EXH. KKD-1T
DOCKET UE-210795
PSE'S CEIP
WITNESS: KARA K. DURBIN

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of **PUGET SOUND ENERGY** **Clean Energy Implementation Plan Pursuant to WAC 480-100-640**	**Docket UE-210795**

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF

KARA K. DURBIN

ON BEHALF OF PUGET SOUND ENERGY

JULY 11, 2022

PUGET SOUND ENERGY

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I. INTRODUCTION

Q. Please state your name, business address, and position with Puget Sound Energy.

A. My name is Kara Durbin, and my business address is Puget Sound Energy, P.O. Box 97034, Bellevue, Washington 98009-9734. I am employed by Puget Sound Energy ("PSE" or "Company") as Director, Clean Energy Strategy.

Q. Have you prepared an exhibit describing your education, relevant employment experience, and other professional qualifications?

A. Yes, I have. It is Exhibit KKD-2.

Q. What are your duties as Director, Clean Energy Strategy for PSE?

A. I lead PSE's clean energy planning process and compliance activities under the Clean Energy Transformation Act ("CETA"), which are reflected in PSE's Clean Energy Implementation Plan filed in this proceeding. I also oversee PSE's public engagement efforts under CETA.

Q. What topics are you covering in your testimony?

A. My testimony addresses PSE's Clean Energy Implementation Plan ("CEIP") and this proceeding's related approval process. In my testimony I will distill and summarize the key issues raised by stakeholders, advocacy groups, and the public in that proceeding, describe efforts to address such issues, and present PSE's proposed resolutions and plans for its current and future CEIP filings.

II. CEIP REQUIREMENTS

Q. Please provide your understanding of what is required in a CEIP filing.

A. The rules for the CEIP under WAC 480-100-640 require that the CEIP include subsections regarding interim targets, specific targets, customer benefit data, specific actions, a narrative description of specific actions, projected incremental cost, public participation, alternative compliance, and any early action coal credit. The CEIP rules also require the equitable distribution of energy and nonenergy benefits to all customers and the reduction of burdens to vulnerable populations and highly impacted communities.

Q. Please explain how PSE's CEIP meets the requirements outlined in your previous response.

A. Washington State's CETA envisions a CEIP that will "[propose] specific targets for energy efficiency, demand response, and renewable energy" and "[propose] interim targets for meeting the standard under RCW 19.405.040(1) during the

years prior to 2030 and between 2030 and 2045."[1] CETA also envisioned that the CEIP will be informed by the utility's clean energy action plan ("CEAP"); be consistent with the CETA rules on incremental cost, and that it will "[identify] specific actions to be taken by the investor-owned utility over the next four years, consistent with the utility's long-range integrated resource plan and resource adequacy requirements, that demonstrate progress toward meeting the standards under RCW 19.405.040(1) and 19.405.050(1) and the interim targets proposed under (a)(i) of this subsection."[2]

PSE's CEIP complies with both the regulatory content and the spirit of the clean energy transformation that CETA envisions. PSE's CEIP proposes specific and interim targets; it was informed by the Company's CEAP, and it follows the rules that CETA established around incremental cost. Moreover, in the spirit of CETA, PSE's CEIP makes reasonable progress towards meeting CETA's clean energy goals. PSE's CEIP forges the transition to a clean energy economy by substantially transforming the Company's energy supply over the next four years.

Q. Please explain what PSE is requesting from the Commission in this proceeding.

A. PSE is requesting that the Commission will approve the following:

[1] RCW 19.405.060(1)(a)
[2] RCW 19.405.060(1)(b)

1. The interim target of 63 percent of retail sales by 2025, totaling approximately 11,381,593 MWh in PSE's CEIP;

2. The specific targets in the CEIP, including the Energy Efficiency Target: 1,073,434 MWh for 2022-2025, subject to update in 2023 to reflect the 2024-2025 Biennial Conservation Plan; a Renewable Energy target of 800 MW of new utility-scale renewables and 80 MW of new distributed solar resources; a Demand Response target of 23.7 MW by 2025, and

3. PSE's methodology for including costs in the incremental cost calculation.

Q. Are there other items that PSE is anticipating might be included in a Commission decision on its CEIP?

A. Yes. In addition to the specific approvals requested above, PSE seeks guidance from the Commission on several high-level considerations. The following are discussed in more detail later in my testimony:

1. The appropriate scope of the CEIP;

2. Consideration of costs in relation to other factors such as equity and environmental benefits, especially the two percent incremental cost alternative compliance mechanism, and

3. Guidance regarding the development, measurement, and use of customer benefit indicators.

III. STATUS OF PSE'S DRAFT CEIP

Q. Please provide an update on the status of PSE's CEIP in this proceeding.

A. PSE filed its draft CEIP on October 15, 2021, initiating this proceeding, Docket UE-210795. Between the October 15, 2021 draft CEIP filing and the final CEIP filing, multiple parties filed comments on the draft CEIP, including various individuals, the Washington Clean Energy Coalition and Vashon Climate Action Group, Public Counsel, The Energy Project, NW Energy Coalition, and Front and Centered. PSE made numerous substantive changes to its draft in response to stakeholder comments. On December 17, 2021, PSE filed its Final 2021 CEIP. Multiple parties submitted comments in response to the final CEIP. Their comments are discussed further below in my testimony.

On March 30, 2022, PSE filed a motion to consolidate this proceeding with the Company's general rate case, Dockets UE-220066/UG-220067. The Administrative Law Judge in PSE's general rate case denied PSE's motion and later initiated an adjudicative proceeding for the CEIP pursuant WAC 480-100-645(2).[3] PSE filed a petition for review of the interlocutory order denying consolidation, and the Commission affirmed the interlocutory order on May 23, 2022.

[3] *See WUTC v. PSE*, Dockets UE-220066/UG-220067 (consolidated), Order 01 Denying Motion for Consolidation; Denying Motion for Exemption from WAC 480-100-645(2).

Q. How did PSE develop its CEIP?

A. PSE began developing its CEIP by using as its starting point the CEAP contained in PSE's 2021 Integrated Resource Plan ("IRP"). The 2021 IRP used preliminary customer benefit indicators in its planning process for the first time to produce a ten-year CEAP. From there, PSE conducted a robust public participation process to inform the development of its CEIP. PSE hosted a series of advisory and stakeholder group meetings (including convening and engaging the new Equity Advisory Group), engagement with community-based organizations, customer engagement opportunities (e.g., survey and online open house), and a PSE-hosted comment period on the draft CEIP.[4] All of this engagement influenced the CEIP through the development of vulnerable populations factors, customer-driven customer benefit indicators, and potential programs and actions that reflect customer vision for an equitable clean energy future.

Q. Who are the parties in this proceeding?

A. The following parties are key stakeholders in PSE's CEIP process, and they actively engaged with PSE throughout 2021 in developing the CEIP:

- The Washington Utilities and Transportation Commission ("WUTC") regulatory staff ("Staff").

