UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc.	)	**Docket No. ER22-983**

COMMENTS AND LIMITED PROTEST OF ENVIRONMENTAL ORGANIZATIONS

Pursuant to Rules 210 and 211 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission" or "FERC"),[1] Acadia Center, Conservation Law Foundation, Environmental Defense Fund, Massachusetts Climate Action Network, Natural Resources Defense Council, Sierra Club, and the Sustainable FERC Project (collectively, "Environmental Organizations") respectfully submit these comments and limited protest regarding ISO New England's ("ISO-NE") filing in the above-captioned docket (the "Proposal").

I. Introduction

ISO-NE's filing proposes an overall just and reasonable framework that largely meets Order 2222's[2] requirements and mitigates barriers to the participation of various types of distributed energy resources ("DERs") in New England's wholesale markets. The Proposal's effective approach to geographic aggregation is particularly notable. However, the Proposal suffers from several specific but material flaws. In particular, the proposed treatment of DERs located behind retail meters and associated metering and telemetry requirements are not in

[1] 18 C.F.R. §§ 385.210 and 385.211.

[2] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators,* 172 FERC ¶ 61,247 (2020) ("Order 2222");

compliance with Order 2222. Additionally, the proposed distribution utility review process exceeds the bounds set forth in Order 2222.

A key effect of the Proposal's defects, if not remedied, would be to substantially limit the ability of flexible load and behind the meter ("BTM") resources to participate in wholesale markets in New England. As ISO-NE has noted, both electric vehicles and electric heat pumps are expected to become significant components of electric demand in the region by the end of the decade.[3] While flexible load is an important resource in all markets because it can provide a lower-cost, highly flexible resource to help meet demand and improve reliability, flexible load can provide unique system benefits in New England where access to gas is constrained, particularly in the winter months, and other resources such as energy storage remain limited. Thanks to their inherent storage capabilities, electric vehicles and their charging stations have potential to become a major source of flexible load and ancillary services. Maximizing the use of these behind the meter DERs in ISO-NE markets can also amplify the benefits of substantial investments being made by the New England states in controllable demand-side resources such as heat pumps, hot water heaters, and electric vehicle charging stations. Environmental Organizations therefore respectfully request that the Commission approve ISO-NE's filing but issue further compliance directives to correct the Proposal's remaining flaws to ensure that the region's Tariff is just and reasonable and in full compliance with Order 2222, as detailed further below.

[3] ISO Newswire, *Light-duty electric vehicles, heat pumps expected to top 1 million regionally in 2030, according to ISO-NE forecast* (May 5, 2021) ("ISO-NE Electrification Article"). Available at https://isonewswire.com/2021/05/05/light-duty-electric-vehicles-heat-pumps-expected-to-top-1-million-regionally-in-2030-according-to-iso-ne-forecast/.

II. Comments

ISO-NE's proposal is characterized by a number of "participation models" that it either modifies or creates to allow market participation by various types and configurations of DERs. The Proposal meets Order 2222 requirements with regard to DER size, aggregation and locational requirements, bidding parameters, operational coordination, opt-ins for small utilities, and interconnection.[4] The proposed approach to aggregation and locational requirements is noteworthy for its flexibility and ease of implementation.

a. ISO-NE's approach to geographic aggregation is reasonable and should be considered as a model for other regions.

In Order 2222, the Commission found that aggregating DERs over broad geographic areas brings "improved market entry and competition," and "allow[s] for greater market participation by reducing transaction costs."[5] The Commission also found that system topology and technical concerns set limits on the RTOs' ability to support wide aggregations, and so ordered the RTOs to support aggregations "that are as geographically broad as technically feasible."[6]

ISO-NE proposes to allow DER aggregations within their existing "DRR Aggregation Zones." Those zones are pre-identified portions of the ISO-NE system with minimal internal transmission congestion.[7]

This is a reasonable approach to meet the "as broad as technically feasible" standard. As ISO-NE notes, larger areas would create risk that a DER aggregation straddles a transmission constraint, which in turn would make it unclear how the aggregation might affect power flows.

