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Mark L. Johnson, Executive Director and Secretary
Washington Utilities and Transportation Commission
621 Woodland Square Loop SE
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UTIL. AND TRANSP.
COMMISSION

Re: **Docket UE-191062: PSE Answers to the Questions from the Commission Staff Regarding PSE’s Petition for a Declaratory Order Approving the Avoided Cost Rate Methodology for Power Purchases from Schedule 92 Large Qualified Facilities per WAC 480-106-050(5)**

Dear Mr. Johnson:

Puget Sound Energy (“PSE”) appreciates the review and the assessment provided by the Washington Utilities and Transportation Commission (“Commission”) staff (“Staff”) in their comments to the Commission on March 13, 2020, regarding PSE’s Petition for a Declaratory Order Approving the Avoided Cost Rate Methodology for Power Purchases from Schedule 92 Large Qualified Facilities per WAC 480-106-050(5) under Docket UE-191062 (“Petition”).

PSE answers herein the seven questions posted by the Staff in their March 13th comments.

Question No. 1:

Expected or demonstrated reliability: How will PSE gauge whether expected reliability metrics as represented by QFs are reasonable or feasible? What are these metrics, and how are they included in the overall avoided cost valuation?

PSE Response:

Expected reliability metrics may include expected output, availability factor, and available hours of a proposed Qualified Facility (“QF”). These metrics are typically proposed by the QF during the initial contracting phase, and then negotiated between the QF and PSE with provisions for planned outages and forced outages. Reasonableness of the expected reliability depends on the power generation technology employed by the QF, and whether there are output limitations due to the variability of the resource (wind, solar, etc.) or other limits to the fuel supply (e.g. a cogeneration facility where the electrical output is dictated by the availability of fuel or by the

heat need). The aggregate effect of these reliability metrics is expressed in the Effective Load Carrying Capability (“ELCC”) of the QF, and therefore the capacity contribution of the QF.

Question No. 2:

IRP inputs – reconciling updated inputs with a static methodology: Will the Company commit to updating all IRP inputs referenced in Exhibit B and in the petition such that this methodology, if approved, would not be ‘stale’ in 2024? Is there a way to connect the Schedule 91 rate updates with this methodology? Or is this already done in PSE’s view with Section 1 of Exhibit A?

PSE Response:

Consistent with WAC 480-106-040(1), PSE will file, by November 1st of each year, a schedule of estimated avoided costs that identifies, both separately and combined, its avoided cost of energy and its avoided cost of capacity. Such schedule of estimated avoided costs would include the following:

- (a) an estimated avoided cost of energy based on PSE’s then-current forecast of market prices for power stated on a cents per kilowatt-hour or dollars per megawatt-hour basis for the current calendar year and each of the next twenty years; and
- (b) an estimated avoided cost of capacity expressed in dollars per megawatt based on the projected fixed cost of the next planned capacity addition identified in the succeeding twenty years in PSE’s most recently acknowledged Integrated Resource Plan (“IRP”) filed pursuant to WAC 480-100-238, which estimated avoided cost will include following:
 - (i) the projected fixed costs of PSE’s next planned capacity addition based on either the estimates included in its most recently acknowledged IRP or the most recent project proposals received pursuant to a request for proposal issued consistent with chapter 480-107 WAC, whichever is most current; and
 - (ii) if PSE’s most recently acknowledged IRP identifies the need for capacity in the form of market purchases not yet executed, then PSE will use the projected fixed costs of a simple-cycle combustion turbine unit as identified in the IRP as the avoided capacity cost of the market purchases.

PSE’s next IRP (the 2021 IRP) is currently scheduled to be filed on April 1, 2021.

PSE has submitted Schedule 92 as PSE’s avoided cost rate methodology for QFs with capacity greater than five megawatts. The Schedule of Estimated Avoided Costs that PSE will file on or before November 1 each year is intended to provide only general information to potential bidders about the cost of new power supplies and does not provide a guaranteed contract price for electricity or capacity.