[4] A more detailed discussion of PSE's public participation activities can be found in Chapter 6 of PSE's CEIP.

- The Public Counsel Unit of the Washington State Attorney General's Office ("Public Counsel"). Public Counsel serves on PSE's Low-Income Advisory Committee and the Conservation Resources Advisory Group and participates in PSE's IRP stakeholder processes. Public Counsel is also a regular observer of PSE's Equity Advisory Group.

- Front and Centered, representing its organizational interests of a diverse and powerful coalition of communities of color-led groups across Washington State, whose missions and work come together at the intersection of equity, environmental and climate justice, and whose role is to provide comments to the Commission regarding PSE's CEIP. Front and Centered also served on PSE's Equity Advisory Group.

- NW Energy Coalition ("NWEC"), representing its organizational interests to advance clean, equitable, and affordable energy policies by leveraging its analytic expertise and convening a broad alliance of people and organizations, whose role is to provide comments to the Commission regarding PSE's CEIP. NWEC also serves on PSE's Low-Income Advisory Group and Conservation Resources Advisory Group and participates in PSE's IRP stakeholder processes.

- Alliance of Western Energy Consumers ("AWEC"), representing its organizational interests of ensuring its member businesses are informed and represented through advocating before regulatory agencies and policymakers

at the utility, state, regional, and federal levels, whose role is to provide comments to the Commission regarding PSE's CEIP. AWEC has also participated in PSE's IRP stakeholder processes.

- The Energy Project ("TEP"), representing its organizational interests as a partnership project of the Washington Community Action Partnership and the Washington State Department of Commerce to encourage energy efficiency and bill assistance services for low-income households and to create a secure funding environment for their provision in Washington state, whose role is to provide comments to the Commission regarding PSE's CEIP. TEP also serves in the Conservation Resources Advisory Group and the Low-Income Advisory Committee.

- Renewable NW, representing its organization's interests as an advocacy organization with a committed and long-term focus on the renewable energy policies. Renewable NW has participated in the IRP stakeholder process and provided comments on PSE's CEIP.

Q. How did PSE consider the other comments submitted in the CEIP docket?

A. PSE staff has read and reviewed each comment submitted in this proceeding. PSE appreciates the thoughtful feedback that stakeholders have provided on a wide range of issues. PSE supports including all comments into the record for consideration in this proceeding.

IV. PRIMARY ISSUES RAISED REGARDING PSE'S CEIP

Q. Please summarize the major issues that have been raised in response to PSE's CEIP.

A. PSE identified several topics that were addressed by commenters in response to PSE's final CEIP. Broadly, these topics include: the appropriate scope of the CEIP, the desire for more aggressive clean energy targets,[5] the appropriateness of the distributed energy resource ("DER") subtarget and the demand response target, which investments should be attributable as incremental to CETA, specific actions, the alignment of customer benefit indicators ("CBI") and metrics, specific CBI selection, scoring, and application of CBIs to select preferred DERs, the impacts of climate change on load forecasting, and other elements of PSE's IRP resource adequacy analysis, and the scope and implications of CEIP approval. These topics are discussed individually below.

Q. Please describe the approach to the overall scope of issues in PSE's CEIP.

A. The content and scope of the CEIP appropriately reflect the requirements of the Commission's CETA regulations. As specified in those regulations, PSE's CEIP discusses interim targets, specific targets, CBI data, specific actions, projected incremental cost, and public participation. The CEIP should not include non-

[5] One stakeholder, AWEC, expressed a desire for PSE to comply with CETA at a lower cost by using the linear glide path in its 2021 IRP. *See* Comments on Behalf of AWEC at p. 1 (March 2, 2022).

resource topics such as bill assistance, disconnection, and arrearages, because these non-resource topics are under the purview of other laws and regulations.

Q. Please summarize the comments received from stakeholders on the scope of the CEIP.

A. Multiple stakeholders submitted joint comments asserting that several new CBIs should be added to address the non-resource topics mentioned above. The Energy Project and Public Counsel included these issues as part of their list of proposed conditions for CEIP approval.[6]

Q. How does PSE respond to the various concerns related to the scope of the CEIP?

A. The scope of PSE's first CEIP, including the level of detail provided, is appropriate and consistent with the regulatory processes and frameworks established by the Commission during its initial CETA rulemaking in 2019-2020. WAC 480-100-640(1) states that the CEIP "describes the utility's plan for making progress toward meeting the clean energy transformation standards, and is informed by the utility's clean energy action plan."

The rule goes on to describe the specific elements that must be contained in a utility's CEIP: (1) interim targets; (2) specific targets; (3) customer benefit data; (4) specific actions; (5) projected incremental cost, and (6) public participation.

[6] *See* Appendix A to Comments on Behalf of Public Counsel at p. 1 (March 2, 2022). *See also* Comments on Behalf of TEP at ¶ 3 (March 2, 2022).

All of these elements are addressed, in detail, in PSE's CEIP. To the extent PSE believed this first CEIP could be improved in future iterations, PSE made specific commitments in Chapter 8 of its CEIP detailing how it would provide improvements as part of its biennial CEIP update filing in 2023.

While TEP advocates for a more comprehensive set of CBIs that include considerations of disconnections, arrearages, and other elements that may impact energy burden and affordability, these considerations are not outlined anywhere in the CEIP statutory provisions or rules. The CEIP is intended to be a four-year resource planning document that demonstrates the utility's plan to meet the clean energy transformation standards. There are already existing reporting mechanisms and metrics in other standalone Commission proceedings for tracking disconnections, arrearages, and other data that pertain to affordability.

Furthermore, in enacting CETA and RCW 19.405.120, the Legislature directed the Department of Commerce to provide low-income assistance information and reporting through a new biennial report, with no mention or cross-reference to the CEIP in RCW 19.405.120.

