



March 11th, 2022

Ms. Holly Anderson, Clerk
Vermont Public Utilities Commission
112 State Street, 4th Floor
Montpelier, VT 05602

RE: 21-3883-RULE Proposed Creation of Public Utility Commission Rule Concerning Energy Storage

Dear Clerk Anderson,

Renewable Energy Vermont ("REV") submits the comments below in response to the Vermont Public Utility Commission's ("Commission") February 16, 2022 Request for Reply Comments and Supplemental Information and to the January 20th, 2022 Workshop for Case No. 21-3883-RULE.

REV's comments reflect the reality that storage is an essential component of the transition to a resilient and equitable renewable energy economy and that the development and deployment of storage options should be broadly supported. Since storage is an evolving industry, regulators should avoid taking an overly perspective approach to ensure opportunities for growth and innovation in this crucial sector are not stifled.

JANUARY 20 WORKSHOP

With regards to the question of the relative prioritization of developing a simplified siting procedure versus adopting a rule that deals with aggregation raised by the PUC staff during the January 20th Workshop, REV agrees that there is greater urgency to resolve siting procedures than aggregation issues. Moreover, the Commission's Rulemaking related to aggregation may benefit from taking a slower approach so that the implications of FERC Order 2222 and its implementation within ISO-New England are better understood. REV recommends that the Commission consider the guiding principles advanced by Advanced Energy Economy and GridLab in their joint report on preparing the distribution system for DER aggregation under Order 2222.¹ This report highlights that Order 2222 lays the groundwork to reduce consumer costs and increase reliability and flexibility through higher utilization of DERs but that this will require a new level of collaboration and communication among DER owners and aggregators,

¹ Advanced Energy Economy and GridLab, *FERC Order 2222 Implementation: Preparing the Distribution System for DER Participation in Wholesale Markets* (January 20, 2022), <https://www.aee.net/aee-reports/ferc-order-no.-2222-implementation-preparing-the-distribution-system-for-der-participation>



distribution utilities, ISOs, and state regulators. It emphasizes that existing data collection and approval processes should be leveraged to the maximum extent possible and that a gradual approach should be employed to develop and implement requirements related to aggregation.

RESPONSES TO COMMISSION QUESTIONS

Topic 1. Simplified Siting

a. Decommissioning Plans

What information should the Commission require for decommissioning plans? Should decommissioning plan requirements vary by project size, footprint of the site and/or other factors? What special considerations should the Commission make for decommissioning of storage systems in particular? Should the Commission include decommissioning requirements in the new storage rule or amend existing Rule 5.900 to expressly apply to storage facilities?

REV believes that decommissioning requirements for storage systems should account for project size and ownership. Smaller and residential systems should not have specific decommissioning requirements at this time. For larger storage systems, decommissioning requirements should be covered via amending the existing Rule 5.900.

c. Natural Resource Assessments

The Department of Public Service ("Department") has proposed that natural resources criteria could be conditionally waived for energy storage facilities sited within existing structures. The Agency of Natural Resources ("ANR") has suggested that a full natural resources report should be submitted with every Certificate of Public Good ("CPG") petition. Are there any circumstances under which ANR would support the conditional waiver of some natural resources criteria?

REV is supportive of the Department's proposal for a conditional waiver of the natural resources criteria for facilities sited within existing structures and urges ANR to consider this approach.

e. Small Systems (under 100 kW)

Should the Commission require systems under 100 kW to register with the Commission under a general permit? In the alternative, should small systems simply be required to meet basic requirements (interconnection, fire safety, and decommissioning for example) without registering with the Commission?

REV does not believe that a registration process should be required for these systems if they meet basic safety and interconnection requirements. Establishing clear installation requirements will most efficiently address safety and other concerns.

Topic 2. Aggregations and interplay between owners, operators, and utilities

f. Ownership and Cumulative Impacts

To assess the cumulative impact of energy storage systems being added to existing generation, several commenters suggested that the Commission should use an amendment process for the existing CPG at



the site. When a proposed energy storage facility installer is not the CPG holder of the generation component of the paired system, should the storage project receive a separate CPG? If so, how should the Commission consider cumulative impacts?

