

March 8, 2021

By electronic mail

Debra A. Howland, Executive Director
N.H. Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301

Re: Reply Comments in Docket No. IR 20-166 (Investigation into Compensation of Energy Storage Projects for Avoided Transmission and Distribution Costs)

Dear Ms. Howland:

Conservation Law Foundation (CLF) appreciates the opportunity to participate in the above-referenced investigatory docket regarding compensation of energy storage projects for avoided transmission and distribution costs. Pursuant to the Public Utilities Commission's (Commission) February 9, 2021 order, CLF submits the following reply comments.

1. The Commission Should Consider Performance Based Ratemaking to Encourage Investments in Energy Storage

Several commenters recommend ways to incentivize storage over traditional distribution and transmission upgrades. For example, CENH advocates consideration of performance-based ratemaking to compensate utilities for their participation in energy storage programs¹ and Key Capture Energy (KCE) recommends that the Commission establish a performance-based incentive for utilities that successfully implement non-wires alternative (NWA) storage projects.² Further, Representative Oxenham and Ian Oxenham support allowing utilities to earn a higher rate of return on NWA storage projects that are less expensive than traditional distribution investments to eliminate utilities' incentive to favor traditional investments over NWAs.³

Because utilities will favor traditional distribution upgrades over NWA storage projects, additional incentives to encourage NWA storage investments, such as performance-based rates, may be necessary. Accordingly, to encourage utility investments in storage, CLF recommends that the Commission explore performance-based incentives where storage projects result in significant savings to ratepayers relative to traditional distribution projects.

¹ CENH Comments at 4.

² KCE Comments at 4-5.

³ Rep. Lee Oxenham & Ian Oxenham Comments at 22.

2. Although Utility Ownership may be Cost-Effective in Limited Instances, the Commission Should Require the Utilities to Solicit Offers for Third-Party Owned Storage Projects

The comments garnered diverse viewpoints regarding ownership of energy storage. On one end of the spectrum, Edison Institute maintains that utility ownership most cost-effectively maximizes multiple value streams for storage,⁴ and Eversource argues that third-party ownership should be avoided due to reliability and financial solvency reasons.⁵ Adopting a more nuanced approach, Unitil notes that third-party ownership is possible, but that utility ownership is necessary when a third-party NWA is not a viable alternative, or as a “price to beat” option when a third party NWA is a viable solution.⁶ Unitil also advocates for securing energy storage NWAs through a competitive solicitation process.⁷

On the other end of the spectrum, CENH favors non-utility ownership and contends that utility ownership should only be allowed if it is more cost-effective than a third-party owned option or there is a demonstrated market failure.⁸ Representative Oxenham and Ian Oxenham propose a relatively innovative approach whereby utilities would issue competitive RFPs for third-party owned energy storage projects capable of avoiding or deferring traditional distribution system upgrades and/or reducing transmission costs.⁹ However, the Oxenham model would allow a utility to build and own NWA storage projects if the utility underbids all technically viable third-party proposals and its bid results in net savings to ratepayers relative to traditional investments.¹⁰ Similarly, KCE recommends that the Commission encourage third-party investments in energy storage by requiring the utilities to solicit third-party proposals for NWA storage projects to allow third-party developers and utilities to compete on an equal footing.¹¹ KCE notes that in many instances, benefits to ratepayers will be maximized when third parties own and operate storage facilities, but in some situations, utilities should own and operate facilities.¹²

Although in certain instances, electric utilities can more cost-effectively maximize the transmission and distribution benefits from storage than other entities,¹³ in many cases, third-party owned storage will result in the least cost solution. In order to encourage efficient deployment of storage, CLF recommends that the Commission adopt an approach similar to that proposed in the Oxenham comments, whereby the utilities would be required to solicit storage proposals from

⁴ Edison Institute Comments at 2

⁵ Eversource Comments at 13.

⁶ Unitil Comments at 13.