Regarding stakeholder comments related to non-resource topics, PSE believes consideration of barriers to participation in bill assistance programs and metrics about disconnections and arrearages are important considerations. However, these are currently being addressed in other Commission proceedings, such as the COVID-related Docket U-200281, the rulemaking proceeding in Docket U-210800, and PSE's general rate case in Docket UE-220066/UG-220067. For

example, bill assistance metrics are an issue in PSE's general rate case. These programs, while essential to serving the needs of customers, do not have direct bearing on resource selection and, consequently, are outside the scope of a resource plan.[7]

A. Renewable Energy Target

Q. Please describe PSE's renewable energy target of 63 percent by the end of the CEIP period.

A. CETA requires electric utilities to "demonstrate progress" towards CETA's 2030 and 2045 renewable energy goals. As of 2020, 34 percent of PSE's energy is CETA-eligible, non-emitting, and renewable. CETA requires 80 percent renewable energy by 2030. This means PSE has eight years to increase its clean energy portfolio by 46 percent. If PSE were to propose the midway point between 34 percent and 80 percent by the end of its first CEIP period, the Company would need to meet a standard of 57 percent. At the same time, the message PSE heard overwhelmingly from stakeholders was PSE should move "further, faster" in moving to clean electricity. For example, King County encouraged PSE to move more rapidly to transition to clean energy supplies.[8] Additionally, PSE considered two specific risks associated with slower resource acquisition: 1) increasing

[7] PSE GRC docket, available at https://www.utc.wa.gov/casedocket/2022/220066/docsets; Exh. MNL-1T, page 50 of 54, F. Additional Equity Metrics; and Exh. MNL-4, page 16 to 19 of 19, Metric: Number of low-income customers receiving bill assistance (gas and electric) and Share of bill assistance customers who are in highly impacted communities and vulnerable populations

[8] *See* Comments on Behalf of King County at p.1 (March 1, 2022), "We encourage PSE to move more rapidly to transition to clean energy supplies."

regional demand for clean energy resources over the next several years, and 2) recent economic inflation pressures, both of which will likely result in higher overall prices for renewable generation over time.

Q. How did PSE factor cost into setting the renewable energy target proposed in the CEIP?

A. PSE used the two percent incremental cost calculation to inform a reasonable spending threshold for resource acquisition in this first four-year period. By making progress now to acquire clean resources up to the two percent incremental cost threshold, PSE mitigates the risk of encountering higher prices in future CEIP periods, demonstrates reasonable progress, and does not venture beyond the legislative guidance of an acceptable annual incremental cost.

Q. Please provide an overview of stakeholder comments on the renewable energy target proposed by PSE.

A. Most stakeholders either had no comment on PSE's 63 percent target or generally indicated a desire for PSE to be more aggressive in its acquisition of clean energy resources. AWEC, however, raised concerns about the costs associated with PSE's target. AWEC focused on the difference between the proposed spending in PSE's IRP and the final CEIP, PSE's choice to substitute solar over wind, and PSE's accelerated acquisition of clean energy.

Q. How does PSE respond to the various concerns related to the Renewable Energy Target?

A. PSE proposes a renewable energy target of 63 percent that puts PSE on a path towards achieving CETA's 2030 clean energy standard. AWEC argues that PSE's proposal will result in cost and risk increases to PSE customers that greatly exceed the requirements of CETA.[9] While PSE maintains that its proposed target appropriately pursues a lowest reasonable cost approach when considering risk and the application of customer benefits required by CETA, PSE also acknowledges there is a great deal of uncertainty around the potential cost and availability of renewable energy over the next several years. Increasing rates of inflation coupled with supply-chain issues will likely influence PSE's ability to reach its 63 percent renewable energy target while staying under a two percent annual incremental cost threshold. Given these factors, which are outside of PSE's control, PSE seeks direction from the Commission on how PSE should proceed if actual costs of achieving its approved CEIP targets are markedly different than planned.

PSE is aware that it needs to acquire a significant number of renewable resources over the next eight years in order to meet, or at least come close to, the 2030 carbon neutrality standard. PSE's Draft CEIP initially had a target of 56 percent by 2025. But, in response to stakeholder comments and by updating resource

[9] *See* Comments on Behalf of AWEC at p. 1 (March 2, 2022).

costs in the CEIP, PSE proposed a higher target in the Final CEIP. As stated above, some local jurisdictions and customers want PSE to go much faster than the 63 percent renewable energy target proposed.

In the end, PSE is proposing to go as fast as it reasonably can in this CEIP period while staying within the two percent incremental cost of compliance threshold established as an alternative compliance mechanism under CETA. It is possible that, if actual costs through the All-source and Targeted DER requests for proposals ("RFPs") are lower than what is estimated in PSE's CEIP, that PSE could go further than 63 percent in this CEIP period. If actual costs of meeting its approved targets are higher than estimated, PSE anticipates it should continue to pursue achieving its approved targets to meet its compliance obligation, even though doing so may exceed the two percent annual incremental cost threshold.

Q. Are PSE's concerns regarding uncertainty in energy prices reasonable?

A. Yes. Unease about the effects of inflation and supply chain issues are increasingly being raised by economists and industry leaders, and the clean energy sector is not immune to these pressures. PSE is concerned about how these forces, along with increasing demand for clean resources in the region, may put demand side pressure on PSE's ability to acquire these resources. According to the US Bureau of Labor Statistics, between February 2021 and February 2022, the Consumer Price Index rose 7.9 percent.[10] Inflation has been significantly higher in

[10] https://www.bls.gov/opub/ted/2022/consumer-prices-for-food-up-7-9-percent-for-year-ended-february-2022.htm.

recent years than it has been historically. PSE is concerned that inflation will continue to drive up the costs of renewable energy resources at a rate that is higher than what it assumes the cost of inflation will be in its plan, and that the cost may continue to increase in the future.

B. DER Subtarget

Q. Please summarize PSE's proposed DER subtarget.

A. PSE proposed 80 MW of distributed solar as a subtarget for DER over the four-year CEIP period.[11] This subtarget is consistent with PSE's 2021 IRP and CEAP.[12] The selection of this DER resource amount was primarily a result of two aspects of the IRP analysis. First, PSE analyzed IRP resources with an initial set of customer benefit indicators. This analysis showed that DER resources scored higher in the provision of those CBIs. Additionally, the IRP scenario that constrained long-term transmission additions resulted in extremely high selection of DERs over the IRP timeframe. Because DER acquisition takes time and experience to scale-up, PSE determined that a moderate level of initial DER acquisition to build PSE capacity, systems, and expertise would mitigate the risk of future resource development constraints.

[11] Distributed solar generation is included in the 80 MW subtarget. PSE did not include Energy Efficiency and Demand Response programs as part of its 80 MW DER subtarget calculation.

[12] Please see https://www.utc.wa.gov/casedocket/2020/200304/docsets, 2021 Final IRP, on behalf of PSE, filed on April 1, 2021; 200304-PSE-Final-2021-IRP-Chapters-(04-01-21).pdf; Chapter 2.

In its CEIP, PSE refined the assumptions and inputs of the IRP/CEAP resource modeling with updated information by optimizing resource additions to better represent potential target DER programs over the 2022 to 2025 period using the AURORA long-term capacity expansion model, a benefit-cost analysis model, and customer benefit indicators. PSE also iterated on various permutations to maximize spending to the incremental cost guidance.

Through this analysis, PSE proposed a potential suite of DER resources that it is targeting through its DER RFP, which is meant to be illustrative of the types of DER resources PSE may pursue during the four-year period, and their anticipated customer benefits. Actual DER development, however, will depend upon RFP results, and the specific DER resources PSE is pursuing will be outlined in PSE's 2023 Biennial CEIP Update.

