[28]

a. Filing

18. ISO-NE proposes to include in proposed Tariff section III.6.1 a criterion that a DERA "not be located in the metering domain of a Host Utility that distributed 4 million MWh or less in the previous fiscal year, unless the relevant electric retail regulatory authority permits such Host Utility to host Distributed Energy Resource Aggregations."[29] ISO-NE explains that it intends to implement this opt-in provision in the same manner that it uses to determine whether a utility is eligible to host Demand Response Resources, and indicates that this process has been effective for determining Demand Response Resource eligibility. In addition, as part of the Host Utility's eligibility review, ISO-NE proposes in Tariff section III.6.7(c)(ii) that "[f]or a Distributed Energy Resource Aggregation connecting to a Host Utility that served less than or equal to 4 million MWh of load in the previous fiscal year, the Host Utility (or its agent) shall confirm that the Host Utility has opted to allow Distributed Energy Resource Aggregations to participate in wholesale markets."

b. Data Request Response

19. In its Data Request, Commission staff asked ISO-NE to explain why it proposed that DERAs shall "not be located in the metering domain of a [small] Host Utility," when

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electric power generation, transmission, and distribution industries are considered small businesses. 13 C.F.R. § 121.201 (2021) (Sector 22, Utilities, NAICS).

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

[27] Order No. 2222, 172 FERC ¶ 61,247 at P 66.

[28] Order No. 2222-A, 174 FERC ¶ 61,197 at P 36.

[29] Transmittal at 40-41 (citing ISO-NE Tariff, § III.6.1).

Order No. 2222 requires that RTOs/ISOs not accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of small utilities.[30] In the Data Request Response, ISO-NE states that it settles its energy market based on metering domains, which correspond with distribution utility service territories. ISO-NE explains that DERs located in a small Host Utility's territory would necessarily be customers of that Host Utility and, therefore, would be ineligible to participate in wholesale markets unless the RERRA permits the Host Utility to opt in.[31]

20. In its Data Request, Commission staff asked ISO-NE to explain, under proposed Tariff section III.6.7(c)(ii), why the Host Utility must opt in, when the Commission explained that the RERRA must opt in to allow RTOs/ISOs to accept bids from DER Aggregators that include DERs that are customers of small utilities.[32] In the Data Request Response, ISO-NE states that a Host Utility that distributed 4 million MWh or less in the previous fiscal year may not host a DERA, "unless the relevant electric retail regulatory authority permits such Host Utility to host Distributed Energy Resource Aggregations," and that the RERRA would need to permit a small Host Utility to opt in under ISO-NE's proposed design.[33] ISO-NE clarifies that the Host Utility can only opt in under the RERRA's direction. ISO-NE adds that most small utilities in New England are municipal utilities where the municipality is both the utility and the RERRA.[34]

21. In addition, Commission staff asked ISO-NE to explain what type of Host Utility confirmation about opting in must be made to allow DERAs to participate in wholesale markets.[35] In the Data Request Response, ISO-NE states that the Host Utility opt-in confirmation will be similar to the opt-in/opt-out process ISO-NE currently uses to confirm the eligibility of Host Utilities to allow the registration of Demand Response Assets pursuant to Order Nos. 719 and 745.[36] ISO-NE states that, if the Commission

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[30] Data Request at 3 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 65).

[31] Data Request Response at 2-3.

[32] Data Request at 3.

[33] Data Request Response at 3 (citing Tariff, § III.6.1(f)).

[34] Data Request at 3.

[35] *Id.*

[36] Data Request Response at 3-4 (citing *Wholesale Competition in Regions with Organized Elec. Mkts.*, Order No. 719, 125 FERC ¶ 61,071 (2008) and *Demand Response Compensation in Organized Wholesale Energy Mkts.*, Order No. 745, 134 FERC ¶ 61,187 (2011), *order on reh'g & clarification*, Order No. 745-A, 137 FERC ¶ 61,215 (2011), *reh'g denied*, Order No. 745-B, 138 FERC ¶ 61,148 (2012), *vacated sub nom.*

accepts ISO-NE's proposal prior to the beginning of the 18th Forward Capacity Auction (FCA 18) qualification process, ISO-NE staff will contact RERRAs that regulate small Host Utilities to determine those that have opted-in and make a listing of open and closed utility service areas on the ISO-NE website (as it has done for the open and closed utility service areas for Demand Response Resources). ISO-NE adds that at any time after the initial determination, a RERRA will be able to change from open to closed, or from closed to open, by submitting a form confirming its desired change of status.[37]

22. Finally, in the Data Request, Commission staff asked ISO-NE to explain how the Host Utility's role in making such a confirmation complies with the Commission's decision to allow such customers to participate if the RERRA so permits.[38] ISO-NE states that in the confirmation process, a RERRA would permit a small Host Utility to opt in by responding to the inquiry from ISO-NE staff prior to the beginning of the qualification process for FCA 18, scheduled for March 2023, and then the small Host Utility establishes a review process for any of their customers who want to participate in a DERA, including eligibility and reliability.[39]

c. Commission Determination

23. We find that ISO-NE's proposal partially complies with the small utility opt-in requirements of Order No. 2222.[40]

24. In particular, we find that ISO-NE complies with the requirement to accept bids from a distributed energy resource aggregator if its aggregation includes distributed energy resources that are customers of utilities that distributed more than 4 million MWh in the previous fiscal year.[41] ISO-NE complies with this directive given that proposed section III.6.1 contains express participation requirements for DERAs, and none of those

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Elec. Power Supply Ass'n v. FERC, 753 F.3d 216 (D.C. Cir. 2014), *rev'd & remanded sub nom. Elec. Power Supply Ass'n v. FERC,* 136 S. Ct. 760 (2016) (*EPSA*)).

[37] *Id.* at 3-4.

[38] Data Request at 4.

[39] Data Request Response at 4.

[40] Order No. 2222, 172 FERC ¶ 61,247 at P 65.

[41] *Id*.

requirements limit participation for DERAs that include DERs that are customers of utilities that distributed more than 4 million MWh in the previous fiscal year.[42]

25. Additionally, we find that ISO-NE complies with the requirement in Order No. 2222 that each RTO/ISO explain how it will implement the small utility opt-in.[43] The Commission noted that an RTO/ISO may choose to implement this requirement in a similar manner as it currently implements the small utility opt-in provision under Order No. 719-A, and consistent with this approach, ISO-NE states that it intends to implement the small utility opt-in provision in the same manner as the small utility opt-in for Demand Response Resource hosting.[44] ISO-NE further explains that ISO-NE staff will contact RERRAs that regulate small Host Utilities to determine those that have opted in.[45] ISO-NE adds that a listing of open and closed utility service areas will be available on the ISO-NE website as it is for the open and closed utility service areas for Demand Response Resources.[46] At any time after the initial determination, a RERRA will be able to change from open to closed, or from closed to open, by submitting a form confirming its desired change of status.[47]

26. However, we find that ISO-NE's proposal partially complies with the requirement to not accept bids from distributed energy resource aggregators if its aggregation includes distributed energy resources that are *customers* of utilities that distributed 4 million MWh or less in the previous fiscal year, unless the relevant electric retail regulatory authority permits such customers to be bid into RTO/ISO markets by a distributed energy resource aggregator.[48] To satisfy this requirement, ISO-NE proposes language in Tariff section III.6.1(f) specifying that a DERA may not be located in the metering domain of a Host Utility that distributed 4 million MWh or less in the previous fiscal year, unless the

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[42] Proposed Tariff, § III.6.1.

[43] Order No. 2222, 172 FERC ¶ 61,247 at P 66.

[44] Transmittal at 41; *see also* Tariff, § III.8.1.2(c) ("A Demand Response Resource cannot be composed of: . . . (ii) the customers of Host Utilities that distributed 4 million MWh or less in the previous fiscal year, unless the relevant electric retail regulatory authority permits such customers' demand reduction capability to be bid into the ISO-administered markets or programs.").

[45] Data Request Response at 3.

[46] *Id.* at 3-4.

[47] *Id.* at 4.

[48] Order No. 2222, 172 FERC ¶ 61,247 at P 65 (emphasis added).

RERRA permits such Host Utility to host DERAs. ISO-NE also proposes related language in Tariff section III.6.7(c)(ii), as part of the Host Utility review process, which provides that, for a DERA connecting to a Host Utility that served less than or equal to 4 million MWh of load in the previous fiscal year, the Host Utility (or its agent) shall confirm that the Host Utility has opted to allow DERA to participate in wholesale markets.

27. As an initial matter, we find that ISO-NE's proposed use of the term "metering domain" rather than "customers of" a small utility complies with Order No. 2222. ISO-NE states that it settles its Energy Market based on metering domains, which "correspond with distribution utility service territories, including small Host Utilities," and that small utilities "may be contained within a metering domain" along with other utilities. ISO-NE further states that DERs located in a small utility's territory "*would necessarily be customers*" of that utility.[49] Because ISO-NE states that DERs in a small utility's service territory would necessarily be that utility's customers, we find that ISO-NE has appropriately supported its proposal in section III.6.1(f) to refer to DERAs "that are located in the metering domain of a host utility," rather than referring to DERs that are "customers of" such small utilities within a DERA.

28. However, we find that parts of ISO-NE's proposed language in Tariff sections III.6.1(f) and III.6.7(c)(ii) appear to conflict with ISO-NE's explanation of how it will implement the small utility opt-in, discussed above.[50] According to ISO-NE's explanation, ISO-NE intends to implement the small utility opt-in provision in the same manner as the small utility opt-in for Demand Response Resources, whereby RERRAs make the opt-in determination for customers of small utilities.[51] However, section III.6.1(f) provides that a DER Aggregation participating in ISO-NE's markets may not be located in the metering domain of a small utility, unless the *RERRA permits such utility to host DERAs*.[52] This language gives the RERRA the ability to allow a *small utility to host a DERA* rather than to allow *customers of a small utility to be bid* into RTO/ISO markets by a DER Aggregator. In addition, section III.6.7(c)(ii) states that, for a DERA connecting to a small utility, "the Host Utility . . . shall confirm that *the Host Utility has*

[49] Data Request Response at 2.

[50] *See supra* P 25.

[51] Transmittal at 41 ("The ISO intends to implement this opt-in provision in the same manner as the small utility opt-in for Demand Response Resource hosting, a process that has been effective in determining where Demand Response Resource are eligible to be hosted in New England."); *see* Tariff § III.8.1.2(c); Order No. 2222, 172 FERC ¶ 61,247 at P 65.

[52] Tariff, § III.6.1(f) (emphasis added).

opted to allow [DERAs] to participate in wholesale markets."[53] This language appears to allow the Host Utility rather than the RERRA to make the opt-in determination.

29. Therefore, we find that ISO-NE's proposed Tariff language does not fully comply with the small utility opt-in requirements of Order No. 2222. Accordingly, we direct ISO-NE to file, within 60 days of the date of the issuance of this order, a further compliance filing that revises proposed sections III.6.1(f) and III.6.7(c)(ii) of its Tariff so that the RERRA makes the determination of whether to allow customers of small utilities to participate in ISO-NE's markets through aggregation, to be consistent with Order No. 2222, as discussed above.

2. Interconnection

30. In Order No. 2222, the Commission declined to exercise its jurisdiction over the interconnections of distributed energy resources to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation.[54] The Commission therefore stated that it will not require standard interconnection procedures and agreements or wholesale distribution tariffs for such interconnections. The Commission also stated that Order No. 2222 does not revise the Commission's jurisdictional approach to the interconnections of Qualifying Facilities (QFs) that participate in distributed energy resource aggregations.[55] In Order No. 2222-A, the Commission clarified that the Commission declined to exercise jurisdiction over the interconnections of distributed energy resources, including the interconnections of

[53] *Id.* § III.6.7(c)(ii) (emphasis added).

[54] Order No. 2222, 172 FERC ¶ 61,247 at P 90.

[55] *Id.* P 98 (citing *Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 104 FERC ¶ 61,103, at PP 813-15 (2003), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007); *Standardization of Small Generator Interconnection Agreements & Procs.*, Order No. 2006, 111 FERC ¶ 61,220, PP 516-18, *order on reh'g*, Order No. 2006-A, 113 FERC ¶ 61,195 (2005), *order granting clarification*, Order No. 2006-B, 116 FERC ¶ 61,046 (2006); *Reform of Generator Interconnection Procs. & Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *errata notice*, 167 FERC ¶ 61,123, *order on reh'g*, Order No. 845-A, 166 FERC ¶ 61,137, *errata notice*, 167 FERC ¶ 61,124, *order on reh'g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019)).

QFs, to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation.[56]

31. Recognizing that distributed energy resources may already have interconnected pursuant to procedures that were accepted by the Commission prior to the effective date of Order No. 2222, the Commission stated that it is not requiring distributed energy resources that already interconnected under Commission-jurisdictional procedures to convert to state or local interconnection agreements.[57] The Commission required each RTO/ISO to make any necessary tariff changes to reflect this guidance.[58]

a. Filing

32. ISO-NE states that to carry out the intent of Order No. 2222, two limited amendments to the SGIP, to become effective November 1, 2022, are necessary to provide certainty for DER developers, DER Aggregators, RERRAs, and ISO-NE.[59] First, ISO-NE proposes to revise SGIP section 1.1.1 so that DERs participating in wholesale markets exclusively through a DERA are exempt from the SGIP. Second, ISO-NE proposes to amend SGIP section 1.1.1 to exempt DERs that make up a single-resource DERA from the SGIP when they qualify as part of a Distributed Energy Capacity Resource in an FCA that takes place prior to the effective date of the proposal's energy market rules. ISO-NE explains that the exemption would apply to DERs that are located on a distribution feeder that would otherwise be subject to the SGIP as part of the administered transmission system.

b. Comments

33. AEE, PowerOptions, and SEIA and AEMA support ISO-NE's proposed changes to the SGIP.[60]

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[56] Order No. 2222-A, 174 FERC ¶ 61,197 at P 43.

[57] Order No. 2222, 172 FERC ¶ 61,247 at P 103.

[58] *Id.* P 104.

[59] Transmittal at 41-42.

[60] AEE, PowerOptions, and SEIA Protest at 11-12, 48-50; AEMA Protest at 25.

c. Data Request Response

34. In the Data Request, Commission staff asked ISO-NE to provide an overview of how it will evaluate new service requests for DERs and/or DER Aggregations.[61] In the Data Request Response, ISO-NE states that individual DERs seeking to participate in the wholesale market solely through a DERA will proceed through the applicable state interconnection process, and that ISO-NE will evaluate the impacts of those interconnections on the New England Transmission System pursuant to section I.3.9 of the Tariff.[62]

35. In the Data Request, Commission staff asked ISO-NE to explain if it will evaluate each DER and/or DER Aggregation seeking to provide capacity.[63] In the Data Request Response, ISO-NE states that all new resources seeking to provide capacity in the Forward Capacity Market must undergo an overlapping impacts analysis to determine whether their capacity is deliverable without upgrades to the transmission system and to determine whether a new resource can provide incremental capacity to the load zone in which it is located.[64]

36. AEE, PowerOptions, and SEIA and AEMA support ISO-NE's statement that exempting certain resources from the SGIP will reduce barriers to DER participation in wholesale markets, consistent with Order No. 2222.[65]

d. Commission Determination

37. After submitting its compliance filing here, ISO-NE separately filed, and the Commission accepted, revisions to ISO-NE's SGIP and Large Generator Interconnection Procedures.[66] As a result, effective August 28, 2022, *all* new DERs interconnect through

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[61] Data Request at 4.

[62] Data Request Response at 5-6.

[63] Data Request at 4-5.

[64] Data Request Response at 6.

[65] AEE, AEMA, PowerOptions, and SEIA Data Request Response Protest at 3.

[66] ISO New England Inc., Revisions to [ISO-NE Tariff] to Modify the Process for Interconnection of New Distributed Energy Resources and Improve Coordination of Interconnection Studies, Docket No. ER22-2226-000 (filed June 29, 2022). In this filing, ISO-NE proposed to amend Schedules 22, 23, and 25 so that all new DERs will interconnect through the applicable state interconnection process.

the applicable state interconnection process.[67] Thus, ISO-NE's Tariff already reflects the Commission's decision in Order No. 2222 to decline to exercise its jurisdiction over the interconnections of distributed energy resources to distribution facilities for the purpose of participating in RTO/ISO markets exclusively as part of a distributed energy resource aggregation.[68] Accordingly, we reject ISO-NE's proposed revisions to the SGIP as unnecessary.

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

a. Participation Model

38. In Order No. 2222, the Commission added section 35.28(g)(12)(i) to the Commission's regulations to require each RTO/ISO to establish distributed energy resource aggregators as a type of market participant and to allow distributed energy resource aggregators to register distributed energy resource aggregations under one or more participation models in the RTO's/ISO's tariff that accommodate the physical and operational characteristics of the distributed energy resource aggregation.[69] The Commission explained that each RTO/ISO can comply with the requirement to allow distributed energy resource aggregators to participate in its markets by modifying its existing participation models to facilitate the participation of distributed energy resource aggregations, by establishing one or more new participation models for distributed energy resource aggregations, or by adopting a combination of those two approaches.[70] The Commission stated that it will evaluate each proposal submitted on compliance to determine whether the proposal meets the goals of Order No. 2222 to allow distributed energy resources to provide all services that they are technically capable of providing through aggregation.[71]

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[67] *ISO New England Inc.*, 180 FERC ¶ 61,129 (2022).

[68] Order No. 2222, 172 FERC ¶ 61,247 at P 90.

[69] *Id.* P 130.

[70] *Id.*

[71] *Id.*

i. Filing

39. ISO-NE states that, to comply with Order No. 2222, it has revised existing participation models and designed new participation models.[72] According to ISO-NE, this approach will allow DERAs to provide all the services sold in the New England markets to the extent they are technically capable. More specifically, ISO-NE explains that, to accommodate participation of DERAs in the energy and ancillary services markets, the proposal allows DER Aggregators to use five of ISO-NE's existing participation models, some with minor modifications. These five existing models include Generator Asset, Continuous Storage Facility, Binary Storage Facility, Alternative Technology Regulation Resource, and Demand Response Resource .[73] ISO-NE states that its compliance filing also includes two new DERA-specific participation models: the Settlement Only Distributed Energy Resource Aggregation and Demand Response Distributed Energy Resource Aggregation.[74] In addition, ISO-NE explains that, to accommodate participation of DERAs in the Forward Capacity Market, the proposal allows DER Aggregators to use any of three existing participation models and one new model: (1) the existing Generating Capacity Resource model, (2) the existing Import Capacity Resource model, (3) the existing Demand Capacity Resource model,[75] and (4) the proposed Distributed Energy Capacity Resource model.[76] ISO-NE explains that a Distributed Energy Capacity Resource is an aggregation of DERAs in a single Demand Response Resource Aggregation Zone.[77]

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[72] Transmittal at 8.

[73] *Id.* at 11-12.

[74] *Id.*

[75] ISO-NE explains that the Demand Capacity Resource model has three sub-categories: the Active Demand Capacity Resource model (which includes Demand Response Resources), the On-Peak Demand Resource model, and the Seasonal Peak Demand Resource model. ISO-NE states that the latter two models, which collectively are referred to as passive Demand Capacity Resources, include primarily Energy Efficiency measures and passive load-reducing behind-the-meter generation such as roof-top PV. *Id.* at 20.

[76] *Id.* at 20-24.

[77] *Id.* at 20-21. ISO-NE states that its proposal incorporates a number of new rules that are necessary to address the fact that Distributed Energy Capacity Resources are likely to include a heterogeneous mix of technologies, in contrast to the existing Forward Capacity Market participation models.

40. ISO-NE states that its compliance filing does not alter the existing services or introduce any new services. ISO-NE asserts that this is consistent with Order No. 2222, which does not require RTOs/ISOs to create new wholesale services or modify the fundamental qualities of current services.

41. ISO-NE states that, because Order No. 2222 directs that the rules for the participation of distributed energy resource aggregations in wholesale markets must be technology-neutral and based on the technical capabilities of the aggregated resource, ISO-NE developed DERA participation models based on four technical capabilities: (1) energy injection, (2) energy withdrawal, (3) demand reduction, and (4) regulation.[78] ISO-NE explains that energy injection and energy withdrawal[79] refer to the capabilities to inject or withdraw an amount of energy into or from the electric system as measured from the resource's point of interconnection (POI) or retail delivery point (RDP).[80] ISO-NE explains that demand reduction refers to the capability to reduce demand from the electric system as measured against a baseline established at the resource's RDP. ISO-NE states that regulation refers to the capability to balance supply and demand on the electric system by changing energy injection or energy withdrawal every four seconds. ISO-NE states that the proposed participation models allow DERAs to be properly compensated for each service they provide to the market. ISO-NE states that, consistent with the requirements of Order No. 2222, all the participation models are technology-neutral and allow a mix of technologies in the same aggregation. ISO-NE asserts that each model includes technical, operational, and performance requirements that are appropriate for the services being provided.[81]

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[78] *Id.* at 10-11 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 114, 141).

[79] ISO-NE explains that a resource with energy withdrawal capability would be billed for the energy it withdraws at the Locational Marginal Price (LMP) and would be billed for capacity based on its consumption during system peak. ISO-NE states that dispatchable loads with the proper characteristics can avoid capacity charges and can also supply operating reserves. *Id.* at 11.

[80] ISO-NE explains that a facility that interconnects at a POI will be a facility that has little or no end-use customer load, such as a generating facility or an electric storage facility, whereas a facility that interconnects at an RDP will be an end-use customer facility. *Id.* at 11 n.33.

[81] ISO-NE states that the requirements for participation as a DERA in the energy and ancillary services markets are mostly contained in section III.6 of the Tariff, but additional changes are also included throughout section III.1.10.1A to accommodate energy market offers made by DERAs, as well as throughout numerous subsections of

42. ISO-NE clarifies that, with one exception, its proposal does not allow for a single DERA to use multiple energy market participation models simultaneously because each participation model allows for a unique set of energy market offer parameters.[82] ISO-NE states, however, that its proposal does allow DERAs to use the Demand Response Distributed Energy Resource Aggregation and Demand Response Resource models concurrently with the Alternative Technology Regulation Resource model to allow for participation in the regulation market.

43. ISO-NE further describes each of the five existing participation models for energy and ancillary services market participation. ISO-NE states that the proposal expands the existing Generator Asset model to accommodate an aggregation of DERs.[83] ISO-NE explains that the Generator Asset model enables an aggregation of DERs with dispatchable energy injection capability to supply energy on a day-ahead and real-time basis and provide operating reserves and regulation products if it is technically capable.

44. ISO-NE states that the Continuous Storage Facility and Binary Storage Facility models currently accommodate electric storage facilities.[84] ISO-NE explains that the Continuous Storage Facility model accommodates very-fast-responding storage technologies such as batteries, while the Binary Storage Facility model accommodates other storage technologies such as pumped-storage hydroelectric facilities. ISO-NE states that both models also accommodate heterogeneous, co-located, and hybrid facilities such as a facility combining solar and battery technologies. ISO-NE states that, because all Continuous Storage Facility and Binary Storage Facility facilities consist of both load and generation, and because the technologies comprising these facilities are fast-responding, these models are particularly well suited for modification to accommodate a heterogeneous aggregation of DERs. ISO-NE explains further that the proposal expands the Continuous Storage Facility and Binary Storage Facility models to accommodate an aggregation of DERs that may or may not be storage resources but have similar physical and operational characteristics as storage resources.[85] ISO-NE asserts that the Continuous Storage Facility and Binary Storage Facility models will allow an aggregation of DERs with dispatchable energy injection capability, dispatchable energy withdrawal capability, and/or regulation capability to provide day-ahead or real-time

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sections III.1-12 and III.14 to integrate DERAs into the existing market structures. *Id.* at 12.

[82] *Id.* at 19 n.52.

[83] *Id.* at 12-13 (citing Tariff, § III.6.1(e)).

[84] *Id.* at 13.

[85] *Id.* (citing Tariff, § III.6.1(e)).

energy services (as a supplier or a consumer), operating reserves, and/or regulation products simultaneously.

45. Specifically with respect to withdrawal capability, ISO-NE states that if a DERA provides wholesale energy withdrawal service, the participation models require DERAs to be load-serving entities (LSE).[86] ISO-NE explains that most of the load in New England is subject to retail customer choice, which allows non-utility LSEs to serve New England loads. ISO-NE further explains that to address this aspect of the New England market structure ISO-NE's proposal allows, but does not require, a market participant with a DERA consisting of electric storage facilities or end-use customer facilities to serve the aggregated customer loads of these facilities.[87]

46. ISO-NE states that because, under the proposal, a DERA using the Continuous Storage Facility or Binary Storage Facility model would not need to have any storage technologies in the aggregation, this approach is technology-neutral.[88] ISO-NE asserts that this approach recognizes that a heterogeneous aggregation of loads and generation could together act like a storage device that withdraws energy when prices are low and injects energy when prices are high, which is how an electric storage facility behaves.

47. ISO-NE states that the Alternative Technology Regulation Resource model will enable a DERA with regulation capability to provide regulation products.[89] ISO-NE explains that a DERA using the Alternative Technology Regulation Resource model must be able to follow the Automatic Generation Control Setpoint. ISO-NE also explains that the Alternative Technology Regulation Resource model currently allows small regulation devices to aggregate together and participate as a single Alternative Technology Regulation Resource.

48. ISO-NE states that the existing Demand Response Resource model enables an aggregation of demand response DERs to participate in the day-ahead and real-time energy markets and provide operating reserves.[90] ISO-NE asserts that the Demand Response Resource model is technology-neutral (e.g., the demand reduction could be produced by reducing energy consumption, increasing behind-the-meter generation, or a combination of both). ISO-NE states that, because the Demand Response Resource

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[86] *Id.* at 18-19.

[87] *Id.* at 17 n.47.

[88] *Id.* at 14 (citing Tariff, § III.6.1(e)(i)).

[89] *Id.* (citing Tariff, § III.14).

[90] *Id.* at 15.

model is also compliant with all other requirements of Order No. 2222, ISO-NE does not propose any changes to the Demand Response Resource model.

49. Lastly, ISO-NE describes each of the two new energy and ancillary services markets participation models.[91] ISO-NE states that the Settlement Only Distributed Energy Resource Aggregation model enables an aggregation of DERs with non-dispatchable energy injection capability and/or non-dispatchable energy withdrawal capability to be paid for energy injected into the grid, or to be charged for energy withdrawn from the grid, at the LMP.[92] ISO-NE explains that a DERA using the Settlement Only Distributed Energy Resource Aggregation model would not be dispatchable and would not provide any telemetry data or be eligible to provide Operating Reserves or regulation products. ISO-NE states that the Demand Response Distributed Energy Resource Aggregation model allows an aggregation of DERs with demand reduction capability and energy injection capability to provide energy in the form of demand reduction or energy injection and to provide operating reserves. ISO-NE asserts that the Demand Response Distributed Energy Resource Aggregation model also allows the option for energy withdrawal capability to be part of the aggregation and be billed at the LMP for energy withdrawn.[93]

ii. Comments/Protests

50. According to AEE, PowerOptions, and SEIA and AEMA, ISO-NE's proposed participation models provide front-of-the-meter DERs with new opportunities for aggregation.[94] AEE, PowerOptions, and SEIA state that commercial and industrial demand response will have viable pathways to participate in the markets, and that front-of-the-meter-solar, storage, and solar-plus-storage resources will gain flexibility and interconnection certainty through the option to participate in the Settlement Only Distributed Energy Resource Aggregation or Continuous Storage Facility Continuous Storage Facility participation model.[95]

51. However, AEE, PowerOptions, and SEIA, AEMA, and Voltus argue that heterogeneous DERAs are unlikely to use the Continuous Storage Facility and Binary

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[91] *Id.* at 16-18.

[92] *Id.* at 16.

[93] *Id.* at 16-17.

[94] AEE, PowerOptions, and SEIA Protest at 2, 12; AEMA Protest at 16-25 (considering each of the seven proposed participation models).

[95] AEE, PowerOptions, and SEIA Protest at 12.

Storage Facility battery models because non-battery loads and generation are unlikely to meet the models' participation requirements.[96] These parties claim that these requirements include: (1) registering the load as a Dispatchable Asset Related Demand (DARD);[97] (2) registering the net injection as a dispatchable generator;[98] (3) being capable of transitioning between the facility's maximum output and maximum consumption (and vice versa) in 10 minutes or less (for a Continuous Storage Facility),[99] or registering the generation and DARD as "fast start" (for a Binary Storage Facility);[100] and (4), for a Continuous Storage Facility, specifying a zero MW minimum consumption limit and a zero time value for minimum run time and minimum down time.[101] These parties argue that the Continuous Storage Facility and Binary Storage Facility models would not facilitate participation by an aggregation of loads with behind-the-meter generation because they would require the aggregator to serve as the LSE for the entire facility load (as a result of DARD registration), which is not consistent with DERA capabilities, and require the facility to dispatch down to zero MW consumption in response to ISO-NE instruction, which is not feasible for small and highly variable loads.

52. AEMA protests the need for DER Aggregators to act as LSEs when using the Continuous Storage Facility and Binary Storage Facility models and argues that serving load is a distinct business model from aggregating DERs and comes with a host of regulatory requirements and risks that requires knowledge and capabilities not possessed by most DER Aggregators.[102] AEMA states that, as an alternative to direct LSE participation, a DER Aggregator might be able to coordinate with each customer's LSE to address the requirement to register the load as a DARD and bid that load into the market. AEMA cautions, however, that this has not proven to be workable in other markets. AEMA states that PJM Interconnection, L.L.C.'s (PJM's) experience with its Price Responsive Demand program is an example of how a demand response/DER

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[96] *Id.* at 28-30 (citing Tariff, § III.1.10.6); AEMA Protest at 21-26; Voltus Protest at 17-20.

[97] AEE, PowerOptions, and SEIA Protest at 29-30 (citing Tariff, § III.1.10.6(a)(v)).

[98] *Id.*

[99] *Id.* (citing Tariff, § III.1.10.6(c)(iii)).

[100] *Id.* (citing Tariff, § III.1.10.6(b)(ii)).

[101] *Id.* (citing Tariff, § III.1.10.6(c)(vi)) (noting that there is an exception for DARDs undergoing facility and equipment testing or auditing)).

[102] AEMA Protest at 20.

program that requires either direct participation by LSEs or collaboration with LSEs is a recipe for failure,[103] contending that PJM's experience strongly suggests that a requirement for direct LSE participation erects a needless barrier to entry for DERs.

53. Voltus also states that the Continuous Storage Facility model is limited to only assets that can charge and discharge, which excludes many DERs such as solar plus storage where the battery is charged from solar.[104] Voltus argues that the proposal's lack of compensation for such resources violates Commission precedent because such compensation will significantly affect the terms and conditions of the participation of DERAs.[105]

54. In addition, as summarized in more detail in Part IV.B.4.b(i) of this order, several protesters argue that ISO-NE's participation models do not comply with Order No. 2222 given the lack of submetering options for behind-the-meter DERs.[106] These parties argue that the proposal therefore does not allow all DERs to provide all the services they are technically capable of providing through aggregation, as required by Order No. 2222. AEE, PowerOptions, and SEIA and AEMA clarify that they do not oppose the proposed models because front-of-the-meter DERs will benefit from administrative streamlining and the opportunity to aggregate under these models, but they argue that additional measures must be taken to accommodate behind-the-meter DERs in at least some of the models.[107]

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[103] *Id.* As evidence of the failure of PJM's Price Responsive Demand program, AEMA notes that PJM discussed the reasons for lack of participation by curtailment service providers in a 2017 report. AEMA states that two of the reasons were related the involvement of LSEs in the program, including "administrative complexity to manage the contractual relationship between the LSE and each retail customer, as customers may switch LSEs on ongoing basis in deregulated retail electricity markets." *Id.* at 21 (quoting PJM's 2017 Demand Response Strategy report at 18 (emphasis removed)). AEMA also notes that only a small percentage of PJM's curtailment service providers are also LSEs. *Id.* at 22 (citing PJM's 2021 Demand Response Operations Markets Activity Report, 20170628-pjm-demand-response-strategy.ashx, at 7).

[104] Voltus Protest at 19 (citing Tariff, § III.1.10.6(c)(iii)).

[105] *Id.* at 20.

[106] AEE, PowerOptions, and SEIA Protest at 2-3; AEMA Protests at 16-25; Voltus Protest at 5. As discussed in Part IV.B.4 of this order, a behind-the-meter DER refers to a DER with an interconnection point located behind an RDP.

[107] AEE, PowerOptions, and SEIA Protest at 27; AEMA Protest at 2-3.