⁷ *Id.*

⁸ CENH Comments at 4.

⁹ Rep. Lee Oxenham & Ian Oxenham Comments at 19-20.

¹⁰ *Id.* at 20.

¹¹ KCE Comments at 4.

¹² *Id.*

¹³ Sky Stanfield, Joseph “Seph” Petta and Sara Baldwin Auck, *Charging Ahead: An Energy Storage Guide for Policymakers*, INTERSTATE RENEWABLE ENERGY COUNCIL (IREC), at 30 (April 2017), available at <https://irecusa.org/2017/04/irec-releases-energy-storage-guide-for-policymakers/>.

third-party developers. While this approach would encourage third-party development and ownership of storage and produce a more competitive storage market, it would also allow for utility ownership as a last resort in the event that utilities underbid third-party developers or there were no qualified, third-party developers. By permitting utility ownership in these limited circumstances, the most cost-effective NWA storage proposals would get selected; therefore, resulting in lower overall rates for ratepayers. CLF also supports allowing NWA storage projects to participate in wholesale energy markets, as long as (1) market participation does not interfere with a project's ability to follow a utility's dispatch instructions for distribution grid needs; (2) ratepayers do not bear the costs or risks of wholesale market participation; and (3) participation in wholesale energy markets would provide an additional revenue stream for NWA storage projects, which would result in lower bids by reducing the portion of the project's costs included in a utility's rate base.

In the above model, where the utility is permitted to bid on competitive storage solicitations, the utility would benefit from information asymmetries resulting from its superior knowledge of the distribution system and would gain additional advantages if it administered a solicitation while also participating in it. Thus, CLF recommends that the Commission ensure robust information sharing to reduce such asymmetries, and direct that competitive solicitations be administered by third parties, instead of utilities.

3. Non-Utility Control/Operatorship of Storage Should Also be Promoted

Similar to the wide variety of opinions on storage ownership, there is also a difference in opinion on storage control/operatorship. Eversource argues that for reliability reasons, utilities need direct control over storage resources.¹⁴ Conversely, KCE favors third-party operated storage in some circumstances, and notes that liquidated damages provisions for non-performance, in contracts between third-party storage operators and utilities, can reduce utilities' reliability concerns.¹⁵ The Oxenham comments also advocate for operational control of storage resources by third-party developers.¹⁶

CLF supports the Commission allowing non-utility control of storage resources. The GridSolar Boothbay Pilot project in Boothbay, ME, which was initiated to reduce load and avoid costly transmission upgrades and included an NWA energy storage unit, demonstrates the viability of non-utility operated storage. The Boothbay Pilot project was operated by a non-utility third-party, GridSolar, which dispatched energy storage resources based on utility Central Maine Power's instructions.¹⁷ During the pilot, the third-party operator was able to timely and effectively

¹⁴ Eversource Comments at 4-5, 11, 13, 18.

¹⁵ KCE Comments at 4.

¹⁶ Rep. Lee Oxenham & Ian Oxenham Comments at 19.

¹⁷ Brenda Chew, et al., *Non-Wires Alternatives: Case Studies from Leading U.S. Projects*, SEPA, PLMA, & E4TheFuture, at 59, 61 (November 2018), available at <https://sepapower.org/resource/non-wires-alternatives-case-studies-from-leading-u-s-projects/>. A separate third-party, Convergent, owned the battery storage unit. *Id.*; Final

dispatch storage resources in response to the utility's requests, with an average response time of three minutes.¹⁸

The success of the Boothbay Pilot establishes that third-party operated NWA storage projects can meet grid reliability needs. By increasing penalties for non-performance, through the use of liquidated damages provisions or other contractual agreements between utilities and third-party operators, utilities' reliability concerns can be substantially reduced. While non-utility control of storage may not be appropriate in all instances, the Commission should not forestall third-party operated storage and should further explore its potential in this docket.