Q. Please provide an overview of stakeholder comments on PSE's proposed DER subtargets and the related analysis.

A. Throughout the CEIP development process, PSE heard overwhelming feedback that distributed solar was an important piece of advancing equity in clean energy. Staff endorsed having a separate target for DER.[13] Stakeholder groups would like to see additional information on how the DER enablement actions fall into the plan to achieve clean energy at the lowest reasonable cost and additional rationale for PSE's program selection.

[13] *See* Comments on Behalf of WUTC Staff at 9 (March 2, 2022).

Q. How does PSE respond to the various concerns related to the DER subtarget?

A. PSE recognizes that the DER subtarget in the CEIP does not outline the specific programs and associated costs at this time. What PSE is seeking from the Commission for this CEIP is an affirmation that PSE's DER subtarget is reasonable, even if the costs of those DERs prove to be higher than utility-scale resources on a per-megawatt basis, because DERs are able to deliver localized customer benefits that utility-scale resources may not. PSE is not seeking "pre-approval" to pursue any specific DER projects or programs. Rather, PSE is seeking affirmation from the Commission that the proposed pace and anticipated cost of DER acquisition is appropriate for this initial four-year period, knowing that PSE's 2021 IRP projects a five-fold increase in DER resources by 2045, and PSE needs to begin this journey now. PSE needs to acquire significant resources in the near term to meet its CETA obligations to provide affordable electricity; the CETA portfolio comes with a cost, estimated to be approximately $6 per month per customer. To progress towards a future with higher penetration of DERs on its system, it is important that PSE begin to incorporate these resources on its system and learn how they work, while also maturing the process for valuing the non-energy benefits associated with them.

Q. How is PSE going to meet its proposed DER subtarget?

A. To support fulfilling PSE's proposed DER subtarget, PSE issued a DER Request for Information and a Targeted DER RFP to ascertain what products and other offerings the market was ready to provide and what products PSE might need to pursue to fill gaps between offerings from market participants and objectives included in CETA or suggested by stakeholders.

Q. What are the results of the DER RFP?

A. PSE received a total of 29 offers from 15 unique bidders. As noted in PSE's summary filing, most of the proposals for the 2022 DER RFP were for demand response programs, with three proposals for battery energy storage and one Vendor Service Components proposal for solar. Please see Exh. KKD-3 for a copy of the 2022 DER RFP Summary Report. PSE notes that equity is factored into the RFP evaluation process. This process, which was approved by the Commission in the DER RFP docket, uses the CBIs proposed in the CEIP. PSE is willing to explore with its advisory groups the potential of using different CBIs in future RFP processes.

PSE will continue to evaluate these proposals in 2022 and will create a short-list and a combined analysis between the DER short-list and the All-Source RFP short-list. This is anticipated to occur sometime in Q3 or Q4 of 2022. PSE will also consider what products PSE may be best positioned to offer to meet its proposed DER subtarget in light of these initial bids.

Q. What are the final steps in PSE's DER RFP process?

A PSE plans to return to the Commission beginning in 2023 for approval of the tariffs required to offer specific DER products to PSE customers. These tariff filings will include details of the product offerings and any associated costs for participation or operation of the product. Prior to and during the tariff approval process, PSE will engage stakeholders for input on product and tariff design in a manner similar to how the Company has built its recent transportation electrification products. Importantly, the consideration and application of CBIs will be a deliberate part of the product and tariff development process. PSE plans to convene additional stakeholder and advisory group meetings to refine its approach for the application of CBIs to this process. The Commission will have the ability to approve or modify these product tariff filings.

C. Demand Response Target

Q. Please summarize PSE's proposed demand response (DR) target.

A. Multiple stakeholders commented on PSE's proposed DR target. Staff encouraged PSE to increase the target if additional cost-effective DR programs are identified, and Staff expects PSE to immediately build capacity for its new DR programs.[14] NWEC suggested that PSE take advantage of grid connected water heaters as part of PSE's DR programming.

[14] *See* Comments on Behalf of WUTC Staff at p. 10 (March 2, 2022).

PSE recognizes the potential for DR programs. DR programs allow customers to save money by altering their energy usage behavior; they also contribute benefits to all customers and reduce burdens. Additionally, DR can reduce or defer the need to invest in capacity and can also reduce greenhouse gas emissions. Although PSE set a DR target in its CEIP, specific DR programs will be guided by the results of PSE's DER RFP and PSE may update its DR target as part of its 2023 Biennial CEIP Update.

Q. Does PSE's proposed demand response target meet the standards and intent of CETA?

A. Yes, PSE's proposed DR target meets the standards and intent of CETA because it is part of PSE's path to pursue all cost-effective, reliable, and feasible DR resources in its resource acquisition practice. The role of DR is imperative to meet CETA's 2030 and 2045 requirements.

Q. How does PSE respond to the various concerns related to the demand response target?

A. PSE stands by its DR target of 23.7 MW in the 2022–2025 CETA implementation period. PSE commissioned a conservation potential assessment that included an analysis of DR opportunities. Because PSE is a winter peaking utility, PSE focused on DR programs that could reduce PSE's winter peak demand. This was a bottom-up analysis that looked at factors such as number of customers, equipment saturation rates, expected load impact, market conditions, and customer adoption

estimates. Using the information from the conservation potential assessment, PSE estimated the cost-effectiveness of the effective DR programs.

This DR target represents what PSE hopes to achieve over this CEIP period. As noted above, however, depending on the results of its DER RFP, PSE may update its DR target based on market availability.

D. Incremental Cost

Q. Please provide an overview of the methodology PSE used to calculate incremental cost and a summary of the types of investments PSE views as incremental.

A. In order to calculate the incremental cost, the CEIP compares a "baseline portfolio" with a "CEIP portfolio." The baseline portfolio is comprised of generic resources selected by the model in a lowest reasonable cost analysis. This model does not include consideration of the clean energy standards set forth in RCW 19.405.040 or RCW 19.405.050. Conversely, the CEIP portfolio modeling does include consideration of the clean energy standards set forth in RCW 19.405.040 and RCW 19.405.050. Both the baseline portfolio and the CEIP portfolio include the social cost of greenhouse gas emissions in their modeling.[15]

[15] The baseline portfolio included energy efficiency. When PSE added the requirements of CETA into the CEP portfolio it gained significantly more energy efficiency, which is reflected in our 2022–2023 Biennial Conservation Plan.

In addition to the cost attributed to the portfolio comparison described above, PSE included some additional costs as part of its incremental cost calculation that are attributable to pursuing the CETA clean energy standards. These costs include accelerated investments to meet the clean energy standards and administrative, communications and education costs to implement PSE's CEIP.