Consistent with WAC 480-106-060(f), when negotiating rates for purchases from a QF with capacity greater than five megawatts, to the extent practicable, PSE will consider the following factors:

- (a) The data in the Schedule of Estimated Avoided Costs provided by PSE to the Commission pursuant to WAC 480-106-040;
- (b) The availability of energy, capacity, and ancillary services from a QF during the system daily and seasonal peak periods, including:
 - (i) PSE's ability to dispatch the QF;
 - (ii) the QF's expected or demonstrated reliability;
 - (iii) the terms of any proposed contract or other legally enforceable obligation;
 - (iv) the extent to which PSE and the QF can usefully coordinate their respective scheduled outages;
 - (v) the usefulness of energy, capacity, or both, supplied from the QF during system emergencies, including the QF's ability to separate its load from its generation;
 - (vi) the individual and aggregate value of energy and capacity from the QF on the PSE's system; and
 - (vii) the smaller capacity increments and the shorter lead times available, if any, with additions of capacity from the QF;
- (c) The relationship of the availability of energy, capacity, or both, from the QF as derived in subsection (b) above, to the ability of PSE to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and
- (d) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from the QF.

Question No. 3:

Exhibit B: Will the Company commit to filing updated versions of Exhibit B to its tariff as part of the updates required under WAC 480-106-040(1)? If not, how does the Company propose to keep these useful resources up-to-date? Staff suggests that these materials could be located with the information and term sheets required under WAC 480-106-030(5).

PSE Response:

Yes. PSE will update the two Schedule 91 Pricing Models (“Models”) provided in Exhibit B to PSE’s Petition whenever PSE revised its Schedule 91 per WAC 480-106-030(4) and WAC 480-106-040(1) for the standard rates for purchases from qualifying facilities of five megawatts or less.

PSE will be posting the two Schedule 91 Models in the “Resource Links” area under PSE’s Distributed Renewables Program, which includes the links to the Schedule 91 rates and agreement and the link to the information and term sheets for qualifying facilities with capacities of greater than five megawatts per WAC 480-106-030(5). Attached below is the current posting of the information.

<https://www.pse.com/green-options/Renewable-Energy-Programs/distributed-renewables>
Distributed Renewables

To facilitate the renewables revolution in our region, PSE has established the Distributed Renewables program. Working with our commercial customers to develop a cleaner more resilient power grid we are meeting both our region’s needs and PSE’s renewable energy goals.

Distributed Renewables’ aim is to provide assistance in the development of customer-owned renewable energy projects that generate between 100 kilowatts and 5 megawatts to interconnect to the PSE electrical distribution grid. Current federal and state laws require the interconnection customer to be responsible for all costs related to connecting their system to PSE’s power grid. Therefore, PSE wants to work to ensure the interconnection process is efficient, while maintaining a grid that is safe and reliable for all customers.

In addition, PSE offers Schedule 91, a Power Purchase Agreement for Qualified Facilities up to 5 megawatts. Qualified Facilities greater than 5 megawatts should refer to Schedule 92, Purchases from Qualifying Facilities of Greater Than Five Megawatts. (Refer to [Resource Links](#), below.)

<https://www.pse.com/green-options/Renewable-Energy-Programs/distributed-renewables#Resources>

Resources

Find linked resources below under “Learn more”.

 Learn more

- [State Jurisdiction Electric Generation Schedule 152 \(Interconnection\)](#)
- [PSE New Commercial Electric Service Application](#)
- [Schedule 152 Application – Attachment C](#)
- [Small Generation Technical Specifications - 160.70 August 2019](#)
- [PSE Electric Service Handbook](#) (for Meter Placement)
- [Power Purchase Agreement Schedule 91](#)
- [Power Purchase Agreement Schedule 91 - 2019 Rates](#)
- [FERC Qualifying Facility Information](#)
- [Non-Binding Term Sheet Schedule 92](#)

Question No. 4:

Exhibit A, Section 4.A. Effective Load Carrying Capability: Does Staff correctly understand that PSE will run a project-specific effective load carrying capacity (ELCC) analysis for any prospective large QF that begins negotiations?

PSE Response:

As PSE outlined in its proposed Avoided Cost Rate Methodology (Exhibit A to the Petition), “for a typical QF (wind only, solar only, biomass only, etc.) in PSE’s service territory, the use of a ‘generic’ ELCC may be appropriate.” That is, wherever possible, and in the interest of minimizing both time and expense during the QF contracting process, PSE will rely on a “generic” ELCC that is representative of the technology being proposed rather than calculate a project-specific ELCC. In those cases where a “generic” ELCC does not adequately capture a QF’s specific technology (or mix of technologies) and capacity contribution, PSE may calculate a project-specific ELCC.

Question No. 5:

Discussion of Schedule 91 Pricing Model in Petition: When and how are transmission and distribution deferral credit calculations updated? Would an updated deferral credit necessitate refiling the large QF methodology?

