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VIA ELECTRONIC FILING and E-MAIL

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RE: Docket UE-210183 Rulemaking to consider adoption of Markets and Compliance Requirements for the Clean Energy Transformation Act

Washington Department of Commerce May 3 Notice of Opportunity to Comment on Storage Accounting Issues

Together, Avista Corporation dba Avista Utilities, PacifiCorp dba Pacific Power & Light Company, Puget Sound Energy, and the Public Generating Pool (collectively, “Joint Utilities”) file this response to Notices of Opportunity to File Written Comments issued by the Washington Utilities and Transportation Commission (Commission) and the Washington Department of Commerce (Commerce) on May 3, 2021. The Joint Utilities in this response appreciate the opportunity to provide written comments.

INTRODUCTION

The Joint Utilities appreciate the questions posed by Commission Staff and Commerce in the May 3, 2021 requests for comment. These questions raise important issues, and the Joint Utilities are providing responses consistent with several general principles:

Rules should be straightforward and encourage storage development.

It is almost certain that the Clean Energy Transformation Act (CETA’s) groundbreaking requirements can’t be met without deployment of unprecedented amounts of energy storage. If the Commission and Commerce choose to adopt rules regarding energy storage, those rules should recognize the importance of energy storage in the State’s transition to a cleaner energy future. This means that rules should maximize the operational and monetary value of storage, encourage its widespread, rapid development, and minimize administrative burdens where possible. Rules also

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need to be compatible with regulatory systems across the Western Interconnection, as Washington utilities can realistically procure either storage devices or energy that has been stored in one across the entire West. Rules that meet these criteria are most likely to deliver on CETA's promises of reliability and affordability.

The rules should also allow for the adoption of new storage technologies in the future, should new technologies emerge. We recommend that rules should focus on common features of all storage systems and be technology neutral.

Storing electricity might be essential to meet the practical requirements of CETA, but it is immaterial from a compliance perspective.

Even though CETA's policies likely can't be met without the aggressive deployment of energy storage, the law says very little about the technology. That's because CETA's compliance requirements center on renewable energy credits (REC) and nonpower attributes, retired or verified in a number sufficient to match a utility's retail electric load over the course of a multi-year compliance period.¹ In other words, CETA cares about the number of megawatt-hours of renewable or nonemitting generation, and the number of megawatt-hours that constitute a utility's retail electric load.

CETA links both RECs and other nonpower attributes to metered generation, which is unaffected by storage.

CETA's basic compliance instruments are RECs and nonpower attributes. Storing electricity doesn't change the nature, value, or amount of RECs or nonpower attributes attributable to any particular megawatt-hour of renewable or nonemitting generation. RECs and nonpower attributes are based on generation: this means storage should have no impact on their creation (or eventual use for compliance). This is consistent with the plain text of CETA, as well as current industry practice.

A REC is "proof of one megawatt-hour of a renewable resource."² A "renewable resource" is one of nine specifically enumerated types of resources, including wind, water, and solar energy.³ This means that a REC is based on generation at the resource, as is current industry standard.⁴ Similarly, "nonpower attributes" are "associated with the generation of electricity."⁵ In both cases, the statutory language relies on generation at the resource.

As a general rule, stored electricity is not part of an electric utility's retail electric load.

Logically, stored electricity can't be part of an electric utility's retail electric load: if it were, load would effectively be double counted—once at the storage device, and then again at the point of final consumption. The same electrons serve both the storage device and the customer at the point of final consumption.

¹ RCW 19.405.040(1)(a).

² RCW 19.405.020(31).

³ RCW 19.405.020(34). The list of renewable resources is exclusive, as the renewable resource "means" one of the listed resources. *See Brown v. Scott Paper Worldwide Co.*, 143 Wash. 2d 349, 359 (2001).

⁴ Specifically, the Western Renewable Electricity Generation Information System (WREGIS) bases REC generation on metering at the point of interconnection.

⁵ RCW 19.405.020(29)(a).

