Exhibit LDK-1T
Docket UE-210795
Witness: Lance D. Kaufman

**BEFORE THE**

**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

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

**RESPONSE TESTIMONY OF LANCE KAUFMAN, PH.D.**

**ON BEHALF OF**

**ALLIANCE OF WESTERN ENERGY CONSUMERS**

**October 10, 2022**

## TABLE OF CONTENTS



## EXHIBIT LIST

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME AND OCCUPATION.**

A. My name is Lance D. Kaufman. I am a consultant representing utility customers before state public utility commissions in the Northwest and Intermountain West. My witness qualification statement can be found at Exhibit LDK-2.

**Q. PLEASE IDENTIFY THE PARTY ON WHOSE BEHALF YOU ARE TESTIFYING.**

A. I am testifying on behalf of the Alliance of Western Energy Consumers ("AWEC"). AWEC is a non-profit trade association whose members are large energy users in the Western United States, including customers receiving electric services from Puget Sound Energy ("PSE").

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. I respond to Puget Sound Energy's ("PSE") July 11, 2022 Direct Testimony and address PSE's Clean Energy Implementation Plan ("CEIP"). Specifically, my testimony addresses PSE's proposed clean energy targets to comply with the Clean Energy Transformation Act ("CETA"), the Company's decision to substitute solar generation for wind generation at a substantial cost to customers, and the Company's decision to increase its renewable energy target based on feedback from other stakeholders and informed by the annual incremental cost cap and PSE's resource choice. My testimony also responds to PSE's request for Commission guidance on how to proceed should actual CEIP costs differ substantially from planned costs.

**Q. PLEASE SUMMARIZE YOUR RECOMMENDATION.**

A. My recommendations are as follows:

- The Commission should direct PSE to utilize a linear glide path with the resources identified in its 2021 Integrated Resource Plan ("IRP") to meet renewable energy targets because it is more cost-effective than the resource acquisition plan in PSE's CEIP and still puts PSE on a path to achieve its 2030 CETA requirements.

- The Commission should direct PSE to refrain from further accelerating renewable energy targets in the event that its costs are less than planned once costs are known.
- The Commission should direct PSE to refrain from continuing to pursue resources up to approved renewable energy targets to the extent that doing so would require PSE to exceed the two percent annual cost cap, or risk a finding of imprudence when PSE seeks cost recovery.

## II. SUMMARY OF CLEAN ENERGY IMPLEMENTATION PLAN REQUIREMENTS

**Q. WHAT STATUTORY OBLIGATIONS DOES PSE HAVE RELATED TO THE CEIP?**

A. CETA requires utilities to remove coal-fired generation from Washington's allocation of electricity by 2025, that Washington retail sales be carbon-neutral by 2030, and that Washington retail sales be 100% renewable and non-carbon emitting by 2045. To facilitate achieving these targets, utilities must develop Clean Energy Implementation Plans that include interim renewable and carbon-free energy targets, demand-side management targets, customer benefit data, specific actions (including a narrative description of specific actions), projected incremental costs, public participation, alternative compliance, equitable distribution of energy and nonenergy benefits to all customers, and a reduction of burdens to vulnerable populations and highly impacted communities.

**Q. ARE THERE CUSTOMER PROTECTIONS RELATED TO CETA COMPLIANCE?**

A. Yes. Utilities are required to achieve targets at the lowest possible cost, considering risk, to the maximum extent feasible.[1] And, in order to ensure that the costs of CETA compliance are not too burdensome for customers, the Washington Legislature also included an incremental cost cap, which allows investor-owned utilities to be considered in compliance if the incremental costs of CETA compliance reach two percent of the utility's weather-adjusted sales revenue over a four-year planning period.[2]

## III. AWEC'S CONCERNS WITH PSE'S CEIP

**Q. PLEASE BRIEFLY DESCRIBE AWEC'S REVIEW OF PSE'S CEIP.**

A. PSE filed its corrected 2021 CEIP on February 1, 2022. AWEC's review of PSE's CEIP focused primarily on the largest cost driver: PSE's clean energy targets and the proposed resources to meet those targets. In its CEIP, PSE established a renewable energy target of 63% by 2025, which it proposes to meet using a combination of resources identified in its CEIP. In reviewing PSE's CEIP, I participated in workshops and independent discussions with PSE, submitted discovery, and analyzed the cost effectiveness of PSE's plans. I also filed comments on behalf of AWEC on PSE's CEIP.

