

**THE STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

Docket No. IR 20-166

ELECTRIC DISTRIBUTION UTILITIES

**Investigation into Compensation of Energy Storage Projects for
Avoided Transmission and Distribution Costs**

**JOINT REPLY COMMENTS OF REPRESENTATIVE LEE W. OXENHAM
AND IAN R. A. OXENHAM, ESQ.**

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I. INTRODUCTION

We appreciate the opportunity to submit additional comments and continue the discussion on the important issues the Commission is investigating in this docket. In these reply comments, we address several discrete issues that were either raised in other participants’ initial comments or at the January 25, 2021 technical session.

Specifically, we first discuss in Part II whether the timeline for ISO New England’s Order 2222 compliance filing warrants an extension of the July 12, 2021 deadline for a staff recommendation, per the agreement at the technical session that reply comments should address this matter. Part III discusses how the Internal Market Monitor’s interpretation of the ISO New England tariff’s load reconstitution requirements and a tariff amendment that market participants proposed in response affect this proceeding. Part IV explains why the Commission should not adopt Public Service Company of New Hampshire d/b/a Eversource Energy’s (“Eversource”) recommendation to prohibit third-party ownership of Non-Wires Solutions (“NWS”) storage projects. Part V proposes a method of ensuring that a utility can dispatch a third-party-owned NWS storage project as needed while still enabling the project to participate in wholesale markets. Part VI suggests a minor change to our original proposal for enabling third parties and utilities to compete for NWS storage projects that addresses the information asymmetry problems raised at the technical session. Part VII concludes our comments.

II. A SHORT EXTENSION OF THE DEADLINE FOR STAFF’S RECOMMENDATION TO THE COMMISSION IS REASONABLE

In our view, the July 19, 2021 deadline for ISO New England’s Order 2222 compliance filing makes extending the current July 12, 2021 deadline for Staff’s recommendation by up to 30 days reasonable. Still, we note that ISO New England has already explained how it plans to comply with Order 2222 and will release draft tariff changes in April.¹ Thus, Staff should have most of the information it needs prior to July 12. Delaying the progress of this proceeding by more than 30 days is therefore not warranted.

¹ See Henry Yoshimura, Hanhan Hammer, Doug Smith & Jon Lowell, Indep. Sys. Operator New Eng., *Order No. 2222: Participation of Distributed Energy Resource Aggregations in Wholesale Markets, High-level Market Design Approach to Comply with Order No. 2222*, ISO NEW ENG. (Feb. 9-10, 2021), https://www.iso-ne.com/static-assets/documents/2021/01/a0_order_2222_draft_high_level_market_design_approach.pptx.

Roughly two weeks after the January 25 technical session, ISO New England released a detailed outline of how it plans to comply with Order 2222.² This outline confirms that what ISO New England calls “dispatchable distributed energy resource aggregations” (“DDERAs”) will be able to simultaneously participate in both retail programs and wholesale markets.³ The outline also describes the DDERA participation model as an “extension” of the existing Continuous Storage Facility participation model for individual energy storage systems that have a nameplate capacity of 0.1 MW (i.e., 100 kW) or greater.⁴ As such, ISO New England plans to integrate DER aggregations that include behind-the-meter (“BTM”) energy storage systems into its wholesale markets in much the same way as it has already integrated large front-of-the-meter energy storage systems.⁵

The outline also states that ISO New England will release its draft of the tariff changes that will implement Order 2222 in April, hold committee votes on any amendments to the draft tariff changes in June, and submit its tariff filing to FERC on July 19.⁶ Though the formal FERC filing will occur a week after the current July 12 deadline for Staff’s recommendation, this does mean the draft version of the tariff changes will be publicly available for well over two months

² *See id.*

³ *Id.* at 58-59. As we noted in our initial comments, Order 2222 itself requires ISO New England to allow such dual participation. *See* Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, 85 Fed. Reg. 67,094, 67,122 (Oct. 21, 2020) (to be codified at 18 C.F.R. pt. 35) (“[W]e . . . require each RTO/ISO to revise its tariff to: (1) Allow distributed energy resources that participate in one or more retail programs to participate in its wholesale markets . . .”).