55. In their comments, Senators Whitehouse, Markey, Warren, and Sanders express concern that ISO-NE's proposal fails to provide for full participation of DERAs in its wholesale electricity market and, in particular, fails to remove barriers for behind-the-meter distributed energy resources.[108] In particular, the Senators note that ISO-NE's Demand Response Resource[109] participation model remains unchanged and that ISO-NE's proposal places the authority to approve submetered resource participation in the hands of utilities that may be slow to act, either because they are resistant to DERs or because they view submetering as an additional burden.

iii. Answers

56. In response to protests regarding the Continuous Storage Facility and Binary Storage Facility participation models, ISO-NE acknowledges that not all current DER Aggregator business models will provide for use of the Continuous Storage Facility or Binary Storage Facility models.[110] ISO-NE states that for that reason, it provides many other market participation models for DERAs to use. However, ISO-NE argues that the requirements of the Continuous Storage Facility and Binary Storage Facility models do not render the models inconsistent with Order No. 2222 because Order No. 2222 does not require that an RTO/ISO modify existing participation models to serve business model needs of aggregators. ISO-NE contends that nothing prevents a DER Aggregator from taking the steps necessary to be able to meet the requirements of the Continuous Storage Facility and Binary Storage Facility models, and the proposal does not impose additional obligations on DER Aggregators beyond those that apply to other suppliers using the same model.

57. ISO-NE also responds to the assertion that DER Aggregators do not have the skills of an LSE and therefore cannot participate as a DARD, as required by the Continuous Storage Facility model.[111] ISO-NE argues that this is not a market barrier, but a business choice made by the parties, which ISO-NE expects will evolve as market designs—such as the Continuous Storage Facility model—present DER Aggregators with incentives

[108] Whitehouse, et al. Comments at 1-2.

[109] Whitehouse, et al. Comments refer to a Distributed Response Resource, however, they likely meant Demand Response Resource.

[110] ISO-NE April 20 Answer at 24.

[111] *Id.* at 25.

to participate in wholesale markets by serving customer demand using behind-the-meter DERs.[112]

58. AEE, PowerOptions, and SEIA and AEMA state that they do not argue that the Continuous Storage Facility model is not compliant with Order No. 2222; instead, they point out that the Continuous Storage Facility model is not a viable participation model for behind-the-meter DERs and argue that ISO-NE does not explain why the LSE requirement, a high barrier, is necessary.[113] They state that aggregators presently have the technical capabilities to withdraw and inject/reduce energy, whether using batteries or generation/loads. They state that AEE and SEIA member companies "have developed technologies to meet the most stringent technical requirements of the [Continuous Storage Facility] model" including "the ability to take a customer's load completely off the system on short notice, the ability to offer very quick acting dispatchable net injections, and metering and telemetry requirements at the [RDP]."[114] However, according to AEE, PowerOptions, and SEIA, they are blocked by the LSE requirement. AEE, PowerOptions, and SEIA assert that no other wholesale market requires that, to manage resources collectively capable of withdrawing and injecting energy, an aggregator must also engage in the wholly distinct business of being an LSE. They contend that the singularity of this LSE requirement in ISO-NE is further evidence that this barrier is undue. AEE, PowerOptions, and SEIA argue that this requirement is anticompetitive, is unnecessary, makes the Continuous Storage Facility model unviable for aggregations of behind-the-meter DERs, and will deter aggregators from operating in New England. AEE, PowerOptions, and SEIA argue that to ensure New England has access to the full suite of DER technical capabilities, the Commission should direct ISO-NE to eliminate the LSE requirement.[115]

59. In addition, as summarized in more detail in Part IV.B.4 of this order, ISO-NE and New England Public Utilities disagree with protesters that allege that ISO-NE's participation models do not comply with Order No. 2222 given its metering and telemetry

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[112] *Id.* at 25-26. ISO-NE states that some DER Aggregators are LSEs. ISO-NE states that, for example, in November 2021, the Texas Public Utility Commission approved Tesla Energy Ventures to be an LSE in Texas. *Id.* at 26 n.57 (citing Docket No. 52431, Public Utility Commission of Texas, Notice of Approval (November 3, 2021)).

[113] AEE, PowerOptions, and SEIA Answer at 15-16; AEMA Answer at 15-16.

[114] AEE, PowerOptions, and SEIA Answer at 16 & n.49.

[115] *Id.* at 17.

requirements for behind-the-meter DERs.[116] ISO-NE explains that the standards and requirements associated with each participation model in its proposal are tailored to the products and services offered in the New England markets.[117] According to ISO-NE, protesters effectively ask that the Commission require ISO-NE to change the wholesale services it offers in order to accommodate them, but Order No. 2222 did not mandate that RTOs/ISOs modify their wholesale services to achieve such accommodations.

iv. Data Request Response

60. In its Data Request, Commission staff asked ISO-NE to explain whether homogeneous aggregations of demand response resources may only participate under the Demand Response Resource model or may alternatively participate under the Demand Response Distributed Energy Resource Aggregation model.[118] ISO-NE explains that homogeneous aggregations that only contain demand response resources must use the Demand Response Resource model.[119] ISO-NE states that this treatment is necessary because the energy injections and/or withdrawals provided by a Demand Response Distributed Energy Resource Aggregation are accounted for differently and separately from demand reductions, in that the reported energy injected into a metering domain must equal the energy withdrawn from the metering domain in each interval. In contrast, ISO-NE contends that a homogeneous aggregation of Demand Response Assets participating in a Demand Response Resource that only has demand reduction capability is not accounted for in the Energy Market supply/demand balance in the same manner, allowing Demand Response Assets to be located in different metering domains, provided they are within the same Demand Response Resource Aggregation Zone. As a result, ISO-NE states that the geographic reach of a Demand Response Resource can be more expansive than for a Demand Response Distributed Energy Resource Aggregation, which complies with the Order No. 2222 requirement that DERAs be as geographically broad as technically feasible.

61. In the Data Request, Commission staff asked ISO-NE what implementation steps it must complete to allow for Distributed Energy Capacity Resource participation in FCA

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[116] ISO-NE April 20 Answer at 22; New England Public Utilities Answer at 6.

[117] ISO-NE April 20 Answer at 22.

[118] Data Request at 8.

[119] Data Request Response at 9 (citing Tariff, § III.6.5(a) ("a Demand Response Distributed Energy Resource Aggregation must include Distributed Energy Resources with both demand reduction capability and energy injection capability and may include Distributed Energy Resources with energy withdrawal capability.")).

18 after the Commission issues an order.[120] ISO-NE states that it intends to file additional Tariff revisions that will ensure that the incorporation of Distributed Energy Capacity Resources into section III.13 of the Tariff will be consistent with other ongoing efforts, including recent changes to ISO-NE's buyer-side market power mitigation rules, and intends to file revisions affecting Distributed Energy Capacity Resource participation in FCA 18 such that it can obtain Commission approval and an effective date prior to spring 2023.[121]

v. Commission Determination

62. We find that ISO-NE's proposal partially complies with the participation eligibility requirements of Order No. 2222. Specifically, we find that ISO-NE complies with the requirement to establish distributed energy resource aggregators as a type of market participant.[122] Consistent with this requirement, ISO-NE's proposal establishes DER Aggregators as a type of market participant that aggregates one or more DERs for participation in a DERA and serves as the Lead Market Participant for a DERA.[123]

63. We find that ISO-NE complies with the requirement to allow distributed energy resource aggregators to register distributed energy resource aggregations under one or more participation models in ISO-NE's Tariff that accommodate the physical and operational characteristics of the distributed energy resource aggregation, with three exceptions, one of which is discussed in Part IV.B.5.d of this order.[124] In that section, we find that ISO-NE has failed to demonstrate that its proposed energy and ancillary services market participation models for DERAs accommodate the physical and operational characteristics of behind-the-meter DERs, because behind-the-meter DERs participating under those participation models may be unable to provide all services that they are

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[120] Data Request at 24.

[121] Data Request Response at 34. ISO-NE states that it will file further conforming Tariff revisions in advance of the FCA 19 qualification process that will incorporate Distributed Energy Capacity Resources into those rules, which ISO-NE notes have been substantially reformed. *Id.* at 34 n.23 (citing *ISO New England Inc.*, 179 FERC ¶ 61,139 (2022) (accepting ISO-NE's reformed buyer-side market power mitigation construct)).

[122] Order No. 2222, 172 FERC ¶ 61,247 at P 130.

[123] *See* Tariff, § I.2.2 ("Distributed Energy Resource Aggregator (DER Aggregator) is a Market Participant that aggregates one or more Distributed Energy Resources for participation in a Distributed Energy Resource Aggregation and serves as the Lead Market Participant for a Distributed Energy Resource Aggregation.").

[124] Order No. 2222, 172 FERC ¶ 61,247 at P 130.

technically capable of providing through aggregation, as required by Order No. 2222.[125] Notwithstanding our finding regarding behind-the-meter DERs, and the findings below on the LSE requirement and capacity market participation, we find that ISO-NE's proposal fully complies with the participation eligibility requirements of Order No. 2222.

64. As expressly permitted by Order No. 2222, ISO-NE's proposal comprises a combination of existing and new participation models.[126] For DERA participation in the energy and ancillary services markets, ISO-NE's proposal includes: (1) the existing Generator Asset participation model;[127] (2) the existing Continuous Storage Facility participation model;[128] (3) the existing Binary Storage Facility participation model;[129] (4) the existing Alternative Technology Regulation Resource participation model;[130] (5) the existing Demand Response Resource participation model;[131] (6) the proposed Settlement Only Distributed Energy Resource Aggregation participation model;[132] and (7) the proposed Demand Response Distributed Energy Resource Aggregation participation model.[133] For DERA participation in the Forward Capacity Market, ISO-NE's proposal includes: (1) the existing Generating Capacity Resource participation model; (2) the existing Import Capacity Resource participation model; (3) the existing

[125] *Id.*

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

[127] Tariff, § III.1.10.6.

[128] *Id.* § III.1.10.6(c).

[129] *Id.* § III.1.10.6(b).

[130] *Id.* § III.1.10.6.

[131] Tariff, § III.8.1.2.

[132] Tariff, § III.6.6.

[133] *Id.* § III.6.5.

Demand Capacity Resource participation model; and (4) the proposed Distributed Energy Capacity Resource participation model.[134]

65. ISO-NE's participation models accommodate the physical and operational characteristics of homogeneous DERAs (e.g., homogeneous DERAs of electric storage resources, demand response resources, settlement-only resources, or generators).[135] The Continuous Storage Facility and Binary Storage Facility participation models also accommodate the physical and operational characteristics of DERAs that have similar physical and operational characteristics as electric storage resources. ISO-NE's existing Alternative Technology Regulation Resource participation model accommodates the physical and operational characteristics of DERAs that can provide regulation service. ISO-NE's proposed Demand Response Distributed Energy Resource Aggregation participation model accommodates the physical and operational characteristics of heterogeneous DERAs that can provide energy injection and demand response. Finally, with one exception noted below, ISO-NE's proposed Distributed Energy Capacity Resource participation model accommodates the physical and operational characteristics of aggregations of both homogeneous and heterogeneous DERAs that can provide capacity.

66. In Order No. 2222, the Commission afforded each RTO/ISO the flexibility to modify its existing participation models and/or establish new participation models to facilitate the participation of distributed energy resource aggregations, as ISO-NE proposes here. Order No. 2222 does not require that each RTO/ISO establish a single participation model that could accommodate every possible aggregation, so long as its proposal allows distributed energy resources to provide all services that they are technically capable of providing through aggregation.[136] Notwithstanding the exceptions regarding behind-the-meter DERs and capacity market mitigation rules, we find that ISO-NE's proposal satisfies this requirement because it allows homogeneous and heterogeneous DERAs to participate as resources directly in ISO-NE's energy, ancillary services, and capacity markets.

67. Regarding the Binary Storage Facility and Continuous Storage Facility participation models, AEE, PowerOptions, and SEIA and AEMA contend that the requirement that Binary Storage Facility and Continuous Storage Facility market

[134] Tariff, § III.13.1.4A.2.

[135] These participation models include: Generator Asset, Continuous Storage Facility, Binary Storage Facility, Demand Response Resource, Settlement-Only Distributed Energy Resource Aggregation, Generating Capacity Resource, Import Capacity Resource, and Demand Capacity Resource models.

[136] Order No. 2222, 172 FERC ¶ 61,247 at P 130.

participants serve as an LSE is an undue barrier to the market participation of DERAs.[137] AEE, PowerOptions, and SEIA state that DER Aggregators have the necessary technical capabilities to withdraw and inject/reduce energy, but they are blocked by the LSE requirement.[138] We note that Order No. 2222 explains that "distributed energy resource aggregations must be able to meet the qualification and performance requirements to provide the service that they are offering into RTO/ISO markets."[139] ISO-NE explains that under existing rules, a market participant that provides energy withdrawal service must be an LSE that is billed for energy withdrawn.[140] However, ISO-NE fails to cite to any Tariff provisions that establish this LSE requirement and therefore has not demonstrated that this LSE requirement is an existing requirement applicable to all resources in order to provide wholesale energy withdrawal service in ISO-NE's energy market. Accordingly, we direct ISO-NE to file, within 60 days of the date of issuance of this order, a further compliance filing that (1) identifies the existing rules that require a market participant that provides wholesale energy withdrawal service to be an LSE, and (2) explains whether this requirement is applicable to all resources in ISO-NE in order to provide wholesale energy withdrawal service in the energy market.

68. Regarding Voltus' argument that the Continuous Storage Facility participation model should accommodate facilities in which an electric storage resource is charged from a solar resource, the Commission recently approved revisions to the Continuous Storage Facility participation model that accommodate such facilities.[141] Accordingly, we find Voltus' argument to be overtaken by more recent events, and thus it is unnecessary to address it here.

69. However, with regard to capacity market participation, we find that ISO-NE's proposal does not fully comply with Order No. 2222 because it does not address how

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[137] AEE, PowerOptions, and SEIA and AEMA state that they do not argue that the Continuous Storage Facility model does not comply with Order No. 2222, which contradicts their arguments that the Continuous Storage Facility model's LSE requirement presents an undue barrier. AEE, PowerOptions, and SEIA Answer at 15-16; AEMA Answer at 15-16.

[138] AEE, PowerOptions, and SEIA Answer at 16 & n.49.

[139] Order No. 2222, 172 FERC ¶ 61,247 at 117. *See also N.Y. Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,198, at P 112 (2022) (NYISO Compliance Order); *N.Y. Indep. Sys. Operator, Inc*., 181 FERC ¶ 61,054, at P 14 (2022).

[140] Transmittal at 11, 17 n.47, 18-19.

[141] *ISO New England Inc.*, Docket No. ER22-2546-000 (Sept. 23, 2022) (delegated order).

ISO-NE's existing capacity market mitigation rules would apply to Distributed Energy Capacity Resources participating in FCA 18, nor address how the capacity market mitigation rules accepted by the Commission for FCA 19 and beyond would apply to Distributed Energy Capacity Resources.[142] We recognize that ISO-NE states that it plans to apply its mitigation rules to Distributed Energy Capacity Resources in separate FPA section 205 filings.[143] However, such rules are necessary "tariff provisions that allow distributed energy resource aggregations to participate directly in RTO/ISO markets,"[144] in this case, ISO-NE's capacity market. Accordingly, we direct ISO-NE to file, within 30 days of the date of issuance of this order, a further compliance filing that addresses how ISO-NE's existing capacity market mitigation rules would apply to Distributed Energy Capacity Resources participating in FCA 18.[145] Further, we direct ISO-NE to file, within 180 days of the date of issuance of this order, a further compliance filing that addresses how the capacity market mitigation rules for FCA 19 and beyond will apply to Distributed Energy Capacity Resources.

70. The Commission's focus in this proceeding is compliance with the requirements of Order No. 2222. Our finding here does not preclude ISO-NE from making a filing pursuant to section 205 of the FPA to modify the market power mitigation rules to be applied to Distributed Energy Capacity Resources.

b. Types of Technologies

71. To implement section 35.28(g)(12)(ii)(a) of the Commission's regulations, the Commission required that each RTO's/ISO's rules not prohibit any particular type of distributed energy resource technology from participating in distributed energy resource aggregations.[146] In addition, to implement section 35.28(g)(12)(ii)(a) of the Commission's regulations, the Commission required each RTO/ISO to revise its tariff to allow different types of distributed energy resource technologies to participate in a single distributed energy resource aggregation (i.e., allow heterogeneous distributed energy resource aggregations).[147] The Commission explained that requiring that RTOs/ISOs

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[142] *ISO New England Inc.*, 179 FERC ¶ 61,139 at P 1 (accepting ISO-NE's reformed buyer-side market power mitigation construct, effective March 1, 2024).

[143] *See supra* note 121.

[144] Order No. 2222, 172 FERC ¶ 61,247 at P 129.

[145] *See infra* P 258.

[146] Order No. 2222, 172 FERC ¶ 61,247 at P 141.

[147] *Id.* P 142.

allow heterogeneous aggregations will further enhance competition in RTO/ISO markets by ensuring that complementary resources, including those with different physical and operational characteristics, can meet qualification and performance requirements such as minimum run times, which will help ensure that RTO/ISO markets produce just and reasonable rates.[148]

72. With respect to the participation of demand response resources in distributed energy resource aggregations, the Commission stated that the benefits of allowing heterogeneous aggregations outweigh commenters' preferences to limit the types of resources that can participate in aggregations.[149] The Commission stated that the requirements in Order No. 745 would apply to demand response resources participating in heterogeneous aggregations.[150]

73. In Order No. 2222-B, the Commission stated that only those reductions that meet the definition of demand response in the Commission's regulations and are used to reduce customer load from a validly established baseline pursuant to Order Nos. 745 and 745-A must be compensated consistent with those orders.[151] In addition, the Commission clarified that, if an individual distributed energy resource is a behind-the-meter generator, it may participate within a distributed energy resource aggregation as a demand response resource or as a different type of distributed energy resource.[152] The Commission stated that, if the distributed energy resource participates as demand response, the requirements in Order No. 745 would apply, and the RTOs/ISOs are required to allow that distributed energy resource to aggregate with other types of distributed energy resources in a heterogeneous distributed energy resource aggregation. The Commission stated that, if the behind-the-meter resource participates as another type of distributed energy resource (i.e., not as a demand response resource), the requirements in Order No. 745 would not apply.

i. Filing

74. ISO-NE states that all of the proposed participation models are technology-neutral, based on the technical capabilities of the aggregated resource rather than on the technologies comprising the resource, and allow a mix of technologies in the same

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[148] *Id.*

[149] *Id.* P 145. *See also* Order No. 2222-A, 174 FERC ¶ 61,197 at P 54.

[150] Order No. 2222, 172 FERC ¶ 61,247 at P 145.

[151] Order No. 2222-B, 175 FERC ¶ 61,227 at P 42.

[152] *Id.* P 44.

aggregation.[153] ISO-NE explains that the Demand Response Resource and Demand Response Distributed Energy Resource Aggregation participation models allow for the participation of demand response DERs.[154]

75. In addition, ISO-NE explains that the new Demand Response Distributed Energy Resource Aggregation participation model enables demand response DERs to aggregate with non-demand-response DERs, as required in Order Nos. 2222 and 2222-B.[155] ISO-NE states that the Demand Response Distributed Energy Resource Aggregation participation model leverages the existing Demand Response Resource participation model platform to ensure that demand response DERs are treated in accordance with Order Nos. 719 and 745. According to ISO-NE, the Demand Response Distributed Energy Resource Aggregation participation model ensures that the energy injection service and energy withdrawal service from the non-demand-response DERs are treated in the same manner as all other resources—that is, any energy injection or energy withdrawal is priced at the LMP and is compensated, even if the Demand Response Distributed Energy Resource Aggregation is not dispatched.

76. ISO-NE proposes that, for a Demand Response Distributed Energy Resource Aggregation, ISO-NE will establish a baseline for each DER in the aggregation in the same manner as prescribed in the Tariff for a demand response asset.[156] ISO-NE states that the DER Aggregator will be required to submit a Baseline Deviation Offer pursuant to the Tariff for unit commitment and economic dispatch purposes.[157] ISO-NE explains that the Baseline Deviation Offer reflects the aggregation's ability to deviate from its normal operational level. ISO-NE states that the offer prices are subject to the Demand Reduction Threshold Price calculated pursuant to the Tariff to ensure energy payments for demand reductions satisfy the net benefits test described in Order No. 745.[158] ISO-NE explains that the application of the net benefits test only restricts a Demand Response Distributed Energy Resource Aggregation to provide demand reduction service at or above the Demand Reduction Threshold Price as required under Order No. 745, and

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[153] Transmittal at 10.

[154] *Id.* at 15-16.

[155] *Id.* at 16 (citing Tariff, § III.6.5).

[156] *Id.* at 17 (citing Tariff, § III.8.2).

[157] *Id.* (citing Tariff, § III.1.10.1A(l)).

[158] *Id.* (citing Tariff, § III.1.10.1A(f)).

imposes no restriction on when a Demand Response Distributed Energy Resource Aggregation can provide energy injection service or energy withdrawal service.[159]

77. ISO-NE states that ISO-NE will calculate a Demand Response Distributed Energy Resource Aggregation's performance when it is dispatched as the sum of the performance of each constituent DER in the aggregation in the same manner as prescribed for demand response.[160] ISO-NE states that the performance of each DER in the Demand Response Distributed Energy Resource Aggregation is accounted for in the form of demand reduction until the load of a DER is reduced to zero MW. ISO-NE states that, if the load of that DER goes past zero, showing an injection of energy into the grid, the amount of additional energy injected is settled at the applicable real-time LMP.

ii. Comments/Protests

78. Regarding the proposed Demand Response Distributed Energy Resource Aggregation model, AEE, PowerOptions, and SEIA state that "[energy] injections cannot be offered below the Demand Reduction Threshold [P]rice and therefore the proposed model fails to allow for efficient dispatch of this power at low prices; rather, the participant would have to self-schedule the power at prices below the Demand Reduction Threshold."[161]

79. In addition, some protesters are concerned with ISO-NE's application of its baseline methodology to DERs.[162] Voltus argues that ISO-NE's Demand Response Resource participation model has several limitations, including a baseline methodology that does not accommodate frequently dispatched resources.[163] Therefore, Voltus argues that there are reasons a DER Aggregator may want to use a different participation model to provide services that are excluded in the Demand Response Resource participation model. Voltus argues that these new participation models should compensate DERs when they are participating as demand response, and measurement and settlement practices should not preclude such participation. Voltus requests that the Commission direct ISO-NE to adapt its metering and settlement approach to ensure that any

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[159] *Id.* at 17 n.49.

[160] *Id.* at 18 (citing Tariff, § III.8.4).

[161] AEE, PowerOptions, and SEIA Protest at 37.

[162] *Id.* at 41-44; AEMA Protest at 9-13; Environmental Organizations Protest at 6; Voltus Protest at 12, 16.

[163] Voltus Protest at 16.

participation model that allows behind-the-meter participation compensates DERs as demand response when the assets are participating as demand response.

80. Similarly, AEMA notes that under the Continuous Storage Facility, Binary Storage Facility, and Settlement Only Distributed Energy Resource Aggregation models, only net injection is eligible for compensation in the capacity and energy markets, while load reduction capability is not eligible, even though load reduction capability will make up the bulk of the value provided to the market by customers with behind-the-meter DERs.[164] AEE, PowerOptions, and SEIA also argue that the Continuous Storage Facility and Binary Storage Facility models would not facilitate participation by an aggregation of loads with behind-the-meter generation because these models would compensate load reduction only by avoided cost.[165]

81. AEMA and Voltus state that the current baseline methodology, which ISO-NE is not proposing to change for compliance with Order No. 2222, will not work for DERAs of small or highly variable loads with behind-the-meter devices. Similarly, AEE, PowerOptions, and SEIA, Environmental Organizations, and Voltus contend that the single baseline methodology in place in the Demand Response Resource model, which is adopted without change in the Demand Response Distributed Energy Resource Aggregation model, fails to capture the performance of some DERs that could otherwise participate as demand response. Environmental Organizations argue that ISO-NE's process of measuring performance relative to a baseline of projected consumption by the host site may introduce errors and uncertainty to the process of establishing a baseline. AEE, PowerOptions, and SEIA note that the Commission stated in the ISO-NE order on compliance with Order No. 745 that "[n]othing in Order No. 745 or this proceeding prevents ISO-NE from pursuing alternative measurement and verification methodologies through its stakeholder process,"[166] and AEE, PowerOptions, and SEIA aver that the time is ripe to consider alternative methodologies, as has been done in other RTOs/ISOs such as the California Independent System Operator (CAISO).[167]

iii. Answers

82. In response to Voltus' argument that the Settlement Only Distributed Energy Resource Aggregation participation model is not workable in part because it does not pay for load reductions, ISO-NE explains that load reduction is not a service included in the

[164] AEMA Protest at 22, 24.

[165] AEE, PowerOptions, and SEIA Protest at 30.

[166] *Id.* at 42 (citing *ISO New England Inc.*, 138 FERC ¶ 61,042, at P 24 (2012)).

[167] *Id.* at 44 (citing *Cal. Indep. Sys. Operator Corp.*, 172 FERC ¶ 61,298 (2020)).

Settlement Only Distributed Energy Resource Aggregation model because the Settlement Only Distributed Energy Resource Aggregation model is based on the Settlement Only Resources construct, which is available only for non-dispatchable resources and, therefore, excludes demand response, which receives compensation in the ISO-NE markets only via dispatch.[168] ISO-NE states that its proposal provides other participation models for combinations of DERs that can provide load reductions, including the Demand Response Resource and the Demand Response Distributed Energy Resource Aggregation models, and notes that Voltus does not explain why it cannot use these other models.[169] ISO-NE notes that the Settlement Only Distributed Energy Resource Aggregation model does allow a DER Aggregator to include load-reducing or load-controlling DERs, which can accrue cost savings for the DER Aggregator, or be used to maximize the value of other DERs within the aggregation that generate power, which would be settled at the LMP but would not be subject to dispatch.

83. In response to protesters' arguments about the limitations of the Demand Response Resource or Demand Response Distributed Energy Resource Aggregation participation model, ISO-NE explains that the current Demand Response Resource participation model already pays for incremental injections from dispatched Demand Response Resources, and ISO-NE does not propose to change this.[170] ISO-NE states that its proposal extends this feature to include all injections, whether or not the aggregation is dispatched in the Demand Response Distributed Energy Resource Aggregation participation model.

84. In response to criticisms of its baseline methodology, ISO-NE states that Order No. 2222 did not require modification to demand response compensation or baseline calculation rules.[171] ISO-NE argues that protesters seek not a reduction of barriers to participation in wholesale markets, but special treatment for behind-the-meter DERs to be allowed to provide a service on different terms than other similarly situated resources, and that requests to change baseline methodology are outside the scope of this proceeding.

iv. Data Request Response

85. In its Data Request, Commission staff asked ISO-NE to address the requirement that a Demand Response Distributed Energy Resource Aggregation submit a single offer

[168] ISO-NE April 20 Answer at 26.

[169] *Id.* at 26-27.

[170] *Id.* at 31.

[171] *Id.* at 29-32.

that is subject to the Demand Reduction Threshold Price.[172] Commission staff asked ISO-NE to explain (1) how this requirement imposes no restriction on when a Demand Response Distributed Energy Resource Aggregation can provide energy injection service or energy withdrawal service, and (2) why this approach would not present a barrier to the participation of Demand Response Distributed Energy Resource Aggregations. ISO-NE states that when the Demand Response Distributed Energy Resource Aggregation does not clear the market, Demand Response Distributed Energy Resource Aggregations can provide energy injection service and energy withdrawal service at will.[173] ISO-NE explains that, like a Settlement Only Distributed Energy Resource Aggregation, the Demand Response Distributed Energy Resource Aggregation is paid the LMP for the amount of energy that it injects; and like a load asset, the Demand Response Distributed Energy Resource Aggregation is charged the LMP for the amount of energy that it withdraws. ISO-NE states that this approach provides DER Aggregators with the maximum flexibility to participate in the markets as it imposes no restriction on when the Demand Response Distributed Energy Resource Aggregation can provide energy injection or withdrawal service.

86. In its Data Request, Commission staff asked ISO-NE to explain how it will settle and compensate a Demand Response Distributed Energy Resource Aggregation that provides energy injection service and demand reduction service consistent with the requirements of Order No. 745.[174] ISO-NE states that the performance of a Demand Response Distributed Energy Resource Aggregation will be accounted for in forms of demand reduction service and energy injection service.[175] ISO-NE states that demand reduction service is calculated as the difference between a load's meter value and its baseline, while the energy injection service is directly measured by the meter, with the summation of DER positive meter readings showing the total amount of energy injected by the Demand Response Distributed Energy Resource Aggregation. ISO-NE explains that each DER participating in a Demand Response Distributed Energy Resource Aggregation will be individually metered, with the meter located at the RDP or POI.[176] ISO-NE states that the data produced by these meters will allow ISO-NE to create a baseline for each DER in the Demand Response Distributed Energy Resource Aggregation. ISO-NE explains that, if the Demand Response Distributed Energy Resource Aggregation is dispatched, the baseline of each DER in the DERA is compared

[172] Data Request at 9.

[173] Data Request Response at 11.

[174] Data Request at 9.

[175] Data Request Response at 12.

[176] *Id.* at 12-13.

to the actual meter reading during dispatch intervals to determine the demand reductions provided. ISO-NE states that the baseline for a DER that only injects energy and is normally off when not dispatched would be zero MW. ISO-NE states that, as a result, any production during a dispatch would be fully compensated at the LMP. ISO-NE explains that the performance of each DER in the Demand Response Distributed Energy Resource Aggregation for each dispatch interval is summed to determine the performance of the Demand Response Distributed Energy Resource Aggregation as a whole, consistent with the current Demand Response Resource participation model.

87. In its Data Request, Commission staff asked ISO-NE to clarify whether ISO-NE proposes to establish baselines for both demand response DERs and non-demand-response DERs.[177] ISO-NE states that it proposes to establish baselines for all DERs participating in a Demand Response Distributed Energy Resource Aggregation because each DER may contribute to the performance associated with a Baseline Deviation Offer.[178] ISO-NE states that, under the proposed Demand Response Resource and Demand Response Distributed Energy Resource Aggregation participation models, demand response can be provided by a range of technologies with very different physical and technical characteristics.

v. Commission Determination

88. We find that ISO-NE's proposal complies with the Order No. 2222 requirement to not prohibit any particular type of distributed energy resource technology from participating in distributed energy resource aggregations.[179] ISO-NE's proposal includes a technology-neutral definition for DER that is based on the technical capabilities of the resource and not on the particular technology type of the DER.[180] In addition, ISO-NE's proposed rules do not prohibit any particular type of DER technology from participating in DERAs.

89. In addition, we find that ISO-NE complies with the requirement to allow heterogeneous aggregations.[181] We find that ISO-NE's Demand Response Distributed

[177] Data Request at 9.

[178] Data Request Response at 13.

[179] Order No. 2222, 172 FERC ¶ 61,247 at P 141.

[180] Tariff, § I.2.2 ("Distributed Energy Resource (DER) is any resource located on the distribution system, any subsystem thereof or behind a customer meter that is capable of providing energy injection, energy withdrawal, regulation, or demand reduction.").

[181] Order No. 2222, 172 FERC ¶ 61,247 at P 142.

Energy Resource Aggregation participation model complies with this directive by allowing both injecting and demand-curtailing resources to aggregate and participate in ISO-NE's markets as a single DERA.[182]

90. We also find that ISO-NE complies with the requirement of Order No. 2222 to apply the requirements of Order No. 745 to demand response resources participating in heterogeneous aggregations.[183] ISO-NE applies the requirements of Order No. 745 to demand response resources in a Demand Response Distributed Energy Resource Aggregation by requiring the DER Aggregator to submit a Baseline Deviation Offer for its Demand Response Distributed Energy Resource Aggregation, which is subject to the Demand Reduction Threshold Price calculated pursuant to Tariff section III.1.10.1A(f) and ensures that energy payments for demand reductions satisfy the net benefits test described in Order No. 745.[184]

91. We find that ISO-NE's application of the net benefits test complies with Order No. 2222 because it applies the net benefits test to all demand response resources participating in DERAs. Furthermore, this approach is consistent with ISO-NE's existing Commission-approved[185] application of that test to aggregations of demand response resources under the existing Demand Response Resource participation model.[186] In response to AEE, PowerOptions, and SEIA's concerns regarding Demand Response Distributed Energy Resource Aggregation compensation for energy injections and the possibility of inefficient dispatch, we find that ISO-NE's proposal to apply the Demand Reduction Threshold Price to the entire Demand Response Distributed Energy Resource Aggregation is reasonable. While Order No. 2222 did not specifically discuss applying the net benefits test to the entirety of a heterogeneous aggregation that includes demand response, we find that ISO-NE's approach is reasonable and compliant with the requirements of Order No. 2222 because it does not result in a practical barrier to heterogeneous aggregations. As ISO-NE explains, its application of the net benefits test imposes no restriction on when a Demand Response Distributed Energy Resource Aggregation can provide energy injection service or energy withdrawal service. In other

[182] Transmittal at 16 (citing Tariff, § III.6.5).

