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March 2, 2022

Amanda Maxwell  
Executive Director and Secretary  
Washington Utilities and Transportation Commission  
P.O. Box 47250  
Olympia, WA 98504-7250

RE: Puget Sound Energy Clean Energy Implementation Plan

Dear Executive Director Maxwell,

I am privileged to submit the following comments regarding PSE’s Clean Energy Implementation Plan (CEIP) as a representative of **Washington Clean Energy Coalition**, the **Washington State Energy Committee of Sierra Club**, and the **Coalition of Eastside Neighborhoods for Sensible Energy (CENSE)**. Although each of these organizations have distinct goals and objectives, we are aligned in our concerns regarding PSE’s CEIP.

In addition to my work with these organizations, I have provided input directly to PSE during the drafting of the CEIP. Although the company improved the plan throughout its development, many suggestions offered by my colleagues and me were not incorporated into the final plan. I have also participated as a stakeholder representative in PSE’s last four Integrated Resource Plans. I have provided expert witness testimony in land use hearings related to PSE’s infrastructure projects and have presented to the King County Council, various city councils, environmental organizations, and neighborhood associations.

My focus in this volunteer work has been to reduce the environmental impact of our energy generation, transmission, and consumption. Effort and imagination are required to transform our energy grid so that future generations of people, plants, and animals will enjoy a healthy and livable planet.

Now we must consider the CEIP of Washington’s largest utility, which serves innovative companies, a highly educated population, and a region known for its care of the fragile ecosystems upon which we depend.

**PSE’s CEIP is fundamentally flawed, needlessly timid, and presents significant risks to both ratepayers and the environment.**

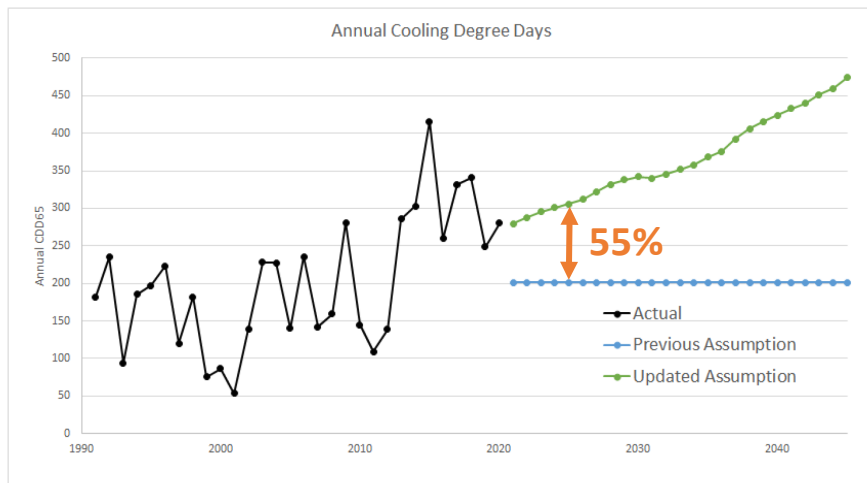
### Untenable climate modeling

The CEIP is flawed because it fails to account for the significant impact that climate change will have on energy use and the needs of ratepayers in coming years. Despite persistent requests from IRP stakeholders over many years, PSE has not updated its simplistic weather models that do not account for rapidly changing climate in the Puget Sound area.

PSE recently previewed some work it is undertaking to correct the deficiency, but none of this new modeling was available in time to inform PSE’s 2021 IRP or the CEIP. As a result, PSE may invest in infrastructure that may not be necessary, or may be insufficient, to meet the needs of its customers in coming years. PSE’s customers will either pay too much for redundant infrastructure or suffer reliability problems due to the company’s flawed forecasts.

To illustrate the magnitude of the problem, please see Figure 1, a slide presented by PSE to a meeting of the IRP Advisory Group on January 20, 2022. The slide shows a growing discrepancy between Annual Cooling Degree Days forecast by PSE’s previous model and the updated model. By 2025, the two models diverge by approximately 55%. If the new model is accurate, PSE’s customers are likely to need more total energy in the summer and PSE may also experience higher peak demand (like during the heat dome emergency in June 2021). The CEIP’s obsolete weather modeling has rendered it blind to the increasing risk.

For electric energy models, we plan to use a 30-year normal CDD, centered on the year of interest, rolling forward over time



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Figure 1 – New forecast methodology not included in PSE’s CEIP

We are especially concerned about the possibility of a “perfect storm” – the coincidence of a prolonged hot spell, a drought that reduces the availability of electricity from hydro, and high prices for natural gas caused by political instability or carbon legislation. If PSE has not properly accounted for this scenario, customers could be shocked by high bills or unplanned outages.

PSE showed a similar chart for winter Heating Degree Days, which are expected to decline by more than 10% compared to the previous weather model. The old model may overstate winter need, possibly justifying PSE’s plan to build new natural gas powered peaker plants. If winter needs are subsiding, the peaker plants may not be needed, and PSE’s customers should not be required to pay for them.