⁴ Yoshimura, et al. at 17; Indep. Sys. Operator New Eng., *Market Rule 1* § III.1.10.6(a)(ii), (c)(i) (2020), https://www.iso-ne.com/static-assets/documents/2014/12/mr1_sec_1_12.pdf [hereinafter “Market Rule 1”].

⁵ Note that ISO New England already allows energy storage systems that participate in its wholesale markets to participate in retail programs. *See* Market Rule 1 § III.1.10.6(a)(vii) (“An Electric Storage Facility shall . . . not be precluded from providing retail services . . .”).

⁶ Yoshimura et al., at 41.

before then. Between those draft tariff changes and the information that ISO New England has publicly released already, we believe Staff should have most of the information it needs regarding Order 2222 issues well before the current deadline. However, it is still possible that ISO New England will materially amend its draft tariff changes shortly before July 12. Thus, we believe a short extension of up to—but no more than—30 days may be reasonable in order to allow Staff sufficient time to consider any such amendments and whether they warrant any changes in Staff’s planned recommendations to the Commission.

III. ACCOUNTING FOR POTENTIAL LOAD RECONSTITUTION’S EFFECT ON ENERGY STORAGE PROJECTS’ ABILITY TO REDUCE REGIONAL NETWORK SERVICE CHARGES

Another ISO New England issue relevant to this proceeding briefly raised during the January 25 technical session was how potential forthcoming changes to load reconstitution requirements for monthly regional network load (“RNL”) calculations will affect energy storage projects. These potential changes may prevent either some or all distributed energy storage projects from reducing regional network service (“RNS”) charges. As HB 715 specifically directed the Commission to investigate ways to compensate energy storage projects for avoided RNS charges,⁷ the question of when energy storage projects can in fact reduce RNS charges has a direct bearing on this proceeding. Consequently, the Commission should take into account when energy storage projects will and will not reduce RNS charges and ensure that any energy storage mechanisms it recommends will only provide avoided RNS charge compensation to energy storage projects that actually reduce RNS charges.

Last year, ISO New England’s Internal Market Monitor (“IMM”) determined that the ISO New England tariff requires that load reduced by BTM generation must be reconstituted for

⁷ See RSA 374-H:2, I (“[T]he commission shall initiate a proceeding to investigate ways to enable energy storage projects to receive compensation for . . . avoided regional and local network service charges . . .”).

the purposes of calculating monthly RNL and thus assessing RNS charges.⁸ Reconstituting this load would prevent all BTM generation from reducing RNS charges.⁹ The IMM's report does not clarify whether the IMM believes this load reconstitution requirement also applies to energy storage. However, the IMM's statement that "[t]he future definition of BTM generation" it recommends "should address the reconstitution requirements for battery storage technologies" indicates it believes that load offset by energy storage should be reconstituted as well.¹⁰ Thus, if the IMM's apparent interpretation of the current ISO New England tariff were to be enforced, no energy storage project would be able to reduce RNS charges.

Yet reconstituting load offset by BTM generation according to the IMM's tariff interpretation would be a significant change from present practice that poses many practical difficulties.¹¹ Consequently, in December several participating transmission owners ("PTOs") proposed amending the ISO New England tariff to expressly exclude load reduced by BTM

⁸ See Indep. Sys. Operator New Eng. Internal Mkt. Monitor, *Spring 2020 Quarterly Markets Report*, ISO NEW ENGLAND 18-19 (Aug. 17, 2020), <https://www.iso-ne.com/static-assets/documents/2020/07/2020-spring-quarterly-markets-report.pdf> [hereinafter "IMM Report"] ("As required under the ISO-NE tariff, non-compliant transmission owners and network customers should change their current practices to reconstitute monthly RNL to account for actual or estimated BTM generation production during the monthly peak hour."). A change to the methodology of calculating monthly RNL alters network customers' RNS charges because their monthly RNS charges equal their monthly RNL times the applicable RNS rate. *Id.* at 21

⁹ Reconstituting this load would mean that load BTM generation serves would be added back into the calculation of monthly RNL. That would completely prevent BTM generation from reducing monthly RNL, which in turn means BTM generation would be unable to reduce RNS charges. *See id.* at 21.

