

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1751

In the Matter of

PUBLIC UTILITY COMMISSION OF
OREGON,

Implementing Energy Storage Program
Guidelines pursuant to House Bill 2193.

RENEWABLE NORTHWEST'S
COMMENTS

Renewable Northwest appreciates this opportunity to inform the guidelines that the Oregon Public Utility Commission (“Commission”) will adopt pursuant to Section 3.1 of House Bill 2193 (“H.B. 2193”). We commend the Commission for taking a comprehensive look at the process that these guidelines will establish, with a focus on maximizing the value of H.B. 2193 to ratepayers and utilities.

Renewable Northwest is a nonprofit advocacy organization that brings together its business and nonprofit members to promote the expansion of environmentally responsible renewable energy resources in the Pacific Northwest. For over 20 years, we have advocated for the Pacific Northwest to build on its clean energy legacy by deploying new renewable energy technologies like wind, solar, and geothermal energy. These resources help reduce emissions, support local economies, and improve energy security and resilience. Together with energy efficiency, these renewable resources have already led to significant carbon emission reductions from fossil fuel generators, and will continue to do so as penetration increases. Our experience demonstrates that, along with energy efficiency, renewable energy can be the foundation for the clean, reliable, and affordable electricity system of the future.

Storage technologies are the next pillar of a cleaner, more efficient, and more reliable electric grid. These technologies can add value to utility portfolios through the provision of, among others, capacity, flexibility, transmission, and ancillary services. Furthermore, storage technologies have the ability to cost-effectively facilitate additional renewable energy development—and can do so without increasing carbon dioxide emissions.

Renewable Northwest actively participates in regional discussions about energy storage and about the integration of renewable energy sources. We have developed knowledge about energy storage system (“ESS”) issues through collaboration with members who develop ESSs and through participation in workshops and discussions with utilities and stakeholders. Additionally, we were involved in the adoption of H.B. 2193 and are keenly interested in ensuring its successful implementation.

Renewable Northwest views the goals of H.B. 2193 implementation as ultimately showing the positive impact of energy storage on electric system operations as well as providing long-term benefits to ratepayers. To this end, we encourage the Commission to issue guidelines that, without being overly prescriptive, establish a transparent process for the selection and procurement of ESSs stemming from H.B. 2193 that provides for the maximization of benefits to ratepayers and the utilities. To ensure transparency and maximization of benefits, that process should include multiple opportunities for stakeholder engagement and Commission oversight.

While such a process can take several forms, we believe that three components are key to maximizing the benefits of ESS deployment as contemplated by H.B. 2193. First, the identification of a utility's operational or financial needs that an ESS can address should be data-driven and include opportunities for stakeholder engagement and Commission oversight. Second, minimum supplier qualification criteria should be established to ensure that utilities are receiving a reliable product, while not being too limiting as to restrict competition. Finally, storage developers should be encouraged to use their unique expertise and modeling capabilities to propose specific projects that best meet utilities' needs and that, if selected, will be part of utility proposals.

Renewable Northwest notes that there is room for building some flexibility into the process to be established by the Commission's guidelines while at the same time ensuring consistency with the requirements and deadlines in H.B. 2193. We encourage the Commission to build flexibility into the guidelines, provided that utilities actively engage with stakeholders, developers, and the Commission, and make a good-faith effort to incorporate the three components outlined above.

I. What guidance should the Commission provide on the storage potential analyses?

Timing and Process Requirements for the Storage Potential Evaluations (Questions 1-2, 4, and 6)

H.B. 2193 requires utilities to propose, and ultimately procure, approved ESSs outside of the context of an integrated resource plan. However, UM 1751 is the first opportunity for Oregon utilities, stakeholders, Commission Staff, and the Commission to gain experience with storage within the context of the regulatory process. As a result, the Commission's guidelines should establish a data-driven process for the identification of projects for the proposals that utilities must submit under Section 3.2.a of H.B. 2193 ("Section 3.2.a Proposals"). Such a process should also include multiple opportunities for stakeholder and Commission input to ensure that selected projects maximize benefits to ratepayers and utilities. Ideally, in the future utilities will include robust evaluations of energy storage options in their IRPs.

The first step to selecting optimal storage projects is to accurately assess the utilities’ operational or financial needs that an ESS can most efficiently address. As a result, utility needs should be identified through a data-driven evaluation of storage potential process with opportunities for stakeholder engagement and Commission oversight. Additionally, the evaluation of storage potential process should involve an assessment of location-specific needs at various points on the grid. Such an assessment would help ensure that diverse projects result from this process.¹ Properly conducted and comprehensive storage potential evaluations can help maximize benefits to ratepayers and utilities by precisely identifying utilities’ needs that storage can address most efficiently.

