

June 5, 2023

Commissioner David Danner, Chair  
Commissioner Ann Rendahl  
Commissioner Milt Doumit  
Washington Utilities and Transportation Commission  
P.O. Box 47250  
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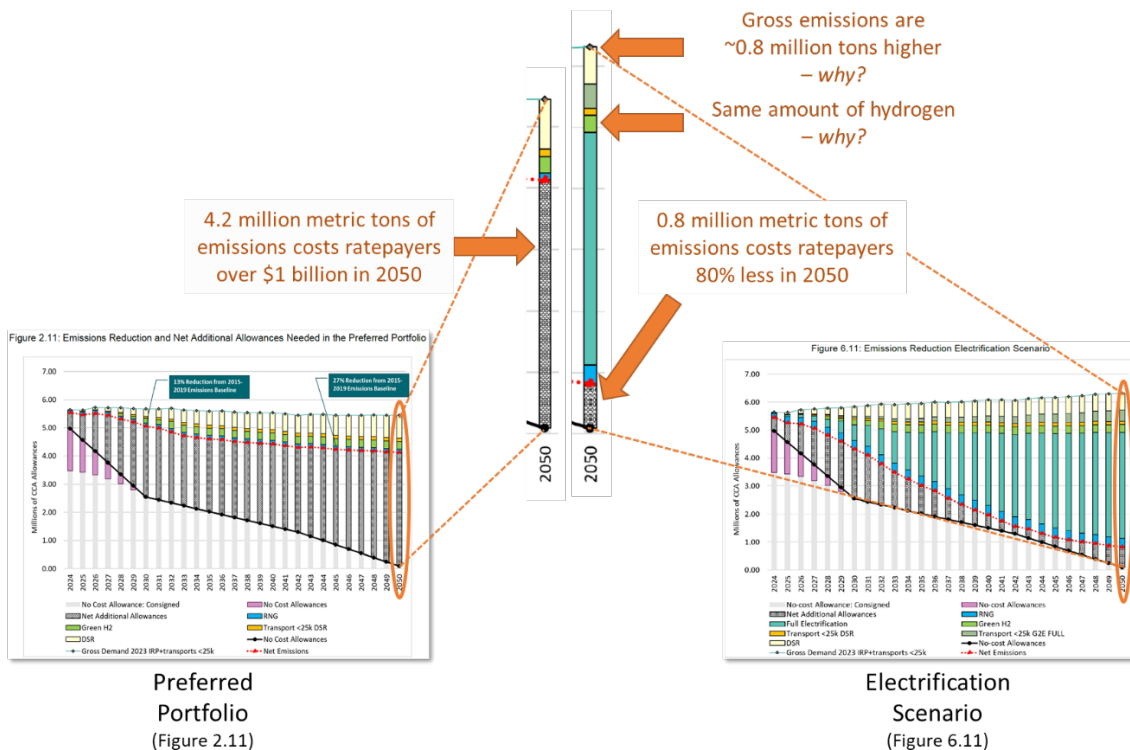
RE: Puget Sound Energy Final 2023 Gas Utility Integrated Resource Plan (UTC Docket UG-220242)

To the Commissioners:

The Washington Clean Energy Coalition (WCEC) hereby submits additional comments concerning the 2023 Gas Utility Integrated Resource Plan submitted by Puget Sound Energy (PSE) to the Washington Utilities and Transportation Commission (UTC). These comments aim to complement and expand upon our remarks previously submitted on May 8, 2023.

PSE purportedly reviewed ten distinct portfolios and sensitivities before selecting its "Preferred Portfolio" as the plan of record. According to PSE, the Preferred Portfolio represents the "second lowest cost" solution among the options examined.

However, the WCEC has identified significant discrepancies in PSE's cost analysis that we wish to bring to the Commission's attention. These discrepancies are apparent in the following graph which compares PSE's 2050 emissions forecast for the Preferred Portfolio (Figure 2.11 on page 2.21 of the IRP document) and the Electrification Scenario (Figure 6.11 on page 6.23).