[183] Order No. 2222, 172 FERC ¶ 61,247 at P 145; Order No. 2222-B, 175 FERC ¶ 61,227 at P 43 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 145).

[184] Transmittal at 17 (citing Tariff, § III.1.10.1A(f)).

[185] *See ISO New England Inc.*, 138 FERC ¶ 61,042 at PP 22-23; *ISO New England Inc.*, Docket No. ER11-4336-005 (May 29, 2012) (delegated order).

[186] Transmittal at 17 (citing Tariff, § III.1.10.1A(f)); *see also Cal. Indep. Sys. Operator Corp.*, 179 FERC ¶ 61,197, at P 70 (2022) (CAISO Compliance Order).

words, the Demand Response Distributed Energy Resource Aggregation model still allows energy-injecting DERs in heterogeneous aggregations to provide energy at prices below the Demand Reduction Threshold Price and therefore does not limit the services that these DERs can provide through aggregation, consistent with Order No. 2222.

92. We disagree with protesters that argue that to comply with Order No. 2222, the Settlement Only Distributed Energy Resource Aggregation, Continuous Storage Facility, and Binary Storage Facility participation models must compensate for demand reduction service. On the contrary, ISO-NE's proposal allows DERs that are technically capable of providing energy injection service, energy withdrawal service, and demand response service to participate under the Demand Response Distributed Energy Resource Aggregation participation model, which thereby allows such DERs "to provide all services that they are technically capable of providing through aggregation."[187] Further, as ISO-NE explains, the Settlement Only Distributed Energy Resource Aggregation participation model could not be revised to compensate demand reductions because settlement-only resources are not dispatchable, which is a requirement for demand reduction service.[188]

93. Contrary to protesters' assertions, we also find that ISO-NE's proposed baseline methodology for demand response is compliant with Order No. 2222 because it complies with Order No. 745,[189] and Order No. 2222 "clarif[ied] that the requirements in Order No. 745"—which include the establishment of appropriate baselines—"would apply to demand response resources participating in heterogeneous aggregations."[190] We note, however, that ISO-NE's chosen approach is not the only Order No. 745-compliant method, and the Commission has approved other baseline methodologies in other RTOs/ISOs.[191] Therefore, as discussed further in Part IV.B.5.d, to the extent that ISO-

[187] Order No. 2222, 172 FERC ¶ 61,247 at P 130.

[188] Transmittal at 16.

[189] *ISO New England Inc.*, 138 FERC ¶ 61,042 at P 34.

[190] Order No. 2222, 172 FERC ¶ 61,247 at P 145; *see also* Order No. 745, 134 FERC ¶ 61,187 at P 94, *order on reh'g and clarification* ("we direct each RTO and ISO to include as part of the compliance filing required herein, an explanation of how its measurement and verification protocols will continue to ensure that appropriate baselines are set, and that demand response will continue to be adequately measured and verified as necessary to ensure the performance of each demand response resource"); *see also* Order No. 745-A, 137 FERC ¶ 61,215 at P 66.

[191] *See, e.g.*, New York Independent System Operator, Inc. (NYISO), Filing, Docket No. ER19-2276-000, at 38-42 (describing the proposed baseline for demand reduction in an aggregation) (filed June 27, 2019); *N.Y. Indep. Sys. Operator, Inc.*,

NE chooses to modify its metering and telemetry proposal to address any unnecessary or undue barriers faced by behind-the-meter DERs joining a DERA, ISO-NE may consider alternative baseline methodology approaches for behind-the-meter DERs.[192] To the extent ISO-NE proposes any modifications to its baseline methodology on compliance, we will evaluate them according to the requirements set forth in Order No. 745.[193]

4. Information and Data Requirements

94. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(d) to the Commission's regulations to require each RTO/ISO to establish market rules that address information requirements and data requirements for distributed energy resource aggregations.[194] As discussed in more detail below, the Commission required each RTO/ISO to revise its tariff to (1) include any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation; (2) require distributed energy resource aggregators to provide a list of the individual resources in their aggregations; and (3) establish any necessary information that must be submitted for the individual distributed energy resources. The Commission also required each RTO/ISO to revise its tariff to require distributed energy resource aggregators to provide aggregate settlement data for the distributed energy resource aggregation and to retain performance data for individual distributed energy resources in a distributed energy resource aggregation for auditing purposes.

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

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170 FERC ¶ 61,033, at P 1 (2020) (approving NYISO's filing in Docket No. ER19-2276); *Cal. Indep. Sys. Operator Corp.*, 172 FERC ¶ 61,298, at PP 18-19 (2020) (approving as just and reasonable CAISO's submetering proposal for electric vehicle supply equipment participating as demand response).

[192] *See infra* P 168.

[193] *See* Order No. 2222-B, 175 FERC ¶ 61,227 at P 43 ("We will evaluate, on compliance, any proposed distributed energy resource aggregation compensation rules regarding demand response for consistency with the requirements of Order No. 745.").

[194] Order No. 2222, 172 FERC ¶ 61,247 at P 236.

requirements or bidding parameters applicable to distributed energy resource aggregations.[195]

96. Next, the Commission directed each RTO/ISO to revise its tariff to require distributed energy resource aggregators to provide a list of the individual distributed energy resources participating in their aggregations to the RTO/ISO.[196] The Commission stated that, if an RTO/ISO needs additional information beyond this list, the RTO/ISO should identify and explain in its compliance filing what additional specific information about the individual distributed energy resources within an aggregation the RTO/ISO needs. The Commission stated that each RTO/ISO should also propose how the information requested must be shared with the RTO/ISO and affected distribution utilities. As part of these tariff revisions, the Commission stated that each RTO/ISO must also require that the distributed energy resource aggregator update that list of individual resources and associated information as it changes.[197] The Commission also found that the distributed energy resource aggregator, not an individual distributed energy resource in the aggregation, is the single point of contact with the RTO/ISO, and that the aggregator would be responsible for managing, dispatching, metering, and settling the individual distributed energy resources in its aggregation.[198]

97. The Commission found that aggregate settlement data for a distributed energy resource aggregation, as well as performance data for individual distributed energy resources in a distributed energy resource aggregation are necessary for the participation of any type of resource in RTO/ISO markets and to enable the RTOs/ISOs to perform necessary audit functions.[199] Therefore, the Commission required each RTO/ISO to revise its tariff to require each distributed energy resource aggregator to maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation. The Commission also required each RTO/ISO to revise its tariff to require each distributed energy resource aggregator to provide, upon request from the RTO/ISO, performance data for individual resources in a distributed energy resource aggregation for auditing purposes.

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[195] *Id.* P 237.

[196] *Id.* P 238.

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

[198] *Id.* P 239.

[199] *Id.* P 240.

98. The Commission stated that the requirements for settlement and performance data should be consistent with the settlement and auditing data requirements for other market participants.[200] To reduce the burden on distributed energy resource aggregators and the RTOs/ISOs, the Commission found that distributed energy resource aggregators should only be required to retain that performance data for individual distributed energy resources in an aggregation that the RTO/ISO deems necessary for auditing purposes. The Commission stated that, to the extent that an RTO/ISO does not need certain performance data from individual distributed energy resources in a distributed energy resource aggregation for auditing purposes, it should not require a distributed energy resource aggregator to retain that information for individual distributed energy resources participating in a distributed energy resource aggregation.

a. Filing

99. ISO-NE proposes information and data requirements for a DER Aggregator seeking to register a DERA in Tariff section III.6.7.[201] ISO-NE explains that the DERA registration process includes three phases: (1) initial notification, (2) eligibility confirmation, and (3) registration and activation. ISO-NE states during the initial notification phase, the DER Aggregator must simultaneously notify ISO-NE and the Host Utility (or its agent) of its intent to register a DERA while providing contact information and a general description of the DERA including location(s), size(s), technologies, planned markets, intended participation model, and desired target activation date.[202] ISO-NE states that to submit an initial notification, each DER comprising the DERA must have an executed interconnection agreement, or if state rules do not require an agreement, the DER Aggregator must provide information needed to conduct any studies that may be necessary to identify distribution system impacts of the DERA. ISO-NE states after the Host Utility (or its agent) determines that all DERs in a DERA are eligible, the DER Aggregator confirms with ISO-NE and the Host Utility (or its agent) the finalized list of a DERA's constituent DERs.[203]

100. ISO-NE proposes information and data requirements for the qualification and participation of Distributed Energy Capacity Resources in the Forward Capacity Market, generally based on the current rules for other capacity resources.[204] For example, ISO-

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[200] *Id.*

[201] Transmittal at 29.

[202] *Id.* (citing Tariff, § III.6.7(a)).

[203] *Id.* (citing Tariff, § III.6.7(c)).

[204] *Id.* at 30 (citing Tariff, § III.13).

NE states that the Distributed Energy Capacity Resource model requires that information and data be collected for DERs capable of energy injection, similar to that submitted by Generating Capacity Resources pursuant to Tariff section III.13.1.1.2. However, ISO-NE proposes additional Distributed Energy Capacity Resource-specific requirements to address the potentially heterogeneous nature of Distributed Energy Capacity Resources, including: (1) a Show of Interest form; (2) Critical Path Schedule Information; and (3) a New Distributed Energy Capacity Resource Qualification Package.[205]

b. Data Request Response

101. In its Data Request, Commission staff asked ISO-NE to explain how its proposal is consistent with the requirement of Order No. 2222 that the RTO/ISO must require each distributed energy resource aggregator to maintain and submit aggregate settlement data for the distributed energy resource aggregation so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation, and to provide, upon request from the RTO/ISO, performance data for individual resources in a distributed energy resource aggregation for auditing purposes.[206] In the Data Request Response, ISO-NE notes that, consistent with Order No. 2222, the proposed requirements for settlement and performance data should be consistent with the settlement and auditing data requirements for other market participants.[207] ISO-NE states that it proposed that the settlement approach and meter data used for DERAs be consistent with the ISO-NE Tariff, which defines the roles of the Host Utility and Assigned Meter Readers and how those parties communicate metering data to ISO-NE in order to settle the energy market.[208] ISO-NE states that, consistent with the existing ISO-NE construct, the Host Utility Assigned Meter Reader would provide settlement data to ISO-NE for a DERA as a whole based on arrangements made with the DER Aggregator. ISO-NE notes that DERAs participating under the Generator Asset, Settlement Only Distributed Energy Resource Aggregation, Binary Storage Facility, or Continuous Storage Facility models must comply with the metering and telemetry requirements in Tariff sections III.3.2.1 and III.3.2.2, which are applicable to other Generator Assets (including Settlement Only Resources), Binary Storage Facilities, and Continuous Storage Facilities. ISO-NE states that DERAs participating as Alternative Technology Regulation Resources must comply

[205] *Id.* at 30-31. For instance, ISO-NE requires information regarding the energy injection and/or demand reduction capabilities of facilities included in the Distributed Energy Capacity Rescource.[205]

[206] Data Request at 14 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 240).

[207] Data Request Response at 19 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 240).

[208] *Id.* at 19.

with the metering and telemetry requirements in Tariff section III.14.2 applicable to other Alternative Technology Regulation Resources. ISO-NE states that Demand Response Distributed Energy Resource Aggregations must comply with the metering and telemetry requirements in Tariff section III.3.2.2 applicable to Demand Response Resource. ISO-NE states that proposed Tariff section III.6.4(f) also requires that a DER Aggregator retain metering data for each participating DER for a period of six years for purposes of auditing.

c. Commission Determination

102. We find that ISO-NE's proposal partially complies with the information and data requirements of Order No. 2222.

103. We find that ISO-NE complies with the requirement to require distributed energy resource aggregators to provide a list of the individual resources in their distributed energy resource aggregations because ISO-NE proposes to require DER Aggregators to provide a list of the DERs in its DERA to ISO-NE.[209] We also find that ISO-NE complies with the requirement to require the distributed energy resource aggregator to update that list of individual resources and associated information as it changes.[210] Specifically, ISO-NE requires that, when a DER is added to or removed from an existing DERA, the DER Aggregator must provide an updated list of participating DERs and updated registration information.[211]

104. We also find that ISO-NE complies with the requirement to revise its Tariff to include: (1) any requirements for distributed energy resource aggregators that establish the information and data that a distributed energy resource aggregator must provide about the physical and operational characteristics of its aggregation; and (2) any necessary information that must be submitted for the individual distributed energy resources.[212] For instance, ISO-NE requires DER Aggregators to provide contact information and information regarding the location(s), size(s), technologies, planned markets, intended

[209] Order No. 2222, 172 FERC ¶ 61,247 at P 236; Tariff, § III.6.7(c)(iii).

[210] Order No. 2222, 172 FERC ¶ 61,247 at P 238.

[211] Tariff, § III.6.7(e)(i); *see* Data Request Response at 31 ("The proposed Tariff changes in Section III.6.7(e)(i) require that, for DERs being added to a DERA, the *same* information be submitted to the ISO and the Host Utility as that required at initial notification and registration.") (emphasis added).

[212] Order No. 2222, 172 FERC ¶ 61,247 at P 236.

participation model, and desired target activation date for the DERA.[213] ISO-NE requires that each DER comprising the DERA must have an interconnection agreement where required by state rules, or information needed to conduct studies to identify distribution system impacts of the DERA where interconnection agreements are not required.[214] ISO-NE also proposes that Distributed Energy Capacity Resources provide similar information and data to that required of other capacity resources, and requires certain additional information due to the potentially heterogeneous capabilities of Distributed Energy Capacity Resources such as energy injection and/or demand reduction capabilities of facilities included in the Distributed Energy Capacity Resource.[215] We find that where ISO-NE needs additional information beyond the list of distributed energy resources, ISO-NE has identified and explained in its compliance filing what additional specific information about the individual distributed energy resources within an aggregation the RTO/ISO needs, as Order No. 2222 requires.[216] In addition, we find that ISO-NE has clearly identified the necessary physical parameters that distributed energy resource aggregators must submit as part of their registration process only to the extent these parameters are not already represented in general registration requirements or bidding parameters applicable to distributed energy resource aggregations.[217]

105. We find that ISO-NE partially complies with the requirement to revise its Tariff to require that each distributed energy resource aggregator maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation, and to provide, upon request from the RTO/ISO, performance data for individual resources in a distributed energy resource aggregation for auditing purposes.[218] We find that ISO-NE's Tariff proposal to require that DER Aggregators retain metering data for each DER in a DERA for six years for auditing purposes complies with the requirement to revise its Tariff to require the distributed energy resource aggregator to provide, upon request from the RTO/ISO, performance data for individual resources in a

[213] Tariff, § III.6.7(a)(i). Location information enables the Host Utility to confirm that all the DERs comprising a DERA are located within the Host Utility's metering domain. Transmittal at 29-30.

[214] Transmittal at 29; Tariff, § III.6.7(a)(i).

[215] Transmittal at 30-31; Tariff, § III.13.4A.1.1.1.

[216] Order No. 2222, 172 FERC ¶ 61,247 at P 238.

[217] *Id.* P 237; Tariff, § III.6.7(a)(i).

[218] Order No. 2222, 172 FERC ¶ 61,247 at PP 236, 240.

distributed energy resource aggregation for auditing purposes.[219] However, we find that ISO-NE does not comply with the requirement to revise its Tariff to require that each distributed energy resource aggregator maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation. As discussed in Part IV.B.5.d below,[220] ISO-NE proposes to require the Host Utility rather than the distributed energy resource aggregator to submit settlement data for the DERA.[221] Accordingly, we direct ISO-NE to make, within 60 days of the date of issuance of this order, a further compliance filing to revise its Tariff to require that each distributed energy resource aggregator maintain and submit aggregate settlement data for the distributed energy resource aggregation, so that the RTO/ISO can regularly settle with the distributed energy resource aggregator for its market participation.

106. We find that ISO-NE's proposed requirements for settlement and performance data are consistent with the settlement and auditing data requirements for other market participants because ISO-NE applies data requirements to DERAs that are similar to those applied to other market participants.[222] With respect to settlement data requirements, ISO-NE proposes to require revenue-quality meter data for DERAs similar to the metering data required for settlement purposes for other resource types.[223] With respect to performance data for auditing data requirements, ISO-NE proposes to subject DERAs to auditing data requirements that are consistent with, or identical to,

[219] Tariff, § III.6.4(f).

[220] *See infra* P 169.

[221] Transmittal at 33 (citing ISO-NE Manual M-28, https://www.iso-ne.com/static-assets/documents/2020/08/manual_28_effective_rev62_2020_08_06.pdf).

[222] Order No. 2222, 172 FERC ¶ 61,247 at P 240.

[223] *See* Tariff, §§ III.6.4(a) (requiring DERAs participating in the Generator Asset, Binary Storage Facility, and Continuous Storage Facility participation models to comply with existing metering and telemetry requirements), III.6.4(b) (requiring DERAs participating in the Alternative Technology Regulation Resource participation model to comply with existing metering and telemetry requirements), III.6.4(c) (requiring DERAs participating in the Demand Response Resource and the Demand Response Distributed Energy Resource Aggregation participation model to comply with existing metering and telemetry requirements), III.6.6 ("A Settlement Only Distributed Energy Resource Aggregation shall comply with all Market Rules applicable to Settlement Only Resources . . . .").

those required for other resource types.[224] We further find that, consistent with Order No. 2222, ISO-NE does not require DER Aggregators to retain information for individual DERs participating in a DERA that ISO-NE does not need for auditing purposes.[225]

107. Finally, we find that ISO-NE's proposal satisfies the Commission's finding in Order No. 2222 that each RTO/ISO should propose how any information regarding individual distributed energy resources within an aggregation the RTO/ISO requests must be shared with the RTO/ISO and affected distribution utilities.[226] For instance, ISO-NE explains that the DER Aggregator will simultaneously notify ISO-NE and the Host Utility (or its agent) of its intent to register a DERA along with required information such as technologies to be included in the DERA and interconnection agreement(s) for each participating DER, if required under state law.[227] Further, ISO-NE explains that following the Host Utility's review of each DER, the DER Aggregator will, among other things, confirm with ISO-NE and the Host Utility (or its agent) the finalized list of a DERA's constituent DERs.[228]

5. Metering and Telemetry System Requirements

108. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(f) to the Commission's regulations to require each RTO/ISO to revise its tariff to establish market rules that address metering and telemetry hardware and software requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets.[229] The Commission explained that it understood the need to balance, on one hand, the RTO's/ISO's need for metering and telemetry data for settlement and operational purposes, and, on the other hand, not imposing unnecessary burdens on distributed energy resource aggregators.[230] Therefore, the Commission stated that it would not prescribe the specific metering and telemetry requirements that each RTO/ISO must adopt; rather, the Commission provided the RTOs/ISOs with flexibility to establish the

[224] Transmittal at 23-24 (citing Tariff, §§ III.1.5, III.1.5.1.3.1, III.1.15.1.3.2, III.1.5.2, III.13.6.1.7.3); Tariff, § III.6.4(f).

[225] Order No. 2222, 172 FERC ¶ 61,247 at P 240.

[226] *Id.* P 238.

[227] Transmittal at 29; Tariff, § III.6.7(a)(i).

[228] Transmittal at 29.

[229] Order No. 2222, 172 FERC ¶ 61,247 at P 262.

[230] *Id.* P 263.

necessary metering and telemetry requirements for distributed energy resource aggregations, and required each RTO/ISO to explain in its compliance proposal why such requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual distributed energy resources joining a distributed energy resource aggregation.

109. To implement this requirement, the Commission directed each RTO/ISO to explain, in its compliance proposal, why its proposed metering and telemetry requirements are necessary.[231] The Commission stated that this explanation should include a discussion about whether, for example, the proposed requirements are similar to requirements already in existence for other resources and steps contemplated to avoid imposing unnecessarily burdensome costs on the distributed energy resource aggregators and individual resources in distributed energy resource aggregations that may create an undue barrier to their participation in RTO/ISO markets.

110. In Order No. 2222, the Commission stated that the distributed energy resource aggregator is the single point of contact with the RTO/ISO, responsible for managing, dispatching, metering, and settling the individual distributed energy resources in its aggregation.[232] The Commission further found that the distributed energy resource aggregator is the entity responsible for providing any required metering and telemetry information to the RTO/ISO.

111. The Commission stated that it would not require uniform metering requirements across all RTOs/ISOs, nor would it require each RTO/ISO to impose uniform metering requirements on individual distributed energy resources.[233] Rather, the Commission provided flexibility to RTOs/ISOs to propose specific metering requirements, including any that may apply to individual distributed energy resources that the RTO/ISO demonstrates are needed to obtain any required performance data for auditing purposes and to address double compensation concerns. Similarly, the Commission provided flexibility to the RTO/ISO as to whether to propose specific telemetry requirements for

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

[232] *Id.* P 266; *see id.* P 239.

[233] *Id.* P 267.

individual distributed energy resources in an aggregation. The Commission stated that the need for such requirements may depend, for example, on whether the RTO/ISO allows multi-node aggregations or how multi-node aggregations are implemented.

112. The Commission stated that it would not require RTOs/ISOs to establish metering and telemetry hardware and software requirements for distributed energy resource aggregations that are identical to those placed on existing resources, or to establish different or additional metering and telemetry requirements for distributed energy resource aggregations.[234] Rather, the Commission expected that RTOs/ISOs will base any proposed metering and telemetry hardware and software requirements for distributed energy resource aggregations on the information needed by the RTO/ISO while avoiding unnecessary requirements that may act as a barrier to individual distributed energy resources joining distributed energy resource aggregations or to distributed energy resource aggregations participating in the wholesale markets. However, the Commission required that metering data for settlement purposes at the distributed energy resource aggregation level be consistent with settlement data requirements for other resource types.

113. The Commission stated that each RTO's/ISO's proposed metering requirements should rely on meter data obtained through compliance with distribution utility or local regulatory authority metering system requirements whenever possible for settlement and auditing purposes.[235] The Commission further found that this requirement also applies to existing telemetry infrastructure. With respect to jurisdictional concerns raised by some commenters, the Commission noted that any additional RTO/ISO metering and telemetry requirements would not change those required by state or local regulatory authorities and would be required solely to assist with settlements and audits of activity in RTO/ISO markets, or to provide RTOs/ISOs with the real-time information needed to reliably and efficiently dispatch their systems.

114. In response to concerns about potential costs and burdens that could be imposed on distribution utilities as a result of the requirement that RTOs/ISOs rely on metering and telemetry data obtained through compliance with distribution utility or local regulatory authority metering system requirements whenever possible, the Commission stated that it expected that, in general, this information will be provided by individual distributed energy resources to distributed energy resource aggregators, and from distributed energy resource aggregators to RTOs/ISOs.[236] However, to the extent that the RTO/ISO proposes that such information come from or flow through distribution utilities,

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[234] *Id.* P 268.

[235] *Id.* P 269.

[236] *Id.* P 270.

the Commission required that RTOs/ISOs coordinate with distribution utilities and RERRAs to establish protocols for sharing metering and telemetry data, and that such protocols minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.

115. Finally, the Commission found that the RTO/ISO tariffs should include a basic description of the metering and telemetry practices for distributed energy resource aggregations as well as references to specific documents that will contain further technical details.[237]

a. Filing

116. ISO-NE explains that metering responsibility in ISO-NE is governed by the Transmission Operating Agreement (TOA) and the Tariff.[238] ISO-NE states that the responsibility for metering resources and loads that settle through the energy market rests with the Participating Transmission Owners (PTO). Specifically, section 3.06(a)(x) of the TOA requires that the PTOs "provide [ISO-NE] with revenue metering data or cause [ISO-NE] to be provided with such revenue metering data." ISO-NE also explains that the Host Participant or Host Utility,[239] or its Assigned Meter Reader,[240] is responsible under section 5.2 of Manual M-28, for: (1) reporting of interval energy quantities for Load Assets, Generator Assets, and Tie-Line Assets; (2) reporting of meter reconciliation data for use in resettlement process for Load Assets, Tie-Line Assets, and Generator Assets; and (3) prompt reporting of any discovered metering, calculating, or reporting

[237] *Id.* P 271.

[238] Transmittal at 32.

[239] According to section I.2.2 of the Tariff, "Host Participant or Host Utility is a Market Participant or a Governance Participant transmission or distribution provider that reconciles the loads within the metering domain with OP-18 compliant metering." *Id.* at 33 n.79.

[240] According to section I.2.2 of the Tariff, "Assigned Meter Reader is defined as the entity that "reports to [ISO-NE] the hourly and monthly MWh associated with the Asset. These MWh are used for settlement. The Assigned Meter Reader may designate an agent to help fulfill its Assigned Meter Reader responsibilities; however, the Assigned Meter Reader remains functionally responsible to [ISO-NE]." According to ISO-NE, the Assigned Meter Reader is most often the distribution utility in a particular metering domain but could also be an agent working on behalf of the distribution utility. *Id.*

errors with respect to an asset to ISO-NE and the Market Participant(s) owning or having rights to the asset.[241]

117. ISO-NE states that metering and telemetry requirements for DERAs are found in proposed section III.6.4 of the Tariff.[242] ISO-NE explains that DERAs participating under the Generator Asset, Continuous Storage Facility, Binary Storage Facility, Demand Response Resource, or Alternative Technology Regulation Resource participation models must comply with the metering and telemetry requirements associated with those models.[243] ISO-NE explains that Demand Response Distributed Energy Resource Aggregation must comply with the Demand Response Resource metering requirements found in section III.3.2.2 of the Tariff, with implementation details in ISO-NE Operating Procedure No. 18.[244] ISO-NE clarifies that a Demand Response Distributed Energy Resource Aggregation Demand Response Distributed Energy Resource Aggregation's metering for energy injection service and/or energy withdrawal service will be provided to ISO-NE for the aggregation as a whole, while a Demand Response Distributed Energy Resource Aggregation's metering for demand reduction service will be at the individual DER level, which is consistent with current metering requirements for Demand Response Resource. In this way, ISO-NE explains, five-minute telemetry will be sent to ISO-NE to calculate the baseline and demand-reduction performance of each DER in the aggregation, which is consistent with ISO-NE's treatment of individual Demand Response Assets that comprise a Demand Response Resource, allowing each DER's demand reduction and energy injection to be measured when a Demand Response Distributed Energy Resource Aggregation is dispatched.[245]

118. ISO-NE states that Settlement Only Distributed Energy Resource Aggregations must comply with the metering requirements in place for Settlement Only Resources, and Load Assets if the Settlement Only Distributed Energy Resource Aggregation is capable

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[241] *Id.* at 33 (citing ISO-NE Manual M-28, https://www.iso-ne.com/static-assets/documents/2020/08/manual_28_effective_rev62_2020_08_06.pdf).

[242] *Id.* at 33.

[243] ISO-NE notes that it is currently revising its Operating Procedures to clarify the telemetry requirements for all Alternative Technology Regulation Resources, which will apply to DERAs participating as an Alternative Technology Regulation Resource. *Id.* at 33 n.81.

[244] *Id.* at 33 (citing ISO-NE Operating Procedure No. 18, https://www.iso-ne.com/static-assets/documents/rules_proceds/operating/isone/op18/op18_rto_final.pdf).

[245] *Id.* at 33-34.

of energy withdrawal.[246] ISO-NE states that Settlement Only Distributed Energy Resource Aggregations are required to provide revenue-quality metering data for the aggregation as a whole for market settlement purposes but are not required to provide telemetry because they are not dispatchable resources.

119. ISO-NE states that, for all participation models except for the Demand Response Resource and Demand Response Distributed Energy Resource Aggregation models, individual DERs are required to meet all applicable state and Host Utility metering requirements.[247] ISO-NE states that in most cases, the meter of a DER must be located at the POI or RDP to measure the amount of service delivered to the electric system and used by ISO-NE to balance supply and demand. ISO-NE states that with respect to the measurement of demand reductions provided by Demand Response Resource, the Commission previously found that "[m]easuring demand response at the [RDP] allows ISO-NE to effectively manage the grid because this point accurately reflects the load's impact on the New England transmission system."[248] ISO-NE therefore proposes to maintain the current Tariff requirement that demand response baselines be measured at the RDP.[249]

120. For energy injection and withdrawal, ISO-NE states that proposed section III.6.4(e) of the Tariff provides flexibility by allowing a DER's interconnection point to be located behind a RDP to the extent that the pertinent Host Participant Assigned Meter Reader can accommodate the configuration.[250] Specifically, ISO-NE states that the proposed rules allow, but do not require, submetering of individual DERs where the Assigned Meter Reader can reconstitute[251] the load at the RDP, or can accommodate

[246] *Id.* at 34.

[247] *Id.*

[248] *Id.* (citing *ISO New England Inc.*, 139 FERC ¶ 61,116, at P 12 (2012)).

[249] *See* ISO-NE Tariff, § III.3.2.2(c)(i).

[250] Transmittal at 34.

[251] According to ISO-NE, reconstitution is a process by which energy injection/withdrawal measured at a device behind the meter (e.g., a behind-the-meter generator/battery) is subtracted out of energy injection/withdrawal measured at the RDP. ISO-NE explains that this is done to avoid measuring the same energy injection/withdrawal twice. ISO-NE April 20 Answer at 8-10.

parallel metering[252] so that the metered DER does not impact the reported load at the RDP.[253] ISO-NE contends that this will ensure that retail metering is relied on to the extent practicable and that the services paid for in wholesale markets are making it past the POI or RDP of the facility as applicable. ISO-NE argues that this requirement is narrowly designed to prevent double counting of services.[254] For example, ISO-NE explains that if the energy injection of a behind-the-meter generator were directly submetered, the same output would also reduce the load as measured by the meter at the RDP. ISO-NE states that paying the behind-the-meter generator based on its directly submetered output while also billing the customer based on its lower RDP meter reading would result in double counting, a result that the Commission ordered RTOs/ISOs to prevent.[255]

121. In addition, ISO-NE notes that, in Order No. 2222, the Commission stated a clear preference for the use of existing retail metering for DER participation to reduce transaction costs.[256] ISO-NE states that most retail metering in New England is located at the RDP, not at a submeter location, and that advanced metering infrastructure (AMI) has not been widely deployed.[257] However, ISO-NE claims that advanced metering efforts are underway and that it is expected that, within the next several years, Host Utilities may be able to support interval metering and timelier communication of RDP meter data for residential and small commercial customers. ISO-NE states that once these capabilities are established, Host Utilities may be better able to manage DERs on their systems to ensure safety and the reliability of the distribution system, with the same metering infrastructure being leveraged to support wholesale market participation. Nevertheless,

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[252] ISO-NE explains that parallel metering refers to a separate meter for a DER that is independent of a meter located at the RDP of a facility. ISO-NE states that performance measured at this meter has no effect on the RDP meter. *Id.* at 7 n.23.

[253] Transmittal at 35.

[254] *Id.* at 34.

[255] *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at P 161).

[256] *Id.* at 35 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 269).

[257] *Id.* at 35. ISO-NE further claims that many states prohibit submetering, such as a landlord submetering individual tenants and charging them for electricity used, unless explicitly authorized by the retail regulator. ISO-NE argues that mandating submetering would be at odds with state regulatory constructs and could potentially lead to increased costs for retail customers. *Id.* at 35 n.87.

ISO-NE states that the implementation timeline for capabilities related to load reconstitution for submetered DERs remains speculative at this time.[258]

b. Comments/Protests and Answers

i. Submetering

(a) Comments/Protests

122. Several protesters argue that, due to the proposal's lack of a viable submetering option, most behind-the-meter DERs (i.e., DERs with an interconnection point located behind an RDP) will not be able to participate in ISO-NE's wholesale markets.[259] Protesters argue that, while ISO-NE's proposal "allows" for submetering, the option is illusory because distribution utilities in ISO-NE have indicated that they cannot accommodate ISO-NE's proposed submetering option. AEE, PowerOptions, and SEIA; AEMA; and Voltus contend that all the proposed DERA participation models for energy and ancillary services fail to accommodate residential and small commercial DERs located behind the meter because all the models lack viable submetering options.[260]

123. AEE, PowerOptions, and SEIA and AEMA claim that the Alternative Technology Regulation Resource model fails to allow behind-the-meter DERs otherwise capable of

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[258] *Id.* at 35 n.88.

[259] AEE, PowerOptions, and SEIA Protest at 15, 26; AEMA Protest at 1-2; Environmental Organizations Protest at 4-10; Massachusetts AG Protest at 6; Voltus Protest at 6-13. According to AEE, PowerOptions, and SEIA, such DER use cases include aggregations of residential and small commercial electric vehicle supply equipment, electrified transit fleets, smart thermostats, smart hot water heaters, battery storage, and solar-plus-storage resources. AEE, PowerOptions, and SEIA Protest at 12-13, 26.

