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December 20, 2019

Mark Johnson
Executive Director and Secretary
Washington Utilities and Transportation Commission
621 Woodland Square Loop SE
Lacey, WA 98504-7250

RE: Comments of Renewable Northwest, Docket UE-190698

Utilities and Transportation Commission's November 7, 2019, Notice of Opportunity to File Written Comments in the Matter of Amending, Adopting, and Repealing WAC 480-100-238, Relating to Integrated Resource Planning.

I. INTRODUCTION

Renewable Northwest thanks the Washington Utilities and Transportation Commission (“the UTC” or “the Commission”) for this opportunity to comment in response to the Commission’s November 7, 2019 Notice of Opportunity to File Written Comments (“the Notice”) regarding the Commission’s rulemaking on Integrated Resource Plans (“IRPs”), Clean Energy Action Plans (“CEAPs”), and Clean Energy Implementation Plans (“CEIPs”).

In these Comments, we offer responses to several of the questions enumerated in the Notice, omitting several questions as well and focusing in particular on the topic of resource adequacy. We follow those specific responses with the broader recommendation that the Commission review draft proposed rule language for consistency with a modern, flexible grid that relies on storage and other non-traditional resources.

Finally, we thank the Commission for its efforts to adapt the IRP process not only to implement the requirements of Washington’s Clean Energy Transformation Act,¹ but also to better align the process with the rapidly changing electricity sector.

II. COMMENTS

Renewable Northwest has structured the comments in Section A below in response to the prompts presented in the Notice. Numbered subsections correspond to the number of the

¹ SB 5116 (2019) as Engrossed, *available at* <https://lawfilesexternal.wa.gov/biennium/2019-20/Pdf/Bills/Session%20Laws/Senate/5116-S2.SL.pdf>.

question presented in the Notice. Where we have no response to a question, that question is omitted from our comments.

In Section B, we offer observations on one additional point that relates to the draft rules as a whole; specifically, we recommend that the Commission review the rule language to ensure that it aligns with the realities of a modern, flexible grid that includes non-traditional resources such as energy storage.

A. Responses to Commission Questions

1. Frequency of IRPs and Progress Reports

Renewable Northwest does not have a firm position on two-year versus four-year IRP cycles, but notes that in this time of rapid change in electricity-system economics, many inputs -- in particular, resource costs -- may become stale over a four-year time frame.² If the Commission nevertheless elects to move to an every-four-year IRP timeline, we recommend ensuring that utilities be required to update resource inputs as they conduct their refreshed portfolio analysis and preferred portfolio as part of the IRP progress report.³

3. Timeline for IRPs, CEIPs, and CEAPs

As the interactions among the IRP, CEAP, and CEAP are potentially complex, Renewable Northwest looks forward to reviewing stakeholder comments on what timing may best allow each process to inform the others. We may offer comments on the ideal timeline for these requirements in future comments.

6. IRP Acknowledgement

Renewable Northwest recommends that the Commission consider adding more substance to IRP acknowledgement. As one example raised in the Notice, an acknowledgment letter with comments may be sufficient to guide a regulated utility's actions, as this approach would shed light on how the Commission may view elements of the IRP that eventually play out in other

² See, e.g., Lazard's Levelized Cost of Energy Analysis - Version 13.0 at 7 (Nov. 2019) ("Lazard's unsubsidized LCOE analysis indicates significant historical cost declines for utility-scale renewable energy generation technologies

driven by, among other factors, decreasing capital costs, improving technologies and increased competition"); Lazard's Levelized Cost of Storage Analysis - Version 5.0 at 10 (Nov. 2019) ("LCOS v5.0 reveals significant cost declines across most use cases, despite industry concern about rising costs for future deliveries of Lithium-ion systems due to higher commodity pricing and challenges related to storage module availability"); Rocky Mountain Institute, *Breakthrough Batteries* (2019).

³ See Proposed WAC 480-100-615(3).

proceedings given the draft proposed rules' provision that "[t]he commission will consider the information reported in the integrated resource plan and two-year progress report when it evaluates the performance of the utility in rate and other proceedings."⁴ However, other means of adding substance to the acknowledgment decision may be worth considering as well.