PSE Response:

Transmission and distribution (“T&D”) deferral credit calculations (measured in \$/kilowatt-year) are derived from regional sources like the Northwest Power and Conservation Council’s (“NPCC”) Northwest Power Plan as well as from internal metrics developed and vetted through PSE’s integrated resource planning process. If and when the NPCC were to update the Northwest Power Plan with a new T&D deferral valuation, or if PSE were to develop a PSE system specific T&D deferral credit calculation, PSE would update Schedule 91 Models and standard rates as appropriate per WAC 480-106-030(4) and WAC 480-106-040(1).

Question No. 6:

Exhibit A, Section 4.D.iv.: Staff is unclear on the intent and meaning behind this item. Please rephrase and include an example to illustrate what is meant.

PSE Response:

Consistent with PSE’s request for proposal process for new resources, PSE will consider multiple transmission routes (or paths) to deliver energy from a QF to adequate customer load. In some cases, where there is Available Transfer Capability (“ATC”) between the QF and adequate customer load, the transmission route may be relatively straight forward. However, in other cases, where ATC is constrained, PSE will consider other transmission routes that can deliver the QF energy to adequate customer load. For example, a QF may be sited on a PSE transmission line connecting PSE’s customer load to the Mid-Columbia market trading hub (“Mid-C”). If there is limited to no ATC on the transmission line between the QF and adequate PSE customer load, PSE would consider alternate transmission routes to deliver the QF’s energy to adequate customer load. In this example, the only path available may be to deliver the QF’s energy to the Mid-C, and then use a different transmission path to deliver the QF’s energy to adequate PSE customer load. However, by delivering the QF energy through Mid-C, there may

be no incremental increase in capacity; therefore, the QF would forfeit any avoided capacity credit but ensuring the full avoided energy credit.

Question No. 7:

Carbon pricing and the Clean Energy Transformation Act: Staff understands that carbon pricing is included in the Company's avoided cost of energy, and is contemplated in the Company's IRP. Staff does not have a clear understanding of how that analysis would flow into this methodology. Does this methodology sufficiently consider the avoided costs associated with carbon reduction? Does the Company believe that this methodology will need to be revisited after the various rulemakings to implement CETA are completed?

PSE Response:

PSE considers the social cost of greenhouse gas emissions, as determined by the Commission pursuant to RCW 80.28.405, when developing IRPs and clean energy action plans. PSE will incorporate the social cost of greenhouse gas emissions as a cost adder when:

- (i) evaluating and selecting conservation policies, programs, and targets;
- (ii) developing IRPs and clean energy action plans; and
- (iii) evaluating and selecting intermediate term and long-term resource options.

RCW 80.28.405 provides that the cost of greenhouse gas emissions resulting from the generation of electricity, including the effect of emissions, is equal to the cost per metric ton of carbon dioxide equivalent emissions, using the two and one-half percent discount rate, listed in Table 2, Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order No. 12866, published by the Interagency Working Group on Social Cost of Greenhouse Gases of the United States Government, August 2016 (the "August 2016 Technical Update of the Social Cost of Carbon").¹ RCW 80.28.405 requires the Commission to adjust the cost of greenhouse gas emissions resulting from the generation of electricity to reflect the effect of inflation.

PSE's IRP electric analysis models this social cost of carbon as a cost adder to thermal resources, and the impact of this cost adder is reflected in the estimated avoided costs of energy. The August 2016 Technical Update of the Social Cost of Carbon projects a social cost of carbon for 2020 of \$62 (in 2007 dollars) per metric ton. Consistent with RCW 80.28.405, PSE has adjusted the prices for inflation (nominal dollars) and converted to U.S. tons (short tons). Accordingly, PSE projects social costs of carbon ranging from \$86 per ton in 2020 to \$184 per ton in 2039.

PSE does not believe that the Schedule 92 methodology will need to be revisited after completion of the various rulemakings to implement the Washington Clean Energy Transformation Act. PSE does not believe that any rulemaking would affect either the statutory

¹ https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf

requirements regarding the social cost of greenhouse gases or PSE's incorporation of the social cost of greenhouse gases in developing estimated avoided costs of energy.

PSE appreciates the opportunity to provide answers to the Commission Staff's questions for additional clarification and information. Please contact Mei Cass at (425) 462-3800 for additional information about these responses. If you have any other questions please contact me at (425) 456-2142.

Sincerely,

/s/ Jon Piliaris

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