PSE assumes a gross demand level that emits approximately 0.8 million metric tons more for the Electrification Scenario than the Preferred Portfolio. To meet this higher level of emissions, the PSE would need to purchase Climate Commitment Act (CCA) allowances costing approximately \$200 million. PSE's outdated assumption of gross demand makes the Electrification Scenario appear needlessly expensive (and more environmentally damaging) than it should be.

When we raised this discrepancy with PSE, their response was as follows:

*Costs across scenarios often reflect changes to more than a single assumption. As such, it may be difficult to discern the impact of a single assumption when comparing scenarios. The Electrification Scenario, in addition to the demand assumption, differs from the Preferred Portfolio in its assumptions of CCA allowances. The electrification scenario assumes a floor price for the CCA allowances (see Figure 4.7) as opposed to the mid-price CCA allowance assumptions in the preferred portfolio, and as a result, the portfolio costs in the electrification scenario are significantly mitigated.*

PSE's response disregards the fact that reducing the Electrification Scenario's gross demand level by 0.8 million metric tons would render nearly zero CCA allowances necessary by 2050. Consequently, the projected price of CCA allowances becomes a minor part of the overall cost of the Electrification Scenario. We consider this oversight to be a significant error that raises doubts about PSE's decision to favor the Preferred Portfolio primarily based on cost considerations.

### Hydrogen analysis

We also asked PSE why the amount of hydrogen used to reduce emissions from natural gas remains the same in both portfolios, when total gas use is lower in the Electrification Scenario. PSE's response was as follows:

*Yes, the H2 should decline in proportion to the decline in gas demand, and this will be reflected in future IRP portfolio modeling. The impact is relatively minor, but to your point, not zero.*

The WCEC acknowledges that this assumption may not have a substantial impact on emissions. However, we are concerned that basic errors are slipping through PSE's modeling process, and we question what other factors might be leading the company to arrive at incorrect conclusions.

### Cost to future generations

The WCEC is worried that PSE's present-day plans may yield unfavorable outcomes for future generations. We expressed these concerns in an email exchange with PSE, as follows:

**Question:** *WCEC is concerned that the Electrification Scenario appears more costly than the Preferred Portfolio because PSE stops accounting for the enormous cost of CCA Allowances in 2050. What is likely to happen to ratepayers the year after that? We assume that ratepayers in 2051 will be required to pay for more than \$1 billion worth of CCA Allowances in that single year. Under the unrealistically generous assumption that PSE is serving a million gas customers in 2050, the cost of CCA Allowances will add more than \$1,000 to the annual gas bill of each customer. On the other hand, the Electrification Scenario will require almost no CCA Allowances in 2051. Doesn't this mean that the Electrification Scenario will lead to lower energy costs for our children and grandchildren in 2051?*

*PSE's answer: The CCA allowance price in 2050 is based on a forecast from Department of Ecology and the California Energy Commission. PSE did not have allowance prices beyond 2050.*

Although the CCA expires in 2050, it is risky to assume that the cost of emitting **4 million metric tons** of carbon equivalent gases will not be consequential for future ratepayers. To put that astounding amount in perspective, the CCA requires total emissions for the entire state of Washington to be only 4.4 million tons by 2050. PSE's plan would have its customers emitting 90% of that amount!

### Discount Rate influence

PSE's selection of a discount rate is yet another example of bias against future ratepayers. PSE employs a discount rate to calculate the Net Present Value of each portfolio. By utilizing a relatively high rate of 6.8%, PSE inflates the cost of expenditures made early in the planning period, making them five times more expensive than those made near the end of the period. This artificially inflates the calculated cost of a transformative plan like the Electrification Scenario, which makes substantial investments in the early years, in contrast to the Preferred Portfolio, which relies on technologies like green hydrogen and biodiesel only after they have matured.