[4] Order 2222 at 171, 204, 225, 310, 352 and 90-93, respectively.
[5] *Id.* at 205 and 206.
[6] *Id.* at 204.
[7] Proposal at 25-26 and note 66.

Thus, the geographic limits ISO-NE proposes are based on underlying properties of the transmission system, rather than market constructs or software limitations. Limits on aggregation based on transmission constraints are inherently not arbitrary, and ISO-NE's proposal to only limit aggregations based on those constraints easily meets Order 2222's directive to allow aggregation over as broad an area as feasible.

Environmental Organizations respectfully request the Commission take note of ISO-NE's approach (and a similar one filed by NYISO) as a benchmark for identifying the broadest feasible area for DER aggregations and consider it in evaluating proposals from other RTOs/ISOs for more restrictive geographic aggregation limits.

III. Limited Protest

Although the Proposal is sound in most respects, it contains several provisions that are unjust, unreasonable, or unduly discriminatory, and/or that fail to comply with Order 2222. Because the Proposal has not been filed under Section 205, but rather is a compliance filing proposing a replacement rate after a finding made by the Commission under its Section 206 authority,[8] the Commission has discretion to accept the Proposal in part or modify the Proposal. As further detailed herein, we respectfully recommend that the Commission (1) accept the Proposal while (2) finding specific provisions remain "unjust and unreasonable in light of barriers that they present to the participation of distributed energy resource aggregations in the RTO/ISO markets"[9] and direct ISO-NE to modify those provisions to remove these barriers.

a. The Proposal's requirement that behind the meter resources be measured at the Retail Delivery Point is unduly discriminatory and fails to meet the requirements of Order 2222.

[8] Order 2222 at 1.
[9] *Id.*

Order 2222 establishes that DERs located behind a retail meter are eligible to participate in wholesale markets and that rules for BTM DERs should enable them to provide any wholesale service which they are technically capable of providing.[10] Environmental Organizations believe that BTM DERs offer the promise of supplying services such as regulation, ramping, and reserves at low cost. As a policy matter, the industry is nearing consensus that increasing levels of variable energy resources will increase the demand for those services, making enabling new technologies that can provide these services ever more important.[11] ISO-NE forecasts that several gigawatts of electric vehicles and heat pumps will be installed in New England by 2030.[12] These technologies are being deployed for reasons other than their ability to provide wholesale electric services, but can often provide ancillary services with little or no impact on their functionality. Wholesale market rules that unlock the potential of BTM DERs thus offer the possibility of accessing a large pool of ancillary services resources that are both effectively low-capital (as they are being installed to serve other purposes) and low-operating cost. This, in turn, can play an important role in lowering the cost of maintaining system reliability as the New England states work to achieve their clean energy policy goals.

The Proposal generally requires that BTM DERs be measured using metering located at the DER's Retail Delivery Point ("RDP"),[13] rather than being directly measured through sub-meters at the DER. Exceptions to this rule are only at the pleasure of a third party, the "Host Participant Assigned Meter Reader,"[14] and are subject to other conditions whose implementation

[10] *Id.* at 114.

[11] *See, e.g.,* FERC Staff Paper, *Energy and Ancillary Services Market Reforms to Address Changing System Needs* (September 2021) Docket No. AD21-10-000. *See also* NERC, *2021 State of Reliability* (August 2021) at 52. *See also* ISO-NE, *NESCOE 2019 Economic Study-Ancillary Services Analysis* (May 2020) at 27-30.

[12] ISO-NE Electrification Article.

[13] Proposal at 18 and 34.

[14] *Id.* at 34-35.

ISO-NE describes as "speculative."[15] Thus, for practical purposes, under the Proposal behind-the-meter DERs will be measured based on their effects on their host site's retail load as a whole.