In both the summer and winter scenarios, it is PSE’s customers, and not the company or its investors, who will pay the price through reduced reliability or higher energy costs.

**To avoid these undesirable outcomes, the Commission should require PSE to update its weather models and revise the CEIP accordingly.**

## Misdirected investments

The danger of misdirected investments was recently illustrated in the City of Newcastle, where PSE is trying to build a controversial transmission project. To get a second opinion on the need for the project, Newcastle engaged an independent expert. The expert found that PSE's slow adoption of demand response and other non-wire alternatives would lead to reduced reliability and a large transmission project that will cost PSE ratepayers hundreds of millions of dollars:

*The best time to begin implementation of summer demand-side measures would have been many years ago—potentially as early as 2008 when the region's transmission challenges were identified. However, PSE hasn't missed the best remaining opportunity to implement such programs. That time is now.*

*While the City of Newcastle does not have the regulatory authority to require the actions we recommend below, we believe they would be prudent utility actions that the utility should undertake of its own volition, and that the WUTC should give them due consideration and support for rate recovery if pursued in a prudent manner. We believe that PSE should take proactive actions to implement our recommendations and reach out to WUTC as it reforms its current transmission planning process and load forecast.*

*... PSE should strive to minimize the risk of forced outages as much as possible. The best approach for minimizing the risk is to actually implement cost-effective demand-side resource programs as non-wires alternatives (NWA), with a focus on reducing the summer peak load.*

*Second, PSE should also seek to procure as much demand response (DR) as possible along with energy efficiency, solar PV, and combined heat and power because DR has some advantages over other resources: (a) DR is an untapped resource in the region; (b) DR can be quickly procured; (c) DR can be dispatched by PSE; and (d) DR has a potential to deliver a large amount of summer peaking reduction within a short time frame. Current efforts to secure DR capacity seem lukewarm at best.<sup>1</sup>*

PSE compelled the consultant to remove these paragraphs from its report. The concept of an independent report has become an endangered species in PSE's service territory.

PSE continues to delay adoption of reasonable demand response programs. In this CEIP, PSE describes a Time Varying Rates pilot program. As a representative of Sierra Club, I participated in the development of this program, and I believe it's a pretty good start. However, in a schedule published on page 116 of the CEIP, PSE says the program will remain in a pilot phase until 2025. PSE has made no commitment to pursue the program after 2025, even though it will save customers money, reduce peak demand, improve reliability, and reduce greenhouse gas emissions. There is no reason for such an extended study period when our planet and our region face enormous challenges. PSE tries to make the long pilot appear reasonable, but customers and the environment will pay the price.

**The Commission should require PSE to accelerate its Time Varying Rates program and other demand response programs.**

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<sup>1</sup> Draft version of "Assessment of Proposed Energize Eastside Project" by MaxETA Energy and Synapse Energy Economics, May 14, 2020

## Slow solar and batteries

The CEIP documents PSE's plan to acquire 380 MW of utility and DER solar by 2026. PSE will also acquire 75 MW of batteries. These are significant investments compared to PSE's current portfolio. However, compared to other utilities, these plans are quite timid.

Solar would address the "perfect storm" scenario we mentioned earlier (heat/drought/high gas prices). Solar paired with energy storage would work well to address heat waves. Solar is not vulnerable to drought or wildly varying prices for natural gas. But 380 MW of solar will serve less than 10% of peak summer load, making a minor dent in demand, especially if it isn't paired with equivalent storage capacity.

PSE's proposal to acquire 75 MW amounts to only 63 watts per customer (less than 2% of peak summer demand). In comparison, an aggressive utility like Southern California Edison has already installed 410 watts of batteries per customer and will install another 117 watts in the next couple of years. Obviously, the energy landscape is quite different in Southern California than the Puget Sound, but PSE's slow embrace of this revolutionary technology seems to be at odds with the company's description of battery benefits on its website:

*Batteries have the potential to solve energy challenges we all care about. They can provide temporary back-up power when you experience an outage, store energy from solar panels, help businesses manage their usage, and much more. Their ability to provide storage for renewables, like wind and solar, can also support our customers' and PSE's desire for cleaner energy.<sup>2</sup>*

PSE's CEIP doesn't match its public messaging on batteries. If PSE doesn't think batteries are economical, we would like to see a detailed explanation of the analysis and assumptions that produced this conclusion. PSE has withheld this analysis from IRP Advisory Groups.

**The Commission should require PSE to be transparent with its analysis that causes the company to conclude that slow adoption of battery storage is in the best interest of ratepayers.**

Thank you for this opportunity to comment on PSE's CEIP.

Sincerely,



Don Marsh  
Lead, Washington Clean Energy Coalition  
Member, Sierra Club Washington State Energy Committee  
President, Coalition of Eastside Neighborhoods for Sensible Energy

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<sup>2</sup> <https://www.pse.com/en/pages/grid-modernization/battery-storage>