**Q. DO YOU HAVE CONCERNS REGARDING PSE'S CEIP RESOURCE ACQUISITION PLAN?**

A. Yes. AWEC has several concerns with the renewable energy targets and renewable energy resource acquisitions contained in PSE's CEIP. PSE's CEIP resource acquisition plan deviates from the least cost, least risk plan identified in PSE's 2021 IRP, and is not a cost-effective

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1 RCW 19.405.040(6)(a)(i).
2 RCW 19.405.060(3)(a).

compliance strategy for meeting CETA compliance requirements. PSE's 2021 IRP preferred portfolio was a renewable resource acquisition plan designed to accommodate a linear glide path from current renewable energy production to the 2030 compliance requirement, and represents the least-cost, least-risk compliance strategy for PSE. Conversely, PSE's CEIP substitutes solar generation for wind generation and accelerates the timing of renewable resources up to CETA's incremental cost cap. As a result of these changes, the CEIP includes more expensive resource types and resources built earlier, as compared to the 2021 IRP least cost plan, and costs customers of $500 million more than PSE's 2021 IRP.[3]

**Q. WHAT SPECIFIC CHANGES DID PSE MAKE IN THE CEIP AS COMPARED TO THE 2021 IRP?**

A. PSE's 2021 IRP preferred portfolio was developed to accomplish a linear glide path in net renewable energy from 40 percent in 2022 to 80 percent in 2030. To develop PSE's CEIP, PSE performed additional IRP-type modeling with updated cost parameters. The updated modeling resulted in a least cost portfolio that was very similar to the 2021 IRP portfolio ("Model 1"). PSE arrived at its final CEIP plan by making two costly changes to the least cost portfolio.

First, PSE substituted solar generation for wind generation ("Model 2").[4] Second, PSE accelerated the timing of renewable resources identified in Model 2 into earlier years, until CETA's incremental cost cap became binding ("Final CEIP Model"). The CEIP deviates from

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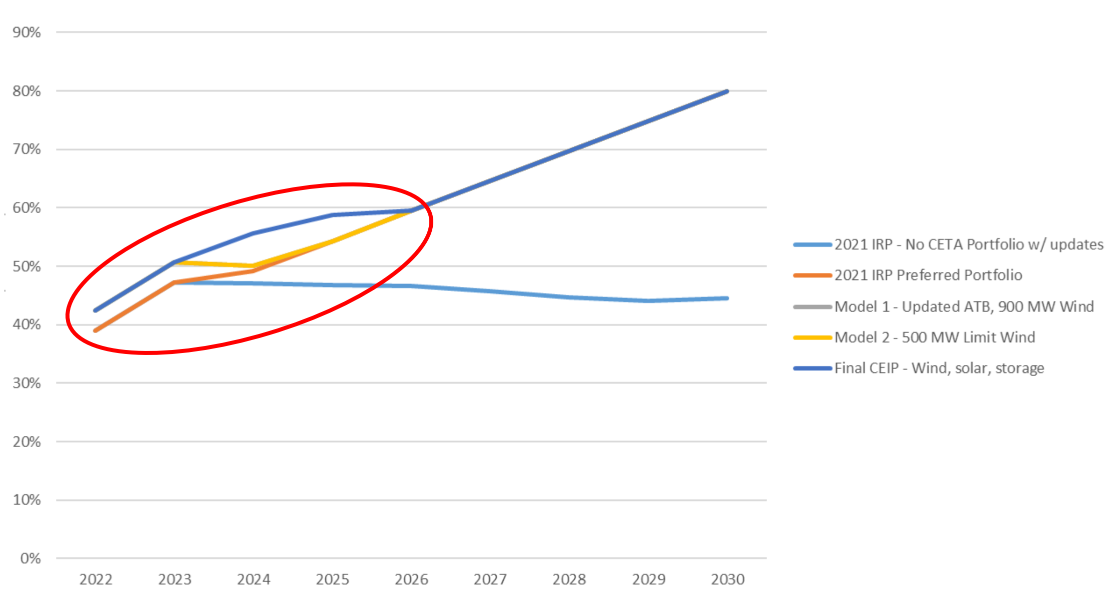
3 Kaufman, Exh. LDK-3 at 6 (PSE Resp. to AWEC DR 001, Attach. A at Slide 4) (compare "Model 1" with "Final CEIP"). The costs for the 2021 IRP Preferred portfolio are not comparable to other cost figures on this slide because the cost for this portfolio includes non-monetary customer benefits that are not included on the other portfolio costs. It is incorrect to conclude from this slide that the 2021 IRP Preferred Portfolio is more expensive than Model 1, Model 2, or the Final CEIP.