[260] AEE, PowerOptions, and SEIA Protest at 2-3 (arguing that ISO-NE's proposal "affords essentially no new opportunities for participation by [behind-the-meter DERs]"), 14, 26-37 (arguing that each of the seven proposed participation models fails to accommodate the physical and operational characteristics of many DERAs). AEE, PowerOptions, and SEIA state that behind-the-meter storage and storage-plus-solar resources can participate today under the existing Demand Response Resource model as On-Peak or Seasonal Peak Demand Response, but they cannot provide energy and some ancillary services through injection. *Id.* at 12-13. AEMA Protest at 16-25 (arguing that each of the seven proposed participation models are deficient with respect to BTM resources); Voltus Protest at 5 ("Metering is such a core bed-rock issue that without it, the entirety of [ISO-NE's proposal] is meaningless for … [BTM] DER[s].").

providing regulation to do so because the model does not include a viable submetering option.[261] These parties also explain that the criteria to participate behind the meter using the Alternative Technology Regulation Resource model are not outlined in ISO-NE's Tariffs or manuals. These parties state that they understand these requirements to include: (1) a demonstration that all the other devices at the facility function independently from the regulation device; (2) provision of interval data from both the RDP and the device meter; and (3) that the DER is not aggregated for purposes of providing regulation.[262] AEE, PowerOptions, and SEIA argue that these requirements preclude participation by behind-the-meter DERs that are otherwise technically capable of providing regulation service but that do not have access to AMI at the RDP. They also argue that ISO-NE does not explain why metering on a five-minute interval is necessary to verify regulation produced by a behind-the-meter device in response to a four-second Automatic Generation Control signal.[263] In addition, AEE, PowerOptions, and SEIA and AEMA argue that it is unclear why submetered devices would be prohibited from participating in aggregations.[264]

124. Further, several protesters raise concerns about ISO-NE's proposed submetering option because it relies on distribution utilities' ability to accommodate behind-the-meter DERs' configurations.[265] Protesters argue that only allowing submetering with Host Utility approval could allow distribution utilities to act as a gatekeeper for DERA participation in the wholesale market. Protesters also note that the Host Utilities stated in stakeholder discussions that they cannot meet ISO-NE's proposed meter data reporting

[261] AEE, PowerOptions, and SEIA Protest at 31; AEMA Protest at 15-16.

[262] AEE, PowerOptions, and SEIA Protest at 31, 47-48 (citing ISO-NE, *Memorandum re: Response to Advanced Energy Economy's Amendments to ISO New England's Order No. 2222 Compliance Proposal* (Nov. 4, 2021) ("The telemetering location of Alternative Technology Regulation Resources is not currently specified in the ISO New England Governing Documents."); AEE, *Memorandum re: Response to ISO New England's November 4 Memo Regarding Advanced Energy Economy's Amendments to ISO New England's Order No. 2222 Compliance Proposal* (Dec. 3, 2021), at 8-9); AEMA Protest at 15.

[263] AEE, PowerOptions, and SEIA Protest at 48.

[264] *Id.*; AEMA Protest at 16.

[265] AEE, PowerOptions, and SEIA Protest at 22-26; AEMA Protest at 5-6, 8; and Massachusetts AG Protest at 5-7; Voltus Protest at 4-5.

requirements needed to allow reconstitution and submetering.[266] Further, regarding ISO-NE's statements that future advancements in metering such as the wider adoption of AMI would alleviate some barriers, Massachusetts AG argues that ISO-NE's "maybe someday" approach ignores the fact that ISO-NE has been charged by the Commission to advance participation by DERAs in the New England wholesale markets and that failure to provide any type of proposed solution on metering issues does not meet the just and reasonable standard.[267] Massachusetts AG argues that more widespread adoption of AMI in New England is not the solution to the barriers to participation raised by ISO-NE's compliance filing.

125. Protesters argue that, without a viable submetering option, behind-the-meter DERs must: (1) participate at the RDP as demand response, (2) have the entire household/facility participate as a single asset at the RDP, or (3) install duplicative and costly parallel metering to participate at a separate POI.[268] However, protesters argue that most behind-the-meter DERs will not be able to participate at all due to barriers to participate under these three options. Protesters state that the Commission should accept ISO-NE's metering proposal in part to allow the improvements for front-of-the-meter resources to go into effect but find that ISO-NE's filing is deficient with respect to behind-the-meter resources.[269]

(b) Answers

126. In their answer, AEE, PowerOptions, and SEIA clarify that their protest as it relates to the metering of behind-the-meter DERs is centered around the filing's failure

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[266] Massachusetts AG Protest at 6 n. 16; AEMA Protest at 5-6; AEE, PowerOptions, and SEIA Protest at 24-25 (citing National Grid, *National Grid Comments on ISO-NE Conceptual Market Design Approach for Compliance with FERC Order No. 2222* at 13 (June 2021), https://www.iso-ne.com/static-assets/documents/2021/06/a04c_mc_2021_07_08_09_ngrid_memo.pdf ("As the Company has expressed through participation in various ISO-NE and NEPOOL stakeholder discussions and through coordination with the Meter Reader Working Group, the sub-metering configuration and associated reconstitution […] would not be feasible currently for a variety of reasons and should not be included in the "day one" implementation of the DERA aggregation model in ISO-NE.").

[267] Massachusetts AG Protest at 6-7.

[268] AEE, PowerOptions, and SEIA Protest at 15; Massachusetts AG Protest at 5.

[269] AEMA Protest at 5-8, 15-16; Voltus Protest at 5; AEE, PowerOptions, and SEIA Protest at 2-3; Environmental Organizations Protest at 5; Massachusetts AG Protest at 2.

to meet the core requirement of Order No. 2222 to establish participation models that "accommodate the physical and operational characteristics of each distributed energy resource aggregation."[270] Specifically, they argue that ISO-NE's proposal fails to accommodate the physical and operational characteristics of behind-the-meter DERs, which face unique circumstances in New England with respect to metering and telemetry practices.

127. AEE, PowerOptions, and SEIA also take issue with ISO-NE's claim that its compliance filing is "consistent with New England's existing arrangements" with respect to metering and meter reading responsibilities.[271] They argue that consistency with existing arrangements does not demonstrate compliance with Order No. 2222 because the Commission found that the status quo was causing the potential for unjust and unreasonable rates, and required that RTOs/ISOs examine whether their existing market rules and tariff provisions, including those relating to metering, create barriers to the ability of DERs to provide wholesale services through aggregation.[272] In addition, AEE, PowerOptions, and SEIA argue that ISO-NE's deferral to existing metering rules should be especially concerning to the Commission where, as ISO-NE explains, those rules are controlled by Transmission Owners and electric distribution companies.[273]

128. In response to criticisms of the Alternative Technology Regulation Resource model, ISO-NE explains that the current and proposed metering requirements for the Alternative Technology Regulation Resource model include five-minute interval metering for submetered single-facility Alternative Technology Regulation Resources, and a general prohibition on the use of submetered data for aggregated Alternative Technology Regulation Resources.[274] ISO-NE explains that five-minute interval metering is required for submetered single-facility Alternative Technology Regulation

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[270] AEE, PowerOptions, and SEIA Answer at 3 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 6).

[271] *Id.* at 3-4 (citing ISO-NE April 20 Answer at 6).

[272] *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 26-27, 263-264).

[273] *Id.* at 4.

[274] ISO-NE April 20 Answer at 27. ISO-NE notes that pursuant to ISO-NE Operating Procedure No. 18, section V(D)(3)(b), Alternative Technology Regulation Resources are required to directly report data to ISO-NE. ISO-NE states that Host Utilities do not perform services for Alternative Technology Regulation Resources. *Id.* at 27 n.61.

Resources so that ISO-NE can verify that four-second Automatic Generation Control telemetry matches the five-minute data within the required accuracy and precision.

129. In response to AEE, PowerOptions, and SEIA's assertion that interval metering may be unnecessary for verification, ISO-NE argues that for any submetered resource where the meter is not owned and read by an independent third party, other sources of data are needed to verify the meter's validity.[275] ISO-NE states that, under current practices, market participants of single-facility Alternative Technology Regulation Resources that submit submetered telemetry data are subject to additional requirements, such as submitting documentation demonstrating that other devices at the facility act independently from the Alternative Technology Regulation Resource, and are required to submit revenue-quality metering data from both the Alternative Technology Regulation Resource submeter and from the RDP. ISO-NE states that this allows for the comparison of the summation of four-second Alternative Technology Regulation Resource data over a five-minute interval to the five-minute revenue-quality metering data from the Alternative Technology Regulation Resource to determine the accuracy of the Alternative Technology Regulation Resource telemetry, as well as the comparison of the five-minute revenue-quality metering data from the Alternative Technology Regulation Resource to the five-minute revenue-quality metering data from the utility's RDP meter to see if the response of the Alternative Technology Regulation Resource is registering at the RDP.[276] ISO-NE contends that this approach verifies the delivery of the Alternative Technology Regulation Resource's response to the grid.

130. ISO-NE also responds to AEE, PowerOptions, and SEIA's argument that it is unclear why submetered devices are prohibited from participating in aggregations.[277] ISO-NE argues that it would be highly impractical to extend the practice of submetering from single-facility Alternative Technology Regulation Resources to aggregated Alternative Technology Regulation Resources. ISO-NE explains that the line diagrams of each small facility seeking to submeter an Alternative Technology Regulation Resource would need to be reviewed by both the DER Aggregator and ISO-NE to verify and address interaction of devices at each facility, in the same way that this is done for individual submetered facilities today.[278] ISO-NE states that this verification process is

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[275] *Id.* at 28.

[276] ISO-NE notes that the meter at the RDP, for example, is read by the Host Utility. ISO-NE argues that having that source of data is essential to establishing the validity of any submetered data. *Id.* at 28 n.63.

[277] *Id.* at 28-29.

[278] ISO-NE states that as an example, energy management systems are often programmed to cycle loads off to reduce peak load. ISO-NE states that in such cases

likely to be time-intensive and ultimately infeasible for large aggregations. Further, ISO-NE states that the methodology employed today for verifying the accuracy of submetered data would need to be extended to all facilities in the aggregation, which would increase the risk for meter data errors and quality control issues. ISO-NE states that for these reasons, the current market rules allow for single-facility Alternative Technology Regulation Resources to provide submetered telemetry data to demonstrate performance but require aggregated Alternative Technology Regulation Resources to provide telemetry data at the RDP. ISO-NE argues that AEE, PowerOptions, and SEIA do not justify modifications to these current measures, and that Order No. 2222's goal of facilitating aggregations is not a sufficient basis for mandating changes that are impractical and increase the risk of error.

131. AEE, PowerOptions, and SEIA state that ISO-NE's claims regarding the feasibility of allowing submetering for aggregated Alternative Technology Regulation Resources is based on the current approach for individual submetered facilities, but ISO-NE has not contemplated changes to this approach to accommodate aggregations of behind-the-meter DERs.[279] AEE, PowerOptions, and SEIA argue that the availability of this arrangement in PJM indicates that allowing behind-the-meter DERs to provide regulation is not technically or logistically infeasible.

132. Similarly, AEMA argues that ISO-NE's requirement for interval metering at the RDP for submetered Alternative Technology Regulation Resources is inconsistent with its comments on third-party metering.[280] AEMA contends that ISO-NE's concern regarding the need to verify the accuracy of meter data for submetered Alternative Technology Regulation Resources with interval metering seems to be similar to the concern ISO-NE expresses in its answer about the need to verify third-party metering, and yet ISO-NE states that third-party submeter data cannot be verified using utility meter data from the RDP.[281] AEMA notes that, with respect to third-party metering, ISO-NE (1) claims that "[i]ntervenors have failed to explain how data validation would be accomplished under their proposal," (2) explains that "[t]he chief complication is that this submetered data is not directly comparable to RDP data," and (3) concludes that "it is not clear how submetered data would be compared with RDP data as these meters

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a behind-the-meter DER such as a battery may increase its load in response to an Automatic Generation Control signal, but the energy management system simultaneously reduces air conditioning load, counteracting the performance of the behind-the-meter DER. *Id.* at 29 n.64.

[279] AEE, PowerOptions, and SEIA Answer at 14.

[280] AEMA Answer at 9-10.

[281] AEMA Answer at 9 (citing ISO-NE April 20 Answer at 28).

measure different things."[282] AEMA states that it agrees with ISO-NE that submeter data is not directly comparable to RDP data. Therefore, AEMA argues, it still is unclear why ISO-NE requires submetered Alternative Technology Regulation Resources to have an interval meter at the RDP, and the Commission should direct ISO-NE to eliminate this requirement.

133. New England Public Utilities state that arguments in favor of submetering requirements for the energy market ignore practical challenges.[283] They claim that if submetering were required, reconstitution would largely have to be performed manually, a labor-intensive process as the distribution utility must reconstitute the individual DER meter readings, ensure their accuracy, and then defend/investigate any data challenges from DER Aggregators under a tight deadline of 37 hours.[284] New England Public Utilities add that the implementation of the systems needed to facilitate submetering and the associated reconstitution calculations would require significant capital expenditures and additional administrative expense for meter and settlement system design, commissioning, testing, and data collection, and that the meter data management and wholesale settlement systems are not currently capable of accommodating submetering. In addition, New England Public Utilities state that the costs necessary to implement these systems would require a regulator-approved cost recovery mechanism, with the costs ultimately being borne by all ratepayers and that no such mechanism currently exists. New England Public Utilities argue that submetering presents risks and challenges due to a significantly greater number of meters that could experience technical issues, and therefore require resettlement, which entails even more calculations under a tight timeline.

134. New England Public Utilities clarify that they are not saying that submetering is unachievable, only that design and implementation challenges mean that submetering may not be available on day one.[285] New England Public Utilities state that they can work with other stakeholders to advance a feasible submetering implementation design and, if appropriate, effectuate that design through the ISO-NE Tariff.

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[282] *Id.* at 10 (citing ISO-NE April 20 Answer at 17-18).

[283] New England Public Utilities Answer at 9-11.

[284] *Id.* (citing ISO-NE Manual M-28, § 5.3(c)).

[285] *Id.* at 13.

ii. Metering at the RDP and Parallel Metering

(a) Comments/Protests

135. Protesters argue that without the ability to submeter, behind-the-meter DERs must either be metered at the RDP or be required to invest in parallel metering.[286] Protesters argue that measurement of DER performance at the RDP presents a barrier to behind-the-meter DERs.[287] More specifically, protesters contend that metering at the RDP obfuscates actual DER performance by measuring the entire customer net load, thus making the facility, not the DER, the "asset" for purposes of wholesale market participation. These protesters argue this is an unreasonable barrier to DER participation in a DERA because it requires the DER Aggregator to bid in all changes in household or facility load rather than allowing the DER Aggregator to be responsible for only the activity of the DER, which is what the DER Aggregator controls.

136. Similarly, protesters state that DER participation at the RDP as demand response also presents a barrier to behind-the-meter DERs.[288] AEE, PowerOptions, and SEIA argue that the option to participate at the RDP as demand response is not a viable pathway for many behind-the-meter DERs given limitations in the existing Demand Response Resource participation model, which are carried over into the proposed Demand Response Distributed Energy Resource Aggregation participation model.[289] Protesters contend that because these two models require baselines measured at the RDP, many residential and small commercial DERs will not be able to participate as demand response due to host load that is widely variable and/or not subject to dispatch.[290]

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[286] AEE, PowerOptions, and SEIA Protest at 15-16, 18-23, 29; AEMA Protest at 7, 23-24; Environmental Organizations Protest at 4-10; Massachusetts AG Protest at 5; Voltus Protest at 11-14.

[287] AEE, PowerOptions, and SEIA Protest at 15-16, 18-23; AEMA Protest at 23-24; Environmental Organizations Protest at 4-10; Voltus Protest at 11-14.

[288] AEE, PowerOptions, and SEIA Protest at 21; Environmental Organizations Protest at 6; Voltus Protest at 12.

[289] AEE, PowerOptions, and SEIA Protest at 21.

[290] *See, e.g.*, Environmental Organizations Protest at 6 (arguing that, when behind-the-meter DERs are combined with uncontrolled site load for compliance and settlement purposes, there is an artificial increase in performance risk); Voltus Protest at 12 (arguing that measurement at the RDP is not a solution when the load of the building will obscure the performance of smaller DERs).

137. In addition, some protesters argue that ISO-NE's proposed alternative to measurement at the RDP—parallel metering—also presents a barrier to behind-the-meter DERs.[291] Protesters argue that parallel metering, which would require customers to install a separate revenue-quality meter on the side of their building for each DER they install, is expensive and cost-prohibitive for many small and residential customers who would need to separate each DER electrically from site load.[292] According to AEE, PowerOptions, and SEIA, each revenue-quality meter costs approximately $2,000-$3,000 per customer without providing improved data quality over what would be internally available within most DER devices.[293] In addition, AEMA argues that parallel-metered DERs cannot provide the host facility with resiliency benefits without some costly work-arounds.[294] Voltus states that the primary use case for homeowners and businesses installing DERs is to lower demand charges, but locating DERs on a parallel meter would prevent homeowners and businesses from doing this.[295]

(b) Answers

138. New England Public Utilities argue that while parallel metering proposals also may require costly upgrades, at least the customer causing the additional metering-related costs would be responsible for bearing them, which would be consistent with other cost allocation paradigms in New England.[296]

[291] AEE, PowerOptions, and SEIA Protest at 15, 19-20, 29; AEMA Protest at 7; Massachusetts AG Protest at 5; Voltus Protest at 11-14.

[292] AEE, PowerOptions, and SEIA Protest at 15; Massachusetts AG Protest at 5; Voltus Protest at 12-13.

[293] AEE, PowerOptions, and SEIA Protest at 20. *See also* AEMA Protest at 7 (also claiming a cost of $2,000-$3,000 per customer).

[294] AEMA Protest at 6-7.

[295] Voltus Protest at 19. *See also id.* at 13 (arguing that if generation and load are connected to separate meters, behind-the-meter generation cannot help to reduce retail bills and cannot allow the host facility to island from the grid without difficulty).

[296] New England Public Utilities Answer at 12-13.

iii. Alternative Metering Proposals

(a) Alternatives to Metering at the RDP

(1) Comments/Protests

139. Protesters assert that ISO-NE's proposal does not allow for other viable alternatives to requiring behind-the-meter DERs measure performance at the RDP to alleviate these barriers.[297] For example, AEE, PowerOptions, and SEIA, AEMA, and Massachusetts AG recommend that ISO-NE revise the Demand Response Resource and Demand Response Distributed Energy Resource Aggregation models to add submetering options that do not require baselines measured at the RDP, based on submetering options other RTOs/ISOs offer.[298] AEE, PowerOptions, and SEIA explain that, although some DERs still would not be able to offer all the services they are technically capable of providing through aggregation, these suggested approaches would nonetheless offer a near-term and readily implementable improvement over the current proposal.

140. AEMA also argues that the Commission should require ISO-NE to permit Demand Response Resource to comply with telemetry and interval meter requirements using the existing building metering infrastructure and the best available data granularity (e.g., hourly or 15-minute intervals), rather than five-minute interval data from the RDP.[299] AEMA explains that current rules require five-minute interval data for each demand response asset, but standard AMI installed in residential buildings measures and records load at an hourly granularity, and at best a 15-minute granularity.

141. AEE, PowerOptions, and SEIA explain that AEE proposed during the stakeholder process that ISO-NE allow a DER behind the meter to provide regulation service based

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[297] AEE, PowerOptions, and SEIA Protest at 20-22, 41-45; AEMA Protest at 3, 23-24; Massachusetts AG Protest at 11-14; AEMA Protest at 15.

[298] AEE, PowerOptions, and SEIA Protest at 20-22, 41-45; AEMA Protest at 3, 23-24; Massachusetts AG Protest at 11-14. These protesters base their suggested alternatives on two amendments that AEE proposed during the stakeholder process: (1) allow load reductions by behind-the-meter generators to be measured by generator output, similar to an option offered by PJM, and (2) allow submetered load to participate in the Demand Response Resource or Demand Response Distributed Energy Resource Aggregation models, similar to an option offered by California Independent System Operator Corporation. AEMA states that the Commission should direct ISO-NE to adopt these proposals, while AEE, PowerOptions, and SEIA ask that the Commission, at a minimum, direct ISO-NE to fully consider them.

[299] AEMA Protest at 15.

on telemetry from that device.[300] AEE, PowerOptions, and SEIA; AEMA; and Massachusetts AG encourage the Commission to direct ISO-NE to adopt AEE's amendment, which AEE, PowerOptions, and SEIA state is based on current practice in PJM.[301]

(2) Answers

142. ISO-NE argues that Order No. 2222 does not require ISO-NE to take extraordinary measures to accommodate a metering construct that is not currently in place for other resources in New England, and ISO-NE notes again that Order No. 2222 expressed a clear preference for the use of existing metering infrastructure where possible.[302] ISO-NE reiterates that metering at the RDP, parallel metering, or submetering combined with reconstitution comprise the universe of metering options of which ISO-NE is currently aware that address double counting.

143. Responding to protesters' calls for submetering options for the Demand Response Resource and Demand Response Distributed Energy Resource Aggregation models, ISO-NE asserts that its Demand Response Resource rules are beyond the scope of this proceeding because Order No. 2222 does not mandate changes to ISO-NE's existing baseline calculation methodology.[303] In response, AEE, PowerOptions, and SEIA agree with ISO-NE that Order No. 2222 does not mandate changes to the Demand Response Resource model; however, they disagree with ISO-NE's claim that such changes are out of scope.[304] They state that, although Order No. 2222 does not require changes to demand response or any other existing models, it does include demand response within the set of distributed energy resources that RTOs/ISOs must allow to provide all of the services they are capable of providing through aggregation.[305] They note that the

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[300] AEE, PowerOptions, and SEIA Protest at 47 (citing PJM Manual 11, § 10.7).

[301] *Id.* at 47-48 (citing PJM Manual 11, § 10.7); AEMA Protest at 15-16; Massachusetts AG Protest at 13-14.

[302] ISO-NE July 25 Answer at 11 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 264, 269).

[303] ISO-NE April 20 Answer at 26 n.60, 30.

[304] AEE, PowerOptions, and SEIA Answer at 14 (citing ISO-NE April 20 Answer at 12, 30).

[305] *Id.* at 14 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 115-118). *See also* AEMA Answer at 5-6 (arguing that the Commission should reject ISO-NE's assertion

Commission gave RTOs/ISOs the option to create new participation models, revise existing participation models, or both, to comply.[306] Therefore, they argue, while Order No. 2222 did not require changes to demand response models, it did not foreclose such changes as a compliance option.

144. In addition to its argument that Demand Response Resource rules are beyond the scope of this proceeding, ISO-NE contends that the proposals to add submetering options to the Demand Response Resource and Demand Response Distributed Energy Resource Aggregation models, which would allow measurement of demand response not at the RDP, contravene Order No. 2222, the Commission's orders addressing ISO-NE's Order No. 745 compliance proposals, and ISO-NE's current Demand Response Resource metering requirements established to comply with Order No 745.[307] ISO-NE states that, in the compliance proceeding for Order No. 745, the Commission dismissed arguments that demand response resources should be directly metered, instead finding that RDP metering was appropriate for Demand Response Resource.[308] AEMA disputes this assertion by noting that the Commission also stated that "[n]othing in Order No. 745 or this proceeding prevents ISO-NE from pursuing alternative measurement and verification methodologies through its stakeholder process."[309]

145. ISO-NE argues that, if submetering of demand response resources were allowed, any load reduction or generation measured at the device could be offset by the load of other DER devices at that facility automatically increasing at the same time. According to ISO-NE, this would reduce the demand reduction delivered to the grid even though all

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that changes to existing models are out of scope when ISO-NE itself is proposing changes to existing models).

[306] AEE, PowerOptions, and SEIA Answer at 14 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 102-103).

[307] ISO-NE April 20 Answer at 12.

[308] ISO-NE April 20 Answer at 12-13 (quoting *ISO New England Inc.*, 139 FERC ¶ 61,116 at P 12 ("[I]n the context of discussing ISO-NE's settlement system as it relates to demand response, the impact a customer has on the grid is what determines how the ISO will operate the grid. Measuring demand response at the [RDP] allows ISO-NE to effectively manage the grid because this point accurately reflects the load's impact on the New England transmission system.")).

[309] AEMA Answer at 7 (citing *ISO New England Inc.*, 138 FERC ¶ 61,042 at P 24).

wholesale consumers would be billed based on performance measured at the submeter.[310] ISO-NE notes that to address these concerns during the stakeholder process, AEE proposed a requirement that DER Aggregators attest that the behind-the-meter DER and the rest of the load at a facility are not interdependent.[311] ISO-NE argues that such an attestation would have little value because facilities are constantly evolving, and a DER Aggregator using submetering would have little idea that customers may be taking actions that do not allow their measured demand reductions to reach the grid.

146. In response, AEE, PowerOptions, and SEIA contend that ISO-NE is assuming that load increases are coordinated with the output of the behind-the-meter generator.[312] They contend that as long as any load increase is independent of the activity of the behind-the-meter generator, the demand reduction is the same regardless of increases or decreases in load.[313] In turn, ISO-NE responds that the difficulty in determining whether other loads, storage, or generation at the same facility as a behind-the-meter DER are truly independent of behind-the-meter DER operation creates opportunities for gaming and, at the very least, errors, which ISO-NE believes are better avoided using the proposed metering options.[314]

147. ISO-NE also warns that submetering of demand response would allow a facility to have multiple demand response DERs, each with its own meter, and each registered in the wholesale market in the same or different aggregations.[315] ISO-NE states that this could result in the same load reduction or energy production being compensated twice at the wholesale level under the same or separate DERAs, in contravention of Order Nos.

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[310] ISO-NE April 20 Answer at 13.

[311] *Id.* at 30.

[312] AEE, PowerOptions, and SEIA Answer at 10-11. AEE, PowerOptions, and SEIA claim that residential customers would need to rely on dedicated and sophisticated tools to coordinate their highly variable load with behind-the-meter generator output, making it exceedingly unlikely that residential customers would engage in this type of activity.

[313] *Id.* at 11. As an example, AEE, PowerOptions, and SEIA state that if a behind-the-meter resource was generating while a household unrelatedly increased its consumption (e.g., by turning on the dishwasher), the resource would still decrease load relative to what it would be absent the resource. *Id.* at 11 n.33.

[314] ISO-NE July 25 Answer at 7-8.

[315] ISO-NE April 20 Answer at 13.

745 and 2222.[316] In contrast, AEMA argues that that this type of double counting would not occur if the DERs are permitted to participate either collectively at the RDP as one demand response asset or as separately submetered behind-the-meter DERs, but not as both at the same facility.[317] In addition, AEE, PowerOptions, and SEIA argue that participation at both a submeter and the RDP could also be accommodated without double compensation if load reductions at the submeter are netted out from the RDP.

148. AEE, PowerOptions, and SEIA further assert that ISO-NE's reliance on the Commission's acceptance of the RDP as the appropriate point of measurement for demand response in 2011 does not preclude consideration of alternative approaches today.[318] They argue that technology options have evolved since that time, and other regions have adopted different approaches to the measurement of demand response to accommodate more technologies and techniques for controlling demand.

149. Finally, ISO-NE responds to AEMA's assertion that changes to the compliance filing should be made to allow the "best available data" for the metering of Demand Response Resource participating in a DERA because five-minute interval metering is too burdensome.[319] ISO-NE explains that the New England markets require the use of five-minute interval data for metering of all resources, and this obligation extends to Demand Response Resource.[320] ISO-NE argues that AEMA seeks special treatment because it wants ISO-NE to allow behind-the-meter DERs to provide a service on different terms from those faced by similarly situated resources. ISO-NE contends that this would be inconsistent with Order No. 2222, the stated intent of which is to enable DER aggregations to participate in the wholesale markets when such aggregations can "meet

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[316] *Id.* at 13-14. ISO-NE provides the following explanation. Assume a facility with both a behind-the-meter generator measured at the RDP and a dispatchable load measured at the device level. Assume that the normal operation of the facility is that the behind-the-meter generator produces 50 kW of power in each interval, and the dispatchable load consumes 50 kW in each interval so that the RDP meter shows 0 kW of consumption. Also assume that the DERA or DRR aggregation is dispatched such that the dispatchable load is reduced to 0 kW. For this single load reduction, the dispatchable load would receive 50 kW of performance credit, and the behind-the-meter generator (measured at the RDP) also would be credited for a 50 kW energy injection, even though the only amount that ISO-NE can use to balance supply and demand is 50 kW.

[317] AEE, PowerOptions, and SEIA Answer at 12-13.

[318] *Id.* at 10 (citing ISO-NE April 20 Answer at 12-13).

[319] ISO-NE April 20 Answer at 31-32.

[320] *Id.* at 32 (citing ISO-NE Tariff, § III.3.2.2(c)).

certain qualification and performance requirements" in ways that individual DERs cannot.[321]

(b) Third-Party Metering

(1) Comments

150. Several protesters suggest that third-party metering could reduce metering challenges presented by ISO-NE's limited submetering option.[322] According to Voltus, for instance, ISO-NE could allow third-party metering, and certify the accuracy of a DER's device-level measurement of the performance data and thereafter use the device data to measure performance. Noting that third-party Curtailment Service Providers (CSPs) already have the responsibility in ISO-NE for metering demand response, Massachusetts AG argues that the CSP model illustrates that third-party metering can be successful.[323] Massachusetts AG contends that a CSP-type arrangement would remove the labor and cost burden from the PTOs and prevent the pass-through of such costs from utilities to ratepayers.

(2) Answers

151. According to New England Public Utilities, there are significant obstacles to employing third-party meter readers and there is no basis for ISO-NE to require such readers.[324] New England Public Utilities claim that third-party metering presents data validation risks and that comments regarding the use of third-party metering in the context of demand response are of limited relevance because settlement of demand response does not require the same level of data quality.[325] New England Public Utilities also state that, under the TOA, a Host Participant has the discretion to assign meter reading duties to a third party but cannot be compelled to do so, and that in the context of

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[321] *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at P 26).

[322] AEE, PowerOptions, and SEIA Protest at 45-47; Environmental Organizations Protest at 10, 13; Massachusetts AG Protest at 7-10; Voltus Protest at 10-11. AEE, PowerOptions, and SEIA note that third-party metering is already approved in the system operated by NYISO. AEE, PowerOptions, and SEIA Protest at 45 (citing NYISO Market Administration and Control Area Services Tariff, 13.3.2 Meter Services Entity Requirements; NYISO Manual 37, Meter Services Entity Manual (Feb. 2021)).

[323] Massachusetts AG Protest at 9.

[324] New England Public Utilities Answer at 14-16.

[325] *Id.* at 14-15; *see* Manual M-28, § 5.3(d).

DERAs, the New England Public Utilities would need to be able to ensure that such entities were fully capable of meeting the obligations for reliable and timely metering required under the ISO-NE Tariff and manuals.[326]

152. ISO-NE states that its compliance filing does not require or permit third-party metering of DERs participating as any resource type other than a demand response DER in a Demand Response Resource or Demand Response Distributed Energy Resource Aggregation because doing so would encroach on the PTOs' responsibilities under the TOA and could introduce data quality issues like those experienced with Demand Response Resource.[327] ISO-NE argues that validation of submetered data would be administratively infeasible, especially for potentially large numbers of DERs comprising a DERA.[328] In response, AEE, PowerOptions, and SEIA note that AEE members with experience aggregating demand response indicate that validation failures often stem from the way third-party meter readers interface with ISO-NE and the Host Utilities and that ISO-NE should investigate the source of data quality failures and seek targeted solutions before rejecting third-party metering.[329]

iv. Double Counting

(a) Comments/Protests

153. Environmental Organizations argue that there is no possibility of double counting of reserves or regulation provided by behind-the-meter DERs because retail customers do

[326] New England Public Utilities Answer at 15; *see* TOA, § 3.06(a)(vii).

[327] ISO-NE April 20 Answer at 16-17.

[328] *Id.* at 17.

[329] AEE, PowerOptions, and SEIA Answer at 13. AEE, PowerOptions, and SEIA state that, for example, changes in utility meters—which are not generally reported to third-party DRR aggregators—can cause data disruptions. In addition, they claim that data is considered invalid if the actual load at a facility exceeds the max facility load as reported in the asset registration application. They argue that this reflects the need to update the asset registration, not an issue with data quality. They argue that in these cases, data may be deemed invalid even if it is accurate. *See also* AEMA Answer at 12-13 (giving similar examples and stating that AEMA members' collective experience as DRR aggregators suggests that ISO-NE's claims about data quality are misleading).

not consume regulation or reserves and instead are allocated a portion of the costs necessary to meet reserve and regulation requirements.[330]

(b) Answers

154. In their answers, ISO-NE and New England Public Utilities reiterate that ISO-NE's metering proposal prevents double counting.[331] ISO-NE argues that protesters ask the Commission to mandate submetering without reconstitution but do not explain how their proposal would address double counting. ISO-NE reiterates that metering at the RDP, or submetering combined with reconstitution, or through parallel metering, is necessary to ensure that the meter measures the services delivered to the grid, as required by Order No. 2222 to prevent double counting. ISO-NE argues that behind-the-meter DERs should not be permitted to sell energy into wholesale markets and at the same time consume that energy and avoid being charged for it.[332]

c. Data Request Response

155. In its Data Request, Commission staff asked ISO-NE to elaborate on use of the term submetering in the context of the wholesale market, as opposed to the retail market.[333] In response, ISO-NE states that submetering in the retail context typically involves arrangements where multiple customers are located behind one master meter (e.g., an apartment building), and submetering at the wholesale level is a similar arrangement where one or more device level meters or meters recording a portion of a facility located behind an RDP "master meter" would be used in the settlement process.[334] ISO-NE explains that the New England distribution utilities do not have the technology in place to manage large-scale submetering and associated reconstitution, which is why ISO-NE's compliance filing permits the construct only if the Host Utility

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[330] Environmental Organizations Protest at 7-9. Environmental Organizations state that "there is a possibility for impact on cost allocation for reserves and regulation, but that is a distinct issue from double counting, and in any event, will be *de minimis*." *Id.* at 9 n.28.