¹⁰ *Id.* at 17 n.19; *see also id.* at 19 ("The PTOs, in coordination with ISO-NE, should review the tariff to assess if certain clarifications or additional specificity would be helpful. We recommend adding a definition for *Behind-the-Meter Generation* and more specificity on the determination of *Monthly Regional Network Load*, including the determination of the peak load hour.").

¹¹ *See id.* at 26 ("The feedback received . . . indicates that network customers and/or PTOs do not reconstitute their monthly RNL to account for BTM generation, or are inconsistent in their application."); *id.* ("Network customers and PTOs stated that monthly RNL is calculated using revenue quality metering data and the PTO has no way of estimating BTM generation, or in some cases knowing that it exists.").

generation from RNL.¹² The PTO proposal also contains a broad definition of BTM generation that would encompass any “electric generation resource that is not registered as a Generator Asset with ISO-NE,” which would appear to include front-of-the-meter resources that do not participate in wholesale markets.¹³ Indeed, the PTO proposal explicitly notes that multi-megawatt (and thus presumably front-of-the-meter) battery storage systems that do not participate in wholesale markets or which only participate in regulation markets as Alternative Technology Regulation Resources (“ATRRs”) would not be subject to load reconstitution.¹⁴ However, load that an energy storage project participating in the wholesale markets as a Generator Asset serves would be reconstituted.¹⁵

The PTO proposal would thus make whether an energy storage project can reduce RNS charges depend on its degree of participation in wholesale markets. This could lead to situations where energy storage projects might provide greater savings to ratepayers by either refraining from participating in wholesale markets or only participating in the regulation market as an

¹² See Frank Etori, *Transmission Cost Allocation Issues for Behind the Meter (BTM) Generation*, ISO NEW ENG. 7 (Dec. 10, 2020), https://www.iso-ne.com/static-assets/documents/2020/12/a03_tc_2020_12_10_ptos_presentation.pptx (proposing a revised RNL definition that expressly excludes “load offset by Behind-the-Meter Generation” and a “[n]ew definition of Behind-the-Meter Generation”).

¹³ *Id.*

¹⁴ *Id.* at 8. More specifically, the PTO proposal lists a 2 MW standalone battery storage project that is not registered with ISO New England and a 3 MW standalone battery storage project that is only registered as an ATRR as examples of assets that would not be subject to load reconstitution. *Id.* Neither the proposal’s suggested amendment to the RNL definition nor its proposed definition of BTM generation expressly address energy storage. *See id.* at 7. The proposal thus seems to implicitly define the term “electric generation resource” in its proposed definition of BTM generation as including energy storage (or at least battery storage) projects. The phrase “electric generation resource that is not registered as a Generator Asset with ISO-NE” in the proposed BTM generation would thus presumably encompass an energy storage project that is not registered as a Generator Asset with ISO New England. *Id.*

¹⁵ *Id.* at 8.

ATRR. Still, what degree and manner of participation in wholesale markets will maximize ratepayer savings under the PTO proposal may well be highly fact specific.

The upshot is that any mechanism designed to compensate energy storage projects for avoided RNS charges should ensure that only energy storage projects that are not subject to load reconstitution in monthly RNL calculations receive such compensation. That will create a price signal for developers that should incentivize them to develop energy storage use cases that will maximize value for ratepayers in particular circumstances. For NWS storage projects, this should only require ensuring that any analysis or comparison of project proposals during the bidding phase takes into account whether the proposed projects would reduce the utility's RNS charges.¹⁶ A bring-your-own-device ("BYOD") program should likewise have a mechanism to ensure that no participating energy storage system subject to load reconstitution receives a credit or payment for reducing RNS charges.