The legal argument in favor of excluding storage from retail electric load is just as strong as the logical argument. CETA compliance is demonstrated by using renewable or nonemitting electric generation “in an amount equal to one hundred percent of the utility’s retail electric loads over each multiyear compliance period.” CETA defines “retail electric load” as the amount of megawatt-hours delivered “for ultimate consumption and not for resale.”⁶

This definition excludes storage from an electric utility’s retail electric load, including electricity lost due to round-trip inefficiencies. Electricity stored for return to the grid is never for “ultimate consumption.” For losses, a utility-owned or contracted facility would not be “purchasing” electricity. And a third-party facility buying and selling electricity would be making wholesale purchases “for resale.” There may also be jurisdictional issues with including sales to third-party storage facilities in “retail electric load,” as the Federal Energy Regulatory Commission has exclusive jurisdiction over sales for resale, including sales from energy storage resources.⁷

The exception to this rule, however, is if a storage unit is owned by a retail electric customer. Any electricity used by the customer to charge the unit would be included in the utility’s retail electric load.

RESPONSES TO QUESTIONS

1. What information regarding the use of storage in meeting its CETA requirements should be included in the utility’s CETA compliance report?

For the Commission:

The Commission should rely on WAC 480-100-650(1) (reporting and compliance), 480-100-650(3) (annual clean energy progress reports) and related statutes to determine what information should be included in a utility’s CETA compliance report.

WAC 480-100-650(1) includes a range of requirements, but relevant here is its requirement that utilities demonstrate whether and how:

- (a) The utility met its interim targets;
- (b) The utility met its specific targets;
- (c) The specific actions the utility took made progress toward meeting the clean energy transformation standards at the lowest reasonable cost;
- (d) The specific actions the utility took are consistent with the requirements in WAC 480-100-610(4)(c) including, but not limited to...

For paragraphs (a) and (b), information about use of storage should be included to the extent that it is included in a utility’s interim or specific targets. For paragraph (c), information about use of storage may be relevant, to the extent it is necessary to show that the utility’s actions are consistent with CETA’s requirement to rely on renewable resources and energy storage, “insofar as doing so

⁶ See RCW 19.405.020(36) (retail electric load is “amount of megawatt-hours delivered... to its Washington *retail electric customers*) and RCW 19.405.020(35)(a) (*retail electric customer* defined as “a person or entity that purchases electricity from any electric utility for ultimate consumption and not for resale”).

⁷ See 16 USC § 824, Order 841, *Electricity Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,127, P. 30 (Feb. 15, 2018).

is consistent with [lowest reasonable cost, considering risk].” Similarly, a discussion of the use of storage may be relevant for paragraph (d), to the extent the utility is relying on storage as part of its method for ensuring that all customers benefit from the transition to clean energy.

The Joint Utilities note that a utility’s annual clean energy progress report, required by WAC 480-100-650(3), would likely not include information about its use of storage, unless the Commission requested it when approving the utility’s most recently approved Clean Energy Implementation Plan (CEIP). WAC 480-100-650(3) requests information about specific ratemaking considerations, resource acquisition and characteristics, REC usage and retirement, percentage of total megawatt-hours supplied by nonemitting or renewable electricity, greenhouse gas emissions, and fuel mix disclosure. These requirements would not likely implicate the use of storage.

For Commerce:

For consumer-owned utilities, storage resources identified in utilities’ integrated resource plans to implement CETA will also be incorporated into their Clean Energy Action Plan and CEIPs as a specific action. Those plans will be shared with Commerce per WAC 194-40-050. To the extent that a utility acquires storage facilities, that information will be reported in the utility’s performance or compliance plan shared with Commerce per WAC 194-40-040(i).

Additionally, Commerce rules requiring utilities to establish a resource adequacy standard per WAC 194-40-210 specifically identifies storage resources to be included in the resource adequacy plan and will be reported per that section of rules.

2. How should the energy used and provided by energy storage resources be accounted for to ensure that nonpower attributes of renewable generation are not double counted? What compliance and reporting requirements would assure verification and prevent double counting?

Fundamentally, storage cannot and does not create a REC or any other nonpower attribute. This is true of both current industry practice and CETA’s text: the law states that RECs are a “proof of one megawatt-hour of a renewable resource,” defined as, among other things, water, wind, and solar – *but excluding storage*.⁸ Similarly, “nonpower attributes” are “all environmentally related characteristics... associated with the generation of electricity” – and storage *does not generate electricity*. This fact eliminates any risk of double counting, as the REC or other non-power attributes can be retired only once. Therefore, no additional compliance or reporting requirement is necessary.

That said, the Joint Utilities recommend that Commerce and the Commission consider whether additional discussion and analysis is warranted for renewable hydrogen, considering its unique classification as a renewable resource under the law that can also be used to store electricity.⁹

3. Should compliance and reporting rules related to energy storage be differentiated based on any of the following:

As a general matter, the Joint Utilities are not clear what compliance or reporting rules relating to

⁸ RCW 19.405.020(34).

