

**EXH. GA-1T
DOCKETS UE-240004/UG-240005
2024 PSE GENERAL RATE CASE
WITNESS: GILBERT ARCHULETA**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

**Docket UE-240004
Docket UG-240005**

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF

GILBERT ARCHULETA

ON BEHALF OF PUGET SOUND ENERGY

FEBRUARY 15, 2024

PUGET SOUND ENERGY

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF

GILBERT ARCHULETA

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PUGET SOUND ENERGY

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GILBERT ARCHULETA**

LIST OF EXHIBITS

Exh. GA-2	Professional Qualifications of Gilbert Archuleta
Exh. GA-3	2021 Virtual Power Plant RFP
Exh. GA-4	2021 Distributed Energy Resources Request for Information
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Exh. GA-6	2022 Distributed Energy Resources Request for Proposals: Proposal Summary
Exh. GA-7	2023 CEIP Update – Chapter Two, Section 5.2 Demand Response Target and Appendix D: Quantitative and Qualitative Analysis
Exh. GA-8C	The Independent Evaluator’s Final Report on Puget Sound Energy’s 2022 Targeted Distributed Energy Resources Request for Proposals
Exh. GA-9C	Demand Response Agreement – AutoGrid Systems, Inc.
Exh. GA-10C	Demand Response Agreement – Oracle America, Inc.
Exh. GA-11C	DER RFP EMC Informational Presentation
Exh. GA-12C	DER RFP EMC Decisional Presentation
Exh. GA-13C	Demand Response Agreement – Enel X North America, Inc.

1 **PUGET SOUND ENERGY**

2 **PREFILED TESTIMONY (NONCONFIDENTIAL) OF**
3 **GILBERT ARCHULETA**

4 **I. INTRODUCTION**

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

7 A. My name is Gilbert Archuleta, and my business address is Puget Sound Energy,
8 P.O. Box 97034, Bellevue, Washington 98009-9734. I am employed by Puget
9 Sound Energy (“PSE”) as Director, Customer Energy Management.

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

12 A. Yes, I have. It is Exhibit GA-2.

13 **Q. What are your duties as Director, Customer Energy Management for PSE?**

14 A. I lead PSE’s Customer Energy Management team focused on cost-effective
15 energy efficiency and demand response (“DR”) customer programs.

16 **Q. What is the purpose of your testimony?**

17 A. The purpose of my testimony is to:

- 1 • Describe PSE’s DR Request for Proposal (“RFP”) process, selected cost-
2 effective megawatt (“MW”) target, and associated contracts and customer
3 programs;
- 4 • explain how PSE will engage named communities in DR programs;
- 5 • present PSE’s current and proposed Performance Incentive Mechanism,
6 and
- 7 • demonstrate that PSE’s investment in the DR programs was prudent and
8 that the Washington Utilities and Transportation Commission
9 (“Commission”) should approve recovery of the three third-party
10 implementer Power Purchase Agreement (“PPA”) costs and earnings.¹

11 **II. OVERVIEW OF PSE’S DEMAND RESPONSE PROGRAM**

12 **Q. Please explain the meaning of DR.**

13 A. Demand response is broadly defined as a measure for reducing energy load in
14 response to supply constraints, generally during periods of peak demand. DR
15 provides an opportunity for consumers to play a significant role in the operation
16 of the energy grid by reducing or shifting their energy usage during peak periods
17 in response to curtailment requests, time-based rates, or other forms of financial

¹ The Commission previously approved an accounting petition to recover PSE’s DR administrative costs through the Schedule 120 – Electric Conservation Rider and the biennial conservation planning process. See Order 01 Granting Accounting Petition in Docket UE-230028 (Feb. 23, 2023).

1 incentives. It also serves to manage system peak demand and mitigate the risks
2 associated with system constraints.

3 **Q. Please describe how PSE’s DR portfolio is managed.**

4 A. PSE’s DR portfolio is managed by a dedicated group as part of the Customer
5 Energy Management team. A Virtual Power Plant (“VPP”) platform called
6 AutoGrid Flex is utilized to dispatch DR resources.