4 PSE substituted solar for wind presumably to account for potential resource diversity that was not incorporated into IRP modeling techniques.

the linear glide path assumed in the 2021 IRP and results in a steeper period of resource acquisition through 2024, followed by relatively flat resource acquisition from 2024 to 2026, at which time the IRP and CEIP resource plans converge.  The figure below compares the net renewable energy resulting from the 2021 IRP preferred portfolio with several interim models and the Final CEIP. Accelerated acquisition is the difference between the orange and dark blue lines and is circled in red.

**Figure 1:  PSE CETA Interim Net Renewable Energy Targets**




As a result, the final CEIP resource plan has more expensive resource types, and resources built earlier, relative to the least cost plan.  The plan deviates from the linear glide path assumed in the 2021 IRP and results in a steeper period of resource acquisition through 2024, followed by relatively flat resource acquisition from 2024 to 2026, at which time the IRP and CEIP resource plans converge.

**Q. WHAT IS THE EFFECT OF PSE'S CEIP COMPLIANCE STRATEGY RELATIVE TO ITS IRP?**

A. PSE's CEIP is more costly than a plan that uses a linear glide path to 2030 compliance for interim targets. PSE provided AWEC with the cost of a linear glidepath (Model 1) and the Final CEIP Model. The table below illustrates the difference in the 24-year levelized cost for these two models.[5]

**Table 1**

| | **24-Year Levelized Cost** |
|---|---|
| **Model 1 (Linear Glide Path)** | $13.2 Billion |
| **Final CEIP Model (Accelerated Acquisition)** | $13.7 Billion |
| **Excess Cost** | $500 Million |

The cost of substituting resource types and accelerating acquisition is $500 million over the planning horizon. It should be noted that PSE does not account for carbon costs in the costs of its resource portfolios. Thus, it is possible that PSE's CEIP portfolio provides some economic value with respect to incremental avoided carbon emissions. However, PSE has performed no analysis to identify what those savings might be, and it is highly unlikely that the modest carbon benefit from accelerated acquisition would exceed $500 million over the life of the portfolio. PSE should provide this information in reply comments.[6]

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5 Kaufman, Exh. LDK-3 at 6 (PSE response to AWEC DR 001 Attachment 1 Slide 4).

6 While the levelized costs in the above table do not include carbon costs, the portfolio development model did include a social cost of carbon. The fact that the renewable glide path was a binding constraint in resource selection means that the incremental social cost of carbon associated with Model 1 relative to the Final CEIP Model was less than the additional monetary cost of the Final CEIP Model. The IRP model assumed a social cost of carbon from $69 per ton in 2020 to $189 per ton in 2045.

**Q. WHAT JUSTIFICATION DOES PSE OFFER IN SUPPORT OF DEVIATING FROM THE LEAST-COST, LEAST RISK COMPLIANCE STRATEGY IN ITS IRP TO THE MORE COSTLY STRATEGY IN ITS CEIP?**