Of course, these complexities would only be necessary if the PTO proposal is adopted in its current form. If instead the current RNL definition stands and the IMM's tariff interpretation is enforced, no energy storage project would reduce RNS charges and therefore there would be no point in developing a mechanism to compensate energy storage projects for avoided RNS

¹⁶ For example, assume that two third-party developers each submit proposals to develop NWS storage projects they will own. One developer bids a lower contract price, but their project proposal involves bidding the project into energy, forward capacity, and regulation markets as a Continuous Storage Facility and thus registering it as a Generator Asset. *See* Market Rule 1 § III.1.10.6(c)(i) (stating that a Continuous Storage facility must "satisfy the requirements applicable to an Electric Storage Facility"); *id.* § III.1.10.6(a)(iv) (stating that a storage facility that participates in the wholesale markets as an Electric Storage Facility must "be registered as . . . a dispatchable Generator Asset"). The other developer bids a higher contract price, but only proposes to have the project participate in the regulation market as an ATRR. If the PTO proposal is adopted, the former project would not reduce the utility's RNS charges but the latter would. If the net present value of the RNS charges the latter project proposal would avoid is greater than the difference between the two contract price bids, and the proposals are otherwise equivalent, then the proposal selection process should prefer the latter proposal over the former.

charges. Likewise, if no energy storage project interconnected at the distribution system level is subject to load reconstitution—which we believe would be the most sensible policy choice¹⁷—there would be no need to distinguish between projects which do and do not avoid RNS charges. Staff and the Commission should therefore continue to monitor how the load reconstitution issue develops over the course of this proceeding and adjust their recommendations accordingly.

IV. THE COMMISSION SHOULD NOT RECOMMEND ESTABLISHING A UTILITY MONOPOLY OVER NWS STORAGE PROJECTS BY PROHIBITING THIRD-PARTY OWNERSHIP

We strongly disagree with Eversource’s recommended prohibition on third-party ownership of NWS storage projects.¹⁸ Though we acknowledge there may be cases where utility ownership is preferable, we do not believe the purported reliability benefits of utility ownership justify a complete utility monopoly in this area. Indeed, Eversource’s own comments show how a properly structured contract with a third party that grants the utility dispatch control over an NWS storage project can provide most of the reliability benefits of utility ownership. In light of New Hampshire restructuring policy principles that strongly favor competition—and the potential legal issues with an asset class subject to a utility monopoly participating in wholesale

¹⁷ Allowing generation and energy storage assets interconnected at the distribution system level to avoid RNS charges appropriately rewards measures that reduce transmission system costs and investment needs. The IMM itself noted “that reductions in peak demand due to BTM generation can have both short- and long-term system benefits” that “generally reduce overall [transmission] investment needs.” IMM Report at 24. It likewise acknowledged the argument that “requiring RNL to be reconstituted would not recognize this important value added by BTM generation.” *Id.* at 26. Energy storage interconnected at the distribution level does as much as BTM generation, if not more due to its dispatchability, to reduce transmission system costs and investment needs. Furthermore, resources connected at the distribution system level provide these benefits regardless of whether or not they participate in wholesale markets. It is therefore nonsensical, if not outright discriminatory, to deny such energy storage projects the opportunity to be compensated for providing actual system benefits simply because they choose to participate in wholesale markets as Generator Assets.

¹⁸ See Comments of Pub. Serv. Co. of N.H. d/b/a Eversource Energy at 13 (Jan. 11, 2021) [hereinafter “Eversource Comments”] (“Eversource strongly recommends against the third-party ownership model for reasons noted in this response.”).

markets—we believe that third parties should be allowed to build and own NWS storage projects if they can outcompete a utility proposal.

Eversource’s primary argument for not allowing third-party ownership is that an NWS storage project subject to utility control provides significantly greater reliability benefits than one that is not.¹⁹ Although an NWS storage project that a utility can actively dispatch certainly provides greater reliability benefits than a project a utility cannot dispatch, utility control over dispatch is not the same thing as utility ownership. Indeed, Eversource itself ultimately concedes this point when it discusses how it could structure a contract to give it the dispatch control over a third-party-owned NWS storage project it requires.²⁰ Thus Eversource’s arguments for the desirability of utility *dispatch control* are not valid arguments for utility *ownership*—as Eversource’s own comments demonstrate.²¹

Eversource does raise other potential risks of third-party ownership, but its own comments once again demonstrate how those risks can be adequately managed via appropriate contract provisions.²² For instance, Eversource raises the possibility that a third-party owner of an NWS storage project might suffer insolvency or go out of business.²³ But it then notes that it

¹⁹ See *id.* at 4 (“[T]he resource dependability of an NWA is tied to whether the EDC has direct control of the resource.”); *id.* at 5 (“Utility-owned and dispatched resources provide a much higher level of confidence that the NWA solution will meet the need as it evolves.”).