7 **Q. Please explain PSE’s approach to procuring DR resource proposals.**

8 A. PSE has utilized a staged approach to procure the necessary DR resources.

9 Stage 1: In 2021, PSE issued an RFP for a VPP solution to be able to dispatch DR
10 as well as other Distributed Energy Resources (“DER”). A copy of the RFP is
11 provided as Exhibit GA-3. PSE selected the AutoGrid Flex platform, and it is
12 currently being deployed.

13 Stage 2: PSE issued a Request for Information (“RFI”) for DERs in May 2021
14 and used the results of the RFI to further define an RFP. A copy of the RFI is
15 provided as Exhibit GA-4. The purpose of the RFI was to solicit information on
16 new and innovative DERs that could be incorporated into PSE’s energy portfolio.
17 Customer DR programs are a subset of DERs.

18 Stage 3: Following the RFI, PSE issued the 2022 DER RFP to bidders on
19 February 7, 2022, to meet capacity and clean energy resource needs established in
20 the 2021 Integrated Resource Plan (“IRP”) and 2021 Clean Energy

1 Implementation Plan (“CEIP”). A copy of the 2022 RFP is provided as Exh. GA-
2 5. PSE received turnkey DR proposals from seven unique bidders in late March
3 2023. Several of the proposals overlapped in capacity and customer potential.
4 Details of the proposals received in response to the RFPs are provided in Exhibit
5 GA-6, the 2022 Distributed Energy Resources Request for Proposal: Proposal
6 Summary. While some vendors were not selected due to overlap in the type of DR
7 programs submitted in the RFP process, PSE selected specific vendors with
8 overlapping activity in the Behavioral Demand Response (“BDR”) and Business
9 Demand Response sectors of its DR portfolio to achieve equitable program
10 accessibility for all customer segments.

11 **Q. Please explain how PSE established the overall DR capacity target.**

12 A. The DR capacity target of roughly 24 MW for 2022-2025 was initially based off
13 the findings in PSE’s 2021 IRP. The IRP was filed in final form in April 2021 in
14 Docket UE-200304. The DR target was then filed with the 2021 CEIP in Docket
15 UE-210795 later that year. The Commission approved PSE’s CEIP with
16 conditions in Final Order 08 of Docket UE-210795, issued on June 6, 2023.

17 Condition 4 of Final Order 08 is related to the acquisition of cost-effective DR.

18 The Commission expressed concern over the interim DR target of 24 MW by
19 2025, finding that it was unreasonably low and did not reflect all cost-effective
20 DR available. Therefore, the Commission instructed PSE to include in its target
21 all cost-effective DR bids received in response to the RFP.

1 PSE received 161 MW² in turnkey DR proposals in response to the 2022 DER
2 RFP. During its evaluation, PSE first noted that some proposals did not meet the
3 threshold for cybersecurity and eliminated those projects from consideration.
4 Second, to avoid overlap in customer segments, PSE selected three proposals
5 reflecting a total of 86 MW of available cost-effective DR. Details on the
6 selection process and compliance with the DR condition are provided in Exh. GA-
7 7: PSE's 2023 CEIP Update – Chapter Two, Section 5.2 Demand Response
8 Target and Appendix D: Quantitative and Qualitative Analysis. Table 1: 2022
9 RFP DR Turnkey Proposals summarizes the selection process.

² In Exhibit GA-7, Section 5.2.2, this number is incorrectly shown to be 186 MW.

Table 1: 2022 RFP DR Turnkey Proposals

Program Bidder	Cumulative 2025 Winter MW	Customer Segment	Program Type	Societal Cost Test	Combined Score (Sort)	Selected for Contracting	2025 Targeted Winter Capacity MW	Reason for Not Selecting
Enel X	30	Business	Demand Response – Bundled	10.76	66.42	Yes	30	
Bidder A	Less than 10 MW	Residential	Demand Response – Bundled	4.85	58.94	No		Same customer segment as AutoGrid with much less MW provided
Oracle	4* (10)	Residential	Behavioral	4.82	55.23	Yes	10*	
AutoGrid	33.6	Majority Residential + Business	Demand Response – Excluding Battery Program	4.41	42.48	Yes	33.6	
AutoGrid (included with the DR proposal, but analyzed separately)	12	Residential	Battery	0.82	42.48	Yes	12	
Bidder B	Greater than 10 MW	Majority Business + Residential	Demand Response – Bundled	2.85	40.35	No		Same customer segment as Enel X, but has a worse score and less MWs
Bidder C	Greater than 10 MW	Majority Business + Residential	Demand Response – Bundled	3.00	34.26	No		Same customer segment as Enel X, but has a worse score and less MWs
						Total	85.6	