A. In testimony, PSE acknowledges that achieving the midway point between its 2020 CETA-eligible, non-emitting and renewable resources (34% of PSE's energy) and CETA's 80% renewable energy target by 2030 would require PSE to meet a standard of 57%, but PSE nevertheless chose to exceed this target due to stakeholder feedback that PSE needs to "move further, faster."[7] PSE notes that it also considered alleged risks to slower resource acquisition: increased regional demand for clean energy resources and economic inflation pressures.[8] PSE also acknowledged that it considered the incremental cost calculation to serve as a reasonable spending "threshold," confirming AWEC's concern that the Company was using the incremental cost cap to drive interim targets, rather than as an off-ramp to ensure customers do not face burdensome cost increases associated with achieving CETA requirements.[9]

**Q. DOES PSE'S JUSTIFICATION HAVE MERIT?**

A. No. PSE now explicitly testifies that the drivers for its deviation are related to stakeholder requests for PSE to accelerate its renewable resource acquisitions and an intent to spend up to the incremental cost cap, rather than achieving targets at the "lowest reasonable cost, considering risk."[10] Neither of these reasons provides justification for deviating from the compliance path identified in PSE's 2021 IRP, at the expense of $500 million to customers.

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7 Durbin, Exh. KKD-1T, at 12:8-16.

8 *Id.*, at 12:17-13:3.

9 *Id.*, at 13:4-11.

10 RCW 19.405.040(6)(a)(i).

**Q. DID PSE IDENTIFY ERRORS WITH AWEC'S ANALYSIS AND RECOMENDATION?**

A. No. PSE did not rebut AWEC's analysis. Instead, PSE acknowledged AWEC's position on the pace of resource acquisition, but focused its testimony on the desire of other parties to "move further, faster" and that its strategy was to spend up to the incremental cost cap.

**Q. SHOULD THE COMMISSION SUBSTITUTE STAKEHOLDER DESIRE TO "MOVE FURTHER, FASTER" FOR COMPLIANCE WITH CETA REQUIREMENTS AT THE LOWEST REASONABLE COST, CONSIDERING RISK?**

A. No. The Commission should not disregard the substantial cost increase to customers in favor of PSE achieving more aggressive targets sooner than is necessary for CETA compliance.

**Q. DOES AWEC'S RECOMMENDATION RESULT IN A GREATER REDUCTION OF BURDENS TO VULNERABLE POPULATIONS AND HIGHLY IMPACTED COMMUNITIES THAN PSE'S CEIP?**

A. Yes. It is self-evident that customers with a high energy burden benefit when their utility reduces its costs and mitigates rate impacts relative to a utility that maximizes investment in a manner that unnecessarily increases rates. Many AWEC members operate on the margins and face extremely high energy costs; thus, AWEC shares the concerns of energy burdened customers.

**Q. COULD THE RECENTLY PASSED INFLATION REDUCTION ACT IMPACT THE LOWEST REASONABLE COST PATH FOR PSE?**

A. Yes; however, PSE acknowledged that the impacts of the Inflation Reduction Act on CETA compliance are not yet known.[11] Just like PSE, the Commission must make a decision on the CEIP based on the information it has today. Future CEIPs will be able to account for changing laws and market conditions.

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[11] Kaufman, Exh. LDK-3 at 9 (PSE response to AWEC DR 002).

**Q. WHAT IS YOUR RECOMMENDATION FOR PSE'S CEIP RENEWABLE ENERGY TARGET?**

A. The Commission should direct PSE to utilize a linear glide with the resources identified in its 2021 IRP to meet renewable energy targets because it is more cost-effective than the resource acquisition plan in PSE's CEIP.

## IV. COMMISSION GUIDANCE ON INCREMENTAL COST CAP

**Q. PLEASE DESCRIBE THE INCREMENTAL COST CAP.**

A. As stated above, CETA's incremental cost cap allows investor-owned utilities to be considered in compliance if the incremental costs of CETA compliance reach two percent of the utility's weather-adjusted sales revenue over a four-year planning period. The incremental cost cap was put in place to ensure that customers are not overly burdened by cost increases associated with achieving CETA requirements, and is an important consumer protection.