²⁰ See *id.* at 13 (“When third-party ownership of an energy storage NWA is required, the Company recommends robust contractual, financial, and operational contract provisions to ensure reliable operations.”); *id.* (“The primary risk of third-party ownership is the operational availability of the assets. The Company intends to establish contractual requirements for active control and dispatch of energy storage needed for system reliability.”).

²¹ Eversource’s suggestion that it could successfully dispatch BTM resources that it does not own in an “NWA application that addresses a local need on the distribution system” as part of a BYOD program further illustrates the point that reliability is primarily a function of utility dispatch control, not utility ownership. *Id.* at 17.

²² See *id.* at 13-15 (discussing in detail how contract provisions can manage the various risks of a third-party ownership model).

²³ *Id.* at 12-13.

could manage such risks by requiring third parties to bond their NWS storage projects.²⁴ That would enable the utility to “claim the bond on behalf of customers as a way to gain compensation for damages” in the event the third party defaults on its obligations.²⁵ Eversource similarly explains how it can mitigate NWS storage project operational risks by contractually obligating a third party to meet certain technical and maintenance requirements.²⁶

Finally, a mechanism we proposed in our initial comments addresses Eversource’s concern that involving additional parties requiring their own profit margins may reduce customer savings.²⁷ Specifically, we proposed allowing utility proposals to build and own NWS storage projects to compete against third-party proposals.²⁸ The utility proposal would be selected over a third-party proposal if it could provide greater ratepayer savings. In other words, if the additional margin requirements of third-party proposals resulted in the utility proposal offering the best deal for ratepayers, the utility proposal rather than any third-party proposal would be selected. A third-party proposal would only win if the cost savings a third party could provide outweighed any additional margin requirements. Eversource’s concern on this point simply provides a reason not to mandate third-party ownership, rather than a reason to prohibit third-party ownership.

In short, Eversource provides no compelling reason why *only* a utility should be allowed to own NWS storage projects. Utility ownership does not offer much, if any, additional

²⁴ *Id.* at 13.

²⁵ *Id.* at 14.

²⁶ *Id.* at 14-15.

²⁷ *See id.* at 12 (“Any ownership model aside from utility ownership introduces additional stakeholders requiring margin from the project before returning value to customers.”).

²⁸ *See* Joint Comments of Representative Lee W. Oxenham & Ian. R. A. Oxenham, Esq., at 19-21 (Jan. 10, 2021) [hereinafter “Oxenham Comments”].

reliability benefit over contracted third-party NWS storage projects subject to utility dispatch control and other contractual safeguards that ensure resource availability.

In contrast there are compelling reasons to allow third-party ownership. First, a greater scope for competition will expose utility proposals to a level of market discipline. That in turn would contribute to lower prices for ratepayers. Competition will also enable more innovation in energy storage use cases, as it would allow more than just a single entity to put forward proposals on how to maximize the value from an NWS storage project.

But even more importantly, granting utilities a monopoly over NWS storage projects may preclude NWS storage project participation in wholesale markets. In our initial comments, we argued that under certain conditions a utility-owned storage project could participate in wholesale markets without violating the restructuring statute, RSA 374-F, under the *Algonquin* test.²⁹ One of those conditions was that such utility-owned projects would be subject to competition from proposals for third-party-owned projects.³⁰ Absent that condition, utilities would have a monopoly on *all* NWS storage projects. Allowing an asset class subject to a utility monopoly to participate in wholesale markets is self-evidently anti-competitive. Thus, if participating in wholesale electricity markets constitutes providing “generation services” within the meaning of RSA 374-F:3, III, this would result in a violation of the functional separation principle that also undermines competition. Allowing utility-owned NWS storage projects to

²⁹ See *id.* at 31-34.