⁹ RCW 19.405.020(34).

energy storage are required by CETA, or even advisable as a means of implementing the law. CETA bases compliance on two factors: (1) retirement of RECs or verification of nonpower attributes – both of which are based on generation and (2) retail electric load – which is determined based on the number of megawatt-hours delivered in a calendar year. Whether electricity is stored would not affect either.

a. The storage technology, such as battery storage or pumped hydro storage?

Generally, no. There are no meaningful distinctions between most storage technologies that justify different compliance and reporting treatment.

b. The location of the storage resource within the grid, such as collocated with a generating resource, interconnected in the transmission or distribution system, or at a retail customer's premise?

Yes, potentially, for storage that is grid connected. While such storage does not affect a utility's CETA compliance obligation it may improve system resilience or provide benefits to highly impacted communities. Such storage could be reported as part of the CEIP.

In contrast, there appears little reason for reporting storage located behind the meter. Electricity fed into or returned from this type of storage is accounted for as part of the utility's retail electric load. Furthermore, a portion of customer-installed behind the meter storage will be unknown to utilities. Finally, even what constitutes behind the meter storage is ambiguous as electric vehicles and other products gain the ability to return electricity to the distribution system.

c. The ownership of the storage resource, such as a utility subject to CETA, a non-utility operator, or a retail end use customer.

Ownership may be relevant in some cases to determining retail electric load, though the location (behind the meter or not) of a storage device is likely to be determinative. It may be beneficial, however, to consider reporting for storage that provides resilience or other benefits to highly impacted communities, for example as part of the CEIP.

4. For a storage resource that is interconnected in the power grid, one possible approach to compliance is to treat it like a generating resource. The storage resource would be registered in the Western Renewable Energy Generation Information System (WREGIS). It would retire RECs for the renewable electricity used to charge the storage device and report verified data on discharge of electricity into the grid. WREGIS would create renewable energy credits (RECs) for the electricity discharged into the grid. If it used a combination of renewable and fossil sources for charging, a multi-fuel calculation would be applied to ensure that RECs are created only for the renewable portion of electricity generated into the grid. Please comment on the advantages, disadvantages, and necessary elements of this approach.

CETA does not provide sufficient statutory authority to adopt rules implementing this approach. A REC must be from a "renewable resource," a defined term that does not include energy storage.¹⁰ Similarly, "nonpower attributes" are "associated with the generation of electricity," and

¹⁰ RCW 19.405.020(34). Renewable hydrogen is the sole exception here, and may warrant further discussion as proposed in the Joint Utilities' response to question 2.

storage does not generate electricity.¹¹

In addition to the statutory problems with this approach, it would yield no additional value beyond relying on metered generation for generation of RECs or nonpower attributes, and retiring or verifying them as required by RCW 19.405.040(1)(c) and RCW 19.405.040(1)(f). The purpose of a REC is to accurately determine the megawatt-hours of generation attributable to a particular renewable generation facility over the course of a month. Similarly, a nonpower attribute proves that a particular amount of “generation of electricity” had certain environmental characteristics, at the time of generation. The fact that this generation is temporarily stored before being used to serve customers does not affect the nature of that generation.

The approach proposed by this question would also discourage storage development because it would discount the REC or nonpower attribute value of stored electricity, assuming that the number of RECs issued upon discharge is based on the number of megawatt-hours actually returned to the grid (accounting for losses). Such a result would effectively penalize the storage of electricity and conflict with the need to maximize storage value to encourage the fastest possible adoption of this technology.

Finally, this approach would require a wholesale redesign of WREGIS’s approach to REC accounting, and would implicate how storage is accounted for across the entire Western Interconnection, because Washington utilities can reasonably access generation and storage across the entire footprint of the West. It is not clear if this change in Washington policy would be compatible with other state policies elsewhere in the West. It seems unwise to pursue a policy that could create regional complications without incremental benefit as measured against current practice.