[331] ISO-NE April 20 Answer at 8-9.

[332] ISO-NE also explains that because payments made to resources must equal charges to load, a payment made to a behind-the-meter generator based on its submetered output (without reconstitution) would be allocated to other customers who did not use the energy, resulting in inequitable cost shifting. ISO-NE July 25 Answer at 11-12.

[333] Data Request at 16.

[334] Data Request Response at 20.

allows for it.[335] ISO-NE states that the existing metering data management and settlement systems of the New England distribution utilities cannot perform reconstitution calculations on an automated basis; thus, they would largely have to be performed manually in a labor-intensive process involving analysis of individual DER meter readings.

156. In its Data Request, Commission staff asked ISO-NE what responsibility the DER Aggregator or another entity bears for providing any required metering and telemetry information to ISO-NE.[336] In response, ISO-NE explains that Assigned Meter Readers, pursuant to their role under section I.2.2 of the ISO-NE Tariff, and section 5.2 of Manual M-28, provide revenue-quality metering for energy market settlement, while DER Aggregators provide telemetry for dispatching purposes.[337] ISO-NE states that Host Participant Meter Readers are responsible for providing to ISO-NE any metering data that affect the balance of energy in New England. ISO-NE adds that Host Participant Meter Readers may contract with third-party Assigned Meter Readers to fulfill their obligations. ISO-NE states that for DERAs that do not affect the balance of energy—i.e., those participating under the Demand Response Resource participation model or those providing only regulation service as an Alternative Technology Regulation Resource—the DER Aggregators have the responsibility to submit settlement and telemetry data to ISO-NE.

157. In its Data Request, Commission staff asked ISO-NE what criteria will be used to determine whether a Host Participant Assigned Meter Reader can accommodate a DER's interconnection point behind an RDP.[338] In response, ISO-NE states that different Host Participant Assigned Meter Readers will likely have different capabilities to perform reconstitution or parallel metering, depending on their individual technical capabilities and the volume of the requests they receive.[339] Further, ISO-NE states that Host Participant Assigned Meter Readers will not be able to accommodate the metering of DERs interconnected behind the RDP until sufficient changes have been implemented to the Host Participant Assigned Meter Reader's software systems used to implement both wholesale and retail settlement. ISO-NE also states that the Host Utilities have

[335] *Id.*

[336] Data Request at 16.

[337] Data Request Response at 21.

[338] Data Request at 16-17.

[339] Data Request Response at 21-22.

communicated to ISO-NE that implementing modifications such as retail billing system changes would require approved cost recovery from the RERRA for each Host Utility.

158. In its Data Request, Commission staff also asked ISO-NE to clarify whether ISO-NE's proposed telemetry requirements allow the use of existing telemetry infrastructure whenever possible and whether ISO-NE proposes that metering and telemetry data come from or flow through distribution utilities.[340] ISO-NE states that, though not directly established in its proposal, ISO-NE's proposed telemetry requirements allow the use of existing telemetry infrastructure if the DER's existing equipment used for telemetry meets the criteria outlined in ISO-NE Operating Procedure 18.[341] Further, ISO-NE clarifies that metering data flows through distribution utilities, as they are also Host Utilities, but telemetry data does not flow through distribution utilities but rather is sent directly to ISO-NE.[342]

159. Commission staff also asked ISO-NE to explain the difference between what the RDP data measures and what submetering data measures.[343] ISO-NE explains that a submeter provides raw production or consumption data for a single device or for a subset of devices at a customer facility, and ISO-NE does not currently have requirements in place for submeter data.[344] By comparison, ISO-NE states that an RDP meter provides the combined net load or supply of all devices—loads and generators—at the customer's facility, which is always reported as MWh per hourly or 5-minute interval consistent with section III.3.2 and Manual M-28. ISO-NE explains that an increase in behind-the-meter generation at a facility (where the generation was submetered) does not necessarily result in a reduction of load at the RDP by the same amount because it could be correlated to an increase in load. ISO-NE states that its submetering proposal addresses this issue by requiring an arrangement with the Host Utility where the DER Aggregator can prove that the behind-the-meter DER does not affect the load reported at the RDP.[345]

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[340] Data Request at 17.

[341] Data Request Response at 22.

[342] *Id.* at 23.

[343] Data Request at 17.

[344] Data Request Response at 23.

[345] *Id.* at 23-24.

i. Protest and Answers

160. AEE, AEMA, PowerOptions, and SEIA assert that ISO-NE's Data Request Response fails to provide adequate responses to many of the questions pertaining to ISO-NE's proposed metering and telemetry requirements.[346] These protesters contend that ISO-NE still has not explained why it has made no attempt to accommodate behind-the-meter DERs, even while acknowledging that its proposal of submetering combined with reconstitution is not feasible.[347] They argue that the ability to measure the actual production or consumption of a DER remains a critical issue that they ask the Commission to direct ISO-NE to resolve.[348] They note that the Commission highlighted the importance of this ability in its recent order on CAISO's Order No. 2222 compliance filing.[349]

161. In a subsequent answer, ISO-NE clarifies its explanation in the Data Request Response that Host Participant Meter Readers may contract with a third-party Assigned Meter Reader, and a DER Aggregator could be that third party.[350] ISO-NE explains that third-party Assigned Meter Readers may, with the agreement of the Host Utility, perform meter reading services for a specific resource as well as for all the metering reading services for which a PTO is responsible to conduct. ISO-NE states that in such cases, the Host Participant has an opportunity to review the meter data prior to their submission to ISO-NE because the PTO must balance all reported generation with load to properly allocate wholesale costs in the metering domain to loads. In their collective answer, AEE, AEMA, PowerOptions, and SEIA agree with ISO-NE's clarification.[351] They argue that under the proposal, the PTOs would bear responsibility for performing

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[346] AEE, AEMA, PowerOptions, and SEIA Protest on Data Request Response at 2, 4-11.

[347] *Id.* at 7.

[348] *Id.* at 10.

[349] *Id.* at 10-11 (citing CAISO Compliance Order, 179 FERC ¶ 61,197 at P 167 (finding CAISO's metering approach "to require individual Distributed Energy Resources to be directly metered … will allow Distributed Energy Resource Providers … to provide aggregated settlement quality meter data to CAISO that reflects an accurate measure of the actual production or consumption of energy by Distributed Energy Resources in the aggregation")).

[350] ISO-NE July 25 Answer at 14-15 (citing Data Request Response at 21).

[351] AEE, AEMA, PowerOptions, and SEIA Answer at 7.

reconstitution, and a DER Aggregator stepping in to perform third-party meter reading services is not a solution to the barrier to reconstitution.

d. Commission Determination

162. We find that ISO-NE's proposal partially complies with the metering and telemetry system requirements of Order No. 2222. As discussed below, we find that ISO-NE's proposal partially complies with the requirement to revise its tariff to establish market rules that address metering and telemetry hardware and software requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets. However, we find that ISO-NE fails to demonstrate that its proposed metering and telemetry requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual distributed energy resources joining a distributed energy resource aggregation. Specifically, as discussed further below, we find that ISO-NE does not demonstrate that its proposal to require measurement of behind-the-meter DERs[352] at the RDP, unless the Assigned Meter Reader can accommodate submetering or parallel metering of the DER, is just and reasonable and does not pose an unnecessary and undue barrier to individual DERs joining a DER aggregation. Accordingly, as discussed further below, we direct ISO-NE to file, within 60 days of the date of issuance of this order, a further compliance filing that explains why this proposal is just and reasonable and does not pose an unnecessary and undue barrier to individual DERs joining an aggregation or propose further Tariff revisions to address any unnecessary or undue barriers to behind-the-meter DERs joining a DERA.[353] We also direct ISO-NE in the same filing to: (1) propose Tariff revisions that designate the DER Aggregator as the entity responsible for providing any required metering information to ISO-NE;[354] and (2) if necessary, establish protocols for sharing meter data that minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.[355]

163. As an initial matter, as it relates to DERAs that are not composed of behind-the-meter DERs, we find that ISO-NE's proposal complies with the requirement to revise its tariff to establish market rules that address metering and telemetry requirements necessary for distributed energy resource aggregations to participate in RTO/ISO

[352] We use the term "behind-the-meter DERs" to mean DERs with a POI located behind an RDP, as discussed in Tariff section III.6.4(e). DERs that do not fit that definition are referred to here as front-of-the-meter DERs.

[353] *See infra* P 168.

[354] *See infra* P 169.

[355] *See infra* P 171.

markets.[356] ISO-NE's proposed metering and telemetry requirements for DERAs are found in section III.6.4 of the Tariff. These requirements, specifically those included in sections III.6.4(a)-(c) and (f) of the Tariff, allow DERAs that are not composed of behind-the-meter DERs to participate in ISO-NE's markets. We also find that ISO-NE adequately explains, as required by Order No. 2222,[357] why such requirements are just and reasonable and do not pose an unnecessary and undue barrier to individual front-of-the-meter DERs joining a DERA. ISO-NE explains that it requires revenue-quality metering to settle wholesale markets accurately and requires real-time telemetry to provide the control room with the situational awareness needed to dispatch resources and balance the grid in every moment in real time.[358] ISO-NE further explains that the need for a DERA to provide telemetry data is limited to resources that provide services that require it.[359] For example, ISO-NE does not require non-dispatchable Settlement Only Distributed Energy Resource Aggregations to provide telemetry. We find that ISO-NE's proposal avoids imposing additional or duplicative metering or telemetry requirements on each front-of-the-meter DER that could pose unnecessary or undue barriers.[360]

164. However, as discussed below, we find that ISO-NE has failed to demonstrate that its proposed metering and telemetry requirements for DERAs comprised of behind-the-meter DERs are just and reasonable and do not pose an unnecessary and undue barrier to individual DERs joining a DERA. ISO-NE states that its proposal allows submetering of behind-the-meter DERs pursuant to Tariff section III.6.4(e) "to the extent that the pertinent Host Participant Assigned Meter Reader can accommodate the configuration" and explains that any submetering arrangements accommodate reconstitution to avoid

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[356] Order No. 2222, 172 FERC ¶ 61,247 at P 262.

[357] *Id.* P 263.

[358] Transmittal at 33.

[359] Data Request Response at 22.

[360] *See* Tariff, §§ III.6.4(a) (pointing to existing Tariff requirements for the Generator Asset, Binary Storage Facility, and Continuous Storage Facility participation models), III.6.4(b) (pointing to the existing Tariff requirements for the Alternative Technology Regulation Resource participation model), III.6.4(c) (pointing to the existing Tariff requirements for the Demand Response Resource participation model for both that participation model and the Demand Response Distributed Energy Resource Aggregation participation model); III.6.6 ("A Settlement Only Distributed Energy Resource Aggregation shall comply with all Market Rules applicable to Settlement Only Resources.").

double counting concerns.[361] However, ISO-NE also acknowledges that Host Participant Assigned Meter Readers will not be able to accommodate submetering until sufficient changes have been implemented to the Host Participant Assigned Meter Reader's software systems used to implement both wholesale and retail settlement, and that the implementation timeline for such changes are uncertain.[362] To the extent that submetering cannot be accommodated, ISO-NE explains that behind-the-meter DERs would then have the option of metering at the RDP or at a parallel meter.[363] However, protesters assert that measurement at the RDP is a barrier to participation for behind-the-meter DERs because it obfuscates actual DER performance for purposes of wholesale market participation and that parallel metering is impractical and costly.[364] In response, ISO-NE reiterates that metering at the RDP, parallel metering, or submetering combined with reconstitution comprise the universe of metering options of which ISO-NE is currently aware that address double counting.[365] We find that ISO-NE's explanation does not adequately address concerns that its metering requirements could pose unnecessary or undue barriers to behind-the-meter DERs joining DERAs. Order No. 2222 requires that each RTO/ISO explain in its compliance filing why metering and telemetry requirements, including those that may be currently applicable to *other resources*, are just and reasonable and do not pose an unnecessary and undue barrier *to individual distributed energy resources joining a distributed energy resource aggregation*.[366] We agree with ISO-NE that the Commission in Order No. 2222 expressed a preference for the use of existing metering infrastructure where possible.[367] For example, the Commission stated that each RTO's/ISO's proposed metering requirements should rely on meter data obtained through compliance with distribution utility or local regulatory authority

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[361] Transmittal at 34.

[362] *Id.* at 35 n.88; ISO-NE April 20 Answer at 7 n.24; Data Request Response at 21.

[363] Transmittal at 34.

[364] *See, e.g.*, AEE, PowerOptions, and SEIA Protest at 15-16, 18-23; AEMA Protest at 7, 23-24; Environmental Organizations Protest at 4-10; Massachusetts AG Protest at 5; Voltus Protest at 11-14.

[365] ISO-NE July 25 Answer at 11.

[366] Order No. 2222, 172 FERC ¶ 61,247 at PP 264-265.

[367] ISO-NE July 25 Answer at 11 (citing Order No. 2222, 172 FERC ¶ 61,247 at PP 264, 269).

metering system requirements whenever possible, as discussed below.[368] However, the Commission also recognized "the need to balance, on one hand, the RTO's/ISO's need for metering and telemetry data for settlement and operational purposes, and, on the other hand, *not imposing unnecessary burdens on distributed energy resource aggregators*."[369] The Commission required RTOs/ISOs to demonstrate that their existing metering requirements do not pose an unnecessary and undue barrier to individual distributed energy resources joining a distributed energy resource aggregation, and to articulate "steps contemplated to avoid imposing unnecessarily burdensome costs on the distributed energy resource aggregators and individual resources"[370] in order to comply with Order No. 2222.

165. We agree with protesters that the two options proposed by ISO-NE to allow for direct metering—submetering combined with reconstitution, and parallel metering—may not be viable options for behind-the-meter DERs. With respect to submetering, we note that all parties agree that the ISO-NE region currently lacks the infrastructure and software necessary to perform reconstitution, and parties cannot estimate when reconstitution, and therefore a viable submetering option, will be widely available. With respect to parallel metering, we agree with protesters that owners of behind-the-meter DERs are unlikely to install parallel metering because the revenue from these small resources would not justify the expense. We find that ISO-NE has not demonstrated that its proposal, which appears to lack a viable submetering or parallel metering option for behind-the-meter DERs, does not pose an undue barrier, particularly in light of the fact that behind-the-meter DERs may be unable to provide all services that they are technically capable of providing through aggregation, as required by Order No. 2222,[371] when metered and telemetered at the RDP that they otherwise would be able to provide if measured at a submeter or parallel meter.

166. In addition, for behind-the-meter DERs, we find that ISO-NE's explanation of why its proposed metering requirements are necessary does not include, as required by Order No. 2222, the "steps contemplated to avoid imposing unnecessarily burdensome costs on the distributed energy resource aggregators and individual resources in distributed energy resource aggregations that may create an undue barrier to their participation in RTO/ISO markets."[372] Such discussion could include, for example,

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[368] Order No. 2222, 172 FERC ¶ 61,247 at P 269.

[369] *Id.* P 263 (emphasis added).

[370] *Id.* P 264.

[371] Order No. 2222, 172 FERC ¶ 61,247 at P 130.

[372] *Id.* P 264.

whether ISO-NE collaborated with New England Public Utilities, which state that they can work with other stakeholders to advance a feasible submetering implementation design.[373] In addition, or alternatively, ISO-NE could address whether it explored third-party metering options for behind-the-meter DERs, similar to what exists for settlement of demand response, that addresses data quality concerns.[374] In addition, we note that other RTOs/ISOs have proposed alternative metering and telemetry solutions to reduce burdens on behind-the-meter DERs. For example, PJM proposed to allow DER Aggregators to meter a representative sample of Component DERs for non-interval metered residential DER Aggregation Resources.[375] NYISO allows Aggregators in some cases to use alternative measurement and verification tools to avoid the need for small utilities to install additional hardware and software,[376] and CAISO generally does not impose physical metering standards on each DER or distributed curtailment resource and only subjects the DERA to wholesale metering requirements.[377]

167. Further, we disagree with ISO-NE that demand response rules are not within the scope of this proceeding. Order No. 2222 requires RTOs/ISOs to allow distributed energy resources to provide all services that they are technically capable of providing through aggregation,[378] including an aggregation comprised partly or solely of demand response resources.[379] Although Order No. 2222 does not require changes to existing

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[373] *See* New England Public Utilities Answer at 13.

[374] *See* Voltus Protest at 10-11; AEE, PowerOptions, and SEIA Answer at 13; AEMA Answer at 12-13; ISO-NE April 20 Answer at 16-17.

[375] PJM Interconnection, L.L.C., Filing, Transmittal, Docket No. ER22-962-000, at 59, 60-61 (filed Feb. 1, 2022).

[376] NYISO Compliance Order, 179 FERC¶61,198 at P 209.

[377] CAISO Compliance Order, 179 FERC ¶ 61,197 at PP 150-151.

[378] *Id.* P 130 (stating that the Commission will evaluate each proposal submitted on compliance to determine whether it meets the goals of the final rule to allow distributed energy resources to provide all services that they are technically capable of providing through aggregation).

[379] *Id.* P 118 (clarifying that, because demand response falls under the definition of distributed energy resource, an aggregator of demand response could participate as a distributed energy resource aggregator); *see id.* P 42 (referencing distributed energy resource aggregators that only aggregate demand resources). *See also* CAISO Compliance Order, 179 FERC ¶ 61,197 at P 49.

demand response rules approved in compliance with Order Nos. 719 and 745,[380] ISO-NE's proposal must nevertheless comply with the requirements of Order No. 2222, including allowing DERs to provide all services that they are technically capable of providing through aggregation.[381] In ISO-NE, resources are only technically capable of providing demand response at the RDP, the location where demand is served by the grid. In the order addressing ISO-NE's Order No. 745 compliance proposal, the Commission accepted ISO-NE's proposal to measure demand reductions at the RDP, stating that the RDP delineates the customer's demand normally served by the grid from demand served by the customer's behind-the-meter generator.[382] Therefore, we reject protesters' requests to revise the metering and telemetry requirements for DERs participating as demand response.[383] Nonetheless, we find that ISO-NE does not fully comply with metering and telemetry requirements for behind-the-meter DERs not participating solely as demand response, as discussed above.

168. Accordingly, we direct ISO-NE to file, within 60 days of the date of issuance of this order, a compliance filing that explains why its proposal to require measurement of behind-the-meter DERs not participating solely as demand response at the RDP, unless the Assigned Meter Reader can accommodate submetering or parallel metering of the DER, is just and reasonable and does not pose an unnecessary and undue barrier to individual DERs joining an aggregation, given the findings above, or, alternatively, modifications to the proposal. If ISO-NE chooses to provide further explanation, we require ISO-NE to: (1) include a discussion of the steps contemplated to avoid imposing unnecessarily burdensome costs on DER Aggregators and individual resources in DERAs that may create an undue barrier to their participation in the ISO-NE markets, including a discussion of what less burdensome alternative approaches were considered, such as

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[380] *See* Order No. 2222, 172 FERC ¶ 61,247 at P 118 ("this final rule does not affect existing demand response rules").

[381] *Id.* P 130.

[382] ISO-NE Order No. 745 Compliance Order, at P 78; *ISO New England Inc.*, 139 FERC ¶ 61,116 at P 12 ("[I]n the context of discussing ISO-NE's settlement system as it relates to demand response, the impact a customer has on the grid is what determines how the ISO will operate the grid. Measuring demand response at the [RDP] allows ISO-NE to effectively manage the grid because this point accurately reflects the load's impact on the New England transmission system.").

[383] *See* Order No. 2222-B, 175 FERC ¶ 61,227 at P 42 ("reductions that meet the definition of demand response in the Commission's regulations and are used to reduce customer load from a validly established baseline pursuant to Order Nos. 745 and 745-A must be compensated consistent with those orders").

whether the approaches already approved by the Commission for other RTOs/ISOs were considered, and an explanation of why the more burdensome approach was necessary; and (2) further discuss ISO-NE's submetering requirements for DERAs participating as Alternative Technology Regulation Resources, to include citations to the manual or Tariff provisions establishing these submetering requirements. To the extent that ISO-NE chooses to modify its proposal to address any unnecessary or undue barriers faced by behind-the-meter DERs joining a DERA, ISO-NE must either propose further Tariff revisions in its further compliance filing or provide a timeline for developing such Tariff revisions.

169. In addition, we find that ISO-NE's proposed metering and telemetry requirements partially comply with the Commission's requirement in Order No. 2222 that the distributed energy resource aggregator is the entity responsible for providing any required metering and telemetry information to the RTO/ISO.[384] Consistent with this requirement, DER Aggregators are responsible for providing telemetry information to ISO-NE.[385] However, with respect to metering, we find that ISO-NE's proposal[386] does not comply with Order No. 2222 because the Host Utility, and not the DER Aggregator, will generally be responsible for providing metering information to ISO-NE. While ISO-NE explains that a Host Utility may designate an agent—which could include a DER Aggregator—to help fulfill Assigned Meter Reader duties,[387] ISO-NE's proposal does not designate the distributed energy resource aggregator as the entity responsible for providing any required metering information to the RTO/ISO, as Order No. 2222 requires. In addition, we disagree with ISO-NE that its proposal to apply the same settlement approach (i.e., Host Utility provision of metering data on behalf of the market participant) for other market participants to DERAs is consistent with Order No. 2222.[388] Order No. 2222 requires that metering *data* for settlement purposes at the distributed energy resource aggregation level be consistent with settlement data requirements for other resource types.[389] Order No. 2222 does not require that the process for DERAs to submit such data must be consistent with the process for other market participants to submit such data. Accordingly, we direct ISO-NE to make, within 60 days of the date of issuance of this order, a further compliance filing that revises its Tariff to designate the

[384] Order No. 2222, 172 FERC ¶ 61,247 at P 266.

[385] Data Request Response at 23.

[386] *See* Tariff, § III.6.4.

[387] ISO-NE Transmittal at 33; ISO-NE Data Request Response at 21.

[388] Data Request Response at 19.

[389] Order No. 2222, 172 FERC ¶ 61,247 at P 268.

DER Aggregator as the entity responsible for providing any required metering information to ISO-NE.[390]

170. We find that ISO-NE's proposal complies with the requirement of Order No. 2222 that metering data for settlement purposes at the distributed energy resource aggregation level be consistent with settlement data requirements for other resource types because ISO-NE proposes to apply the same requirements for metering data for settlement purposes as it does to other resource types.[391] We find that ISO-NE's proposal to require revenue-quality meter data for DERAs complies with Order No. 2222, because ISO-NE requires similar metering data for settlement purposes for other resource types.

171. We are not able to evaluate at this time whether ISO-NE's proposal complies with the requirement of Order No. 2222 that the RTO/ISO, to the extent that it proposes that metering and telemetry data comes from or flows through distribution utilities, coordinate with distribution utilities and RERRAs to establish protocols for sharing metering and telemetry data that minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.[392] As discussed above, we find that ISO-NE must revise its Tariff to designate the DER Aggregator as the entity responsible for providing any required metering information to ISO-NE.[393] Because the need to establish protocols for sharing metering data is closely tied to an RTO's/ISO's proposed requirements for the submission of metering data, we find that it is necessary to assess ISO-NE's compliance proposal with respect to its protocols for sharing metering data concurrently with its further compliance filing to designate the DER Aggregator as the entity responsible for providing any required metering information to ISO-NE. Accordingly, to the extent ISO-NE proposes on further compliance that metering data come from or flow through

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[390] Order No. 2222, 172 FERC ¶ 61,247 at P 266. The Commission found CAISO's proposal that the Distributed Energy Resource Provider is the entity responsible for providing metering information to CAISO, through its Scheduling Coordinator, consistent with Order No. 2222. *See* CAISO Compliance Order, 179 FERC ¶ 61,197 at P 168. The Commission also found NYISO's proposal to allow an Aggregator to choose to have a NYISO-authorized Meter Services Entity or applicable Member System provide aggregation metering services on its behalf consistent with Order No. 2222 because each aggregation is responsible for meeting the applicable metering standards under NYISO's Services Tariff. *See* NYISO Compliance Order, 179 FERC ¶ 61,198 at P 206.

[391] Order No. 2222, 172 FERC ¶ 61,247 at P 268.

[392] *Id.* P 270.

[393] *See supra* P 169.

distribution utilities, we direct ISO-NE to make, within 60 days of the date of issuance of this order, a further compliance filing that establishes protocols for sharing metering data that minimize costs and other burdens and address concerns raised with respect to privacy and cybersecurity.

172. We also find that ISO-NE's proposal complies with the requirement in Order No. 2222 that "metering requirements should rely on meter data obtained through compliance with distribution utility or local regulatory authority metering system requirements *whenever possible* for settlement and auditing purposes."[394] As explained above, ISO-NE proposes to expand its current metering requirements to DERAs, consistent with current distribution utility metering practices in New England, which are reflected in the TOA.[395] We also find that ISO-NE complies with the requirement that an RTO's/ISO's proposed telemetry requirements should rely on existing telemetry infrastructure whenever possible.[396] ISO-NE explains that its proposed telemetry requirements allow the use of existing telemetry infrastructure provided that such equipment meets the criteria set forth in ISO-NE Operating Procedure 18.[397] Notwithstanding these findings, we note that, in ISO-NE's discussion of the steps contemplated to avoid imposing unnecessarily burdensome costs on DER Aggregators and individual resources in DERAs that may create an undue barrier to their participation in the ISO-NE markets, ISO-NE may consider alternatives to solely relying on meter data obtained through compliance with distribution utility or local regulatory authority metering system requirements and/or existing telemetry infrastructure.[398]

173. Finally, with respect to metering, we find that ISO-NE's proposal partially complies with the requirement to revise its Tariff to establish market rules that address metering requirements necessary for distributed energy resource aggregations to participate in RTO/ISO markets.[399] In Order No. 2222, the Commission explained that "the RTO/ISO tariffs should include a basic description of the metering and telemetry practices for distributed energy resource aggregations as well as references to specific

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[394] Order No. 2222, 172 FERC ¶ 61,247 at P 269 (emphasis added).

[395] *See supra* note 362.

[396] Order No. 2222, 172 FERC ¶ 61,247 at P 269.

[397] Data Request Response at 22.

[398] *See supra* P 168.

[399] Order No. 2222, 172 FERC ¶ 61,247 at P 262.

documents that will contain further technical details."[400] While the ISO-NE Tariff includes a number of its proposed metering requirements for DERAs,[401] we are unable to evaluate at this time whether the Tariff includes a basic description of its metering practices for DERAs containing behind-the-meter DERs, until ISO-NE provides the explanation and support directed upon further compliance above. For instance, protesters claim that the existing submetering requirements for Alternative Technology Regulation Resources are not included in a business practice manual or the Tariff, and ISO-NE does not address the issue in its pleadings.[402] Therefore, we will address ISO-NE's compliance with the requirement to revise its Tariff to establish market rules that address metering requirements necessary for DERAs containing behind-the-meter DERs to participate in ISO-NE's markets concurrently with its further compliance filing.

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

a. Market Rules on Coordination

174. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(g) to the Commission's regulations to require each RTO/ISO to revise its tariff to establish market rules that address coordination between the RTO/ISO, the distributed energy resource aggregator, the distribution utility, and the RERRAs.[403] The Commission stated that coordination requirements should not create undue barriers to entry for distributed energy resource aggregations but must also consider the substantial role of distribution utilities and state and local regulators in ensuring the safety and reliability of the distribution system.[404]

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[400] *Id*. P 271.

[401] *See* Tariff, § III.6.4.

[402] AEE, PowerOptions, and SEIA Protest at 47-48; AEMA Protest at 15. ISO-NE notes only that it is currently revising its Operating Procedures to clarify the telemetry requirements for all Alternative Technology Regulation Resources, which will apply to DERAs participating as an Alternative Technology Regulation Resource. Transmittal at 33 n.81. Protesters also note this initiative. *See supra* note 262.

[403] Order No. 2222, 172 FERC ¶ 61,247 at P 278.

[404] *Id.* P 279.

i. Filing

175. ISO-NE states that it worked in concert with stakeholders to address the coordination requirements set forth in Order No. 2222 and developed modifications to its Tariff in sections III.6.7 and III.6.8 to address the coordination requirements of Order No. 2222 with regard to the role of distribution utilities, ongoing operational coordination, and the role of RERRAs.[405]

ii. Commission Determination

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

b. Role of Distribution Utilities

177. To implement section 35.28(g)(12)(ii)(g) of the Commission's regulations, the Commission in Order No. 2222 required each RTO/ISO to modify its tariff to incorporate a comprehensive and non-discriminatory process for timely review by a distribution utility of the individual distributed energy resources that comprise a distributed energy resource aggregation, which is triggered by initial registration of the distributed energy resource aggregation or incremental changes to a distributed energy resource aggregation already participating in the markets.[406] The Commission required each RTO/ISO to demonstrate on compliance that its proposed distribution utility review process is transparent, provides specific review criteria that the distribution utilities should use, and provides adequate and reasonable time for distribution utility review.[407]

178. More specifically, the Commission stated that each RTO/ISO must coordinate with distribution utilities to develop a distribution utility review process that includes criteria by which the distribution utilities would determine whether (1) each proposed distributed energy resource is capable of participation in a distributed energy resource aggregation; and (2) the participation of each proposed distributed energy resource in a distributed energy resource aggregation will not pose significant risks to the reliable and safe operation of the distribution system.[408] In Order No. 2222-A, the Commission

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[405] Transmittal at 36-39.

[406] Order No. 2222, 172 FERC ¶ 61,247 at P 292.

[407] *Id.* P 293.

[408] *Id.* P 292.

clarified that, although it is providing each RTO/ISO with the flexibility to develop review procedures and criteria appropriate for its region, the Commission expects that the criteria proposed on compliance will require that an RTO/ISO decision to deny wholesale market access to a distributed energy resource for reliability reasons be supported by a showing that the distributed energy resource presents significant risks to the reliable and safe operation of the distribution system.[409] In addition, the Commission clarified that only the distribution utility hosting a distributed energy resource (i.e., the utility that owns and/or operates the distribution system to which the resource is interconnected) should be given an opportunity to review the addition of that resource to a distributed energy resource aggregation.[410]

179. To support this distribution utility review process, the Commission stated that RTOs/ISOs must share with distribution utilities any necessary information and data about the individual distributed energy resources participating in a distributed energy resource aggregation.[411] In Order No. 2222-A, the Commission clarified that the specific information regarding a distributed energy resource that is provided by a distribution utility to an RTO/ISO as part of the distribution utility review process should be shared with the distributed energy resource aggregator.[412] The Commission explained that such information could include whether a resource: (1) affects the safety and reliability of the distribution system; or (2) is capable of participating in an aggregation.[413] To the extent that a distribution utility declines to provide distributed energy resources with the information that they need to participate in RTO/ISO markets via an aggregation, the Commission stated that it expects that RTOs/ISOs will provide an avenue to facilitate those resources' participation, including, where appropriate, the use of the RTO/ISO dispute resolution procedures.[414]

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

[410] *Id.* P 70.

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

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

[413] *Id.*

[414] *Id.*

180. In addition, in Order No. 2222, the Commission stated that the results of a distribution utility's review must be incorporated into the distributed energy resource aggregation registration process.[415]

181. The Commission also required each RTO/ISO to revise its tariff to specify the time that a distribution utility has to identify any concerns regarding a distributed energy resource seeking to participate in the RTO/ISO markets through an aggregation.[416] The Commission stated that each RTO/ISO should propose a timeline that reflects its regional needs.[417] In Order No. 2222-A, the Commission limited the length of distribution utility review to no more than 60 days.[418] The Commission stated that, if an RTO/ISO believes unusual circumstances could give rise to the need for additional distribution utility review time, the RTO/ISO may propose provisions for certain exceptional circumstances that may justify additional review time.[419] The Commission encouraged shorter review periods for smaller aggregations and resources to the maximum extent practicable, and reiterated that any proposed review period must be shown to be reasonable based on what is being reviewed.[420]

182. In Order No. 2222, the Commission stated that the RTOs/ISOs must include potential impacts on distribution system reliability as a criterion in the distribution utility review process.[421] The Commission clarified in Order No. 2222-A that, when the Commission found that RTOs/ISOs must include potential impacts on distribution system reliability as a criterion in the distribution utility review process, the Commission was referring specifically to any incremental impacts from a resource's participation in a

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[415] Order No. 2222, 172 FERC ¶ 61,247 at P 292.