³⁰ See *id.* at 34 (“[A] utility would only be allowed to own an NWS energy storage project that participates in wholesale markets if it underbids competitive developers, such that the cost of the project to its ratepayers would be lower than if any third party were to develop and own the project.”).

participate in wholesale markets would then almost certainly fail the *Algonquin* test and thus violate RSA 374-F.³¹

This would mean that no NWS storage projects could participate in wholesale markets if NWS storage projects are subject to a utility monopoly. This is because if it is illegal for utility-owned NWS storage projects to participate in wholesale markets and all NWS storage projects are utility-owned, then no NWS storage project could participate in wholesale markets. That in turn would cut off an important source of revenue that could reduce the NWS storage project costs ratepayers must bear. It would also mean that an expanded role for NWS storage projects in least-cost integrated resource planning could not be a mechanism for compensating “energy storage projects that participate in wholesale electricity markets for avoided transmission and distribution costs.”³² As identifying such mechanisms is one of the purposes of this very proceeding, neither Staff nor the Commission should recommend an approach to NWS storage projects that could effectively prohibit them from participating in wholesale markets.

For these reasons, we strongly urge Staff and the Commission to reject Eversource’s recommended prohibition on third-party ownership of NWS storage projects.

³¹ *See id.* at 34 n.82 (explaining why a violation of the functional separation principle that also undermines competition would likely fail the *Algonquin* test).

³² RSA 374-H:2, II(b). Granted, this problem could be bypassed by recommending an amendment to RSA 374-F, which is a possibility RSA 374-H explicitly contemplates. *See* RSA 374-H:2, II(e). However, it also explicitly directs the Commission to “identify ways any recommended statutory changes can minimize any potential conflict with the restructuring policy principles of RSA 374-F.” RSA 374-H:2, III. RSA 374-H thus indicates the General Court would disfavor amending RSA 374-F in a manner that would abrogate existing restructuring policy principles if a viable alternative—such as allowing third parties to compete with utilities—exists.

V. ENSURING THAT THIRD-PARTY-OWNED NWS STORAGE PROJECTS THAT PARTICIPATE IN WHOLESALE MARKETS CAN BE DISPATCHED AS NEEDED FOR DISTRIBUTION SYSTEM RELIABILITY

Another issue raised during the January 25 technical session was how and when a utility might exercise dispatch control over a third-party-owned NWS storage project that the third party is bidding into wholesale markets. One potential method would be to allow utilities to have dispatch control during preset periods in which the distribution grid is expected to need the project to perform its NWS function. However, Eversource raised the point that it may not be possible to determine a pre-set schedule that will reliably ensure the storage project is available to act as a distribution grid resource when needed.³³ As we agree with Eversource that “[t]he distribution deferral need has to be the priority use case,”³⁴ we now suggest an approach in which the utility always has priority dispatch control over an NWS storage project provided they give the third-party owner advance notice of when they plan to exert that control.

This arrangement bears some similarity to Eversource’s proposal for how it would operate a BYOD program for BTM storage systems. In its BYOD program design, Eversource stated that it “would have priority operational control over the storage units.”³⁵ Yet “[o]utside of dispatches for program purposes, the unit owner would have operational control of the unit for uses such as backup power or managing load for TOU rate purposes.”³⁶ The difference in the case of a contracted NWS storage project (presumably a front-of-the-meter system or aggregation of BTM systems not participating in a BYOD program) is that the other use would

³³ See also Eversource Comments at 5 (“A resource dispatched based on a contractual schedule is not the most dependable NWA solution for multiple reasons. First, a pre-set schedule may not meet the needs that arise in real-time on the distribution system.”).

³⁴ *Id.* at 9.

³⁵ *Id.* at 18.

³⁶ *Id.*

be wholesale market participation. Furthermore, the third-party owner would be contractually prohibited from overriding the utility's dispatch signals.

However, such a system would require the third party to have some degree of advance notice of when a utility is likely to exercise priority control and when it will in fact exercise priority control. This is necessary both to ensure the NWS storage project has sufficient energy stored to perform distribution functions when called upon and to allow the project owner to change their wholesale market position. Ensuring that the storage project has enough energy in reserve will likely require more advance notice than the project owner would need to change their wholesale market position for the period in which the utility will be dispatching the project. However, a utility may not always be certain very far in advance that it will actually need to dispatch the project during a given period of time.

We would therefore suggest that a utility should provide two notices to the owner of the third-party NWS storage project. The first would be a preliminary notice informing the third party that it must ensure the project has a sufficient level of energy stored by a certain time in case the utility needs to dispatch the project. The second would be a final notice informing the third party that the utility will in fact be exercising direct dispatch control over a certain time period. If after issuing the first notice the utility determines it will not need to dispatch the project, it would not issue the second notice and the third party would be free to continue bidding the project into the wholesale markets as it sees fit.