This creates two barriers for behind-the-meter DERs. First, they will be combined with other on-site retail load for compliance and settlement purposes. Because site load is not necessarily controlled and is naturally variable, this adds an element of randomness that creates artificial performance risk. This risk is especially acute for DERs that seek to provide valuable, high-precision ancillary services. Second, since behind-the-meter DERs will at least in part manifest as a reduction in host site consumption, they will have to participate under the Proposal's "DRR" or "DRDERA" participation models, which measure performance relative to a baseline of projected consumption by the host site.[16] This introduces errors and uncertainties that may result from the notoriously difficult process of determining a correct baseline[17] along with the associated complication of baseline erosion.[18]

ISO-NE offers two justifications for this approach. First, it cites a 2012 FERC order[19] approving measurement at the retail metering point for demand response resources participating in ISO-NE's markets. This reflects that under the Proposal, behind-the-meter DERs are treated as demand response up to the point at which the host site begins to inject energy. However, the Commission has already rejected this approach, finding in Order 2222 that requiring DERs to participate as demand response "often limit[s] the operations of some types of distributed energy resources, such as electric storage or distributed generation, as well as the services that they are

[15] *Id.* notes 88 and 91.

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

[17] *See, e.g.,* at 25-26, FERC Staff Report, *2021 Assessment of Demand Response and Advanced Metering* (December 2021), discussing baseline difficulties in CAISO. Available at https://www.ferc.gov/media/2021-assessment-demand-response-and-advanced-metering.

[18] *See, e.g.,* ISO-NE Compliance Filing in FERC Docket No. ER12-1627-000 (March 2013) at 9-10. Of note, in that filing ISO-NE suggests suppliers avoid baseline erosion by offering at higher prices so as to be dispatched infrequently, hardly an unduly discriminatory approach for low-cost behind-the-meter DERs.

[19] *ISO New England Inc.,* 139 FERC ¶ 61,116, at P 12 (2012) ("2012 Order").

eligible to provide."[20] Recognizing and correcting the limitations of the "DERs as Demand Response" model was part of the motivation for Order 2222. Further, the Commission took pains in Order 2222 to establish that DERs located behind a customer meter are to be treated on equal terms with DERs located elsewhere.[21] Given this, the 2012 Order can only be taken as an element of the *status quo* for DERs that Order 2222 found unjust and unreasonable. Treating the 2012 Order as dispositive, or even relevant, for treatment of DERs now would merely reinstitute the state of affairs that Order 2222 aims to fix.

The second justification given for requiring metering at the RDP is "to prevent double counting of services,"[22] where the same service is counted both as a supply and a reduction in demand. Although ISO-NE does not cite it, this hearkens to Order 2222's determination that metering requirements may be necessary to prevent double counting of services.[23] In its discussion of double counting, Order 2222 establishes that a DER may be restricted from participation in wholesale markets when it also "reduce[s] a utility's or other load serving entity's obligations to purchase services from the RTO/ISO market."[24]

This appears to be the situation ISO-NE seeks to avoid through requiring behind the meter DERs to be measured at the RDP. However, as explained further below, the double counting concern only potentially exists for the energy market. It does not apply in the reserves and regulation markets. At the same time, because reserves and regulation markets rely on precise metering to determine compliance, participation in those markets is greatly inhibited by the inaccuracies the Proposal's metering scheme introduces. A rule justified as preventing double

[20] Order 2222 at 28. *See also* Order 2222 at 3.
[21] *Id.* at 114.
[22] Proposal at 34.
[23] Order 2222 at 264, referring to double counting provisions in Order 2222 IV.C.3.
[24] *Id.* at 161.

counting in the energy market also has the effect of creating a barrier to participation in many ancillary services markets. This fails to meet the Order 2222 criteria that participation of resources in RTO/ISO markets may be limited to avoid double counting only when they "are receiving compensation for *the same services* as part of another program"[25] and that any such restrictions be narrowly designed to prevent double counting of one service while properly accounting for the different services the DER may provide.[26]