The CEIP outlines the acceleration of DER enablement and grid modernization specifically to enable PSE to make progress toward the clean energy standards in RCW 19.405.040(1) reflected in the interim targets filed in the CEIP. Specifically, the CEIP highlighted the areas or projects where PSE moved up the timeline for certain projects to enable introduction of more DER capacity on the system. As PSE notes in its CEIP, although there are grid modernization tools and associated costs that are critical to CEIP implementation, all of these associated costs were not included as incremental costs because they are foundational investments that PSE likely would have made to improve its systems to meet clear expectations that an advanced DER enabled grid would eventually be needed. For example, PSE did not include investments to meet North American Electric Reliability Corporation reliability standards as part of its incremental cost calculation.

However, CETA requirements drive a pace and location of modernization that requires some acceleration of investment. For example, PSE is making investments in Substation Supervisory Control and Data Acquisition as part of its CETA work. This work includes the installation of controllers, relays, sensors,

software, and IT upgrades. Because of the DER targets in the CEAP, this program was accelerated to accommodate the 2030 CETA requirements with a higher DER and DR participation rate than originally anticipated.

PSE is also making investments in Circuit Enablement to expand DER hosting capacity equitably. This includes a focus on circuit enablement in named communities, which is comprised of Highly Impacted Communities and Vulnerable Populations. Eleven of the 44 total circuits planned will be located in named communities.

Additionally, PSE is working on resilience enhancement. This is a proactive effort to monitor the system to limit outage consequences. Like PSE's Circuit Enablement efforts, PSE is also focusing its resiliency enhancement investments in named communities. Of the 16 higher risk transformers identified, ten are in named communities.

Q. Please provide an overview of stakeholder comments on the incremental cost calculation.

A. Stakeholders requested additional information demonstrating how these DER enablement and grid modernization efforts, as well as the acceleration of SCADA, are directly attributable to CETA. At least one stakeholder argues that many of these costs should not be considered incremental.[16]

[16] *See* Comments on Behalf of Public Counsel at p. 2 (March 2, 2022).

Q. How does PSE respond to the various concerns related to PSE's projected incremental costs?

A. In its CEIP, PSE outlines the need to accelerate DER enablement and grid modernization in order to implement increased DER acquisition subtargets proposed to comply with CETA. The CEIP discusses the areas or projects where PSE accelerated the timeline in order to accommodate CETA needs for certain projects to enable the introduction of more DERs on the system. PSE calculated the costs associated with project acceleration and allocated only those costs to the CEIP.

PSE was deliberate in estimating what actions were accelerated or added to meet the objectives of CETA and only included those accelerated or added actions as incremental costs. It is important to acknowledge that there is no way to determine what PSE would have done in the absence of CETA and compare it to what PSE is now proposing to do to meet CETA. Comparing hypothetical actions under CETA with what the Company would have done in the absence of CETA is an academic exercise at best. The best the Company can do, in compliance with the statute and accompanying rules, is to estimate what new actions it undertaking or accelerating to meet CETA's objectives and apportion those as incremental costs. This is what PSE did in its CEIP.

PSE stands by its incremental cost calculation. As noted above, PSE's incremental cost was calculated using the parameters prescribed by CETA. PSE recognizes the need to prepare and improve its grid to accommodate new DER

resources and to focus on the needs of named communities as it makes the transition to a clean energy future.

E. Specific Actions

Q. How did PSE approach the requirement to include "specific actions" in its CEIP?

A. PSE took a two-pronged approach to providing specific actions in its CEIP. First, PSE included known actions it will take over the four-year period, including execution of its All-Source and DER RFPs and acquisition of energy efficiency measures detailed in its Biennial Conservation Plan. Second, PSE conducted analysis on DERs, as described previously in my testimony, to provide an estimate of future specific DER actions PSE might take pending the outcome of the DER RFP.

Q. What has the DER RFP process revealed so far?

A. As stated earlier in this testimony, on April 19, 2022, PSE submitted a 2022 Distributed Energy Resources Request for Proposals Summary Report in Docket UE-210878.[17] PSE is currently in the process of performing its Phase 1 analysis in that proceeding. Because PSE is still in the early stages of evaluating potential DER resources, PSE is unable to provide more granular information on the specific actions it will take pursuant to the DER RFP at this time. As stated above,

[17] *See* Exh. KKD-3.

PSE expects to create a response short-list and a combined analysis in late 2022 between the DER short-list and the All-Source RFP short-list responses.

Once both RFP processes are complete and actual projects are acquired, PSE can provide summary information on each RFP process consistent with WAC 480-107-145. Additionally, as indicated Chapter 8 of the CEIP, PSE intends to include the projects actually acquired through the RFP processes as part of its 2023 Biennial CEIP update.

Q. Please summarize stakeholder comments related to PSE's proposed specific actions in the CEIP.

A. WUTC Staff noted that some specific actions are entirely dependent upon the results of the RFPs.[18] Staff also noted that further work is needed to show how the location, proposed timing, and estimated cost of each specific action will be influenced by benefits to named communities and the CBIs. The Energy Project requested that PSE be required to improve the linkage between its identified Specific Actions and its Customer Benefit Indicators.[19] Public Counsel provided extensive comments on the specific actions. It indicated that PSE should use a comprehensive approach to evaluating CBI impacts; provide additional information in the narrative description for each specific action regarding current benefits to and burdens on customers, by location and population as well as detailed information about the projected impacts of each action on the distribution

[18] *See* Comments on Behalf of WUTC Staff at p. 5 (March 2, 2022).
[19] *See* Comments on Behalf of TEP at ¶ 80 (March 2, 2022).

of customer benefits and burdens as required; and discuss the costs of each specific action.[20] NWEC strongly suggested that more information is needed from PSE in order to meet the CETA rules, including the costs of specific actions needing to be known and measurable.[21] Front and Centered submitted comments stating the CEIP was inadequate in showing how specific actions will affect vulnerable populations.[22]

Q. How does PSE respond to the various concerns related to "specific actions"?

A. PSE acknowledges that stakeholders would prefer to see a greater level of specificity in this CEIP as to the specific projects and products PSE will be pursuing during the CEIP implementation period, including a more robust assessment of current benefits and burdens and projections on how those may be impacted by PSE's proposed specific actions. PSE looks forward to a future CEIP in which more granularity in some of these areas may be possible. During the development of its initial CEIP, PSE was operating under aggressive timelines -- first in actively participating in the rulemaking process throughout 2020 and then in developing a CEIP in 2021 informed by robust public participation efforts *occurring at the same time* PSE was developing and issuing an All-Source RFP as required by Commission order and rules. In its future analyses, PSE's focus will continue to be on how the specific actions impact named communities.

[20] *See* Comments on Behalf of Public Counsel at p. 20 (March 2, 2022).
[21] *See* Comments on Behalf of NWEC at p. 2 (March 2, 2022).
[22] *See* Comments on Behalf of Front and Centered at pp. 3, 8 (March 2, 2022).