[416] *Id.* P 295.

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

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

[419] *Id.*

[420] *Id.*

[421] Order No. 2222, 172 FERC ¶ 61,247 at P 297.

distributed energy resource aggregation that were not previously considered by the distribution utility during the interconnection study process for that resource.[422]

183. In addition, the Commission found that the distribution utility should have the opportunity to request that the RTO/ISO place operational limitations on an aggregation or the removal of a distributed energy resource from an aggregation based on specific significant reliability or safety concerns that the distribution utility clearly demonstrates to the RTO/ISO and distributed energy resource aggregator on a case-by-case basis.[423] The Commission clarified in Order No. 2222-A that, to the extent a distribution utility recommends the removal of a distributed energy resource from an aggregation due to a reliability concern, an RTO/ISO should not remove the resource without a demonstration by the distribution utility that the resource's market participation presents a threat to distribution system reliability.[424]

184. In Order No. 2222, the Commission declined to provide a larger and decision-making role for the distribution utilities and stated that requiring or permitting distribution utilities to authorize the participation of distributed energy resources in RTO/ISO markets directly or as part of an aggregation could create a barrier to distributed energy resource aggregation.[425]

185. Finally, the Commission required each RTO/ISO to revise its tariff to incorporate dispute resolution provisions as part of its proposed distribution utility review process.[426] The Commission stated that each RTO/ISO should describe how existing dispute resolution procedures are sufficient or, alternatively, propose amendments to its

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

[423] Order No. 2222, 172 FERC ¶ 61,247 at P 297. For example, the Commission stated that the RTOs/ISOs may consider requiring a signed affidavit or other evidence from the distribution utility that a distributed energy resource's participation in RTO/ISO markets would pose a significant risk to the safe and reliable operation of the distribution system, and processes to contest the distribution utility's recommendation for removal or for operational limitations to be placed on the aggregation. *Id*.

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

[425] Order No. 2222, 172 FERC ¶ 61,247 at P 298.

[426] *Id.* P 299.

procedures or new dispute resolution procedures specific to this subject.[427] In Order No. 2222-A, the Commission stated that disputes regarding the distribution utility review process—including those between non-host distribution utilities and a host distribution utility or the RTO/ISO—may be resolved through the RTO's/ISO's dispute resolution process, the Commission's Dispute Resolution Service, or complaints filed pursuant to FPA section 206 at any time.[428]

i. Filing

186. ISO-NE states that section III.6.7 of the Tariff includes ISO-NE's proposed registration process for Host Utility review of the eligibility of DERs participating in a DERA, triggered by the DER Aggregator's initial notification.[429] ISO-NE contends that this process is transparent, sets expectations for all parties, was developed in concert with stakeholders to address all concerns, was uncontested, and meets the Commission's 60-day review period deadline. ISO-NE states that its proposal includes data requirements designed to allow for Host Utilities to apply specific technical screens for review of risks to the distribution system, which include analyzing the potential for a DER or a DERA to create issues related to overloads, voltage, stability, short circuit interrupting capability, flicker, equipment operation frequency coordination, and contingency analysis. ISO-NE states that its proposed Tariff provisions also contain requirements that DER Aggregators provide sufficient information about the DERs that comprise a given DERA to determine whether they are in compliance with existing Host Utility requirements and/or are participating in retail programs that may prohibit or limit a DER's participation in wholesale markets.[430] ISO-NE asserts that the proposed Tariff language allows the Host Utility (or its agent) 60 days to conduct its review and that inaction on the part of the Host Utility will lead to the presumption that all DERs identified as part of the DERA are eligible to participate.

187. In addition, ISO-NE states that its proposal includes proposed Tariff language related to dispute resolution between DER Aggregators and DER owners, as well as between Host Utilities and DER Aggregators.[431] ISO-NE explains that disputes between ISO-NE and DER Aggregators will be addressed under ISO-NE's current dispute

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[427] *Id.*

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

[429] Transmittal at 36.

[430] *Id.*

[431] *Id.*

resolution procedures pursuant to Tariff section I.6. In contrast, ISO-NE states that disputes between DER owners and DER Aggregators will be addressed in the manner established in the contract between those entities, or otherwise by a court of competent jurisdiction as applicable. ISO-NE notes that disputes between Host Utilities and DER Aggregators will be addressed in a process established by the RERRA, if available, or if not available, in accordance with section I.6 of the Tariff, as all Host Utilities in New England and all DER Aggregators by virtue of their position as market participants would be subject to that section of the Tariff.[432] ISO-NE states that these provisions are designed to balance the interests of multiple states with different policies for DERs and DER participation in wholesale markets in addition to numerous Host Utilities with different state tariff requirements, infrastructure, resources, and operating requirements.[433] ISO-NE states that additional implementation details will be included in ISO-NE manuals, consistent with the Commission's "rule of reason."

ii. Comments/Protests

188. Environmental Organizations argue that ISO-NE's proposal lacks provisions to ensure that the safety and reliability review is not redundant or discriminatory.[434] Environmental Organizations argue that the proposal requires the Host Utility to determine generally if the DERA or any component DER poses electrical risks to the distribution system, and if distribution system upgrades are necessary. Environmental Organizations contend, however, that DERs will only enter this process once they have successfully obtained any required distribution interconnection agreements. Environmental Organizations argue that distribution interconnection processes almost universally review the same issues, and that ISO-NE's proposal contains no provisions to limit the required review to issues related to wholesale market participation that have not already been reviewed during the distribution interconnection process, making the reviews redundant and a source of unnecessary delay, and opening the door to discriminatory treatment by applying stricter criteria to some DERs than to others. Environmental Organizations argue that the registration review thus fails to meet the requirement of Order No. 2222 that utility review be based on specific criteria and fails to consider the Commission's expectation "that the state and local interconnection processes for distributed energy resources will provide the appropriate platform to address and study potential distribution system impacts."[435]

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[432] *Id.* at 36-37.

[433] *Id.* at 37.

[434] Environmental Organizations Comments at 11.

[435] *Id.* at 11-12 (quoting Order No. 2222, 172 FERC ¶ 61,247 at PP 293-94).

189. Environmental Organizations request that the Commission reject the portions of the proposal detailing Host Utility engineering review (i.e., proposed Tariff sections III.6.7(c)(i) 4 and 5).[436] They argue that a Host Utility that believes its state jurisdictional interconnection processes are insufficient to ensure safety, reliability, or to identify needed upgrades should make a filing with the Commission detailing and justifying the specific additional evaluations that the utility believes need to be performed prior to a DER properly interconnected under state or local interconnection processes participating in a DER Aggregation. Environmental Organizations maintain that such an approach would be in keeping with the findings of Order No. 2222 that utility review be specific, transparent, and supplemental to state jurisdictional processes.

190. Environmental Organizations state that the remaining Host Utility review rules are appropriate but argue that 60 days is unreasonable and was only selected because it is the longest time allowed by Order No. 2222.[437] Environmental Organizations argue that Host Utilities that have justified engineering studies should specify the amount of time required to perform these studies and, in the absence of those studies, Environmental Organizations argue that 15 days is sufficient for administrative reviews.

iii. Answers

191. New England Public Utilities argue that challenges to ISO-NE's proposed process for Host Utility review of DERs participating in a DERA are without merit and that the proposed process permits distribution utilities to review both the initial registration of DERAs, and modifications to existing DERAs, to determine whether (1) each proposed DER can participate in a DERA and (2) whether the participation poses a significant risk to the reliable and safe operation of the distribution system, consistent with Order No. 2222.[438]

192. In response to Environmental Organizations' concern that reliability reviews are redundant, New England Public Utilities note that Order No. 2222 specifically recognized and acknowledged that the distribution utility's review process would include an evaluation to ensure that participation in a DERA would not pose risks to the reliable operation of the distribution system.[439] New England Public Utilities then note that the registration process needs to consider whether a DER seeking to participate as part of a DERA is participating in a retail program that does not allow for wholesale market

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[436] *Id.* at 12.

[437] *Id.*

[438] New England Public Utilities Final Answer at 16.

[439] *Id.* at 16, 17. *See* Order No. 2222, 172 FERC ¶ 61,247 at P 297.

participation, and that other nontechnical factors have been satisfied, which are not considerations in the state interconnection process.[440] New England Public Utilities argue that ISO-NE's proposed process as set forth in ISO-NE Tariff section III.6.7(c) is consistent with Order No. 2222 and provides an opportunity for such review and sets forth the relevant criteria for conducting this review – e.g., by specifying the type of risk factors that the Host Utility will consider.[441]

193. New England Public Utilities note that not all DERs may have gone through a rigorous engineering study and/or may not be required to obtain an interconnection agreement at all based on existing state interconnection procedures and accordingly have never been studied.[442] New England Public Utilities argue that the distribution utility review process represents the first opportunity for the Host Utility to consider any potential distribution reliability impacts related to wholesale market participation of these devices. New England Public Utilities argue that for DER that have or have not undergone engineering review, the 60-day Host Utility review may also be the first opportunity for the Host Utility to consider the aggregated impact to the distribution system of those DER in the DERA all collectively responding to the same dispatch instruction.[443] New England Public Utilities note that Tariff section III.6.7(c) makes clear that Host Utilities will conduct their review based on information provided by the DERA or through information already in the Host Utility's possession, to the extent practicable, including information obtained through interconnection studies already conducted for applicable DERs.[444]

194. ISO-NE and New England Public Utilities disagree with Environmental Organizations' assertion that the Host Utility review should be less than 60 days.[445] New England Public Utilities claim 60 days is reasonable.[446] They argue that the Host Utility's review consists not only of any necessary safety and reliability evaluation, but also verification of various non-technical requirements, such as billing accounts and

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[440] New England Public Utilities Final Answer at 17.

[441] *Id.*

[442] *Id.* at 17, 18.

[443] *Id.* at 18.

[444] *Id.*

[445] ISO-NE April 20 Answer at 19-20; New England Public Utilities Answer at 19-21.

[446] New England Public Utilities Answer at 19.

meter configuration. New England Public Utilities state that the 60-day period represents the deadline for the Host Utility to complete its reliability and eligibility review and that the Host Utility will not necessarily need or use the full 60 days for each assessment.[447] They argue that the amount of time required will almost certainly depend on the individual circumstances of each DERA registration or modification as well as the overall volume of registrations/modifications submitted to the Host Utility during a particular period. They also state that if a Host Utility fails to provide ISO-NE with notice as to eligibility within the 60-day period, ISO-NE will assume that the DER is eligible to register with the proposed DERA, which is an incentive for Host Utilities to process requests reasonably quickly.

195. ISO-NE responds that Environmental Organizations seek to modify the terms of Order No. 2222 long after the time for rehearing requests has passed, and their arguments should be rejected on that ground alone.[448] Further, ISO-NE alleges, the Commission has already determined that 60 days is an appropriate amount of time for Host Utility review given the potential complexities involved in determining whether a given DER is eligible to participate in a DERA. ISO-NE states that it proposed a 60-day eligibility review because of how complex this process is, and no party objected to that proposal during the lengthy stakeholder process.[449] Further, ISO-NE argues that Environmental Organizations provide no justification for their significantly shortened time period of 15 days, and that Environmental Organizations' proposal ignores the express language of Order No. 2222, as well as the underlying concerns that warrant the more lengthy time period included in ISO-NE's proposal.[450]

196. In response to concerns about the scope of review, New England Public Utilities state that Order No. 2222 specifically recognized that the distribution utility's review process would include an evaluation to ensure that participation in a DERA would not pose risks to the reliable operation of the distribution system.[451] They assert that the registration process also needs to consider whether a DER seeking to participate as part of a DERA is participating in a retail program that does not allow for wholesale market

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[447] *Id.* at 21.

[448] ISO-NE April 20 Answer at 19.

[449] *Id.* at 19-20.

[450] *Id.* at 20.

[451] New England Public Utilities Answer at 16-17 (citing Order No. 2222, 172 FERC ¶ 61,247 at P 297).

participation, and that other non-technical factors have been satisfied.[452] New England Public Utilities maintain that these factors are not considerations in the state interconnection process. In addition, they state that Environmental Organizations' objection is based on an incorrect assumption that all DERs will have been studied through an interconnection process prior to registering as part of a DERA, even though there are several different categories of DERs that could participate in a DERA whose impacts to the distribution system may never have undergone rigorous engineering study.[453] New England Public Utilities state that the Host Utility review may also be the first opportunity for the Host Utility to consider the aggregated impact to the distribution system of those DERs in the DERA all collectively responding to the same dispatch instruction.[454] New England Public Utilities state that, in the case of a DERA comprised solely of DERs, there is nothing in ISO-NE's proposed review procedures to suggest that a Host Utility would use this process to re-do an interconnection analysis unless an updated evaluation was necessary based on changed system conditions or DER functionality.

iv. Data Request Response

197. In its Data Request, Commission staff asked ISO-NE to explain the process a Distributed Energy Resource Aggregator will need to follow to obtain necessary information in order to submit an initial notification to ISO-NE.[455] ISO-NE states that Tariff section III.6.7(a)(i) describes what is required in an initial notification of an intent to register a DERA. ISO-NE states that, to save time, initial notification must be sent simultaneously by the DER Aggregator to the Host Utility and to ISO-NE, and that DERAs will need to follow any RERRA adopted processes to obtain the required customer information.[456]

198. In addition, Commission staff asked ISO-NE to explain whether a complete and accurate initial notification is required before the Eligibility Confirmation stage commences.[457] ISO-NE states that an initial notification must contain all required information before the eligibility review process begins, and that the data provided as part

[452] *Id.* at 17.

[453] *Id.*

[454] *Id.* at 18.

[455] Data Request at 19.

[456] Data Request Response at 25.

[457] Data Request at 19.

of the initial notification will be verified during the eligibility confirmation phase.[458] ISO-NE states that if the notification itself is incomplete, ISO-NE or the Host Utility will contact the DER Aggregator regarding the issues with data submitted with the notification and how they can be corrected. Finally, ISO-NE states that once all the information that is required to be part of an initial notification is submitted, the eligibility confirmation process discussed in proposed Tariff section III.6.7(b) will begin, and that this process will be included in ISO-NE manuals.[459]

199. Further, Commission staff asked ISO-NE to explain which sections of the Tariff or manuals identify the information required as part of the initial notification.[460] ISO-NE states that Tariff section III.6.7(a)(i) contains requirements for what must be contained in an initial notification and that technical details will be included in the ISO-NE Manual for Registration and Performance Auditing (Manual M-RPA) before the ISO's proposed November 1, 2026 implementation date.[461] ISO-NE argues that such details are not practices that significantly affect rates, terms, and conditions and therefore are not required to be part of ISO-NE's Tariff consistent with the Commission's rule of reason precedent.[462] ISO-NE states that its compliance filing, including the proposed Tariff revisions in section III.6.7, includes the basic methodology, criteria, and process that will be used for registering DERAs.[463] ISO-NE states that manual and operating procedure language will be developed in consultation with ISO-NE stakeholders and subject to review by NEPOOL Technical Committees. ISO-NE notes that development of implementation details is generally conducted after the Commission has accepted a compliance filing in order to ensure it is based on Commission accepted Tariff language.[464]

200. In the Data Request, Commission staff asked ISO-NE to explain which sections of the Tariff or manuals specify the protocols or communication methods used to transfer

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[458] Data Request Response at 25.

[459] *Id.*

[460] Data Request at 19.

[461] Data Request Response at 25.

[462] *Id.*

[463] *Id.*

[464] *Id.*

information and results of the Eligibility Confirmation.[465] ISO-NE states that proposed Tariff sections III.6.7(b) and (c)(iv) establish the high level communications requirements, and that further technical details will be included in manuals and/or ISO-NE Operating Procedures, the development of which has not been completed.

201. Commission staff also asked ISO-NE to explain the acceptable types and/or forms of evidence of violation of eligibility criteria that the Host Utility or its agent may use to demonstrate in its written notice that a distributed energy resource aggregation is ineligible in full or in part.[466] In response, ISO-NE points to the relevant sections of Tariff section III.6.7(c)(i).[467] ISO-NE states that Host Utilities have informed ISO-NE that they, or their agents, may use certain types or forms of evidence, and that ISO-NE expects to use these details in relevant manuals in consultation with relevant Host Utilities and stakeholders.[468] ISO-NE states that it expects to include these types of details in relevant ISO-NE manuals and that it will work with Host Utilities and other stakeholders on inclusion of these details.[469]

202. Commission staff asked ISO-NE to explain how any necessary information and data ISO-NE collects about the individual DERs participating in a DERA will be shared with Host Utilities and the DER Aggregator.[470] In response, ISO-NE states that the DER

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[465] Data Request at 19.

[466] *Id.* at 20.

[467] Data Request Response at 26-27.

[468] *Id.* at 27-28 (listing (1) the DER is providing service in one or more Host Utility programs; (2) the DER's participation in the wholesale markets will lead to duplicative compensation, or the double counting of services; (3) Transmission Node mapping and the electrical location of the DERs comprising the DERA cannot be verified; (4) the facility's interconnection agreement does not permit the provision of wholesale market services; (5) the interconnection agreement limits the amount (e.g., kW) or type (e.g., Regulation Service) of service the DER may provide, and the DER is seeking to operate in a different manner; (6) the interconnection agreement needs to be modified to accommodate the DER's participation in the wholesale markets; (7) additional transmission or distribution-level studies are needed to identify potential system impacts due to the DER's participation in an aggregation and such studies cannot be completed within 60 days; (8) or existence of an executed agreement for net metering, net energy billing, or other similar retail program).

[469] *Id.* at 28.

[470] Data Request at 20.

Aggregator will be required to provide simultaneous notification to both the Host Utility and ISO-NE.[471] ISO-NE states that it will use existing channels of communication to exchange information during the registration process, including the ISO Customer and Asset Management system.

203. In the Data Request, Commission staff asked ISO-NE to explain how the distribution utility review process will examine any incremental impacts from a resource's participation in a distributed energy resource aggregation that were not previously considered by the distribution utility during the interconnection study process.[472] ISO-NE states that it cannot prescribe the precise manner in which Host Utilities analyze the incremental impacts of a distributed energy resource's participation in a DERA. ISO-NE states that Tariff revisions in its compliance filing require Host Utilities to evaluate the impacts of DERAs on distribution reliability and safety.[473] ISO-NE asserts that interconnection impacts are typically studied for individual DERs, not aggregations of DERs. ISO-NE explains that the analysis required to allow DERA participation, however, must examine the entity as a whole—i.e., the aggregation of DERs into a DERA. ISO-NE contends that studies of DERAs may need to include examination of the collective impact of all DERs participating in the DERA under certain system conditions, i.e., peak load. ISO-NE asserts that this process will allow for such aggregated studies to be undertaken in the event they are required. ISO-NE notes that three Host Utilities—National Grid, Eversource, and Avangrid—addressed this issue in their joint comments with details explaining why the review of a DERA is not redundant to the interconnection review process.[474]

204. Commission staff also asked ISO-NE to identify circumstances in which a dispute resolution process established by a RERRA would not be available.[475] ISO-NE states that it is aware that some states have dispute resolution processes in place for DER interconnection issues and to address disputes between a DER, customer, and/or an energy service provider, but that it is not aware if all six states in the region will choose to use these processes or will establish new processes to handle disputes between DER Aggregators and Host Utilities, or between DER owners/customers and DER

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[471] Data Request Response at 28.

[472] Data Request at 20.

[473] Data Request Response at 29.

[474] *Id.*

[475] Data Request at 21.

Aggregators.[476] ISO-NE notes that ISO-NE processes would be made available if necessary under proposed Tariff section III.6.7(c)(v) if a given state does not have such dispute resolution processes in place.

v. Commission Determination

205. We find that ISO-NE's proposal partially complies with the requirements in Order Nos. 2222 and 2222-A with respect to the role of distribution utilities. As an initial matter, we find that ISO-NE developed its distribution utility review process in concert with stakeholders to develop a registration and coordination process between ISO-NE, the Distributed Energy Resource Aggregator and the Host Utility for registration, activation, and participation in ISO-NE markets, consistent with the requirement of Order No. 2222.[477] We address more specifically below ISO-NE's proposal with respect to (1) Host Utility Review Process; (2) Host Utility Review Criteria; (3) Information Sharing; and (4) Dispute Resolution.

(a) Host Utility Review Process

206. We find that ISO-NE's proposal complies with the requirement of Order No. 2222 to include a distribution utility review process that is triggered by initial registration of the distributed energy resource aggregation or incremental changes to a distributed energy resource aggregation already participating in the markets.[478] Specifically, ISO-NE proposes under Tariff section III.6.7(b) that a Host Utility's eligibility review begins when the Host Utility or its agent receives the initial notification from the DER Aggregator.[479] As ISO-NE explains, an initial notification must contain all required information before the eligibility review process begins.[480] As ISO-NE states, if the notification is incomplete, ISO-NE or the Host Utility will contact the DER Aggregator regarding the issues with data submitted with the notification and that, once all of the information that is required to be part of an initial notification is submitted, the eligibility

[476] Data Request Response at 30.

[477] Transmittal at 36; Tariff § III.6.7; Order No. 2222, 172 FERC ¶ 61,247 at P 292.

[478] Order No. 2222, 172 FERC ¶ 61,247 at P 292.

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

[480] Data Request Response at 25.

confirmation process discussed in proposed section III.6.7(b) will begin.[481] For incremental changes, Tariff section III.6.7(e) dictates that a Distributed Energy Resource Aggregator shall update DERA's registration information sufficient to "confirm that any newly added Distributed Energy Resources are eligible for participation." Further, Tariff section III.6.7(e) "requires notification to the ISO and the Host Utility (or its agent) by the Distributed Energy Resource Aggregator of any Distributed Energy Resource being removed from the aggregation; verification that any required metering is in place for the reconfigured Distributed Energy Resource Aggregation; and an updated list of participating Distributed Energy Resources and the updated performance capabilities of the aggregation to be reflected in the aggregation's registration information." We find that ISO-NE's proposal is consistent with the requirement of Order No. 2222 that initial registration and incremental changes trigger the distribution utility review process. In addition, we find that ISO-NE complies with the requirement that only the distribution utility hosting a distributed energy resource has the opportunity to review the addition of that resource to a distributed energy resource aggregation because Tariff section III.6.7(b) states that the "Host Utility (or its agent) shall review each Distributed Energy Resource's eligibility to participate in a Distributed Energy Resource Aggregation and confirm the Aggregator's eligibility to register the proposed Distributed Energy Resource Aggregation in the manner established in this subsection."[482]

207. We also find that ISO-NE's proposal to provide the Host Utility with 60 days to conduct its review complies with the requirement to provide adequate and reasonable time for distribution utility review that does not exceed 60 days.[483] ISO-NE Tariff section III.6.7(b) clarifies that the Host Utility's time period for review "shall begin when the Host Utility or its agent receives the initial notification from the Distributed Energy Resource Aggregator and shall not exceed 60 calendar days."

208. We disagree with Environmental Organizations that ISO-NE's proposal to provide the Host Utility 60 days is unreasonable. As the Commission explained, "the 60-day review period is within the allowable timeframe that Order No. 2222 permits."[484] We

[481] *Id.*

[482] Tariff, § III.6.7(b).

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

[484] NYISO Compliance Order, 179 FERC ¶ 61,198 at P 262.

note that New England Public Utilities explain and provide examples of the importance of the 60-day review period in order to ensure that they have adequate review time.[485]

209. In addition, we find that ISO-NE complies with the requirement to demonstrate that its proposed distribution utility review process is transparent.[486] Specifically, we note that Tariff section III.6.7 contains a detailed registration process that is transparent, sets expectations for all parties, was developed in concert with stakeholders to address concerns, and meets the Commission's 60-day review period deadline.[487]

210. Further, we find that ISO-NE complies with the requirement in Order No. 2222 that the results of a distribution utility's review be incorporated into the distributed energy resource aggregation registration process.[488] Specifically, Tariff section III.6.7(b) provides that the Host Utility "shall provide written notice to the ISO and the Distributed Energy Resource Aggregator of the eligibility confirmation."

(b) Host Utility Review Criteria

211. We also find that ISO-NE's proposal complies with the requirement to include criteria in its tariff by which the distribution utilities will determine whether each proposed distributed energy resource is capable of participating in a distributed energy resource aggregation.[489] We find that Tariff sections III.6.7(c)(i) 1, 2, 3, and 6 address criteria by which the Host Utility determines capability of distributed energy resources to participate in a distributed energy resource aggregation. Specifically, section III.6.7(c) 1 requires confirmation "that each Distributed Energy Resource's metered net consumption or injection of energy will not be included in another Load Asset (if the Distributed

[485] *See* New England Public Utilities Answer at 19 ("Host Utility's review consists not only of any necessary safety and reliability evaluation, but also verification of various non-technical requirements. For instance, Host Utilities need to confirm that the proposed retail billing accounts are correctly aligned with the DERs that are approved for interconnection through the state-jurisdictional interconnection process. Additionally, Host Utilities may need to validate that the metering is properly configured (regardless of whether the relevant state-jurisdictional interconnection process is applicable), and that the appropriate connection between the host meters and the Host Utility's meter data systems have been tested and validated.").

[486] Order No. 2222, 172 FERC ¶ 61,247 at P 293.

[487] Transmittal at 36.

[488] Order No. 2222, 172 FERC ¶ 61,247 at P 292.

[489] *Id.* PP 292, 296.

Energy Resource Aggregation includes load) or Generator Asset" while section III.6.7(c)(i) 2 requires the Host Utility to confirm whether a DER "is participating in a retail program that prohibits it from providing the requested service in New England Markets." Further, section III.6.7(c)(i) 3 requires confirmation that "the proposed operation of each Distributed Energy Resource as part of the proposed Distributed Energy Resource Aggregation has appropriate interconnection and/or operating agreements in place with the Host Utility applicable to its technology and size." Finally, section III.6.7(c)(i) 6 requires confirmation that all distributed energy resources are within the Host Utility's metering domain.[490]

212. As discussed below, we also find that ISO-NE's proposal complies with the requirement to develop a distribution utility review process that includes criteria by which the distribution utilities will determine whether the participation of each proposed distributed energy resource in a distributed energy resource aggregation will not pose significant risks to the reliable and safe operation of the distribution system.[491] Specifically, consistent with this requirement, Tariff section III.6.7(c)(i)(4) provides that a Host Utility must "determine whether the Distributed Energy Resource Aggregation may pose significant risks, or may require further study to evaluate the potential significance of the risks, to the safe and reliable operation of the distribution system based on analysis of relevant risk factors, such as overloads, voltage, stability, short circuit interrupting capability, flicker, equipment operation frequency coordination, and contingency analysis."

213. We disagree with Environmental Organizations that ISO-NE's proposal lacks provisions to ensure that the safety and reliability review is not redundant or discriminatory. We agree with New England Public Utilities that the distribution utility review process may represent the first opportunity for the Host Utility to consider any potential distribution reliability impacts related to wholesale market participation of some DERs.[492] New England Public Utilities argue that, for DERs that have or have not undergone engineering review, the 60-day Host Utility review may also be the first opportunity for the Host Utility to consider the aggregated impact to the distribution

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[490] Tariff § III.6.7(c)(i) 6.

[491] Order No. 2222, 172 FERC ¶ 61,247 at P 292.

[492] New England Public Utilities Final Answer at 17-18 ("For instance, electric vehicle chargers, smart thermostats, smart water heaters, and the like may not be required to obtain an interconnection agreement at all based on existing state interconnection procedures and accordingly have never been studied. Further, there may be certain DER (e.g., residential scale rooftop solar) whose existing interconnection standards involve much less rigorous screening and may not require distribution impact study.").

system of those DERs in the DERA all collectively responding to the same dispatch instruction.[493]

214. Environmental Organizations argue that ISO-NE's proposal in Tariff section III.6.7(c)(i) 4 and 5 lacks provisions to ensure that ISO-NE's safety and reliability review is not redundant. We disagree that ISO-NE's criteria lack specificity. As to ISO-NE's reliability criteria, we find that Order No. 2222 recognizes that there are sufficient differences among regions to warrant flexibility in determining specific standardized criteria, and as the Commission has stated in other Order No. 2222 compliance proceedings, RTOs'/ISOs' lack of ability to identify and review distribution utility reliability criteria supports adopting ISO-NE's proposed reliability criteria.[494] We further note that ISO-NE has usefully provided several examples of relevant risk factors to inform a distribution utility's reliability review, such as overloads, voltage, stability, short circuit interrupting capability, flicker, equipment operation frequency coordination, and contingency analysis.

215. We also find that ISO-NE addresses the scope of such criteria, as clarified in Order No. 2222-A. The Commission clarified in Order No. 2222-A that the potential impacts on distribution system reliability specifically refer to any incremental impacts from a resource's participation in a distributed energy resource aggregation that were not previously considered by the distribution utility during the interconnection study process for that resource.[495] We agree with ISO-NE that "[i]nterconnection impacts are typically studied for individual DERs, not aggregations of DERs. The analysis required to allow DERA participation, however, must examine the entity as a whole – i.e., the aggregation of DERs into a DERA."[496] In compliance with this requirement, ISO-NE proposes in its Tariff that to verify eligibility the Host Utility must determine whether the "Distributed Energy Resource Aggregation," not the individual distributed energy resources, "may pose significant risks . . . to the safe and reliable operation of the distribution system based on analysis of relevant risk factors, such as overloads, voltage, stability, short circuit interrupting capability, flicker, equipment operation frequency coordination, and contingency analysis."[497] We find that this review and requirement is not redundant

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[493] *Id.* at 18.

[494] Order No. 2222, 172 FERC ¶ 61,247 at P 296; NYISO Compliance Order, 179 FERC ¶ 61,198 at P 267; CAISO Compliance Order, 179 FERC ¶ 61,197 at P 207.

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

[496] Data Request Response at 29.

[497] Tariff, § III.6.7(c)(i) 4.

because it considers the aggregated, or incremental, impacts of the distributed energy resources in an aggregation, not the individual distributed energy resources.

216. In addition, we find that ISO-NE proposes in its Tariff to require that the distribution utility provide a showing that explains any reliability findings, as required by Order No. 2222.[498] In Order No. 2222-A, the Commission stated that it expects that criteria proposed on compliance will require that an RTO/ISO decision to deny wholesale market access to a distributed energy resource for reliability reasons be supported by a showing that the resource presents significant risks to the reliable and safe operation of the distribution system.[499] Specifically, proposed Tariff section III.6.7(c)(iv) of the Tariff provides that if a "Host Utility (or its agent) confirms that the Distributed Energy Resource Aggregation is not eligible in full or in part, the Host Utility (or its agent) shall provide a written notice to the ISO and the Distributed Energy Resource Aggregator describing the eligibility criteria that were not met for any Distributed Energy Resource."[500]

217. We find that ISO-NE complies with the requirement in Order No. 2222 that the distribution utility have the opportunity to request that the RTO/ISO place operational limitations on an aggregation, or the removal of a distributed energy resource from an aggregation based on specific significant reliability or safety concerns that the distribution utility clearly demonstrates to the RTO/ISO and distributed energy resource aggregator on a case-by-case basis.[501] Specifically, Tariff section III.6.7(c)(iv) provides that the Host Utility (or its agent) can confirm that the DERA is not eligible in full or in part to participate in ISO-NE's markets; moreover, such confirmation requires clear demonstration of the Host Utility's concerns through provision of a written notice to ISO-NE and the DERA describing the eligibility criteria that were not met for any DER. The criteria that the Host Utility could base its eligibility determination on include, under subsections III.6.7(c)(i)(4) and (c)(i)(5), whether the DERA may pose significant risks to the safe and reliable operation of the distribution system, and whether the proposed operation of any DER participating in a proposed DERA or the DERA as a whole imposes a need for distribution system upgrades to avoid safety and reliability impacts.

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

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

[500] Order No. 2222, 172 FERC ¶ 61,247 at PP 292, 293, 297.

[501] *Id.* P 297.

Therefore, we find that ISO-NE provides distribution utilities sufficient opportunity to request that ISO-NE place operational limitations on an aggregation or remove a DER from a DERA based on specific significant reliability or safety concerns that the distribution utility demonstrates to ISO-NE and the DERA.