Ideally, utilities would file draft storage potential evaluations early enough in the process to allow stakeholder input and to inform the selection of the projects that a utility includes in Section 3.2.a Proposals. These storage potential evaluations could be prepared by the utilities themselves or by a third-party. Recognizing that the deadlines in H.B. 2193 may preclude utilities from submitting full storage evaluations early enough in the process, Renewable Northwest suggests that utilities be allowed to submit draft evaluations along with a demonstration of a good-faith effort to complete as much of the analysis as possible by the applicable deadline.

In combination with strong and timely storage potential evaluations, an adequate process for the selection of projects for Section 3.2.a Proposals is key to optimizing the benefits to utilities and ratepayers from H.B. 2193. Thanks to their expertise and modeling tools and capabilities, storage developers are best positioned to identify what types of ESSs can most cost-effectively meet a need that is identified in the storage potential evaluations. As a result, storage developers should be able to study the system locations identified in storage potential evaluations in order to assess the economics and technical capabilities of a specific ESS to meet a location-specific need. Ideally, storage developers would perform such studies (subject to appropriate security and confidentiality protections) and propose projects in the context of a Request for Proposals (“RFP”). Alternatively, utilities could include general technical information about projects in Section 3.2.a Proposals and conduct RFPs after receiving Commission approval.²

Content of Evaluation Reports (Question 5)

Renewable Northwest recommends that the evaluation reports have two key areas of value: one focused on utility needs and one focused on specific projects. The first area of value involves utilities reporting to the commission on the data and methods used to identify their points of need (whether the utility or a third-party performed this initial analysis). Stakeholder review and Commission approval should follow this initial reporting. The second area of value, after an actual RFP has been conducted, should focus on the projects themselves. Utilities should report on the results of their solicitation

¹ Our answers to Questions 12 and 13 discuss in further detail the role that evaluations of storage potential can play in encouraging diversity among projects.

² Our answers to Questions 16-17 discuss the content of Section 3.2.a Proposals in further detail.

for storage solutions for those points of needs, clearly showing why specific project proposals were selected and how these proposals best met the selection criteria. Given the sensitivity of the data included in these reports, this data should be subject to appropriate confidentiality protections.

Requests for Information (“RFIs”) (Questions 7-8)

RFIs should inform the selection of projects that utilities include in their Section 3.2.a Proposals. In particular, RFIs should serve as qualification screening mechanisms for vendor qualifications. A qualifications screening mechanism is particularly important in the context of UM 1751 given the current stage of development of the storage industry.

II. Should the Commission consider setting guidelines for competitive bidding? (Questions 9-11)

In order to yield projects that minimize risks to customers and utilities while maximizing benefits, we recommend that the Commission consider adopting some criteria related to competitive bidding that would apply to utility procurement of ESSs in connection with H.B. 2193. The Commission currently has competitive bidding guidelines in place for “Major Resource Acquisitions” (“UM 1182 guidelines”). Absent further Commission direction, these UM 1182 guidelines would not apply to small-scale ESS procurement. However, certain of the guidelines are worth considering.

Competitive bidding criteria informed by some of the UM 1182 guidelines could help ensure that the procurement of ESSs under H.B. 2193 minimizes risks to customers and utilities while maximizing benefits. For example, informed by UM 1182 guidelines 6 and 7, the Commission could require a process of RFP design and approval with opportunity for stakeholder input. Similarly, the Commission could require a benchmark resource score based on a non-storage solution to the same utility need that a particular storage project would address. Finally, the Commission could require bid scoring and evaluation criteria that look into the validity of pricing information, the strength of bidder qualifications, and the robustness of proposals.

We encourage the Commission to, at a minimum, establish a process for vendor selection that allows for stakeholder, Staff, and Commission engagement and oversight. Such a process should include an assessment of a developers’ robustness in modeling storage solutions for the points of need identified on the utility system and of potential vendor qualifications, as well as an assessment by Staff and/or the Commission of the validity of the pricing in each project proposal. In summary, such a process should ensure that selected vendors clearly showed the necessary level of expertise and capabilities required to propose viable and precise projects that would meet the identified system needs.

III. How should the Commission encourage diversity among projects?

Encouraging Investment in Different Systems (Questions 12-13)

On the front end of this process, utilities should be required to show a comprehensive assessment of the location-specific need potential for storage at various points on the grid (i.e., interconnected at all levels of the system). As mentioned above, after this draft evaluation is provided to the Commission, stakeholders should have the opportunity to comment, including giving storage developers the ability to conduct modeling and assist the utility in identifying the most economical and technically feasible options to be pursued.

If this process results in a narrow range of storage projects, the Commission should consider asking a utility to look at more diverse projects. However, the Commission should avoid becoming too prescriptive in the types of projects it approves for deployment. The results of H.B. 2193 should ultimately show the positive impact of energy storage on electric system operations as well as benefits to ratepayers. If the Commission requires projects that are uneconomic or less technically impactful in the name of diversity, the results of this initial round of storage deployments could send the wrong signal about the benefits of storage to ratepayers and utilities.