*MWs were increased from 4 to 10 in contract negotiations.

1 **Q. Please describe the analysis PSE conducted to inform its decision on the DR**
2 **proposals.**

3 A. PSE based its evaluation of resources submitted in response to the 2022 DER RFP
4 on a combined quantitative and qualitative assessment of all proposals that met
5 the minimum requirements of the solicitation. Taken together, the quantitative and
6 qualitative evaluation criteria assessed the feasibility of proposals and measured
7 each proposal's ability to satisfy compatibility with resource need, cost
8 minimization, contribution to Clean Energy Transformation Act ("CETA")
9 customer benefit and equity provisions, risk management, and strategic and
10 financial considerations.

11 The three turnkey DR proposals (provided by AutoGrid, Oracle, and Enel X) were
12 highly ranked and cost-effective. These three programs also did not extensively
13 overlap with the customer segments they were separately targeting. PSE short-
14 listed these three proposals for the Concurrent Analysis with the 2021 All-Source
15 RFP short-listed projects. The remaining programs not short-listed in the 2022
16 DER RFP did extensively overlap in targeted customer segments (e.g., one bidder
17 in the residential sector and two bidders targeting the same business customer
18 base).

19 The quantitative metrics assessed were expected costs associated with the
20 capacity and energy prices offered for each response. PSE used the DER Benefit

1 Cost Analysis (“BCA”) tool developed for the 2021 CEIP to model the costs and
2 benefits of each proposal. The BCA model analyzes both the utility’s and
3 customers’ economic perspectives and the interdependencies between the two.
4 The BCA was selected as the primary modeling tool for the DER RFP for this
5 ability to model both customer and utility economic impact as well as calculate
6 cost tests that align with practices outlined in the National Standard Practice
7 Manual (“NSPM”). To align with existing PSE modeling practices, where
8 possible, the BCA utilizes the same base Aurora modeling assumptions used to
9 develop the 2021 IRP and, when possible, updated modeling assumptions from
10 the 2023 Electric Progress Report.

11 **Q. What type of DR Programs has PSE contracted for?**

12 A. PSE currently offers four types of DR Programs through three third-party
13 implementers:

- 14 1. Flex Smart: Residential Automated Demand Response (“ADR”)
- 15 2. Flex Rewards: BDR – Incentivized
- 16 3. Flex Events: BDR – Non-Incentivized
- 17 4. Business Demand Response Program (“BDRP”)

18 Table 2 summarizes PSE’s DR customer programs by third-party implementer.

Table 2: PSE’s DR Customer Programs

Program Name	Flex Smart	Flex Rewards	Flex Events	Business Demand Response Program (BDRP)
Program Description	Residential: ADR	Incentivized: BDR	Non-Incentivized: BDR	Business Curtailment
Third-Party Implementer	AutoGrid	AutoGrid	Oracle	Enel X & AutoGrid

1 **Q. Please summarize the programs provided by AutoGrid.**

2 A. AutoGrid is contracted to provide the Flex Smart, Flex Rewards, and Business
3 Demand Response programs. These programs plan to deliver 46 MWs of winter
4 peak reduction as part of the 2025 total 86 MW cumulative target. Additionally,
5 these programs plan to deliver 69 MWs of 2025 summer peak reduction. A
6 contract with AutoGrid was signed on July 14, 2023, and customer enrollment
7 began on August 1, 2023. Dispatchable events became available on November 1,
8 2023. These programs are intended to reach an estimated 120,000 residential
9 customers via thermostats, water heat, electric vehicle (“EV”) charging, battery
10 energy storage systems (“BESS”), and incentivized BDR.