Both notices would only need to be issued within a matter of hours before the utility exercised dispatch control. The deadline for a preliminary notice should be based on how long it will take a storage system to charge to the level the utility will need, while also accounting for the time the third party may need to change its wholesale market bids to arrange the necessary

charging. ISO New England currently allows a storage project participating in the wholesale energy markets to change their hourly bids to either charge or discharge with only 30 minutes advance notice prior to the operating hour covered by the bid.³⁷ A utility's preliminary notice should therefore be given at least one hour in advance of the first operating hour in which a storage system needs to begin charging to reach the state of charge the utility requires. The utility would then issue its final notice at least one hour in advance of the hour in which it would exert dispatch control. In both cases, this would give the third party at least a 30-minute window to make any necessary changes to the project's position in the wholesale markets to ensure it is ready to be dispatched as needed by the utility.

To illustrate how such a system could work, assume that a utility decides it may need to dispatch a third-party-owned NWS storage project beginning in the 2:00-PM-to-3:00-PM operating hour. The utility also determines that it needs the project to be fully charged at that time. If the storage project takes four hours to fully charge, the utility would provide a preliminary notice to the third party by 9:00 AM on that day. That would allow the third party to meet the 9:30 AM deadline for changing the project's bid for the 10:00 AM to 11:00 AM operating hour, thus ensuring the project can be fully charged between 10:00 AM and 2:00 PM.

³⁷ See Market Rule 1 § III.1.10.9(c) (“[A] Market Participant may modify certain Supply Offer or Demand Bid parameters for a Generator Asset or a Dispatchable Asset Related Demand . . . provided that the modification is made no later than 30 minutes prior to the beginning of the hour for which the modification is to take effect”); *id.* § III.1.10.6(a)(vi) (stating that an electric storage facility settles “its injection of electricity to the grid as a Generator Asset and its receipt of electricity from the grid as a [Dispatchable Asset Related Demand]”). ISO New England’s February outline explaining how it plans to implement Order 2222 also notes that a DDERA could do the same. See Yoshimura et al., at 58 (explaining that an online DDERA’s “[h]ourly supply offers can be updated up to 30 minutes prior to the operating hour via eMarket”). Moreover, the outline specifically cites this as a way that DDERAs participating in both wholesale markets and retail programs could manage the competing demands of such dual participation. *Id.* at 57-58.

If the utility decides it does in fact need to dispatch the project starting in the 2:00-PM-to-3:00-PM operating hour, it will issue the final notice to the third party by 1:00 PM. That should give the third party sufficient time to change its wholesale market bids or declare the project unavailable in the wholesale markets for the operating hours during which the utility will dispatch the project.

Requiring a few hours of advance notice should not interfere with the utility's ability to use an NWS storage project as a distribution grid resource. Indeed, in its ConnectedSolutions battery storage demand response program, Eversource's Massachusetts affiliate provides a full day of advance notice prior to exerting dispatch control over participating systems.³⁸ Granted, a utility may need faster response times from an NWS storage project needed for distribution system reliability than batteries participating in a peak shaving demand response program. Yet a utility should at least be able to determine if it *may* need to dispatch an NWS storage project several hours in advance of when a system need might manifest. If the utility is uncertain whether it will need to dispatch the project, it can still issue the preliminary notice to ensure the project is ready to be dispatched on only one to two hours' notice.³⁹

³⁸ See *Battery Storage Demand Response Program FAQs*, EVERSOURCE, <https://www.eversource.com/content/ema-c/residential/save-money-energy/manage-energy-costs-usage/demand-response/battery-storage-demand-response/home-battery-storage-faqs> (last visited Feb. 26, 2021) ("Eversource sends a signal to the battery or inverter manufacturer the day before an event is called, but whether the battery owner receives the notification varies by manufacturer.").

³⁹ The advance notice would be anywhere between one to two hours because the utility would have to give the final notice at least one hour prior to the *start of the operating hour* in which it will dispatch the project. For example, if a utility plans to dispatch an NWS storage project beginning at 1:59 PM, that dispatch would begin during the 1:00-PM-to-2:00-PM operating hour. The utility would thus have to provide final notice by 12:00 PM, one hour before 1:00 PM rather than one hour before 1:59 PM.