**Q. WHAT GUIDANCE DOES PSE SEEK FROM THE COMMISSION REGARDING THE INCREMENTAL COST CAP?**

A. PSE asks the Commission for guidance on implementation of the incremental cost cap in two circumstances – first, for how to proceed if achieving the targets in its 2021 CEIP, as filed, would cause PSE to exceed the two percent annual incremental cost threshold;[12] and second, on whether PSE should pursue additional resources to the extent that its actual costs through the All-source Targeted DER requests for proposals ("RFPs") are lower than PSE estimated in its CEIP.[13]

**Q. WHAT ARE AWEC'S CONCERNS WITH THE COMMISSION GUIDANCE SOUGHT IN THIS CASE?**

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12 Durbin, Exh. KKD-1T, at 15:9-12.

13 *Id.*, at 15:6-9.

A. AWEC has several concerns with PSE's request for guidance in the implementation of the incremental cost cap as applied to its CEIP. First, guidance on the potential implications of exceeding the cost cap, particularly given the lack of facts and further context available in this docket, is wholly inappropriate. PSE remains responsible for making prudent business decisions in meeting CETA requirements and should not be insulated from its obligations by virtue of hypothetical circumstances in this case.

More substantively, as demonstrated above, PSE's CEIP already takes a more aggressive approach to CETA compliance, and if adopted, will cost customers an additional $500 million above the compliance costs identified in PSE's 2021 IRP. To the extent that PSE's chosen course of action would further exacerbate the cost of compliance for customers, particularly without the need to do so to achieve CETA compliance, PSE should not be encouraged to nevertheless continue to pursue its approved targets, particularly as part of the CEIP approval process.

Additionally, to the extent that PSE's actual costs of meeting its approved targets are lower than what is estimated, the Commission should indicate its intent to protect customers as intended by the Washington Legislature in implementing the incremental cost cap and direct PSE to refrain from pursuing additional resources. There is no analysis or evidence before the Commission pursuant to which it could conclude that pursuing additional resources above and beyond the amount already included in the CEIP would or could be prudent, and also puts customers at further risk that PSE's compliance will not be least-cost, least-risk. PSE's concerns about future demand for clean energy resources and recent economic inflation pressures must be balanced with impacts to customers, particularly in the absence of detailed analysis that demonstrates additional action will result in lower compliance costs for customers.

Finally, PSE requests Commission guidance based on high-level, hypothetical situations. To provide guidance at this time, which could be used as justification for PSE's prudence in acquiring additional resources, is not appropriate.

**Q. WHAT IS AWEC'S RECOMMENDATION ON COMMISSION GUIDANCE FOR THE INCRMENTAL COST CAP?**

A. To the extent that PSE chooses to deviate from its approved CEIP, based on its calculation of incremental costs, the Commission should make clear that PSE does so at its own risk. AWEC recommends the Commission direct PSE to refrain from further accelerating renewable energy targets in the event that its costs are less than planned, and that PSE refrain from pursuing approved targets to the extent that doing so would require PSE to exceed the two percent annual cost cap, or risk a finding of imprudence when PSE seeks cost recovery.

## V. CONCLUSION

**Q. PLEASE SUMMARIZE YOUR RECOMMENDATION.**

A. PSE is statutorily obligated to make new investments and achieve clean energy targets at the lowest reasonable cost. PSE's CEIP results in $500 million of excess costs to customers. At a time when customers are also facing increased costs, inflation and uncertainty, PSE should not be exacerbating customer impacts by moving more aggressively with renewable resource acquisition than is otherwise necessary to comply with CETA, and particularly when doing so could exceed the incremental cost cap. The Legislature included the incremental cost cap as a customer protection from these very circumstances, and the Commission should not endorse, guide or otherwise encourage PSE to exceed the incremental cost cap in this proceeding. For these reasons, I recommend:

- The Commission should direct PSE to utilize a linear glide path with the resources identified in its 2021 IRP to meet renewable energy targets because it is more cost-effective than the resource acquisition plan in PSE's CEIP.
- The Commission should direct PSE to refrain from further accelerating renewable energy targets in the event that its costs are less than planned once costs are known.
- The Commission should direct PSE to refrain from continuing to pursue resources up to approved renewable energy targets to the extent that doing so would require PSE to exceed the two percent annual cost cap, or risk a finding of imprudence when PSE seeks cost recovery.

**Q. DOES THIS CONCLUDE YOUR RESPONSE TESTIMONY?**

A. Yes.