11 Flex Smart customers must enroll their existing or new smart appliances (e.g.,
12 thermostats, water heaters, etc.) through the original equipment manufacturer’s
13 (“OEM”) website or app, consistent with the industry practice. To maximize
14 customer participation, PSE plans to partner with all OEMs (e.g., Nest,

1 Honeywell) that can interface with AutoGrid Flex. During a peak event, a signal
2 is dispatched to the connected devices to curtail their usage.

3 Flex Rewards customers must enroll in incentivized BDR. During a peak event,
4 communications are sent to these customers asking them to curtail their usage.
5 After the peak event, actual curtailment is calculated based on peak reduction
6 compared to baseline.

7 BDRP customers will create customized curtailment plans to reduce a set
8 nomination of energy when called upon during a peak event. The BDRP is
9 intended to reach 150-200 business customers through 2025, of which AutoGrid
10 will be responsible for a portion, via customized curtailment plans, performance-
11 based incentives, and direct marketing. During a peak event, PSE dispatches a
12 communication to these business customers asking them to curtail their usage.
13 After the peak event, actual curtailment is calculated based on peak reduction
14 compared to baseline.

15 The programs are intended to provide over 30 percent of energy benefit to named
16 communities customers.

17 **Q. Please summarize the programs provided by third-party implementer**

18 **Oracle.**

19 **A.** Oracle is contracted to provide the Flex Events program. The program plans to
20 deliver 10 MWs of winter peak reduction as part of the 2025 total 86 MW

1 cumulative target. Additionally, these programs plan to deliver 12 MWs of 2025
2 summer peak reduction. A contract with Oracle was signed on April 3, 2023, and
3 it was launched in August of 2023. This opt-out non-incentivized program is
4 intended to reach 500,000 residential customers and it uses a behavioral science-
5 based peer comparison methodology. During a peak event, a communication is
6 dispatched to these customers asking them to curtail their usage. After a peak
7 event, customers receive an email comparing their performance in relationship to
8 their “neighbors” in similar sized homes. The program is intended to reach over
9 30 percent of named communities customers with no associated customer costs.

10 **Q. Please summarize the program provided by third-party implementer Enel X.**

11 A. Enel X is contracted to provide the Business Demand Response Program
12 (“BDRP”). The program plans to deliver 30 MWs of winter peak reduction as part
13 of the 2025 total 86 MW cumulative target. Additionally, these programs plan to
14 deliver 25 MWs of 2025 summer peak reduction. A contract with Enel X was
15 signed in September 2023, and customer enrollment began on October 1, 2023.
16 Dispatchable events became available on January 2, 2024. The BDRP is intended
17 to reach 150-200 business customers, of which Enel X will be responsible for the
18 majority, via customized curtailment plans, performance-based incentives, and
19 direct marketing. During a peak event, PSE dispatches a communication to these
20 business customers asking them to curtail their usage. After the peak event, actual
21 curtailment is calculated based on peak reduction compared to baseline.

1 **Q. How is PSE planning to incentivize customer participation?**

2 A. Flex Smart residential customers enrolling in ADR will be compensated annually
 3 or seasonally for each device enrolled. Flex Rewards residential customers
 4 enrolling in BDR will be compensated annually or seasonally for actual peak
 5 reductions. Customer incentives vary by program type and are depicted in Table 3
 6 below. Incentive variances are attributed to the fact that the types of devices that
 7 may enroll in DR programs have different levels of curtailment achievement
 8 capabilities. As such, devices with higher kilowatt (“kW”) capacity potential
 9 receive larger rewards. Incentive levels were set by assessing national averages,
 10 implementer recommendations, and portfolio growth targets.