As PSE stated in the CETA rulemaking process, the concurrent schedule outlined in rule for resource acquisition and CEIP development does not afford any opportunity for the RFP process to inform the CEIP development process as some stakeholders desire. In Chapter 8 of the CEIP, PSE does commit to including the results of the All-source and Targeted DER RFP in the 2023 Biennial CEIP Update. In this update, PSE will use the results of the RFPs to better describe the specific actions PSE will take, including projects PSE has acquired and programs PSE is developing.

Q Will PSE's next CEIP contain substantially more granularity?

A. No, not likely. Looking ahead to the next CEIP in 2025, the same structural problem remains. On or before August 1, 2025, the Commission will consider an All-Source RFP, triggered by an identified IRP need as provided in WAC 480-107-009(2), but the RFP may not be decided upon until October 1, 2025. This is the same time PSE's next CEIP is due. Because the RFP will not be issued before the CEIP is due, no bids will be available to inform the CEIP.

Under the current rules and timelines, the best PSE can do in future CEIPs, in order to provide more specific information about its actions, is to use the optional biennial update process at the midway point to update the CEIP with the actual resources secured under the rule governed RFP process.

Even if this structural timing issue did not exist, PSE disagrees with the premise that a CEIP should contain very specific actions of actual projects that have been

secured, nor does PSE believe that the Legislature intended the "specific actions" in a CEIP to be so detailed as to reflect actual projects and programs already secured. If that level of specificity were required, it would limit the opportunity for the Commission to meaningfully influence the scope, scale, and pace of the plan prior to approving it.

Q. How does PSE view the role of the CEIP relative to that of a GRC, in terms of determining prudency related to resource procurement and program implementation?

A. Approval of a CEIP provides assurance that the scope, scale and pace of PSE's specific and interim targets are reasonable and that PSE should begin implementation of its plan; approval is not, however, a prudency determination for specific resources acquired pursuant to the plan. Additionally, approval of its CEIP would help PSE establish the overall integration of equity and CBIs in CEIP planning and decision-making, including using CBIs in its evaluation process in acquiring CETA-eligible resources.

PSE is open to discussions on how to better align processes for considering a multi-year rate plan in conjunction with a CEIP. For now, PSE believes its specific actions in its CEIP meet the requirement in the Commission's rules. Some areas will naturally become more detailed in future CEIPs. For example, as the measurement and application of customer benefit indicators matures, PSE anticipates it will be able to provide more information about the projected impacts of its proposed actions on the distribution of customer benefits and burdens.

However, PSE is less certain whether it will be appropriate, or necessary, for future CEIPs to contain specific project-by-project information, with actual costs.

Q. Are there other issues or questions that have come up for stakeholders regarding the content of the CEIP?

A. Yes. Stakeholders raised questions about the relationship between net metering, community solar, nonwire alternatives, and DERs in the CEIP target. PSE values a diverse mix of resources, products and projects in achieving the goals of CETA. PSE also recognizes that many customers want to engage in new products and renewable energy resources through various forms.

To accomplish this, PSE provides its customers with a growing array of clean energy and transportation product options for customers. When determining the mix of its product portfolio, PSE seeks to develop a portfolio that provides opportunities for all customers to participate in DER programs. Where there is potential for program overlap, PSE prioritizes safety first, ensuring the addition of DERs does not cause any safety concerns. PSE also examines the potential relationship between programs during the program design process to maximize customer participation, while ensuring participation in more than one program does not unfairly benefit a subgroup of customers.

Outside of customer impacts, PSE is also designing the tracking and evaluation methods for appropriate attribution of capacity and clean energy to PSE's goals. These methods prevent double counting of DER program benefits.

Q. How do the above-mentioned programs relate to PSE's CEIP?

A. PSE understands the complexity around various programmatic elements that lead to DER implementation. CETA itself has no specific DER requirement, but PSE's analysis of cost, risk and contribution to customer benefit indicators led the Company to determine that DER acquisition is an important element of CETA implementation. PSE already has programs that implement DERs, including a net-metering program implemented pursuant to RCW 80.60.020, a community solar program implemented pursuant to RCW 82.16.170 and RCW 82.16.130, and DER implementation stemming from PSE's analysis of nonwire alternatives to distribution system planning constraints. None of these elements is being implemented directly because of CETA. However, PSE recognizes that these programs will help PSE meet CETA compliance requirements as a part of overall DER efforts. Consequently, PSE includes descriptions of these programs in the CEIP because they contribute to these goals. However, with the exception of some added community solar, these programs are not included in PSE's proposed DER target for the four-year CEIP period, which is incremental to these existing programs. Additionally, with the exception of added community solar, no specific costs associated with these efforts are included in the incremental cost calculations.

F. Customer Benefit Indicators

Q. Please explain how PSE determined the CBIs it presents in its CEIP.

A. PSE began with an initial set of CBIs that it considered during the IRP process. Then, PSE engaged in ongoing conversations with stakeholders, including its Equity Advisory Group and other advisory groups, during the development of its CEIP in 2021 to draft and modify its CBIs. PSE also collected input from customer surveys and go-to-you meetings with community-based organizations. PSE incorporated the feedback to develop the CBIs that are presented in the CEIP. While some stakeholders have suggested PSE should pursue different CBIs than those proposed in its CEIP, PSE has concerns with removing CBIs that it developed through its public participation process or adding new CBIs without the benefit of broad stakeholder input.

Q. Please provide an overview of stakeholder comments on the CBIs PSE included in its 2021 CEIP.

A. Although stakeholders' comments indicated that PSE had incorporated feedback from stakeholders regarding PSE's CBIs, stakeholders want to see additional CBIs in PSE's CEIP. They also suggested other discrete changes.

Staff suggests deleting the reduction of climate change impacts and moving the metric "number of customers who have access to emergency power" to the

indicator "decrease frequency and duration of outages".[23] The Energy Project asks PSE to use the Joint Advocate CBIs.[24] Public Counsel suggests PSE add CBIs related to bill assistance and metrics addressing the availability, enrollment in, and impact of bill assistance programs, particularly on highly impacted and vulnerable communities; arrearages, and energy burden metrics.[25]

Q. How does PSE respond to the various concerns related to selection of CBIs?

A. PSE initiated a public participation process that incorporated feedback from advisory groups, customers, and community-based organizations to develop these indicators in line with the rules.[26] At least one directional CBI is attributed to each of the CETA categories of CBIs, and in some cases there are multiple or overlapping CBIs among categories.

PSE recognizes that these indicators will continue to evolve over time and that the intent in developing customer benefit indicators is to understand the barriers customers are facing and the benefits they want to see in this clean energy transition. As noted previously in my testimony, some of the CBIs proposed by stakeholders are outside the scope of the CEIP.

[23] *See* Comments on Behalf of Staff at p.12 (March 2, 2022).
[24] *See* Comments on Behalf of TEP at ¶ 4 (March 2, 2022).
[25] *See* Comments on Behalf of Public Counsel at p. 10 (March 2, 2022).
[26] See Appendix F of the CEIP for a description of outreach in named communities.