We believe this approach provides a viable framework for managing a third-party-owned storage project that both acts as an NWS and participates in wholesale markets. It ensures that a utility will always be able to call upon and dispatch a contracted NWS storage project as needed. At the same time, it also provides sufficient notice of when a utility will exercise dispatch control for the third party to adjust the project's wholesale market position. This should provide a third party with the necessary confidence to bid the storage project into wholesale markets whenever it does not need to perform NWS functions. That in turn will enable the third party to maximize wholesale revenue during these periods, thereby minimizing the portion of project costs that ratepayers must bear.

VI. MITIGATING INFORMATION ASYMMETRY ISSUES BETWEEN UTILITIES AND THIRD PARTIES IN NWS CONTRACT BIDDING WITH A UTILITY PRICE-TO-BEAT APPROACH

In our initial comments, we proposed allowing utility proposals to directly compete against third-party proposals in the NWS contract bidding process.⁴⁰ Specifically, we suggested permitting utilities to submit their own bids in the same manner as any third-party bidder, such that the utility would win if it underbid all technically viable third-party proposals.⁴¹ However, at the January 25 technical session the Conservation Law Foundation correctly noted that this approach could suffer from potential information asymmetry problems that would give utility bidders an unfair advantage. We thus now believe that something akin to Unitil Energy System, Inc.'s suggested "price-to-beat" approach is a better way of enabling competition for NWS storage project ownership between utilities and third parties.⁴²

⁴⁰ See Oxenham Comments at 20-21, 24.

⁴¹ *Id.* at 20.

⁴² See Initial Comments of Unitil Energy Systems, Inc. at 13 (Jan. 11, 2021) ("Ownership of Grid Storage is necessary when a third-party NWA is not a viable alternative, and as a 'price-to-beat' option when a third-party NWA is a viable solution.").

Under this approach a utility would publicly release its proposal detailing how it would operate its own NWS storage project and the resulting value proposition to ratepayers before third parties submitted their own proposals. Third parties would thus have access to the utility proposal in advance, thereby mitigating the asymmetric information advantage the utility holds. To win the bidding, a third party would have to beat the “price” of the utility ownership option, as well as any other third-party bid, by proposing a solution that would deliver greater risk-adjusted savings to ratepayers.⁴³ If no third party submits a proposal that provides a better deal for ratepayers than the utility’s price-to-beat proposal, the utility would then be allowed to develop and own the NWS storage project itself.

This system creates a more level playing field on which third parties can compete with the utility than our original proposal did. At the same time, it provides opportunities for utilities to own NWS storage projects—and ensures utility ownership remains as a backstop option in the event no third party submits a viable proposal. For these reasons, we urge Staff and the Commission to adopt our recommendation for a competitive NWS storage project bidding process with this modification.

⁴³ We say *risk-adjusted* savings because there may be material differences between the financial risks ratepayers bear under an utility proposal and under a third-party proposal. For example, suppose a utility proposes to not bid an NWS project into wholesale markets and capture energy and capacity value only by operating the project as a load reducer, while the third party proposes to bid the project into wholesale electricity markets, including energy and capacity markets. Under the utility proposal the entire cost of the project would be rate-based, and ratepayers would thus bear the risk that the project will not reduce the utility’s energy and capacity costs as much as the utility projected. Conversely, under the third-party proposal the third party would assume all risk associated with energy and capacity markets and effectively guarantee a certain level of savings for ratepayers. The level of ratepayer savings the utility projects its proposal will provide should therefore be adjusted downwards in the bidding process to reflect the higher risk for ratepayers the utility proposal carries. This will ensure that utilities cannot unfairly undercut third-party proposals by improperly valuing potential ratepayer savings that are subject to significant uncertainty as if they were guaranteed savings.

VII. CONCLUSION

We once again thank Staff and the Commission for this opportunity to submit reply comments. We hope that these comments helpfully elaborated on our original proposal and provided additional information that will assist Staff as it proceeds to draft its recommendations to the Commission.

Respectfully submitted,

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