Table 3: DR Residential Customer Incentives

Flex Smart (ADR)			
Device Type	Enrollment Reward	Anniversary Reward	Limited-Time Offer Enrollment Bonus
Smart Thermostat	\$50/thermostat	\$20/season	\$25
Baseboard Thermostat	\$20/unit	\$10/season	\$10
New in 2024 - 2025			
Mini-Split Controls	\$45/house	\$25/season	TBD
EVs and EV Chargers	\$50/house	\$10/month participated	TBD
Water Heaters & Controls	\$50/unit	\$25/year	TBD
BESS	TBD	TBD	TBD
Flex Rewards (BDR)			
Enrollment Reward	Seasonal Reward	Limited Time Offer Enrollment Bonus	
\$25	\$1.00/kWh shed per season	\$10	
Additional Rewards			
Type of Reward	Reward Amount	Planned Launch Date	
Customer Enrollment Referrals	\$10/customer enrolled (no limit)	November 2023	

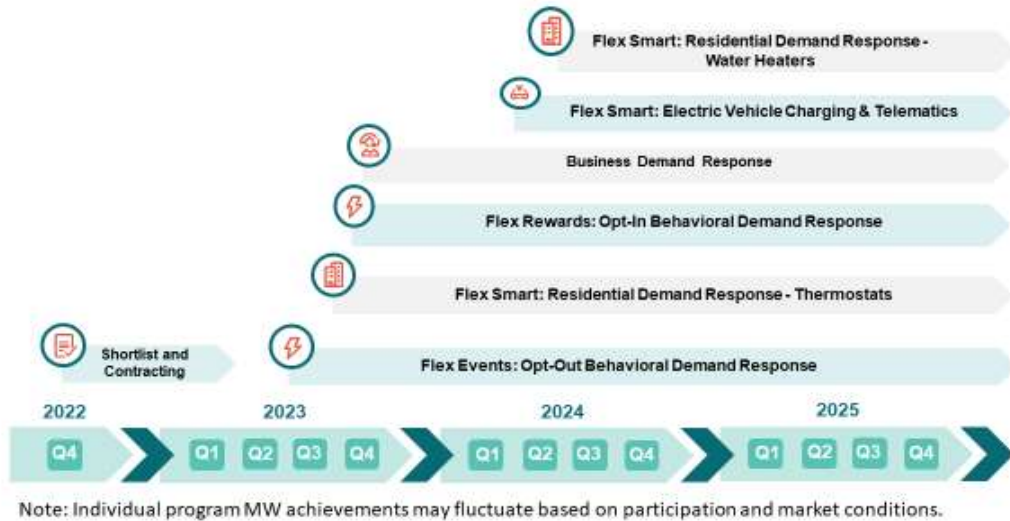
1 Flex Events residential customers will have the opportunity to reduce their energy
2 bills by participating in energy reduction events by following provided energy
3 saving actions, such as adjusting their thermostat and washing clothes in cold
4 water.

5 Business Demand Response Program customers will develop customized
6 curtailment plans with both technology automation and behavioral solutions.
7 BDRP customers' total incentive will be based upon their agreed-upon committed
8 load reduction capacity multiplied by the average of their participation across all
9 events within a given season. For example, if a customer commits to 500 kW of
10 load shed during events and throughout the four events of the season they average
11 95 percent participation, they would be paid a maximum of $\$35/\text{kW} \times 500\text{kW} \times$
12 95% . Customers will receive payment in the form of a check at the conclusion of
13 the season.

14 **Q. What is PSE's current timeline for implementing the selected DR proposals?**

15 A. The current timeline for rolling out DR proposals is displayed in Figure 1.

Figure 1: Demand Response Rollout Timeline



- 1 Q. Is PSE proposing any change to the metric to evaluate PSE’s performance in
 2 the area of demand response over the duration of the multiyear rate plan?
 3 A. Yes. The demand response performance metric supported by my testimony is
 4 summarized below in Table 4.

Table 4: Demand Response Metrics

Metric	Metric Definition	Revision from 2022	Metric Calculation
Load Management			
Total Electric Peak Load Management Savings (MW)	Winter and summer MW reductions in the Company’s resource adequacy need that are attributable to all customer demand response programs.	Modify to seasonal vs. annual (winter season is typically Nov. thru March.)	Peak capacity available from customer demand response programs.