FERC has explained that double counting arises when the same action counts as both a reduction in need and an increase in supply. This happens naturally in energy markets: if a BTM DER outputs a unit of energy which serves on-site load, ISO-NE needs one less unit of energy. If ISO-NE also credits that DER with producing a unit of energy, that energy has been counted twice. The double counting problem does not arise in reserves or regulation markets, because retail customers do not consume regulation or reserves as they consume energy. Rather, retail customers are allocated a portion of the costs necessary to meet system reserves and regulation requirements. When a behind the meter DER produces a unit of reserves or regulation, ISO-NE's purchase requirements do not change.[27] The reduction in metered load (if any—reserves are only 'on call' the vast majority of the time, providing no energy, and ISO-NE offers an "Energy Neutral Dispatch" regulation service) caused by the DER has no bearing on ISO-NE's reserves and regulation requirements. The only time the DER's regulation or reserves are counted is when they are credited as supply. Thus, there is no possibility of double counting of reserves or

[25] *Id.* at 159, emphasis added.
[26] *Id.* at 160.
[27] *See* ISO New England, *Operating Procedure No. 8 – Operating Reserve and Regulation* at 6 (reserves) and 9 (regulation).

regulation from behind the meter DERs, and no justification for affording them different treatment than DERs located anywhere else on the system.[28]

As noted above, the reduction in load at the RDP will appear as both a reduction in demand and an increase in supply. The Proposal offers no mechanism to correct this, and so its metering approach does not appear to prevent double counting of energy produced by BTM DERs. Rather, the Proposal appears to accept double counting of energy as specified in FERC Order 745.[29] Order 745 states that load reductions from demand response both are to be compensated at full LMP and result in a reduction in retail billing.[30] This effectively endorses double payment of energy provided by demand resources.[31] In response to an ISO-NE compliance filing, the Commission later clarified that demand response facilitated by BTM generation is eligible for payment as demand response.[32]

Consistent with this precedent, the Proposal's metering approach results in double payment for load reductions caused by BTM DERs. However, allowing sub-metering of BTM DERs would also be consistent with precedent, and would create no new double payment. In both cases, the site's retail bill reduction is based on consumption at the RDP; thus, the amount of Order 745 payment for load reduction is identical. If energy payments to the BTM DER were based on sub-metering at the DER, the energy payments might change, but the portion of that energy in excess of reduction in retail load would not be double compensated. Thus, the Proposal's claim that requiring metering at the RDP is necessary to avoid double payment appears to fall flat. Metering at the RDP and sub-metering BTM DERs both result in identical

[28] 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.*

[29] *Demand Response Compensation in Organized Wholesale Energy Markets,* 134 FERC ¶ 61,187 (March 2011) ("Order 745")

[30] Order 745 at 54.

[31] *See* Order 745 at 3, 23-24, and 99.

[32] *Order on Compliance Filing,* 138 FERC ¶ 61,042 (January 2012) at 76-78.

double payments as directed by Order 745, but metering at the RDP introduces inaccuracies in energy payments with no offsetting benefit.

The Proposal's metering requirements for behind the meter DERs thus prevent BTM DERs from delivering all the services which they are technically capable of providing. At least in the case of ancillary services, the justifications offered for this fail to hold up under scrutiny or fall under the exclusions provided Order 2222. Indeed, the Proposal's metering requirements appear to be motivated more by a desire to maintain the current approach, where incumbent utilities enjoy a monopoly on metering services, than by any logic consistent with Order 2222. Given that the Commission has found that sales from DERs are under its jurisdiction[33] and that criteria for participation in wholesale markets by all resources, including those located behind a retail meter, are under its exclusive jurisdiction,[34] correcting these metering requirements is unambiguously within FERC's authority.[35]

If the Commission accepts the Proposal, it should also issue a new compliance directive ordering ISO-NE to make a subsequent filing allowing sub-metering of behind the meter DERs and eliminating the requirement that such metering may only be provided by the Host Participant Assigned Meter Reader. Such an order would fulfill Order 2222's goal of allowing behind the meter DERs to provide all the of services which they are technically capable of providing, and would allow DER aggregators to compete through innovation in the critical area of low-cost metering and telemetry.

b. The Proposal's DER registration procedures are potentially redundant and unduly burdensome.