12. Social Cost of Carbon

Renewable Northwest has been monitoring stakeholder conversations on how to incorporate the social cost of carbon into the resource planning process. While we have no position at this time, we may wish to comment in the future.

13. Resource Adequacy

Renewable Northwest recommends that the Commission establish consistent standards for resource adequacy that can be applied to resource planning efforts across regulated utilities. A robust regional conversation is beginning to take shape regarding the importance of addressing resource adequacy concerns at a time when resources traditionally relied on for capacity are retiring at an accelerating pace, and at the same time load-serving entities are trending toward meeting capacity needs with flexible resource portfolios that include renewable resources, storage, demand-side management, and reliance on regional markets. Given this combination of real regional need and the potential for innovative solutions to meet that need, it is important to ensure stakeholders are using similar methods and metrics as they consider resource adequacy.

To account for this changing paradigm, Renewable Northwest recommends that any language and metrics adopted by the Commission: (1) account for the full capacity value of renewable resources, and (2) ensure that rule language is flexible enough to account for the resource-adequacy benefits of diverse resource portfolios rather than being focused on individual resources.

On the first point regarding capacity value, Renewable Northwest recommends that the Commission consider requiring that regulated utilities apply a consistent and robust effective load carrying capacity ("ELCC") calculation. Proper ELCC analysis captures the value a variable resource provides by determining probabilistically to what extent that resource will help a load-serving entity meet its loss-of-load-probability ("LOLP") standard and attain resource adequacy.⁵

⁴ Proposed WAC 480-100-625.

⁵ See, e.g., Michael Milligan, "Methods to Model and Calculate Capacity Contributions of Variable Generation," Oregon Public Utility Commission at Slide 9, pdf p. 95 (Aug. 17, 2015), *available at* <http://edocs.puc.state.or.us/efdocs/HTB/um1719htb142830.pdf> ("A generator contributes to resource adequacy if it reduces the LOLP in some or all hours or days."); see also E. Ibanez and M. Milligan, National Renewable Energy

On the second point regarding rule language, Renewable Northwest recommends that the Commission ensure rule language is not limited by traditional concepts of individual resources' contributions to resource adequacy. By way of example, the Rocky Mountain Institute has been developing a series of reports on the benefits of Clean Energy Portfolios comprising diverse resources including renewable energy generation, storage, and demand-side management.⁶ Assessing each resource individually may fail to capture the resource-adequacy benefits these resources can provide when considered as a portfolio. The same is likely true of portfolios reflecting broad forms of resource diversity, including geographic diversity and temporal diversity in variable resources' generating profiles. What is most important is that the Commission's rules are flexible enough to allow regulated utilities to consider how they might meet their resource-adequacy needs with innovative resources or resource portfolios whose precise characteristics stakeholders might not yet be anticipating. Renewable Northwest will more fully address the need for flexible language that reflects a modern electricity grid in Section B below.

15. Identifying Four-Year CEIP Goals in the IRP

It appears to be appropriate for the Commission to require that utilities identify in an IRP a CEIP's four-year energy efficiency, demand response, and renewable energy goals. Utilities must bear in mind their CETA obligations when undertaking resource planning efforts, and explicitly incorporating these goals into the IRP will help to ensure that the goals are a part of the planning process. Renewable Northwest may offer additional comments on four-year renewable energy targets in future comments.

B. Overall Rule Language

As noted above, Renewable Northwest recommends that the Commission review draft rule language to ensure that the language is flexible enough to accommodate a modern electricity grid that will likely include significant levels of energy storage and may include other non-traditional energy resources.

Laboratory, "Comparing Resource Adequacy Metrics and Their Influence on Capacity Value" (Jul. 2014), available at <https://www.nrel.gov/docs/fy14osti/61017.pdf> (providing a succinct overview of ELCC).

⁶ Rocky Mountain Institute, *The Growing Market for Clean Energy Portfolios* (2019), available at <https://rmi.org/insight/clean-energy-portfolios-pipelines-and-plants/>; Rocky Mountain Institute, *The Economics of Clean Energy Portfolios* (2018), available at <https://rmi.org/insight/the-economics-of-clean-energy-portfolios/>.