1 **Q. Please describe PSE's existing Total Electric Peak Load Management**
2 **Savings (MW) performance metric.**

3 A. PSE's Total Electric Peak Load Management Savings (MW) performance metric
4 measures annual MW reductions in PSE's resource adequacy need that are
5 attributable to all peak load reduction programs excluding Energy Efficiency
6 programs.

7 **Q. How do you proposed that the calculation of this metric be modified?**

8 A. PSE proposes to modify this metric to measure winter and summer MW
9 reductions in PSE's resource adequacy need that are attributable to all customer
10 demand response programs. Demand response programs operate in two distinct
11 seasons. The summer season (May-September) and the winter season (November-
12 March), with April and October acting as shoulder months. Each season has a
13 separate system peak, based on differing usage patterns. Customers are enrolled in
14 summer and/or winter seasons, and it is more appropriate to measure available
15 demand response peak capacity for the summer season and for the winter season.

16 **Q. Why is it appropriate to change the calculation of this metric in the context**
17 **of this rate plan?**

18 A. The original metric did not account for seasonality or that the winter season
19 crosses from one calendar year into the next. PSE's proposed adjustment will
20 align the metric to the program performance, specifically in the winter season.

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III. EQUITY

Q. Please explain how named communities will have the opportunity to participate equitably in PSE DR Programs.

A. Beginning in 2023, PSE prioritized the participation of named communities in DR offerings by implementing the following action plan:

- Wi-Fi-capable smart thermostats, line voltage-connected thermostats, and hot water CTA-2045 water heater modules will be provided to customers who need them to participate in Flex Smart. These devices will enable space and water conditioning devices such as HVAC systems and water heaters to receive DR event notifications from PSE and adjust their heating values accordingly. PSE plans to roll out a device provisioning service in 2024.
- Flex Events has been rolled out to named communities as of August 2023, allowing them to voluntarily participate in Flex Events and receive feedback on the benefits of their participation.
- Co-deployment with PSE’s Low Income Weatherization and Efficiency Boost programs is also planned for operationalization in 2024 to expand accessibility of DR programs through existing functional channels. As a means of co-deployment, PSE will provide customers with DR-compatible equipment such as smart thermostats, line voltage-connected thermostats, and hot water CTA-2045 water heater modules.

1 **Q. How will PSE inform customers in named communities of their ability to**
2 **participate in PSE’s DR program design?**

3 A. To encourage Named Community customers to participate in DR program design,
4 PSE plans the following:

- 5 • **Direct Outreach:** PSE has engaged a public participation consultant to
6 conduct interviews, focus groups, and Q&A sessions with community-based
7 organizations (“CBOs”) and customers in named communities in its service
8 territory to solicit input around barriers to participation and program design
9 preferences for upcoming DER/DR programs.
- 10 • **Leveraging Existing Resources:** Presentations have been, or will be, made to
11 the Low-Income Advisory Committee (“LIAC”), Equity Advisory Group
12 (“EAG”), and Conservation Resource Advisory Group (“CRAG”) to solicit
13 input on the public participation process.

1 **IV. PERFORMANCE INCENTIVE MECHANISM**

2 **Q. Please describe the performance incentive mechanism (“PIM”) related to**
3 **demand response that was approved in PSE’s last rate case.**

4 A. The DR PIM is based on the DR target of 40 MW by 2024, to be calculated in the
5 same way that PSE calculates its peak load reduction for compliance with the DR
6 target in PSE’s CEIP.

7 The initial reward threshold will activate at 105 percent of the DR target. The
8 initial reward from the DR PIM will be a percent of DR program costs equal to
9 PSE’s approved weighted average cost of capital.

10 The second reward threshold will activate if PSE exceeds 115 percent of the DR
11 target. The reward for this threshold increases to 15 percent of DR program costs.
12 No additional reward is provided for achievement levels in excess of 150 percent
13 of the target.

14 The incentive provided by this DR PIM shall not exceed \$1 million over the
15 course of the 2022 multiyear rate plan and ends at the end of rate year two.