A different discount rate can be used depending on a society's goals and sense of urgency. According to the Northeast Energy Efficiency Partnerships, a nonprofit advocacy group operating in 12 states in the Northeast and Mid-Atlantic region:

*The discount rate represents the perspective of the group who benefits from the investment and policies of the jurisdiction. ... A higher discount rate reflects an investment that will provide short-term benefits (five to eight percent) while a lower discount rate reflects an investment that will provide the same or more benefits to future generations (negative percent to three percent). Small changes in the discount rate can create huge impacts.<sup>1</sup>*

To assess the impact of different discount rates on PSE's portfolios, the WCEC calculated the Net Present Value of the portfolios using various discount rate values. At 6.8%, PSE found the Electrification Scenario to be 10.6% more expensive than the Preferred Portfolio. At 2.0%, a rate that more fully supports the well-being of future generations, the costs of the two portfolios are equivalent. Cost parity is achieved even if none of the other errors mentioned in this letter are corrected.

Our concerns for the financial security of future generations are far from theoretical. On May 31, the New York Times declared, "The climate crisis is becoming a financial crisis."<sup>2</sup> State Farm, the largest homeowner insurance company in California, will no longer insure any home in the whole state. Other insurance companies are warning of higher rates or restricted policies in Kentucky, Louisiana, and Florida. The price of Washington emissions is showing up in other states as well as our own. It is time to accept responsibility for our actions and correct our course.

### Mitigating cost of higher electric peaks

PSE worries that peak demand for electricity will rise sharply during cold weather if electricity is used to provide most heating rather than natural gas. This is a valid concern, but there is little evidence that PSE

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<sup>1</sup> <https://neep.org/blog/turing-policy-performance-determining-discount-rate-decarbonization>

<sup>2</sup> "Climate Shocks Are Making Parts of America Uninsurable. It Just Got Worse." New York Times, May 31, 2023

is using the most cost-effective technologies to serve these electric peaks. We believe the cost of renewable energy, energy storage, and Distributed Energy Resources will decline faster than the cost of natural gas and CCA allowances during the next 26 years.

For example, we are concerned that PSE is not accounting for the potential benefits of pricing policies like Time Varying Rates or Critical Peak Pricing (CPP). These programs can be very effective. For example, Snohomish PUD, a public utility serving 350,000 customers in Snohomish County, recently published results from a CPP pilot program:

*During peak events, FlexPeak customers, who were subject to higher peak event rates, reduced their energy use by an average of 32.8 percent compared to 12.4 percent for the FlexResponse customers, who did not have the higher rates. Notably, the FlexPeak group included many participants who didn't choose to enroll smart devices, demonstrating the potential for customers to respond to peaks through behavioral changes.<sup>3</sup>*

In our previous letters commenting on PSE's Gas IRP and Electric IRP Progress Report, the WCEC mentioned a study that found Virtual Power Plants (VPPs) are already 40% to 60% cheaper to serve demand peaks than gas peaker plants. We asked PSE if VPPs could further reduce costs in the Electrification Scenario. PSE responded as follows:

*Throughout 2022 and into 2023, PSE will begin the first phase of implementing its Virtual Power Plant (VPP), which will allow PSE to dispatch demand response (DR) resources once they are acquired. In February 2022 PSE issued a Request for Proposal for Distributed Energy Resources (DER), including for DR resources. In March 2022 PSE received a number of proposals from multiple vendors, many of which are in the contracting process to provide the anticipated DR capacity resources.*

While these developments offer hope, PSE failed to provide any specific details about VPPs in its Gas IRP or its Electric IRP Progress Report. If the cost benefits of VPPs were not appropriately considered in the cost analysis of the Electrification Scenario, that scenario would appear to be more expensive than what could reasonably be achieved.

### Request for relief

PSE contends that the costs of the Preferred Portfolio and the Electrification Scenario cannot be directly compared. However, by failing to conduct a comprehensive and transparent comparison of these plans, PSE risks pursuing an unnecessarily expensive plan that harms our environment and future generations.

For these reasons, we reiterate our request for the Commission to reject PSE's Gas IRP and engage an independent analyst to ensure that PSE's facts and forecasts are reasonable, accountable, and transparent.

Sincerely,

Don Marsh  
Washington Clean Energy Coalition

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<sup>3</sup> <https://www.snopud.com/save-energy/residential/flexenergy/flexpeak/>