5. For a storage resource that is collocated with a renewable generating facility:

- a. Should the storage accounting rules specify that RECs are created based on the amount of electricity generated or on the amount of electricity delivered into the grid?**
Current practice bases REC generation on the number of megawatt-hours injected into the grid at the point of interconnection, even if electricity is stored before reaching the point of interconnection. To the extent that WREGIS is able to establish different metering standards to establish a consistent approach to measuring renewable generation paired with storage at the generator, with no accounting of energy storage, then the Joint Utilities would support discussing and analyzing this approach. Any such approach should maintain regional consistency.
- b. How should power from the grid used to charge the storage resource be accounted for?**
Grid electricity that is used to charge a storage resource collocated with a renewable generating facility or nonemitting generation should be treated the same way as electricity used to charge a storage resource not collocated with a renewable or nonemitting generating facility. The original generation facility’s attributes determine whether a

¹¹ RCW 19.405.020(29)(a).

particular megawatt-hour of generation created a REC or nonpower attribute, and whether that megawatt-hour passes through a storage facility has no impact.

- 6. For a storage resource located at a retail customer's premise, should the electricity used to charge the resource be included in the load of the utility for purposes of CETA? If the storage resource returns electricity to the grid, should this electricity be subtracted from the load of the utility for purposes of CETA?**

In general, behind-the-meter storage resources should be considered as part of a utility's retail electric load as defined by RCW 19.405.020(36). Currently, most customers with storage-only resources located behind the meter may not be able to deliver energy to the grid. To the extent such customers can deliver energy in the future – or if a customer has behind-the-meter generation in addition to storage that delivers energy to the utility's system – then it is the net amount of energy delivered to that customer (regardless of whether that customer is on a net metering rate schedule) that is relevant for purposes of CETA compliance.

- 7. Use of a storage resource will result in electricity being delivered to load at a different time than the electricity was generated. WREGIS creates RECs with a vintage specified as month and year. Is month and year vintage information sufficient to ensure that renewable energy claims are accurate and that double counting of renewable generation does not occur? If not, what vintage detail should be required and why?**

The Joint Utilities recommend that this question be addressed in discussions regarding how utilities use renewable or nonemitting electricity for the purpose of CETA compliance. The Joint Utilities interpret CETA to require compliance over the course of the four-year compliance period, which eliminates any need to consider how storage might interfere with a utility's ability to determine if renewable energy claims are accurate.

- 8. If a storage facility operator charges an energy storage facility with a combination of renewable and non-renewable electricity, what verification, documentation, or calculation requirements would ensure that the output of the storage resource is accurately accounted for as renewable or non-renewable?**

CETA does not require that a utility ensure that the output of a storage resource is accurately accounted for as renewable or non-renewable: the law requires that RECs or nonpower attributes, based on generation, be retired or verified to show use of renewable or nonemitting resources. Intermediate steps between generation and load – including transmission, distribution, and storage – are not relevant for purposes of CETA compliance.

That said, no verification, documentation, or calculation requirements would be necessary to do so, as RECs and nonpower attributes are created based on metered generation of renewable or nonemitting resources. This means that utilities will only have RECs for the megawatt-hours of renewable generation used to charge the storage facility, and will not have RECs for the megawatt-hours of non-renewable generation used to charge the storage facility.

9. Are there any energy storage accounting requirements used by other jurisdictions or by voluntary programs or protocols that the Commission should consider, either as guidance in adopting rules for CETA or to avoid potential conflicts in approaches?

The Commission and Commerce might consider the approach recommended by the Joint Agency Report to implement California’s Senate Bill 100.¹² The Report found that storage must be constructed at record setting rates to meet the state’s renewable goals. It also found that the law, like CETA, deals with retail sales: “SB 100 speaks only to retail sales and state agency procurement of electricity. The joint agencies interpret this to mean that other loads – wholesale or nonretail sales and losses from storage and transmission and distribution lines – are not subject to the law.”¹³

The Commission and Commerce might also review Federal Energy Regulatory Commission Order 841, which addressed energy storage’s participation in organized markets.¹⁴ While Washington’s utilities do not participate in organized markets covered by Order 841, the Order contains valuable discussions regarding the scope of state and federal jurisdiction over energy storage that are universally applicable.

CONCLUSION

The Joint Utilities appreciate the opportunity to provide comments in response to the Commission’s and Commerce’s Notices.

Sincerely,

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¹² California Air Resources Board, California Energy Commission, and California Public Utilities Commission, *2021 SB 100 Joint Agency Report*, (March 2021), available at <https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349>.

¹³ *Id.* at 59.

¹⁴ Order 841, *Electricity Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,127, P. 30 (Feb. 15, 2018).