(c) Information Sharing

218. We find that ISO-NE's proposed distribution utility review process complies with the information sharing requirements of Order No. 2222.[502] We find that ISO-NE's proposal complies with the requirement that the specific information regarding a distributed energy resource that is provided by a distribution utility to an RTO/ISO as part of the distribution utility review process be shared with the distributed energy resource aggregator.[503] Specifically, Tariff section III.6.7(d)(iii) requires that, if eligible, "the Distributed Energy Resource Aggregator shall provide a finalized list to the ISO and the Host Utility (or its agent) of the Distributed Energy Resources that have been found to be eligible for participation in the Distributed Energy Resource Aggregation, the participation model that the Distributed Energy Resource Aggregation intends to use, and the New England Markets in which the Distributed Energy Resource Aggregation plans to participate." Further, Tariff section III.6.7(d)(iv) requires that if "the Host Utility (or its agent) confirms that the Distributed Energy Resource Aggregation is not eligible in full or in part, the Host Utility (or its agent) shall provide a written notice to the ISO and the Distributed Energy Resource Aggregator describing the eligibility criteria that were not met for any Distributed Energy Resource."[504] We find that ISO-NE complies with the requirement that each RTO/ISO must share with distribution utilities any necessary information and data collected under section IV.F of Order No. 2222 about the individual distributed energy resources participating in a distributed energy resource aggregation.[505]

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

[503] Order No. 2222-A, 174 FERC ¶ 61,197 at P 75.

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

[505] *Id.* P 292.

(d) Dispute Resolution

219. Lastly, we find that ISO-NE's proposal partially complies with the requirement to revise its tariff to incorporate dispute resolution provisions as part of its proposed distribution utility review process.[506] Specifically, Tariff section III.6.7(c)(vi) states that if ISO-NE "determines that a Distributed Energy Resource Aggregation is ineligible to participate in the New England Markets for reasons that are not related to the Host Utility (or its agent's) review, the Distributed Energy Resource Aggregator may seek resolution in accordance with Section I.6 of the Tariff." We find that this proposal complies with the requirement in Order No. 2222 that disputes over the application of coordination and distribution utility review processes between the RTO/ISO, the distribution utilities, and the distributed energy resource aggregators must be subject to a process for resolving disputes in the RTO/ISO tariff.[507]

220. However, section III.6.7(c)(v) of the Tariff provides that, if a DERA disputes a Host Utility's confirmation that the DERA has not fulfilled all requirements to be activated, then the DERA "may seek dispute resolution in a process established by the [RERRA], if available, or if not available, in accordance with section I.6 of the Tariff." In other words, ISO-NE proposes that the DER Aggregator may use the procedures under section I.6 of the Tariff for disputes between Host Utilities and DER Aggregators *only if* a RERRA does not have a dispute resolution process available. While ISO-NE indicates in its transmittal that a dispute that is first handled through a RERRA process could subsequently go through the ISO-NE dispute resolution process, and while we do not expect ISO-NE to resolve issues that are beyond its authority, we nevertheless find that some disputes may fall within ISO-NE's authority and would not appropriately fall within the authority of the RERRA, even if the RERRA does have a dispute resolution process available.[508] For example, Order No. 2222-A noted specifically that there could be disputes about information sharing during distribution utility review that would be appropriately resolved using RTO/ISO dispute resolution procedures.[509] ISO-NE has not demonstrated how its proposal to require a DERA to first rely on RERRA dispute resolution procedures, where one exists, would appropriately address disputes related to

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[506] *Id*. P 299.

[507] *Id.*

[508] Transmittal at 36-37 ("Disputes between Host Utilities and DER Aggregators will be addressed in a process established by the RERRA, if available, or if not available, in accordance with Section I.6 of the Tariff as all Host Utilities in New England and all DER Aggregators by virtue of their position as Market Participants would be subject to that section of the Tariff."); *see* CAISO Compliance Order, 179 FERC ¶ 61,197 at P 212.

[509] Order No. 2222-A, 174 FERC ¶ 61,197 at P 75.

the distribution utility review process that are within ISO-NE's authority and subject to its Tariff, such as timing of review, the transparency of the distribution utility review process, and the distribution utility's fulfillment of the Order No. 2222 requirement to provide a showing as necessary to support reliability findings, without any need for the RERRA to first address the matter. Accordingly, we direct ISO-NE to file, within 60 days of the date of issuance of this order, a compliance filing that addresses how ISO-NE will resolve disputes that are within its authority and subject to its Tariff, regardless of whether there is an available dispute resolution process established by the RERRA, and proposes any necessary Tariff revisions.

c. Ongoing Operational Coordination

221. To implement section 35.28(g)(12)(ii)(g) of the Commission's regulations, in Order No. 2222, the Commission required each RTO/ISO to revise its tariff to (1) establish a process for ongoing coordination, including operational coordination, that addresses data flows and communication among itself, the distributed energy resource aggregator, and the distribution utility; and (2) require the distributed energy resource aggregator to report to the RTO/ISO any changes to its offered quantity and related distribution factors that result from distribution line faults or outages.[510] In addition, the Commission required each RTO/ISO to revise its tariff to include coordination protocols and processes for the operating day that allow distribution utilities to override RTO/ISO dispatch of a distributed energy resource aggregation in circumstances where such override is needed to maintain the reliable and safe operation of the distribution system.[511] To account for different regional approaches and to provide flexibility, the Commission did not prescribe specific protocols or processes for the RTOs/ISOs to adopt as part of the operational coordination requirements but rather allowed each RTO/ISO to develop an approach to ongoing operational coordination.[512]

222. In Order No. 2222, the Commission also required each RTO/ISO to revise its tariff to apply any existing resource non-performance penalties to a distributed energy resource aggregation when the aggregation does not perform because a distribution utility overrides the RTO's/ISO's dispatch.[513] In addition, the Commission declined to establish a generic requirement for RTOs/ISOs with respect to liability provisions, stating that it was not persuaded that all distribution providers face similar liability concerns, and that

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[510] Order No. 2222, 172 FERC ¶ 61,247 at P 310.

[511] *Id.*

[512] *Id.* P 311.

[513] *Id.* P 312.

these concerns should be addressed through standardized liability provisions in RTO/ISO tariffs.[514]

i. Filing

223. ISO-NE states that proposed Tariff section III.6.8 allows Host Utilities to override ISO-NE dispatch instructions in limited circumstances and provides a framework for communications pathways in both day-ahead and real-time markets for reliable operation of aggregations.[515] ISO-NE explains that the framework allows for various implementation approaches among Host Utilities as each is likely to have different capabilities and potentially different RERRA requirements for its operations.

224. ISO-NE states that proposed Tariff section III.6.8 divides operational responsibilities among the DER Aggregator, the Host Utility, and ISO-NE.[516] ISO-NE explains that DER Aggregators are required to operate individual DERs in a manner consistent with the limitations and operating orders established by the Host Utility, ensure available distribution service exists to operate those DERs consistent with its ISO-NE market obligations, and account for any known limitations of the distribution system in the Offer Data for the DERA, including restrictions that have been placed directly on the DERA by the Host Utility. ISO-NE notes that DER Aggregators are required to have a Designated Entity or Demand Designated Entity, as applicable, for each of their DERAs. ISO-NE states that it plans to specify additional operational coordination details, including the process for identification of a Designated Entity or Demand Designated Entity, in the ISO-NE Operating Procedures.[517]

225. ISO-NE explains that Host Utilities are required to communicate to DER Aggregators conditions on the distribution system that result in actual or anticipated limitations on the operation of individual DERs or DERAs.[518] ISO-NE notes that Host Utilities may temporarily override ISO-NE dispatch of a DERA in circumstances where needed to maintain the reliable and safe operation of the distribution system. ISO-NE states that it is required to coordinate with the applicable Host Utility to avoid conflicting operational directives, which may include but is not limited to sharing day-ahead energy market results and real-time dispatch instructions. ISO-NE explains that it complies with

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[514] *Id.* P 313.

[515] Transmittal at 37.

[516] *Id.*

[517] *Id.* at 37-38.

[518] *Id.* at 38.

the requirement to apply existing penalties to DERAs because proposed Tariff section III.6.8(e) states that "[f]ailure of a Distributed Energy Resource Aggregation to follow an ISO Dispatch Instruction due to a distribution utility override does not excuse the Distributed Energy Resource Aggregator from any applicable charges (including any penalties) to which the aggregator is subject under the terms of the Tariff."[519]

ii. Commission Determination

226. We find that ISO-NE's proposal partially complies with the ongoing operational coordination requirements of Order No. 2222. We find that ISO-NE complies with the requirement that the distributed energy resource aggregator must report to the RTO/ISO any changes to its offered quantity and related distribution factors that result from distribution line faults or outages.[520] Consistent with this requirement, ISO-NE proposes in Tariff section III.6.8(a) that a DER Aggregator must "submit outage requests for each Distributed Energy Resource Aggregation as necessary and to the extent required by ISO Operating Documents, in order to reflect known distribution system constraints or limitations that reduce the overall capability of the Distributed Energy Resource Aggregation."[521] Also consistent with this requirement, ISO-NE proposes in Tariff section III.6.8(a) that a DER Aggregator must "account for any known limitations of the distribution system to which the Distributed Energy Resources are connected in its Offer Data for the Distributed Energy Resource Aggregation including restrictions that have been placed directly on the Distributed Energy Resource Aggregation by the Host Utility in the form of an override of an ISO Dispatch Instruction." As such, DER Aggregators must update the information in their offers, consistent with this requirement of Order No. 2222.[522]

227. We also find that ISO-NE's proposal complies with the requirement to revise its tariff to include coordination protocols and processes for the operating day that allow

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[519] *Id.* at 38 n.101.

[520] Order No. 2222, 172 FERC ¶ 61,247 at P 310.

[521] *See* CAISO Compliance Order, 179 FERC ¶ 61,197 at P 222 (finding that CAISO complied with this same requirement by explaining, in part, that "Scheduling Coordinators must report any outage consistent with sections 9 and 30 of the [CAISO] Tariff").

[522] *See* NYISO Compliance Order, 179 FERC ¶ 61,198 at P 289 ("Consistent with this requirement, under NYISO's proposal, when a Distribution Utility notifies an Aggregator that a resource participating in its Aggregation must be derated or forced out of service, the Aggregator must promptly update its day-ahead and/or real-time market bids, in accordance with NYISO's bidding requirements.").

distribution utilities to override RTO/ISO dispatch of a distributed energy resource aggregation in circumstances where such override is needed to maintain the reliable and safe operation of the distribution system.[523] Consistent with this requirement, proposed Tariff section III.6.8(d) states: "The Host Utility may temporarily override the ISO's dispatch of a Distributed Energy Resource Aggregation. []Such override shall only occur in circumstances where needed to maintain the reliable and safe operation of the distribution system."

228. We next find that ISO-NE's proposal complies with the requirement to revise its tariff to establish a process for ongoing coordination, including operational coordination, that addresses data flows and communication among itself, the distributed energy resource aggregator, and the distribution utility.[524] ISO-NE's proposed Tariff section III.6.8 defines the roles and responsibilities of each party in the process of operational coordination and establishes DERA-specific operating procedures. Specifically, Tariff section III.6.8(a) requires that the DER Aggregator "confer with the applicable Host Utility on a periodic basis to ensure available distribution service exists to operate its Distributed Energy Resources consistent with its New England Market obligations."[525] Further, Tariff section III.6.8(e) states that "[ISO-NE] shall coordinate with the applicable Host Utility to avoid conflicting operational directives, which may include but is not limited to sharing Day-Ahead Energy Market results and Real-Time Dispatch Instructions." Finally, regarding coordination between the DER Aggregator and ISO-NE, Tariff section III.6.8(a) requires that the DER Aggregator "submit outage requests for each Distributed Energy Resource Aggregation as necessary and to the extent required by ISO Operating Documents, in order to reflect known distribution system constraints or limitations that reduce the overall capability of the Distributed Energy Resource Aggregation."

229. We find that ISO-NE's proposal partially complies with the requirement to revise its Tariff to apply existing resource non-performance penalties to a distributed energy resource aggregation when the aggregation does not perform because a distribution utility overrides RTO/ISO dispatch.[526] Proposed Tariff section III.6.8(e) states that: "Failure of

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[523] Order No. 2222, 172 FERC ¶ 61,247 at P 310.

[524] *Id.*

[525] *See also* Proposed Tariff, § III.6.8(c) (requiring "the Host Utility [to] notify the relevant Distributed Energy Resource Aggregator as soon as practicable" if "Host Utility identifies conditions on the distribution system that result in actual or anticipated limitations on the operation of individual Distributed Energy Resources or Distributed Energy Resource Aggregations").

[526] Order No. 2222, 172 FERC ¶ 61,247 at P 312.

a Distributed Energy Resource Aggregation to follow an ISO Dispatch Instruction due to a Host Utility override does not excuse the Distributed Energy Resource Aggregator from any applicable charges (including any penalties) to which the Distributed Energy Resource Aggregator is subject under the terms of the Tariff." This proposal is consistent with Order No. 2222 insofar as DERAs are subject to applicable penalties when they do not perform due to a Host Utility override. However, we find that ISO-NE's proposed Tariff revisions lack specificity regarding the existing resource non-performance penalties that would apply to a DERA when a Host Utility overrides ISO-NE's dispatch. Tariff section III.6.8(e) indicates that DERAs are not excused "from any applicable charges (including any penalties) to which the Distributed Energy Resource Aggregator is subject under the terms of the Tariff," but ISO-NE does not specify what penalties apply.[527] Accordingly, we direct ISO-NE to file, within 60 days of the date of issuance of this order, a further compliance filing that revises its Tariff to specify the existing non-performance penalties that will apply to a DERA when the DERA does not perform because a Host Utility overrides ISO-NE's dispatch.

7. Modifications to List of Resources in Aggregation

230. In Order No. 2222, the Commission added section 35.28(g)(12)(ii)(e) to the Commission's regulations to require each RTO/ISO to establish market rules that address modification to the list of resources in a distributed energy resource aggregation.[528] The Commission required each RTO/ISO to revise its tariff to specify that distributed energy resource aggregators must update their lists of distributed energy resources in each aggregation (i.e., reflect additions and subtractions from the list) and any associated information and data, but that, when doing so, distributed energy resource aggregators will not be required to re-register or re-qualify the entire distributed energy resource aggregation.[529] The Commission noted that any modification triggers the distribution utility review process.

231. However, the Commission stated that it may be appropriate for each RTO/ISO to abbreviate the distribution utility's review of modifications to the distributed energy resource aggregations.[530] The Commission explained that, because the impacts of

[527] *See* NYISO Compliance Order, 179 FERC ¶ 61,198 at P 292 ("While NYISO's tariff indicates that '[a]ggregations that are unable to operate to achieve [NY]ISO's dispatch due to the direction of the Distribution Utility will remain subject to any charges or penalties that may apply,' NYISO does not specify what penalties apply.").

[528] Order No. 2222, 172 FERC ¶ 61,247 at P 335.

[529] *Id.* P 336.

[530] *Id.* P 337.

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

232. To the extent that an RTO/ISO requires distributed energy resource aggregators to provide information on the physical or operational characteristics of its distributed energy resource aggregation, the Commission required each RTO/ISO to revise its tariff to ensure that distributed energy resource aggregators must update such information if any modification to the list of resources participating in the aggregation results in a change to the aggregation's performance.[531] The Commission found that this requirement will ensure that the RTOs/ISOs have accurate and current information about the physical and operational characteristics of the distributed energy resource aggregations that are participating in their markets, with minimal administrative burden.

233. In Order No. 2222-A, the Commission explained that, occasionally, the removal of a distributed energy resource, particularly a large resource, from an aggregation could drastically change the operation and configuration of an aggregation on the distribution system and would need to be examined by a distribution utility.[532] However, the Commission stated, because such drastic impacts will likely be the exception more than the rule, the Commission encouraged RTOs/ISOs to propose abbreviated distribution utility review processes for modifications to existing aggregations. For example, the Commission noted, an RTO/ISO may propose an abbreviated distribution utility review process as a default when an existing aggregation is modified but allow for a more fulsome review when a modification surpasses some materiality threshold or meets certain criteria.

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[531] *Id.* P 338.

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

a. Filing

234. In section III.6.7(e) of the Tariff, ISO-NE proposes a process for modifying a DERA without the need for re-registration or re-qualification.[533] ISO-NE states that, under this process, Host Utilities (or their agents) will have 60 days to review changes to a DERA under the same criteria used for initial registration. ISO-NE states that the 60-day timeframe will afford the time, where necessary, for Host Utilities to restudy an entire DERA to determine whether such changes produce reliability impacts across the entire DERA footprint, i.e., whether the changes introduce interactions between DERs that were not present for the original DERA composition. ISO-NE states that during any such review, there will be no pause in the DERA's participation in New England markets.

235. ISO-NE states that, with respect to Distributed Energy Capacity Resources, modifications are made to the underlying DERAs that make up the Distributed Energy Capacity Resources.[534] Therefore, ISO-NE explains that Distributed Energy Capacity Resources do not need to maintain the technology mix that was initially qualified and became commercial, consistent with the rules in section III.13.3.8(d) of the Tariff. ISO-NE also states that the rules allow for an Existing Generating Capacity Resource or Existing Demand Capacity Resource, which meets the Commission-accepted definitions and requirements associated with Distributed Energy Capacity Resources, to convert to an Existing Distributed Energy Capacity Resource.

b. Comments/Protests

236. AEE, PowerOptions, and SEIA argue that the 60-day review period for DERA modifications will be problematic for aggregators, especially those with residential customers, and argue that the default to 60 days creates an additional unjustified barrier to participation where simple modifications are made.[535] AEE, PowerOptions, and SEIA note that DERAs comprised of residential customers are prone to frequent customer movement and expect fairly instant enrollment, and argue that it is likely that a resource will be due for another modification update by the end of the 60-day review process.[536] AEE, PowerOptions, and SEIA note that it is likely that customers that enroll in the DERA program will have dropped out within the 60-day window due to perceived inaction; they also argue that DERA review of modifications and updates should be addressed as quickly as possible for aggregators to develop robust and scalable

[533] Transmittal at 39.

[534] *Id.*

[535] AEE, PowerOptions, and SEIA Protest at 37-38.

[536] *Id.* at 37.

programs.[537] AEE, PowerOptions, and SEIA note that, in Order No. 2222, the Commission suggested that a shorter time period for review of DERA modifications than the maximum 60 days may be justified.[538] AEE, PowerOptions, and SEIA argue that the Commission should direct ISO-NE to establish an interim deadline for the Host Utility to either approve the modification or identify and justify the need for a full 60-day review.

c. Answers

237. ISO-NE states that the compliance filing 60-day timeframe to review modifications to a DERA is appropriate because it will afford the time, where necessary, for Host Utilities to restudy an entire DERA to determine whether proposed changes produce reliability or safety impacts from interactions between new combinations of DERs in the DERA that were not present in the original DERA composition.[539] ISO-NE further maintains that the specific modifications will dictate the need and extent of Host Utility review, and ISO-NE states that it cannot prejudge the amount of time it should take to conduct DERA modification reviews other than that it should not take more than 60 days.[540] ISO-NE contends that the 60-day limit on the modification review time period is reasonable, and should therefore be accepted without modification or condition.[541]

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[537] *Id.* at 38.

[538] *Id.* (citing Order No. 2222, 172 FERC ¶ 61,247 at P 295 ("[A]ny distribution utility review must be completed within a limited, but reasonable amount of time. . . . We expect a reasonable amount of time *may vary* among RTOs/ISOs but should not *exceed* 60 days.") (emphasis added)); Order No. 2222, 172 FERC ¶ 61,247 at P 337 ("[w]hile any modification of a distributed energy resource aggregation will trigger distribution utility review, we clarify that it may be appropriate for each RTO/ISO to *abbreviate* the distribution utility's review of *modifications* to the distributed energy resource aggregations.") (emphasis added); Order No. 2222-A, 174 FERC ¶ 61,197 at P 72 ("[W]e encourage shorter review periods for smaller aggregations and resources to the maximum extent practicable, and reiterate that any proposed review period must be shown to be reasonable based on what is being reviewed.").

[539] ISO-NE April 20 Answer at 21.

[540] *Id.*

[541] *Id.*

238. New England Public Utilities argue that 60 days is reasonable for review of modifications.[542] They claim that modifications to a DERA present the same risk to reliability as a new DERA, and therefore, the review periods for modifications should be as long as those for new additions.[543] New England Public Utilities argue that in many instances a modification to an existing DERA could invite a more complicated review than that for an initial DERA application, and to arbitrarily state that the Host Utility review for a modification to a DERA be restricted to a shorter time period would ignore the complexities of engineering and reliability reviews.[544] New England Public Utilities also state that the reliability requirements of the distribution system are constantly changing and that modifications or changes to the operating characteristics of a DER will likely occur in the context of a changed distribution system, and their potential reliability risks must be evaluated considering the distribution system that exists at the time of the modification or change.[545] New England Public Utilities argue that it is imperative that a Host Utility evaluate if a DER's subsequent participation may call for the DER to function in a manner different from that which was first studied.[546] New England Public Utilities contend that the amount of time required will almost certainly depend on the individual circumstances of each DERA modification as well as the overall volume of registrations/modifications submitted to the Host Utility during a particular period. Finally, they note that there is an incentive for Host Utilities to process modifications reasonably quickly insofar as ISO-NE will assume that the DER is eligible to register with the proposed DERA if a Host Utility fails to provide ISO-NE with notice as to eligibility within the 60-day period.

d. Data Request Response

239. In its Data Request, Commission staff asked ISO-NE to explain what information must be provided and whether the information required for such updates satisfies the requirement in Order No. 2222 that aggregators must provide any associated information and data when updating their list of DERs.[547] In response, ISO-NE states that the proposed Tariff changes in section III.6.7(e)(i) require that, for DERs being added to a DERA, the same information be submitted to ISO-NE and the Host Utility as that which

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[542] New England Public Utilities Answer at 19.

[543] *Id.* at 19-20.

[544] *Id.* at 20.

[545] *Id.* at 20-21.

[546] *Id.* at 21.

[547] Data Request at 22.

was required at initial notification and registration.[548] ISO-NE argues that section III.6.7(e)(i) complies with Order No. 2222 because it requires that updated information be provided by the DER Aggregator to the Host Utility and ISO-NE, but does not require the DER Aggregator to re-register the entire DERA.[549] ISO-NE further argues that, in compliance with Order No. 2222, the Host Utility has the opportunity to confirm eligibility and review any changes to the DERA including whether such changes present any further safety or reliability concerns, and would have up to 60 days to complete the review.[550]

240. Commission staff also asked ISO-NE to explain the process and corresponding sections in Manual M-RPA that describe how changes to a DER participating in a DERA will become effective and when the aggregator can include the DERs in its offer.[551] In response, ISO-NE states that these details have not yet been added to M-RPA.[552] ISO-NE states that such details will be added to M-RPA and subject to stakeholder discussion prior to the effective date of section III.6 concerning DERAs, which is proposed for November 1, 2026.[553] ISO-NE argues that this is consistent with the Commission's "rule of reason."[554] ISO-NE states that it expects to draw on existing M-RPA processes for the manner in which changes to Generator Assets and new Demand Response Assets become active in the market.[555]

241. In addition, in the Data Request, Commission staff asked ISO-NE to explain how modifications to a list of resources in an aggregation will affect a Distributed Energy Capacity Resource with a Capacity Supply Obligation.[556] In reply, ISO-NE states that modifications to the list of resources in the DERA(s) that are used to meet the Distributed

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[548] Data Request Response at 31.

[549] *Id.*

[550] *Id.*

[551] Data Request at 23.

[552] Data Request Response at 32.

[553] *Id.*

[554] *Id.* (citing earlier response on pages 25-26 of Data Request Response). *See id.* at 25-26 (responding to questions IX(A)(1.c and 1.d) regarding the registration process).

[555] *Id.* at 32.

[556] Data Request at 23.

Energy Capacity Resource's Capacity Supply Obligation have no impact on the Capacity Supply Obligation of a Distributed Energy Capacity Resource. ISO-NE further states that a Distributed Energy Capacity Resource with a Capacity Supply Obligation will continue to have that Capacity Supply Obligation unless it sheds that Capacity Supply Obligation in accordance with applicable Tariff provisions. ISO-NE states that DERAs can be modified as described in proposed Tariff section III.6.7(e) and the frequency at which such modifications can be made depends on the participation model used by the underlying DERAs of a Distributed Energy Capacity Resource to participate in the energy market.[557]

e. Commission Determination

242. We find that ISO-NE's proposal complies with the requirement in Order No. 2222 to establish market rules that address modifications to the list of resources in a distributed energy resource aggregation.[558] Specifically, section III.6.7(e) of ISO-NE's proposed Tariff includes rules addressing modifications to the list of resources in a DERA.

243. We find that ISO-NE's proposal complies with the requirement to revise its tariff to specify that distributed energy resource aggregators must update their lists of distributed energy resources in each aggregation and any associated information and data, but that, when doing so, distributed energy resource aggregators will not be required to re-register or re-qualify the entire distributed energy resource aggregation.[559] Section III.6.7(e)(i) of the Tariff states that, when a DER is added to or removed from an existing DERA, the DER Aggregator must update the DERA's registration information by submitting "an updated list of participating Distributed Energy Resources" as well as "the information required by applicable ISO New England Manuals, sufficient to confirm that any newly added Distributed Energy Resources are eligible for participation."[560]

244. As part of the rules that ISO-NE proposes in Tariff section III.6.7(e)(i), the "Host Utility (or its agent) shall have up to 60 days to confirm eligibility and review any

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[557] Data Request Response at 33.

[558] Order No. 2222, 172 FERC ¶ 61,247 at P 335.

[559] *Id.* P 336.

[560] *See* ISO-NE Data Request Response at 31 ("The proposed Tariff changes in section III.6.7(e)(i) require that, for DERs being added to a DERA, the same information be submitted to the ISO and the Host Utility as that required at initial notification and registration."); Transmittal at 39 ("The Compliance Proposal incorporates, in section III.6.7(e), a process for modifying a DERA *without the need for re-registration/qualification*.") (emphasis added).

impacts associated with Distributed Energy Resources that the Distributed Energy Resource Aggregator is proposing to add to or remove from an existing Distributed Energy Resource Aggregation." We note that ISO-NE proposes to allow DER Aggregators to continue to bid the unmodified portion of their DERAs into the New England markets during the Host Utility's review.[561]

245. We disagree with AEE, PowerOptions, and SEIA that the 60-day review period for DERA modifications creates an unjustified barrier to participation. As discussed above, we find that ISO-NE complies with the requirement that distribution utilities have no more than 60 days to review aggregations.[562]

246. We find that, based on the record, this 60-day review period is reasonable because it will ensure that distribution utilities have an adequate opportunity to review modifications to aggregations.[563] While modifications should not always require 60 days to review, some modifications may present complicated distribution system reliability issues that could warrant use of the full 60-day review period.[564] And as the New England Public Utilities note, "the amount of time required will almost certainly depend on the individual circumstances of each DERA registration or modification as well as the overall volume of registrations/modifications submitted to the Host Utility during a particular period."[565] Moreover, while the Commission stated in Order No. 2222 that it may be appropriate for each RTO/ISO to abbreviate the distribution utility's review of modifications to the distributed energy resource aggregations, the Commission did not

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[561] Transmittal at 39 ("While any such review is in progress, there will be no pause in the DERA's participation in New England Markets.").

[562] *See supra* P 207.

[563] Order No. 2222-A, 174 FERC ¶ 61,197 at P 72 ("[We] reiterate that any proposed review period must be shown to be reasonable based on what is being reviewed."); *see also* NYISO Compliance Order, 179 FERC ¶ 61,198 at P 324.

[564] *See* New England Public Utilities Answer at 20-21 (discussing potential risks and complications).

[565] *Id.* at 21; *see* ISO-NE April 20 Answer at 21 ("The specific modifications will dictate the need and extent of Host Utility review; the ISO cannot prejudge the amount of time it should take to conduct DERA modification reviews other than it should not take more than 60 days."); NYISO Compliance Order, 179 FERC ¶ 61,198 at P 324 (noting, in approving a 60-day review period for modifications, that "certain modifications may require more in-depth study, and may arise when there are other modifications or newly-registered Aggregations that the Distribution Utility must review concurrently").

require the RTOs/ISOs to abbreviate this review period.[566] We thus decline AEE, PowerOptions, and SEIA's request to direct ISO-NE to establish an interim deadline for the Host Utility to either approve the modification or identify and justify the need for a full 60-day review.

247. Finally, we find that ISO-NE complies with the requirement that, if an RTO/ISO requires distributed energy resource aggregators to provide information on the physical or operational characteristics of its distributed energy resource aggregation, then the RTO/ISO must revise its tariff to ensure that distributed energy resource aggregators must update such information if any modification to the list of resources participating in the aggregation results in a change to the aggregation's performance.[567] ISO-NE requires that, when a distributed energy resource is added to or removed from an existing Distributed Energy Resource Aggregation, the Distributed Energy Resource Aggregator shall update the Distributed Energy Resource Aggregation's registration information. Specifically, ISO-NE requires that a Distributed Energy Resource Aggregation must update "the information required by applicable ISO New England Manuals, sufficient to confirm that any newly added Distributed Energy Resources are eligible for participation" and "the updated performance capabilities of the aggregation to be reflected in the aggregation's registration information."[568]

8. Effective Date

248. In Order No. 2222, the Commission required each RTO/ISO to propose a reasonable implementation date, together with adequate support explaining how the proposal is appropriately tailored for its region and implements Order No. 2222 in a timely manner.[569] The Commission stated that it will establish on compliance the effective date for each RTO's/ISO's compliance proposal.

a. Filing

249. ISO-NE proposes two different effective dates.[570] First, ISO-NE requests that the rules for Distributed Energy Capacity Resource participation in the Forward Capacity

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[566] Order No. 2222, 172 FERC ¶ 61,247 at P 337. *See also* NYISO Compliance Order, 179 FERC ¶ 61,198 at P 324.

[567] Order No. 2222, 172 FERC ¶ 61,247 at P 338.

[568] ISO-NE Tariff, § III.6.7(e)(i).

[569] Order No. 2222, 172 FERC ¶ 61,247 at P 361.

[570] Transmittal at 42-43.

Market, the SGIP amendments, and certain definition changes become effective November 1, 2022. ISO-NE states that this will allow for Distributed Energy Capacity Resource participation in time for FCA 18 and certainty for DER developers with respect to interconnection jurisdiction going forward.

250. Second, ISO-NE requests that the remainder of the Tariff sections be made effective on November 1, 2026, which is seven months before the FCA 18 capacity commitment period begins. ISO-NE argues that this date is reasonable in light of the implementation needs of ISO-NE, Transmission Owners, and Host Utilities, which include software development for the integration of DERAs into wholesale markets, Host Utility development of systems and procedures to review the eligibility of DERs to participate in wholesale markets, and to assess the safety and reliability impacts of DERs on the distribution system at the time of registration and for real-time operations. ISO-NE further argues that it is likely that additional utilities will have deployed advanced metering infrastructure by the November 1, 2026 effective date, which would further facilitate DERA participation in wholesale markets. ISO-NE states that the latter effective date will also allow RERRAs to conduct any necessary rulemaking processes to coordinate the participation of DERs in both retail and wholesale markets, to review Host Utility implementation plans to the extent necessary, and to allow Host Utilities to implement RERRA orders.

b. Comments/Protests

251. AEE, PowerOptions, and SEIA state that, with respect to implementation of Tariff changes to enact energy and ancillary services participation for DERAs, some of the solutions they propose in their protest could be implemented on a shorter timeframe.[571] AEE, PowerOptions, and SEIA therefore request that the Commission direct ISO-NE to consider a phased approach that would afford opportunities to integrate DERs into its energy and ancillary services markets before the currently-proposed 2026 effective date.

c. Data Request Response

252. In the Data Request, Commission staff asked ISO-NE what implementation steps it must complete to allow for Distributed Energy Capacity Resource participation in FCA 18 after the Commission issues an order.[572] In its reply, ISO-NE explains that the qualification process for FCA 18 will begin in March 2023, and for Distributed Energy Capacity Resources to be part of FCA 18, a Show of Interest form[573] must be submitted

[571] AEE, PowerOptions, and SEIA Protest at 51.

[572] Data Request at 24.

[573] Tariff § III.13.1.1.2.1 (New Capacity Show of Interest Form).

between late April and early May 2023 including supporting information.[574] ISO-NE states that it is already developing new software, creating new internal processes to review Distributed Energy Capacity Resource proposals and potential trainings, and that all of this must be developed and finalized prior to spring 2023.

253. In addition, Commission staff asked ISO-NE to explain the relevant milestones and associated deadlines for FCA 18 that a Distributed Energy Capacity Resource needs to meet if it wishes to participate in FCA 18 and to explain whether the distribution utility review period occurs prior to those milestones.[575] In its reply, ISO-NE identifies the following major milestones for new capacity resources (including Distributed Energy Capacity Resources) wishing to participate in FCA 18 where critical information needs to be submitted by the project sponsor: (1) ISO-NE notifies existing capacity resources of qualified capacity values (expected to be March 16, 2023); (2) ISO-NE posting of retirement and permanent de-list bid information (expected to be April 12, 2023); (3) show of interest submission window (expected to be April 24 to May 8, 2023); and (4) new capacity qualification package submission window (expected to be June 20 to June 28, 2023).[576] ISO-NE explains that Host Utilities do not need to review Distributed Energy Capacity Resources. However, ISO-NE states, ISO-NE may ask Host Utilities to verify that any Distributed Energy Capacity Resources seeking qualification that rely upon DER interconnections and/or agreements have provided accurate information about these interconnection requests and/or agreements.