Q. Please discuss how PSE applied the CBIs to illustrate the benefits and outcomes of specific actions.

A. PSE engaged stakeholders, including all advisory groups, in the development of a methodology for applying customer benefit indicators in its first CEIP. For the Draft CEIP, PSE initially presented a 0/1/2 scoring system with prioritization to advisory groups and received feedback expressing confusion about the complexity of the scoring process.

For the final CEIP, PSE took this feedback and simplified the methodology by eliminating the prioritization and used the same scores across all customer benefit indicators. Because this was done at a qualitative level, PSE also heard feedback from stakeholders about how PSE could measure and quantify these benefits consistently to score across projects. Given the short time frame and the lack of data sources, PSE has not yet been able to apply metrics to each customer benefit indicator in this CEIP.

To remedy this situation, PSE used a qualitative approach in determining the DER CBI evaluation criteria and described why specific projects received a score in the Appendix D of the CEIP. PSE analyzed the CETA category, the CBI, the corresponding metric, the CBI category, and the weighting and rubric for CBI scoring for different DER programs as part of PSE's analysis in Appendix D-3. For the ongoing All-source RFP and Targeted DER RFP, PSE outlined an approach to using CBIs in its ongoing procurement activities under the All-source and Targeted DER RFP, which were both approved by the Commission.

PSE recognizes the shortcomings that result from the limited data available to make this a more robust quantitative evaluation. PSE has committed to using more quantitative data in the future to describe the benefits and magnitude of the impact on customers, including highly impacted communities and vulnerable populations. In Chapter 3 of the CEIP, PSE describes how it proposes to use data for each CBI to forecast benefits to customers.

Q. Please provide an overview of stakeholder comments regarding the application of CBIs to specific actions.

A. Stakeholders request that PSE provide more granular information on how PSE's CBIs would impact its specific actions and how specific actions impact the CBI analysis. Staff believes further work is needed to show how the location, proposed timing, and estimated cost of each specific action will be influenced by benefits to named communities and the CBIs.[27] The Energy Project claims that PSE does not explain how its specific actions impact its CBIs.[28] Public Counsel suggests PSE use a comprehensive approach to evaluating CBI impacts for each specific action.[29] Front and Centered asserts PSE had not selected its specific actions based on customer benefits.[30] It also believes PSE should further refine the CBI metrics to show that PSE is measuring benefits more accurately, and add data on

[27] *See* Comments on Behalf of Staff at p. 12 (March 2, 2022).
[28] *See* Comments on Behalf of TEP at ¶ 6 (March 2, 2022).
[29] *See* Comments on Behalf of Public Counsel at p. 20 (March 2, 2022)
[30] *See* Comments on Behalf of Front and Centered at p.8 (March 2, 2022)

baseline conditions, specific projected improvements, and accountability metrics.[31]

Stakeholders also suggest PSE should change its scoring and application of the CBIs, noting that PSE's approach to scoring was not entirely clear to stakeholders. Specifically, stakeholders requested more granularity around PSE's scoring and application of the CBIs, including additional metrics.[32] It is important to note that no alternate methodology to scoring and applying CBIs has been proposed at this time, and that developing a new scoring and application process for CBIs with stakeholder and advisory group input would take considerable time.

Q. How does PSE respond to stakeholder comments regarding the scoring and methodology PSE used to determine specific action based on CBIs?

A. Although PSE engaged with stakeholders to develop its scoring system, PSE recognizes that some stakeholders are confused about PSE's scoring system and would like to see improvements. PSE acknowledges gaps in its quantitative assessment and scoring due to limited data.

However, the Company has conducted a robust, thorough process and put forward a well-reasoned plan and approach to applying CBIs given a very short timeframe and limited direction and formal guidance from the Commission. In the plan, PSE defines the baseline metrics and data sources for future forecasting of benefits to

[31] *See id.*
[32] *See, e.g., id.* at p. 3.

customers that it is able to define at this time. PSE is still investigating additional data sources that may be needed and has committed to showing these refinements in the 2023 CEIP update. PSE also lays out an Equity Assessment framework in the CEIP that would provide a more detailed understanding of benefits to customers in the future. PSE views the process of determining, measuring and applying CBIs to be an iterative and evolving process. Going forward, PSE is committed to finding and using more sources of quantitative data to describe the benefits and magnitude of the impact on customers, including highly impacted communities and vulnerable populations. PSE plans to continue its extensive stakeholder and advisory group engagement in further developing the approach to CBIs and to seek additional quantitative data that PSE can use as part of the CBI metrics.

Q. What does approval of PSE's CEIP mean in terms of prudency of CEIP-related investments?

A. Many of the concerns raised in stakeholder comments regarding approval of a CEIP and what it means for prudency overstate what PSE is seeking in this CEIP. As Staff stated in its Response to PSE's Motion to Consolidate, "The CEIP decision is not a prudency determination or preapproval of any investments or expenses outlined within the CEIP and does not provide the Company with any kind of cost recovery guarantee." PSE agrees.

However, approval of a CEIP would provide assurance that the scope, scale and pace of PSE's specific and interim targets are reasonable and that the Company

should begin implementation of its plan. Approval of a CEIP ideally would establish the first prong of prudency, "need", by establishing 1) the interim targets; 2) the specific targets; 3) general guidance on cost; 4) the overall integration of equity and customer benefit indicators in CEIP decision-making, and 5) acknowledging the public process conducted was satisfactory. It is then PSE's obligation to prudently acquire those CETA-eligible resources to meet the specific and interim targets outlined in its approved plan.

While an approved CEIP offers no guarantee that resources acquired under the CEIP will be deemed prudent when PSE later seeks cost recovery of those investments, the absence of *approval* of PSE's CEIP, particularly before the end the timeframe for evaluating resources in its RFP processes, creates undue ambiguity, risk, and uncertainty for PSE as it conducts the resource acquisition and product design necessary to comply with CETA.

G. Resource Adequacy Analysis

Q. Please provide an overview of the issues surrounding PSE's resource adequacy analysis.

A. Resource adequacy analysis is an important component of the 2021 IRP. Some concerns regarding PSE's methodology for calculating effective load carrying capability ("ELCC") values were raised during the Commission's review process for PSE's All-Source RFP. In an effort to provide greater transparency and to make sure that PSE's methodology for calculating ELCC values is rigorous and

accurate, PSE hired Energy and Environmental Economics, Inc. ("E3") in the summer of 2021 to review PSE's methodology for reasonableness and provide recommendations for improvements. E3 presented its initial findings and recommendations at the ELCC Workshop on August 31, 2021, and thereafter produced a final report, which was posted to PSE's RFP web site (www.pse.com/rfp) upon completion on October 8, 2021. The report is appended to PSE's Response to Public Comments on ELCC Calculations and Use, and it is provided herewith as Exh. KKD-4. The report provides information about E3's experience estimating ELCC values and the scope of the review performed for PSE, and details E3's findings and recommendations.