4. The Upcoming ISO-NE Compliance Filing for Order No. 2222 Does Not Necessitate an Extension of the Deadline for Staff's Recommendation in This Investigation

In its February 9, 2021 secretarial letter approving Staff's proposed procedural schedule, the Commission requested that stakeholders address whether the upcoming ISO New England (ISO-NE) compliance filing required by the Federal Energy Regulatory Commission's (FERC's) Order No. 2222 warrants an extension of the July 12, 2021 deadline for Staff's recommendation in this investigation. Based on the February 23, 2021 presentation at the ISO-NE Transmission Committee regarding the compliance filing, CLF does not believe that an extension is needed.

FERC Order No. 2222 requires that regional transmission organizations allow distributed energy resources (DERs) to provide all wholesale services that they are capable of providing through an aggregation of resources.¹⁹ Under the order, the definition of DERs includes electric storage systems located on the distribution system, any subsystem thereof, or behind a customer meter.²⁰ ISO-NE's compliance filing will, *inter alia*, allow distributed energy resource aggregations to participate directly in its markets, establish DER aggregators as a type of market participant, and establish market rules on coordination between ISO-NE, DER aggregators, distribution utilities, and relevant electric retail regulatory authorities.²¹ While the compliance filing will address data flows and communications between ISO-NE, DER aggregators, and distribution utilities, ISO-NE does not anticipate that it will need to interact with distribution

Report: Boothbay Sub Region Smart Grid Reliability Pilot Project, ME PUC Docket No. 2011-138, at 38-39 (January 19, 2016), *available at* https://neep.org/sites/default/files/resources/FINAL_Boothbay%20Pilot%20Report_20160119.pdf.

¹⁸Final Report: Boothbay Sub Region Smart Grid Reliability Pilot Project, ME PUC Docket No. 2011-138, at 44, 49-50 (January 19, 2016), *available at* https://neep.org/sites/default/files/resources/FINAL_Boothbay%20Pilot%20Report_20160119.pdf.

¹⁹ *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 129-130 (September 17, 2020).

²⁰ *Id.* at 91.

²¹ *Order No. 2222: Participation of Distributed Energy Resource Aggregations in Wholesale Markets*, ISO-NE, at 6-7 (February 23, 2021).

utilities for the purposes of coordinating real-time DER dispatch.²² ISO-NE expects that pursuant to its compliance filing, in the event a distribution utility detects actual or anticipated reliability issues in the distribution system during real-time operation, the utility would inform the DER aggregator of any operating constraints, which would result in the DER aggregator immediately complying by adjusting the dispatch as necessary.²³ Similarly, for the day-ahead market, if a distribution utility informed the DER aggregator of any operating constraints, the aggregator would modify its physical operating parameters or financial offers to reflect such constraints.²⁴

Although the Order No. 2222 compliance filing will require that ISO-NE allow DERs, including energy storage, to participate in its wholesale markets, the compliance filing will not directly impact the use of energy storage for distribution or transmission purposes. Thus, the order is unlikely to have significant effects on the use of energy storage as an NWA for traditional distribution and transmission investments, which is the primary focus of this investigation.

Further, because the compliance filing will require DERs to adjust dispatches in response to utility operating constraints, if an energy storage asset were both used in wholesale energy markets *and* to defer transmission and distribution investments, then use of the energy storage assets for distribution system reliability needs would have priority over other uses. This requirement would appear to ensure that participation by an energy storage asset in ISO-NE's wholesale markets would not interfere with use of the same asset as an NWA. Accordingly, because the Order No. 2222 compliance filing will only have a limited effect on the matters investigated in this docket, an extension of the July 12, 2021 deadline for Staff's recommendation is unwarranted.

CLF appreciates the Commission's consideration of its comments and looks forward to continuing to participate in this docket.

Sincerely,

/s/ Nick Krakoff

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²² *Id.* at 10-11.

²³ *Id.* at 13.

²⁴ *Id.* at 12.