254. In the Data Request, Commission staff asked ISO-NE to explain whether any double compensation may occur as a result of the staggered implementation dates and if there is any concern that a DER that participates in a retail program during the intervening period between November 1, 2022 and November 1, 2026 may receive double compensation in both the wholesale markets and retail programs for the same product during that intervening period.[577] In its response ISO-NE explains that double compensation will not occur as a result of the staggered implementation timeframe because a Distributed Energy Capacity Resource that clears in FCA 18 will have a Capacity Supply Obligation starting on June 1, 2027, after the energy and ancillary services markets revisions become effective on November 1, 2026.[578] ISO-NE explains that single resource aggregations could participate in the energy and ancillary services

[574] Data Request Response at 33-34.

[575] Data Request at 24.

[576] Data Request Response at 34-35.

[577] Data Request at 24.

[578] Data Request Response at 35.

markets under one of the existing participation models should these DERAs reach commercial operation before November 1, 2026. However, according to ISO-NE, while any DERAs that are registered on or after November 1, 2026 could participate in the energy and ancillary services markets at that time, they could not be associated with a Distributed Energy Capacity Resource with a Capacity Supply Obligation until June 1, 2027; thus, ISO-NE has no concern with double compensation.

255. Commission staff requested, with respect to ISO-NE's request for a November 1, 2026 effective date for the Tariff revisions related to the energy and ancillary services markets, that ISO-NE clarify and provide detail regarding important milestones and timetables of the implementation needs of ISO-NE, Transmission Owners, and Host Utilities.[579] In its reply, ISO-NE states that between the Commission's acceptance of its proposal and November 1, 2026, ISO-NE will need to update numerous business processes, operating procedures and manuals, and software systems to accommodate DERAs. ISO-NE states that specific milestone dates and/or timetables for these changes are not available at this time; however, ISO-NE expects that it will need to update business processes and operating procedures and manuals related to DER/DERA registration, DER/DERA review and activation, operational coordination, communication of dispatch instructions, telemetry information and meter data, settlement, and billing. ISO-NE explains that many of these processes and procedures need to be developed in coordination with the development of Host Utility systems and that ISO-NE will need to modify software systems related to DER and DERA registration, unit commitment and dispatch, reserve designation, communication of dispatch instructions, telemetering and metering data, settlement, and billing. ISO-NE states that changes to operating procedures and manuals will be reviewed by stakeholders through various NEPOOL technical committees and that ISO-NE must manage the DERA implementation effort along with numerous other ongoing initiatives.[580] ISO-NE explains that all of these

[579] Data Request at 24-25.

[580] For example, ISO-NE notes that it currently is undertaking (or has scheduled to undertake before 2026) initiatives such as Next Generation Markets replacement, rules incorporating solar generators into ISO-NE's do not exceed dispatch rules, line rating changes associated with Order No. 881, removal of the minimum offer price rule, capacity accreditation and associated Forward Capacity Market changes, and day-ahead ancillary services. ISO-NE states that other priority work – e.g., the development of market-based approaches to address regional decarbonization efforts – may also be initiated within this timeframe. Data Request Response at 36. *See Managing Transmission Line Ratings*, Order No. 881, 177 FERC ¶ 61,179 (2021), *order on reh'g*, Order No. 881-A, 179 FERC ¶ 61,125 (2022).

efforts are currently being worked on by ISO-NE and/or are scheduled to be implemented before November 1, 2026.

256. ISO-NE further states that the Transmission Owners and distribution utilities have informed ISO-NE that there are variations to their existing processes and capabilities to implement Order No. 2222.[581] ISO-NE asserts that several new business processes and capabilities need to be reviewed and potentially updated or established to ensure support of ISO-NE implementation of Order No. 2222. ISO-NE contends that associated state tariff changes will be required to accommodate the participation of DERAs in the ISO-NE wholesale markets. ISO-NE states that it is not possible currently to provide details regarding specific milestone dates and/or timetables for the implementation needs, nor is it possible to identify all such business processes and capabilities that ISO-NE, Transmission Owners, and Host Utilities need to develop. ISO-NE states that Transmission Owners and distribution utilities have further indicated that implementation of any of the new capabilities and business processes described above for each of the Transmission Owners and Host Utilities would be contingent on receipt of approved cost recovery from their respective RERRAs, the pathways and timing for which have not yet been developed and which may vary by entity and by state.

d. Commission Determination

257. We find that ISO-NE's proposed implementation timeline complies with the effective date requirements of Order No. 2222. ISO-NE proposes two effective dates: (1) November 1, 2022, for the rules for Distributed Energy Capacity Resource participation in the Forward Capacity Market, the SGIP amendments, and certain definition changes, and (2) November 1, 2026, for the remaining Tariff sections. We find that ISO-NE's proposed implementation dates are reasonable, and that ISO-NE has provided adequate support explaining how the proposal is appropriately tailored for its region and implements Order No. 2222 in a timely manner.[582] Specifically, the November 1, 2022 effective date allows for Distributed Energy Capacity Resource participation in the earliest possible forward capacity auction, FCA 18.[583] We agree with ISO-NE that there are significant implementation needs associated with Order No. 2222 compliance and these will require substantial coordination among affected entities,

[581] Data Request Response at 36.

[582] We note that the proposed effective date for the SGIP amendments is not relevant to this finding because we are rejecting those amendments. *See supra* P 37.

[583] *See* Data Request Response at 33 (stating that the qualification process for FCA 18 will begin in March 2023).

including ISO-NE, Transmission Owners, distribution utilities, and RERRAs.[584] We believe that ISO-NE's proposal to align the effective date of energy and ancillary services market participation of DERAs with the capacity commitment period for FCA 18 is appropriately tailored to ISO-NE's market design while also providing a reasonable amount of time for these implementation needs. We disagree with the AEE, PowerOptions, and SEIA's suggestion that ISO-NE should implement Tariff revisions using a phased-in approach. While we recognize that there could be benefits from a phased-in approach for market participants, such an approach is unreasonable in this proceeding because the benefits would likely be outweighed by the complications and burdens involved for ISO-NE and the staff of other coordinating organizations.

258. However, to ensure ISO-NE continues working towards implementing Order No. 2222 in its energy, capacity, and ancillary services markets in a timely manner as proposed,[585] we direct ISO-NE to file an informational filing within 30 days of the date of the issuance of this order to provide an update on implementation timeline milestones associated with participation in FCA 18 and its other markets, considering factors including but not limited to development of new software and new internal processes to review Distributed Energy Capacity Resource proposals and potential trainings, major milestones and associated deadlines for FCA 18 for Distributed Energy Capacity Resources, and updates that ISO-NE intends to make to business processes, operating procedures and manuals, and software systems to accommodate DERAs.

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[584] Transmittal at 42-43 (identifying (1) software development for the integration of DERAs into wholesale markets, (2) Host Utility development of systems and procedures to review the eligibility of DERs to participate in wholesale markets, and to assess the safety and reliability impacts of DERs on the distribution system at the time of registration and for real-time operations, and (3) RERRAs conducting any necessary rulemaking processes to coordinate the participation of DERs in both retail and wholesale markets, reviewing Host Utility implementation plans to the extent necessary, and allowing for implementation of RERRA orders by Host Utilities); Data Request Response at 35-36 (explaining that ISO-NE will need to update numerous business processes, Operating Procedures and Manuals, and software systems to accommodate DERAs between Commission acceptance of its proposal and November 1, 2026, and that many processes and procedures need to be developed in coordination with the development of Host Utility systems).

[585] Order No. 2222, 172 FERC ¶ 61,247 at P 361 ("require[ing] each RTO/ISO to propose a reasonable implementation date, together with adequate support explaining how the proposal is appropriately tailored for its region and implements this final rule in a timely manner").

The Commission orders:

(A) ISO-NE's compliance filing is hereby accepted in part and rejected in part, subject to further compliance filings, as discussed in the body of this order.

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

(C) ISO-NE is hereby directed to submit a further compliance filing, within 30 days of the date of issuance of this order, as discussed in the body of this order.

(D) ISO-NE is hereby directed to submit a further compliance filing, within 180 days of the date of issuance of this order, as discussed in the body of this order.

(E) ISO-NE is hereby directed to submit an informational filing, within 30 days of the date of issuance of this order, as discussed in the body of this order.

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

(S E A L)

Kimberly D. Bose,
Secretary.

Appendix A

Tariff Records Filed

ISO New England, Inc.

FERC FPA Electric Tariff

ISO-NE Tariffs

Docket No. ER22-983-000

Effective 11/1/2022

I.2, I.2 Rules of Construction; Definitions (142.0.0)

III.12, III.12 Calculation of Capacity Requirements (25.0.0)

III.13.1, III.13.1 Forward Capacity Auction Qualification (76.0.0)

III.13.2, III.13.2 Annual Forward Capacity Auction (65.0.0)

III.13.3, III.13.3 Critical Path Schedule Monitoring (18.0.0)

III.13.4, III.13.4 Reconfiguration Auctions (28.0.0)

III.13.5, III.13.5 Bilateral Contracts in the Forward Capacity Market (27.0.0)

III.13.6, III.13.6 Rights and Obligations of Capacity Resources (43.0.0)

III.13.7, III.13.7 Performance, Payments and Charges in the FCM (70.0.0)

Effective 11/1/2026

I.2, I.2 Rules of Construction; Definitions (143.0.0)

III.1, III.1 Market Operations (65.0.0)

III.2, III.2 LMPs and Real-Time Reserve Clearing Prices Calculation (36.0.0)

III.3, III.3 Accounting and Billing (25.0.0)

III.6, III.6 Local Second Contingency Protection Resources (5.0.0)

III.9, III.9 Forward Reserve Market (22.0.0)

III.10, III.10 Real-Time Reserve (9.0.0)

III.14 Regulation Market, III.14 Regulation Market (17.0.0)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc. and New England Power Pool Participants Committee	Docket Nos.	ER22-983-000 ER22-983-001

(Issued March 1, 2023)

DANLY, Commissioner, *concurring*:

1. I concur with this order on the compliance filing[1] submitted by ISO New England Inc. (ISO-NE) and New England Power Pool Participants Committee (NEPOOL), in response to Order No. 2222.[2] I dissented from Order No. 2222 because I disagreed that the Commission should exercise jurisdiction over the participation of Distributed Energy Resources in markets administered by Regional Transmission Organizations or Independent System Operators (collectively, RTOs).[3] My concern was that the Commission should not be in the business of micro-managing RTO activities that primarily affect the distribution system which is itself primarily within the jurisdiction of the states.

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

3. This underscores my original concern about the Commission's intrusive interference into the administration of RTO markets and distribution-level systems. Order No. 2222 not only took over many state powers but also—as confirmed today—

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[1] *ISO New England Inc., et al.*, 182 FERC ¶ 61,137 (2023).

[2] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197, *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021).

[3] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020) (Danly, Comm'r, *dissenting*); *see also Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222-A, 174 FERC ¶ 61,197 (2021) (Danly, Comm'r, *dissenting*).

permits RTOs extremely limited discretion to do anything other than step in line with the Commission's directives for how every little thing should work.

For these reasons, I respectfully concur.

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James P. Danly
Commissioner

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England and New England Power Pool Participants Committee	Docket Nos. ER22-983-000 ER22-983-001

(Issued March 1, 2023)

CLEMENTS, Commissioner, *concurring*:

1. I concur with the Commission's Order because, importantly, it finds that ISO New England has not fully complied with Order No. 2222's metering and telemetry requirements. The Commission requires ISO New England to adhere to the plain text of Order No. 2222, which requires the DER Aggregator, and not host utilities, to provide metering and telemetry information to the ISO.[1] And it finds that ISO New England must either provide a better explanation as to why its approach to metering for behind-the-meter Distributed Energy Resources (DERs) was necessary and does not impose undue barriers to market participation, or else modify its proposal to address undue barriers and make participation more workable.[2] I write separately to urge ISO New England to take the latter course on compliance, and to pursue steps that genuinely open its markets to DERs like behind-the-meter resources.

2. ISO New England faces an immediate and dangerous grid reliability threat.[3] Given these challenges, ISO New England should be pursuing all possible options to

[1] *See* Order at P 169. *See also Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247, at P 266 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197 (2021), *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021) ("[T]he distributed energy resource aggregator . . . is the single point of contact with the RTO/ISO, responsible for managing, dispatching, metering, and settling the individual distributed energy resources in its aggregation.").

[2] *See* Order at PP 163-168.

[3] *See, e.g., RENEW Northeast, Inc. and the American Clean Power Association v. ISO New England Inc.*, 182 FERC ¶ 61,085 (2022) (Clements, Comm'r, concurring, at P 3) (describing the reliability threat presented for the region and the urgent call to action following the Commission's September 2022 New England Winter-Gas Electric Forum). Commenters are seeking long-term solutions to the energy security problem. *See, e.g.*, FirstLight Power, Inc., Post-Forum Comments, Docket No. AD22-9-000, at 2-3 (filed

increase electricity supply and reduce demand. Yet despite the Commission's clear directive in Order No. 2222 that it must open its markets to DER aggregations and allow them to provide all services they are technically capable of delivering, ISO New England put forth a proposal that was almost universally panned by prospective market participants seeking to integrate behind-the-meter resources into its markets.

3. Advanced Energy Economy (AEE), PowerOptions, and the Solar Energy Industries Association (SEIA) state that "ISO-NE's compliance proposal fails to meet the basic directive of Order No. 2222 to allow all DERs to provide all the services they are technically capable of providing through aggregation."[4] The Advanced Energy Management Alliance (AEMA) argues that the proposal "fails to remove significant barriers to entry, that, if allowed to remain, will prevent a large portion of the [DERs] proliferating behind the meter from participating in the ISO-NE market as part of an aggregation."[5] Voltus, Inc. declares that ISO New England's "compliance filing retains existing or even erects new barriers to the participation of [DER Aggregations] in the wholesale market in New England."[6] And the Massachusetts Attorney General's office (Massachusetts AG) asserts that "under the ISO-NE proposal, Behind the Meter (BTM) resources such as residential and small commercial DERAs will have no commercially viable way to participate in the New England wholesale markets."[7] To put it simply, stakeholders think that ISO New England's proposal for behind-the-meter DERs is patently insufficient to meet the basic objective of Order No. 2222 of opening its markets to behind-the-meter DER.

4. In reading ISO New England's filings in this proceeding, one comes away with the impression that developing a workable participation framework for behind-the-meter DER is nearly impossible. For example, it contends that its approach to submetering,

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Nov. 7, 2022); New England States Committee on Electricity, Comments, Docket No. AD22-9-000, at 4 (filed Nov. 7, 2022); Connecticut Department of Energy and Environmental Protection and the Connecticut Public Utilities Regulatory Authority, Comments, Docket No. AD22-9-000, at 2 (filed Nov. 7, 2022); Repsol Energy North America Corporation, Comments on the New England Winter-Gas Electric Forum, Docket No. AD22-9-000, at 1 (filed Nov. 7, 2022); Vistra Corp., Comments, Docket No. AD22-9-000, at 1 (filed Nov. 7, 2022); ISO New England, Post-Forum Comments, Docket No. AD22-9-000, at 3 (filed Nov. 7, 2022).

[4] AEE, PowerOptions, and SEIA Protest at 11.

[5] AEMA Protest at 1.

[6] Voltus Protest at 6.

[7] Massachusetts AG Protest at 2.

which stakeholders argue stymies virtually all potential market participation,[8] is necessary in order to prevent double counting.[9] Yet somehow, other regions, including those that do not have universally-deployed Advanced Metering Infrastructure, have found a way to guard against double counting without blocking behind-the-meter DERs' ability to participate.[10] ISO New England is like an architect declaring that it is impossible to construct higher than a 50-story building, even as competitors have already built the Empire State Building and Sears Tower, and are making plans for One World Trade Center.

5. Perhaps understanding its deficiency as compared to other RTOs, ISO New England goes so far as to argue that the Commission should ignore information juxtaposing its restrictive approach against the more workable alternatives put forward by other regions.[11] While ISO New England is correct that we must judge its compliance proposal against the requirements of Order No. 2222 and not whether its participation framework is as good as or better than others', information from other regions is undeniably relevant to addressing the question of whether barriers imposed by the ISO are necessary, or whether the barriers are undue because it could have facilitated participation without imposing them. Nor do the unique circumstances of ISO New England necessarily provide an excuse for not adopting an approach similarly to those successfully pursued elsewhere. ISO New England ignores its own agency and ability to *change* the market paradigm. The market framework in New England is not set forth from on high and irreversibly inscribed into stone tablets. Rather than declaring that wood is not strong enough, facing a Commission directive to build a skyscraper, the ISO should procure steel.

6. ISO-NE's deficiency is all the more troubling in light of other facets of New England's regulatory landscape that enhance the ability of ISO New England to integrate DER into its markets, and the potential increased reliability payoff of doing so. As the

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[8] *See, e.g.*, AEE, PowerOptions, and SEIA Protest at 15-16, 18-23; AEMA Protest at 7, 23-24; Environmental Organizations Protest at 4-10; Massachusetts AG Protest at 5; Voltus Protest at 11-14.

[9] ISO New England April 2022 Answer at 8.

[10] In finding that ISO New England has failed to articulate steps it "contemplated to avoid imposing unnecessarily burdensome costs on the distributed energy resource aggregators and individual resources in distributed energy resource aggregations that may create an undue barrier to their participation in RTO/ISO markets," the Commission's order rightly notes "that other RTOs/ISOs have proposed alternative metering and telemetry solutions to reduce burdens on behind-the-meter DERs." Order at P 166.

[11] *See* ISO New England April 2022 Answer at 32-33.

New England States Committee on Electricity (NESCOE) recently observed, "[t]he New England states have long been leaders in energy efficiency and demand response programs."[12] NESCOE urges States and ISO New England to "prioritize investments in energy efficiency and demand response as part of our region's response to energy adequacy risks."[13] And the Massachusetts Attorney General's offices notes that Massachusetts "has ambitious targets for the addition of DERs over the next few years, including another 2,650 MW of solar under the SMART program and 1,000 MW of battery storage by 2025."[14]

7. ISO New England is at an inflection point. I support the Commission's demand for, at minimum, better explanation from ISO New England. But the ultimate impact of this Order will depend heavily on the approach the ISO takes on compliance. Will it roll up its sleeves and pursue a problem-solving approach to integrating behind-the-meter resources, as other RTOs have done? Will it work to collaboratively embrace and leverage all potential resources the region can rely on to lower costs for consumers and prevent dangerous blackouts? Or will it rigidly defend a status quo metering framework that stymies this critical opportunity to improve reliability? The Commission's forum in Burlington, VT and the record filed in response to it have strengthened my view that the only way to address the reliability threat in New England is for ISO New England and member states to put every possible supply and demand resource type on the table and work together to remove all barriers to participation across the board. I strongly encourage ISO New England to do everything in its power to find solutions.

For these reasons, I respectfully concur.

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Allison Clements
Commissioner

[12] NESCOE, Comments, Docket No. AD22-9-000, at 13 (filed Nov. 7, 2022) (in response to the Commission's inquiry into winter reliability issues in the region).

[13] *Id.* at 14. Similarly, Connecticut encourages the development of clean solutions to address the region's winter reliability needs, including more robust participation from active and passive demand response. Connecticut Department of Energy and Environmental Protection and the Connecticut Public Utilities Regulatory Authority, Comments, Docket No. AD22-9-000, at 4-5 (filed Nov. 7, 2022).

[14] Massachusetts AG Protest at 1.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc. and New England Power Pool Participants Committee	Docket Nos.	ER22-983-000 ER22-983-001

(Issued March 1, 2023)

CHRISTIE, Commissioner, *dissenting*:

1. I dissent because, among other reasons, the order does not accept as filed ISO- NE's entirely reasonable and commendable efforts to ensure that measurement and verification ("M & V") procedures are as accurate as possible so as to prevent foreseeable errors such as double counting. This issue is further discussed in much more detail in this statement.[1] It is frankly mystifying why the order would suggest that we might reject ISO-NE's efforts to be accurate in trying to prevent overpayments to resources, overpayments that will come right out of consumers' pockets. We should be encouraging RTOs to adopt rigorous M & V measures, not undercutting them when they try to do so.

2. In a more general sense, I just note what I have said before: Had I been on the Commission when Order No. 2222 was issued, I would have voted against it.[2]

3. The problems and complexities of complying with Order No. 2222 are extreme. This is no surprise to anyone who has studied Order Nos. 2222 and its progeny. But if the Commission were ever in doubt, the extreme difficulty of putting the world created by Order No. 2222 into practice was proven when four of the nation's six RTOs — including ISO-NE — requested extensions to make their compliance filings.[3] As I noted

[1] *See infra* at PP 6-13.

[2] *See, e.g.*, *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 175 FERC ¶ 61,227 (2021) (Order No. 2222-B) (Christie, Comm'r, concurring in part and dissenting in part at P 3) ("I would have voted against Order No. 2222 had I been a member of the Commission at that time and I did vote against Order No. 2222-A.") (available at https://staging.ferc.gov/news-events/news/item-e-4-commissioner-mark-c-christie-partial-concurrence-and-partial-dissent).

[3] MISO, Extension Motion, Docket No. RM18-9-000 (filed Feb. 17, 2021); SPP, Extension Motion, Docket No. RM18-9-000 (filed Feb. 18, 2021); PJM, Extension Motion, Docket No. RM18-9-000 (Feb. 26, 2021); ISO-NE, Extension Motion, Docket No. RM18-9-000 (filed Apr. 16, 2021) (ISO-NE Extension Motion).

in my concurrence to the letter order in which the Commission granted ISO-NE's extension request:

> [T]he motion filed by ISO-NE illustrates the daunting complexities and certain increased costs to consumers, which I referenced in my dissent to Order No. 2222-A and which apply equally to its forebear, Order No. 2222. The problems and complexities of compliance described in ISO-NE's Motion are further evidence that implementing Order Nos. 2222 and 2222- A will be far more complicated, far more costly to consumers and far more burdensome to states, public and municipal power authorities, and electric co-operatives, than these orders and many of their supporters acknowledge.[4]

4. That the costs associated with Order No. 2222 compliance will be enormous and paid by the consumer is something that cannot be denied. Equally obvious to me, is that these costs will be driven by the very complexities of the resulting grid upgrades *required by this Commission* in that order:

> [T]he majority also sides against the consumers who for years to come will almost surely pay billions of dollars for grid expenditures likely to be rate-based in the name of "Order 2222 compliance." . . . A rapid concentration of behind-the-meter aggregated DERs at various locations on the local grid will inevitably require costly upgrades to a distribution grid that has largely been engineered to deliver power *from* the substation *to* end-user retail customers. Meeting the technological challenges of this re-engineering of the local grid are not insuperable but there are substantial costs and we all know these costs will ultimately be imposed on retail consumers.[5]

5. ISO-NE itself raised a red flag to such daunting complexities in its Extension Motion to submit the very compliance filing before the Commission today. And it is

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[4] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 175 FERC ¶ 61,156 (2021) (Christie, Comm'r, concurring at P 3) (emphasis in original) (footnote omitted) (available at https://www.ferc.gov/news-events/news/commissioner-mark-c-christie-concurrence-regarding-order-granting-compliance-0).

[5] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System* Operators, 174 FERC ¶ 61,197 (2021) (Order No. 2222-A) (Christie, Comm'r, dissenting at PP 1, 4) (footnotes omitted) (available at https://www.ferc.gov/news-events/news/item-e-1-commissioner-mark-c-christie-dissent-regarding-participation-distributed).

exactly one of the complexities it flagged that is now being summarily returned to the ISO for more information by the majority.

6. Specifically, one of the reasons ISO-NE offered for needing more time to make its compliance filing was that "[i]n stakeholder discussions to date, a number of specific metering-related challenges have arisen, particularly associated with metering and reporting for DER aggregations that include behind-the-meter components."[6] Among these issues was the potential for double counting and related metering and measurement issues. To its credit, the NEPOOL Markets Committee referred those issues to its Meter Reader Working Group.[7]

7. Today's order declines to accept ISO-NE's proposal as it relates to the measurement at the retail delivery point (RDP) of behind-the-meter injection/withdrawal services on the grounds that "ISO-NE has failed to demonstrate that its proposed metering and telemetry requirements for DERAs comprised of behind-the-meter DERs are just and reasonable and do not pose an unnecessary and undue barrier to individual DERs joining a DERA."[8]

8. The majority reaches its conclusion despite the fact ISO-NE stated that, with regard to DERs providing injection/withdrawal services, its metering proposal is based on numerous considerations,[9] including:

i. Order No. 2222 provides RTOs/ISOs flexibility concerning metering and telemetry requirements.[10]

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[6] ISO-NE Extension Motion at 5.

[7] *Id*.

[8] *ISO New England Inc., et al.*, 182 FERC ¶ 61,137 (2023) at P 164 (Order); *see, e.g.*, *id*. P 168 (directing "a compliance filing that explains why [ISO-NE's] proposal to require measurement of *behind-the-meter DERs not participating solely as demand response at the RDP*, unless the Assigned Meter Reader can accommodate submetering or parallel metering of the DER, is just and reasonable and does not pose an unnecessary and undue barrier to individual DERs joining an aggregation . . . .") (emphasis added).

[9] The examples provided here use as their only source ISO-NE's Transmittal Letter that accompanied its original filing. ISO-NE Feb. 2, 2022 Transmittal Letter (Transmittal). Therefore, it does not include any statements and explanations made by the ISO in its answers or in its responses to staff's request for additional information.

[10] Transmittal at 32.

ii. The Demand Response Resources (DRR) model is an existing Commission-approved model related to Order No. 745[11] and the Demand Response Distributed Energy Resource Aggregation (DRDERA) model "leverages the existing DRR model platform to ensure that demand response DERs are treated in accordance with Order Nos. 719 and 745."[12]

iii. DRDERA metering for energy injection and/or withdrawal service will be provided to the ISO for the aggregation while a DRDERA's metering for demand reduction service will be at the individual DER, consistent with current metering requirements for DRRs. This DER-specific method is consistent with the ISO's treatment of individual Demand Response Assets (DRA) that make up a DRR, and "is necessary as demand reduction and energy injection produced when a DRDERA is dispatched are measured for each DER."[13]

iv. The Commission stated a "clear preference" that RTO/ISO compliance proposals should rely on retail metering currently in place for DERs to the extent possible to avoid or reduce unnecessary costs, and *that metering requirements should address double compensation concerns*.[14]

v. The responsibility for metering resources and loads that settle through the Energy Market in New England rests with the PTOs.[15] The Host Utility or its Assigned Meter Reader have various responsibilities related to the reporting of *revenue quality* metering data which is required accurately to settle the wholesale market.[16]

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[11] *Id*. at 15 & n.41 (citing seven Commission orders).

[12] *Id*. at 17.

[13] *Id*. at 33-34.

[14] *See, e.g.*, *id*. at 35 (citing Order No. 2222, 172 FERC ¶ 61,247 (2020) at P 269 (Order No. 2222)); *id*. at 32 (citing Order No. 2222 at PP 264, 269).

[15] *Id*. at 32.

[16] *Id*. at 33.

vi. At present, the majority of retail metering in New England is located at the RDP, not at a sub-meter location. In fact, "[m]any states prohibit sub-metering . . . unless explicitly authorized by the retail regulator. Mandating sub-metering would be at odds with state regulatory constructs and could potentially lead to increased costs for retail customers."[17]

vii. Nevertheless, ISO-NE incorporated flexibility into its Order No. 2222 compliance proposal by permitting "sub-metering of individual DERs where the Assigned Meter Reader is capable of reconstituting the load at the RDP, or parallel metering, so that the metered DER does not impact the reported load at the RDP."[18] In that case, ISO-NE made clear that the DER's meter data must be reported such that its output or load does not impact the reported load for the RDP to be sure retail metering is relied on to the extent possible and that the energy metered is being received by the wholesale markets.[19]

viii. The ISO made clear that "[t]his approach *narrowly addresses* double-counting concerns and *ensures the integrity of wholesale markets*."[20] ISO-NE adds detail: "if the production of a behind-the-meter generator were directly sub-metered, the same production would also reduce the load as measured at the RDP meter. Paying the behind-the-meter generator based on its directly sub-metered production while also billing the customer based on its lower RDP meter reading would result in the double counting of services, a result that the Commission ordered RTOs/ISOs to prevent."[21]

ix. ISO-NE's proposal considered the Commission's preference for the use of current retail metering constructs and its recognition that there will be variance in Order No. 2222 compliance proposals among the RTOs. ISO-NE's proposal specifically considered (a) sub-metering, (b) reconstitution, (c) parallel metering, (d) that the majority of metering in its footprint does not use sub-metering, and (e) that

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[17] *Id*. at 35 & nn.87, 90.

[18] *Id*. at 34-35.

[19] *Id*. at 34.

[20] *Id*. at 35 (emphasis added).

[21] *Id*.at 34 (citing Order No. 2222 at P 161).

> advanced metering infrastructure has not been widely deployed in New England, although various efforts are underway in the states that may permit more extensive metering in the future.[22]

9. With the backdrop of this high-level summary, how is it that ISO-NE need demonstrate further that its compliance proposal is just and reasonable when, for example, the ISO based its proposal on: the current structure of ISO-NE's own Commission-approved rules and rules of the various member-states; retail metering currently in place in order to avoid or reduce unnecessary costs (ultimately to consumers); avoiding double counting (which again avoids costs to consumers); and ensuring the integrity of the wholesale market? And, it is worth noting that all of these bases were approved considerations by Order No. 2222. Under any analysis, these factors demonstrate that the ISO's proposal in this regard is just and reasonable.

10. I also disagree with the order's directive that requires ISO-NE to provide additional detail on whether the ISO's proposal poses "an unnecessary and undue barrier to individual DERs joining an aggregation."[23] ISO-NE already has adequately addressed this issue. First, "unnecessary and undue" in my view involves a balancing of any potential barrier against any costs or benefits to consumers and the grid. Examples of the costs and benefits include the bases set forth above which, in my view, set a pretty substantial bar. Moreover, the proposal summary demonstrates that ISO-NE considered and offered alternatives — many of which may happen to be currently unavailable in much of New England. As today's order itself also points out, another alternative offered by the ISO — parallel metering — was rejected by protestors as cost prohibitive.[24]

11. While the majority's request for additional information appears odd against this backdrop, the remainder of the order may make the reasoning clearer: rather than an explanation from ISO-NE, it appears that the majority hopes the ISO will return with a completely different proposal on metering.

12. Specifically, after setting forth the majority's view that ISO's proposal requires an explanatory filing, today's order twice makes reference to what other RTOs have proposed[25] and then ultimately suggests to ISO-NE:

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[22] *See e.g.*, *supra* at P 8; Transmittal at 35.

[23] Order at P 168.

[24] *Id*. at P 137.

[25] *Id*. at P 166 (footnotes omitted) (emphasis added) ("In addition, *we note that other RTOs/ISOs have proposed alternative metering and telemetry solutions to reduce*

> Notwithstanding these findings, we note that, in ISO-NE's discussion of the steps contemplated to avoid imposing unnecessarily burdensome costs on DER Aggregators and individual resources in DERAs that may create an undue barrier to their participation in the ISO-NE markets, *ISO-NE may consider alternatives to solely relying on meter data obtained through compliance with distribution utility or local regulatory authority metering system requirements and/or existing telemetry infrastructure*.[26]

13. After all of the effort and expense invested by ISO-NE and all of the various state entities and market participants, to require even more detail on the compliance proposal when the record makes clear to me that the proposal has met the requirements imposed by Order No. 2222 is not something I can support.

For these reasons, I respectfully dissent.

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Mark C. Christie
Commissioner

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burdens on behind-the-meter DERs. For example, *PJM* proposed to allow DER Aggregators to meter a representative sample of Component DERs for non-interval metered residential DER Aggregation Resources. *NYISO* allows Aggregators in some cases to use alternative measurement and verification tools to avoid the need for small utilities to install additional hardware and software, and *CAISO* generally does not impose physical metering standards on each DER or distributed curtailment resource and only subjects the DERA to wholesale metering requirements."); *id*. P 168 (stating that any explanatory filing should include a "discussion of what less burdensome alternative approaches were considered, such as whether the approaches already approved by the Commission for other RTOs/ISOs were considered, and an explanation of why the more burdensome approach was necessary.").

[26] *Id*. at P 172 (footnote omitted) (emphasis added) (citing to Order at P 168).

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