Q. Should PSE change its ELCC analysis in its CEIP?

A. No. PSE's consultant, E3, finds that PSE's general approach to ELCC calculation is reasonable:

> While PSE's treatment of Mid-C does disadvantage battery storage ELCCs, there is no industry standard for how to address the issue of external market equilibrium, and whether it is appropriate to assume an adequate regional system is a real and difficult question. Beyond the question of how to treat the external market, the other topic requiring immediate attention in the current RFP process is the presentation of generic battery storage operating characteristics, which does not require changes in PSE's ELCC calculation methodology. While it would be ideal to address the treatment of Contingency Reserves and PSE's participation in the NWPP Reserve Sharing Program under its battery storage scenarios, this may require continued analysis beyond what is feasible within the current timeline. Moving forward, PSE's treatment of resource correlations, temperature data, and hydropower operations merit additional analysis and potential adjustments, but without additional analysis it is unclear if changes in the treatment of these topics will produce significant changes in battery storage ELCCs; in the case of

> hydropower operations, updates to the PSE modeling approach could produce a reduction in battery storage ELCCs.[33]

E3's report further notes that even in the context of the recommendations, battery storage ELCCs are likely to be relatively low in a hydropower-dependent region like the PNW compared to other regions, but E3 recommended the steps outlined in the report to confirm this judgment.[34] Because many of the public comments filed in Docket UE-210220 addressed topics covered by E3's recommendations, and many of the public comments supported the recommendations, PSE focused on addressing E3's recommendations.

Resource adequacy is one part of PSE's overall IRP analysis, which determines how various resources might contribute to the adequacy of PSE's overall system. Some stakeholders expressed concerns with specific aspects of the resource adequacy analysis in PSE's 2021 IRP. These concerns are documented in stakeholder comments in Dockets UE-200304 and UG-200305. See Exh. KDD-5 for a copy of several such comments. In summary, PSE identified the following three issues raised by stakeholders related to resource adequacy:

1. Treatment of market availability.

2. Inclusion of temperature variability related to climate change.

3. Effective load carrying capability (ELCC) of energy storage resources.

[33] Exh. KKD-4 at p. 31.
[34] *See* Exh. KKD-4 at pp. 6, 32, and 82.

Q. What steps is PSE taking to address these concerns?

A. The first issue is the treatment of market availability. In PSE's modeling, the Mid-C market availability declines over time. This results in increased forecasted curtailment from the Mid-C market for PSE's system. PSE's modeling adds capacity over time, which increases battery storage ELCCs and reduces the frequency of loss-of-load events to bring the system up to a five percent loss of load probability standard. Even though there is no single industry standard for how to address unreliable external markets, PSE thought it was necessary to include the external market in PSE's modeling for resource availability.

The second issue identified by PSE is the inclusion of temperature variability related to climate change. PSE received comments suggesting it should reevaluate its current approach to considering temperatures in developing load shapes based on (1) the use of two different weather stations, and (2) the changing climate, and, in particular, the use of more current weather data that takes into account the changing climate. PSE is currently developing a climate change update, which will be used in the 2023 Electric IRP progress report. This work will build on the Northwest Power and Conservation Council's climate change data used in its recent resource adequacy work.

PSE acknowledges stakeholder interest in seeing the impacts of climate change in load forecasting be reflected in the CEIP. The requirement that utilities model a climate change scenario with at least one climate change scenario that incorporates the best science available to analyze impacts including, but not

limited to, changes in snowpack, streamflow, rainfall, heating and cooling degree days, and load changes resulting from climate change, was a late-breaking addition to the IRP rulemaking in late 2020, after much of the foundational modeling for the 2021 IRP was significantly underway. In response to stakeholder interest and the new rule requirement, which took effect December 31, 2020, PSE added a scenario that looked at that looked at a simplified sensitivity, but overall PSE thought that this approach was not comprehensive enough to fully consider the impacts of climate change, as it was lacking the typical analytical rigor around data sources and inputs PSE would typically use in its IRP. Recognizing stakeholder interest in this topic, PSE committed to more fully incorporating the impacts of climate change into its load forecasting as part of its work for the 2023 IRP Electric Progress Report.

Acknowledging the limitations of the schedule, in Chapter 8 of the final CEIP PSE committed to updating its CEIP in its biennial CEIP update filing to incorporate the impacts of climate change on the load forecast, based on the results of the All-source RFP and Targeted DER RFP. Both RFPs will incorporate the climate change analysis in their respective evaluations.

The third issue identified by PSE is the ELCC of energy storage resources. In particular, stakeholder comments suggested PSE should restate ELCC values for battery storage in a manner more aligned with industry standards, such that storage can discharge at maximum capacity for X hours if the storage is defined as having X hours of duration, and align the presentation of ELCC values with the

characterization of minimum, maximum, and nameplate MW values in RFP documentation.

PSE was unable to include updated ELCC modeling in this CEIP because this analysis was not available at that time. However, PSE will run resource-specific ELCCs for Phase 2 of the RFP and will also update its generic resource assumptions for the 2023 Electric IRP progress report using the most up-to-date information. Furthermore, PSE will include this updated ELCC modeling in its 2023 Biennial CEIP update.

Q. How do the various concerns related to resource planning impact the CEIP?

A. Resource planning – such as the resource planning that is occurring in the CEIP – is an iterative process; however, resource planning requires that decisions are made at a certain point on key inputs and assumptions so that the plans can be finalized and subsequent resource decisions can be executed. In order to move forward, PSE is seeking a decision from the Commission on its final CEIP.

PSE used the best available information at the time in developing its CEIP. PSE will continue to update the Commission on its process through the reporting requirements of WAC 480-100-650, which includes Clean Energy Compliance reports as well as Annual Clean Energy Progress reports. Constant updates to the CEIP during the deliberation process prior to reaching CEIP approval create an endless cycle of analysis and re-analysis that is untenable. PSE would suggest utilizing the reporting already required by statute to provide updated information

to the Commission and stakeholders during implementation and in informing the next CEIP cycle. For this first CEIP, it is important to get a Commission decision on the filed CEIP so that PSE can start moving forward to execute that plan, or PSE's trajectory for reaching carbon neutrality by 2030 may be jeopardized.

V. CONCLUSION

Q. What is PSE requesting from the Commission in this proceeding?

A. PSE requests the Commission issue an order approving, or approving with conditions, PSE's CEIP pursuant to WAC 480-100-645(2). CETA's regulations require that a CEIP contain interim targets, specific targets, customer benefit data, specific actions, a narrative description of the specific actions, projected incremental cost, and public participation. PSE included all the above elements in its draft and final CEIP filings.

Q. Does that conclude your prefiled direct testimony?

A. Yes, it does.