[33] Order 2222 at 39-41.

[34] *Id.* at 57.

[35] The Proposal's suggestions to the contrary in footnotes 87 and 90 confuse retail and wholesale sub-metering.

As required by Order 2222,[36] the Proposal includes procedures for coordinating registration of DERs with distribution utilities.[37] The procedure in the Proposal includes a 60-day Host Utility review to confirm eligibility and evaluate safety and reliability impacts. Unfortunately, the Proposal lacks provisions to ensure that the safety and reliability review[38] is not redundant or discriminatory.

Instead, the Proposal's provisions require 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. However, DERs will only enter this process once they have successfully obtained any required distribution interconnection agreements.[39] Distribution interconnection processes almost universally review these very same issues, including issues that may arise from multiple DERs operating simultaneously. The 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. This appears to make the reviews redundant and a source of unnecessary delay. It also opens the door to discriminatory treatment by applying stricter criteria to some DERs than to others. Additionally, the Commission has exclusive jurisdiction over the criteria for DER participation in wholesale markets, meaning that Host Utilities and RERRAs *may not* set distribution interconnection criteria that are linked to participation in FERC-jurisdictional markets.

The registration review thus fails to meet Order 2222's requirement that utility review be based on specific criteria[40] and fails to consider FERC's expectation "that the state and local

[36] Order 2222 at 293-299.
[37] Proposal at 29-30, 36-37, and proposed Tariff Section III.6.7
[38] Proposed Tariff Section III.6.7(c)(i) 4 and 5.
[39] Proposed Tariff Section III.6.7(a)
[40] Order 2222 at 293.

interconnection processes for distributed energy resources will provide the appropriate platform to address and study potential distribution system impacts."[41]

We respectfully submit that the Commission should reject the portions of the Proposal detailing Host Utility engineering review (Proposed Tariff Sections III.6.7(c)(i) 4 and 5). Instead, 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[42] with FERC 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. Such an approach would be in keeping with Order 2222's findings that utility review be specific, transparent, and supplemental to state jurisdictional processes.

The remainder of the Host Utility review rules[43] concern review of various administrative items. These reviews are appropriate; however 60 days is an unreasonably long time for these tasks and appears to have been selected merely because it is the longest time allowed by Order 2222.[44] Host Utilities that have justified engineering studies (see above) should specify the time required to perform those studies as part of their filing; in the absence of those studies, Environmental Organizations submit that a much shorter time period, perhaps 15 days, is sufficient for administrative reviews.

[41] *Id.* at 294.

[42] Or cause to be filed by ISO-NE on their behalf, should stakeholders decide these provisions best reside within ISO-NE's governing documents.

[43] Proposed Tariff Section III.6.7(c)(i) other than paragraphs 4 and 5.

[44] Order 2222 at 295.

IV. Conclusion

For the aforementioned reasons, Environmental Organizations respectfully submit that the Commission should approve ISO-NE's filing in the above captioned docket, while also issuing a further compliance order directing ISO-NE to:

- Allow DERs located behind a retail meter to be individually sub-metered, with no requirement that such metering be provided by the Host Participant Assigned Meter Reader, along with any other conforming changes to enable non-discriminatory treatment of behind the meter DERs.
- Eliminate the provisions allowing for generic Host Utility electrical review of proposed DER aggregations, create provisions for individual Host Utilities to file specific, transparent review criteria if needed, and shorten the period for administrative review of DER aggregations to 15 days.

Submitted in Baltimore, MD, this 1st of April, 2022,

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Certificate of Service

I hereby certify that I have this day or the next caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at this 1st day of April, 2022.

/s/ Tom Rutigliano
Natural Resources Defense Council