Renewable Northwest was excited by the Commission’s forward-thinking 2017 policy statement on energy storage.⁷ We agree with the Commission that its IRP rules should contribute to “a new planning framework that more cohesively considers the relationship between generation, transmission, and distribution, allowing for a fair evaluation of hybrid resources such as energy storage.”⁸ However, there appears to be some disconnect between that policy statement and the draft proposed rules: while the proposed rules mention energy storage,⁹ they do not consistently account for energy storage as a resource. These comments identify a few specific examples, but a full review of the draft proposed rule language is likely warranted.

For example, in the definitions section of the proposed rules, energy storage only appears as a type of “distributed energy resource.” While it is true that energy storage projects may fall under the category of distributed energy resources (“DERs”), utilities are increasingly looking to large-scale storage as an essential component of their resource plans.¹⁰ Thus it appears to be a significant omission that storage does not appear elsewhere in the definitions, particularly in the definition of “integrated resource plan.” While the “integrated resource plan” contemplates a resource mix composed of “conservation and efficiency, generation, [DERs], and delivery system infrastructure,” it does not expressly include energy storage in the mix of resources intended to meet current and future resource needs.¹¹

To the extent that energy storage resources are intended to be encompassed by any of the categories that are listed, such categorization may be limiting, as energy storage resources may perform different functions at different times,¹² occasionally acting as a generation resource by discharging power while at other times providing ancillary services or other system relief. Separately listing energy storage as a resource would help to account for the many types of energy storage projects and the various system functions that a single storage project can provide.

⁷ Washington Utilities and Transportation Commission, Docket Nos. UE-151069 and U-161024, “Report and Policy Statement on Treatment of Energy Storage Technologies in Integrated Resource Planning and Resource Acquisition” (Oct. 11, 2017) (hereinafter “Storage Policy Statement”).

⁸ *Id.* at 10.

⁹ Proposed WAC 480-100-600 (definition of “distributed energy resource” includes “a nonemitting electric generation or renewable resource or program that ... provides storage”); 480-100-610(4) (providing that an IRP “must include an assessment of a wide range of generating resources, energy storage resources, and nonconventional generating, integration, or ancillary service technologies”); 480-100-610(11)(c) (providing that an IRP must include “a narrative explanation of ... how the utility’s long-range integrated resource plan solution ... [c]onsiders acquisition of existing renewable resources and relies on renewable resources and storage in the acquisition of existing renewable resources”).

¹⁰ *See, e.g.*, PacifiCorp’s 2019 Integrated Resource Plan at 9 (“PacifiCorp’s 2019 IRP preferred portfolio includes nearly 600 MW of battery storage by the end of 2023”).

¹¹ Proposed WAC 480-100-600.

¹² *See* Storage Policy Statement at 10.

Indeed, the flexible approach to resources that we suggest in these comments appears to be reflected in draft proposed WAC 480-100-610(4), which provides that an IRP “must include an assessment of a wide range of generating resources, energy storage resources, and nonconventional generating, integration, or ancillary service technologies.” Revising other rule language to align with this approach would help to better ensure that storage and other non-traditional resources that could prove beneficial are captured in the IRP process.

The same flexible approach would also be worth considering as an amendment to proposed WAC 480-100-610(12)(f), which currently would requires that a CEAP “[i]dentify renewable resources, nonemitting generation, and distributed energy resources that may be acquired and evaluate how each identified resource may reasonably be expected to contribute to meeting the utility’s resource adequacy requirement.” This language largely tracks the underlying statutory language,¹³ but expressly including storage and non-traditional resources to this section would seem to add particular value given that the CEAP is intended to inform the CEIP.

III. CONCLUSION

Renewable Northwest again thanks the Commission and Commission Staff for their work to update the Commission’s IRP rules to align with the requirements of CETA. IRPs are central to ensuring that utilities are able to provide reliable, affordable energy that also achieves necessary decarbonization and climate targets, and the draft proposed rules represent a significant positive step toward establishing a framework that will help achieve those results. We look forward to continued engagement in this IRP rulemaking and the remainder of the Clean Energy Transformation Act implementation process.

Respectfully submitted this 20th day of December, 2019.

/s/ Max Greene

Max Greene

Staff Counsel & Analyst

Renewable Northwest

max@renewablenw.org

¹³ RCW 19.280.030(2)(d).