Renewable Northwest recognizes the value in gaining experience with a diversity of use cases and ownership structures. Hence, if multiple potential projects have similar net benefits and equally robust technology and pricing information, the utility and the Commission may choose to select one with diversity of projects in mind. However, in such a scenario, the Commission and/or the utility should publicly and clearly signal the reason for such selection.

What differences in storage projects should be promoted? (Questions 14-15)

The State of Oregon and the storage industry would most benefit from variations in use cases and ownership structures, utilizing reliable and proven storage technologies.

IV. What information should utilities include with a proposal?

Content of Section 3.2.a Proposals (Questions 16-17)

Section 3.2.c of H.B. 2193 details the information and analysis to be included in Section 3.2.a Proposals, such as technical specifications, estimated capital costs, and system benefits. Storage developers are best suited to identify cost-effective storage solutions to utility needs that maximize benefits to ratepayers and utilities because they are uniquely positioned with the expertise and modeling capabilities. As a result, storage developers should be able to study the system locations identified in storage potential evaluations in order to assess the economics and technical impact of a specific ESS to meet a location-

specific need. Ideally, storage developers would perform this study and propose projects in the context of an RFP.

In the absence of an RFP that precedes Section 3.2.a Proposals, one potential approach to this process is outlined here: First, each utility provides to the Commission a draft evaluation of potential storage needs, values, and locations. Through stakeholder involvement and Commission guidance, the final evaluations provided by the utilities should give meaningful high-level guidance for what types of storage facilities should be pursued (Section 3.2.a Proposals). This proposal would provide the general technical specifications the utility is seeking, the estimated capital costs, and a description of the anticipated system benefits. Lastly, a process would solicit the most cost-effective bids, representing a diversity of storage applications to the extent practicable, to meet the needs identified in the proposal. Ideally, competitive bids will be received from storage applications at the residential and commercial level, the distribution level, and the transmission level.

Calculation and Evaluation of Cost-Effectiveness (Questions 18-19)

The most practical threshold for the cost-effectiveness of a storage system is the cost of the traditional or alternative, non-storage solution. The alternative can include a new generation or transmission build or it may just be the status quo, i.e., “do nothing”. For example, it is not uncommon for system operators and ratepayers to “deal with” and pay for ongoing congestion when traditional solutions are economically or technically not viable.

Regardless of the initial alternative solution specified, identifying this benchmark is only the first step. Any cost-effectiveness test must also consider the other values that a storage project may bring and that could be simultaneously stacked on top of the primary need, including, by way of example, renewable energy integration, reduced curtailment of renewable energy resources, and reduced or deferred distribution system upgrades.

The Commission should also consider other societal benefits, such as reduced carbon dioxide emissions, less risk of stranded assets, and overall greater flexibility from a single resource. Operational efficiencies in overall fleet performance should also be considered.

Information and assessments that the Commission Requires with Section 3.2.a Proposals to Demonstrate a Full Utility Quantitative and Qualitative Assessment? (Question 20)

Our current view is that the draft evaluation of storage potential submittal with stakeholder and Commission review will help to ensure a robust quantitative and qualitative assessment of system needs and potential solutions. Allowing storage developers to sign non-disclosure agreements to access the utility’s underlying data is an important part of this process so that developers can propose optimal solutions to utility-identified needs. Within the confines of confidentiality agreements, utilities should be required to make the data underlying their system assessments available.

V. How should the Commission evaluate proposals?

Criteria for Project Evaluation (Question 21)

Our view is that the stakeholder process will help ensure that solid, well-vetted proposals are delivered to the Commission. When it comes to evaluating certain projects, the focus should be on the net benefits tests (including qualitative and societal benefits) described above. If it is deemed important for the Commission to put a premium on proving unique use cases, the Commission and utilities should clearly and publicly identify their reason to put a premium on such unique use cases.

Prioritizing Projects with Immediate v. Long-Run Benefits (Question 22)

Benefits should be captured and recognized over the life of a project. A deployment that has an immediate benefit but results in added costs for ratepayers over the long term could be viewed as unsuccessful.

Should the Commission give greater weight to certain kinds of projects (say projects with a higher benefit-cost ratio) than to others? (Question 23)

Yes, the benefit-cost ratio (including qualitative and societal benefits) should carry the most weight.

For a given use case, should the Commission require utilities to evaluate alternatives to the use of storage? (Question 24)

Yes. Our answers to Questions 18 and 19 provide more detail on our reasoning.

How should the Commission weigh non-quantifiable benefits? (Question 25)

Best efforts should be made to estimate and benchmark benefits that are difficult to quantify. Ultimately, the Commission will have to include these benefits in its own internal weighting, valuation, and deliberation.

Thank you for the opportunity to comment,

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