REV agrees that amending the CPG is appropriate when an energy storage system is being added to an existing generating facility. The incremental impacts of storage do not differ from other additions to the grid and these impacts are best assessed under the 5.500 utility interconnection process. In Case No. 19-0856-RULE, the International Renewable Energy Council (IREC) proposed a definition of the “export capacity” that should be used to look at interconnection issues and this definition and approach are appropriate for assessing stand-alone storage as well as generation plus storage.²

g. Proposed Codes and Standards

Of the standards identified by the Department in their comments of December 16, 2021, (pp. 6-7), which should the Commission adopt? Should the codes and standards that the Commission adopts vary based on size, complexity, use-case, or other factors?

REV supports the adoption of NFPA 855 and notes that residential installation of multiple, sub-20 kWh units 20 kWh threshold for commercial installations as the threshold is a per battery unit threshold and not a cumulative threshold. REV does not recommend requiring UL 9540 9540A at this time since most commercially available storage technologies for residential use have not yet gone through the full testing in 9540A.

h. 30 V.S.A. § 231 CPG

In its comments of December 16, 2021, the Department suggests that the Commission should consider the following issues (among others) in a review of aggregated resources for a § 231 CPG (emphasis added):

- *Provisions to ensure the load impacts of storage are appropriately reviewed by the interconnecting utility and do not negatively impact **ratepayers**;*
- *Provisions to ensure participation of the resource in the aggregation and the aggregation in the wholesale markets does no harm to the distribution utility or **ratepayers**.*

Does FERC Order 2222 limit the Commission’s jurisdiction in considering the impact of aggregated resources on ratepayers? Does the Commission have the authority to deny an aggregation CPG based on the impact that the aggregation may have on ratepayers?

At the system level, aggregation of DERs will increase market competition and benefit ratepayers through higher DER utilization and reduced costs. Generally, therefore, REV recommends that the focus of the review of aggregated resources under § 231 should be to assess system reliability.

Aggregation is likely to support higher DER penetration, requiring incremental distribution level upgrades but the costs for evaluating these projects are unlikely to differ substantially between DERs that participate in aggregation and those that do not. Distribution utilities may face some additional reporting and review obligations related to aggregation but these costs should be considered in the

² International Renewable Energy Council, *Attachment A to IREC Comments* (February 11, 2022). 19-0856-RULE Proposed changes to Vermont PUC Rule 5.500.



context of the benefit to consumers in terms of reduced wholesale costs, resilience, flexibility, and reduced emissions and would best be considered holistically outside the CPG process. REV again recommends the Commission review the work of the Advanced Energy Economy and Grid Lab when considering these issues.³

i. Aggregation Amendments

If an already existing aggregation seeks to amend its aggregation, what opportunity does the utility have to assess system stability, system reliability, and transmission effects of the proposed amendment? How can Commission processes and rules ensure that utilities can review amendments and change existing interconnection agreements (if necessary)?

Re-review of aggregation could be warranted based on significant changes in the capacity or geographic distribution of resources participating in the aggregation. Incremental changes in the participating resources, however, are unlikely to impact system stability or reliability and could be reported on a periodic basis by the aggregator. A clear process for delineating the scope of the changes to an existing aggregation that would trigger a new review process should be established.

Thank you for the opportunity to provide comments.

Sincerely,

A handwritten signature in black ink that reads "Jonathan Dowds".

Jonathan Dowds
Deputy Director
Renewable Energy Vermont
(802)229-0099

³ Advanced Energy Economy and GridLab, *FERC Order 2222 Implementation: Preparing the Distribution System for DER Participation in Wholesale Markets* (January 20, 2022), <https://www.aee.net/aee-reports/ferc-order-no.-2222-implementation-preparing-the-distribution-system-for-der-participation>