16 **Q. Please provide an update on PSE’s performance to date.**

17 A. PSE is currently implementing four DR programs as described in Table 2: PSE’s
18 DR Customer Programs:

- 19 1. Flex Smart,

- 1 2. Flex Rewards,
- 2 3. Flex Events, and
- 3 4. Business Demand Response Program.

4 PSE initiated enrollment in August 2023. At the end of 2023, customer program
5 enrollments were:

- 6 1. Flex Smart - 15,129;
- 7 2. Flex Rewards - 6,407;
- 8 3. Flex Events - 270,080 winter season, 448,213 summer season, and
- 9 4. Business Demand Response - 6.

10 PSE called the first winter peaking event on December 22, 2023, resulting in
11 capacity reduction of ~24,171 MW, approximately 60 percent of the 2024 PIM
12 target.

13 **Q. Is PSE proposing any PIMs as part of the upcoming rate plan?**

14 A. Yes. PSE is proposing an annual metric, target, and PIM to encourage it to obtain
15 additional DR resources. Eligible DR Programs would include Flex Smart, Flex
16 Rewards, Flex Events, Business Demand Response, and/or pricing programs
17 designed to shift load from peak periods and reduce system peak demand.
18 Additional DR resources procured through PSE’s ongoing efforts — in addition
19 to existing contracts — would also be included.

1 **Q. Please describe the specific parameters for this new PIM.**

2 A. PSE proposes setting a PIM target of 149 MW by the end of the November 2026-
3 2027 (winter season) to be calculated in the same way that PSE calculates its peak
4 load reduction for compliance with the DR target in PSE's CEIP. This does not
5 replace the requirement to adopt a DR target in the CEIP.

6 The initial reward threshold will activate at 105 percent of the DR target. The
7 initial reward from the DR PIM will be a percent of DR program costs equal to
8 PSE's approved weighted average cost of capital.

9 The second reward threshold will activate if PSE exceeds 115 percent of the DR
10 target. The reward for this threshold increases to 15 percent of DR program costs.

11 The incentive provided by this DR PIM shall not exceed \$3 million over the
12 course of this multiyear rate plan.

13 **Q. How did PSE determine the target?**

14 A. PSE's contracted winter season DR MWs for 2026 is the basis for the proposed
15 PIM target of 149. This represents a significant (73.25 percent) increase over the
16 86 MW 2025 CEIP target.

1 **Q. What is the basis for the proposed new incentive bands and why are they**
2 **reasonable?**

3 A. The proposed PIM incentive bands are based on the previously agreed-upon and
4 existing PIM incentive bands. The dead band (less than 105 percent) provides
5 incentive to achieve forecasted capacity reductions. The 105 and 115 percent
6 thresholds significantly provide for incremental growth beyond the current
7 forecast, and existing contracts.

8 **Q. How did PSE determine the appropriate level of financial incentives under**
9 **the PIM and why are they reasonable?**

10 A. The financial incentives for the winter season PIM target of 149 MWs are in line
11 with contracted program costs of increasing available capacity at an accelerated
12 rate. The \$3 million cap reflects the increased program costs as more MWs are
13 acquired.

1 **V. PSE’S DECISION TO ENTER INTO THE DR PPAS WAS PRUDENT**

2 **A. The Commission Prudence Standard**

3 **Q. What is PSE’s understanding of the Commission’s prudence standard?**

4 A. In PSE’s 2003 Power Cost Only Rate Case proceeding, Docket UE-031725, the
5 Commission reaffirmed the standard it applies in reviewing the prudence of
6 power generation asset acquisitions:

7 The test the Commission applies to measure prudence is what a
8 reasonable board of directors and company management would have
9 decided given what they knew or reasonably should have known to
10 be true at the time they made a decision. This test applies both to the
11 question of need and the appropriateness of the expenditures. The
12 company must establish that it adequately studied the question of
13 whether to purchase these resources and made a reasonable decision,
14 using the data and methods that a reasonable management would
15 have used at the time the decisions were made.³

16 In addition to this reasonableness standard, the Commission has cited several
17 specific factors that inform the question of whether a utility’s decision to acquire
18 a new resource was prudent. These factors include the following:

- 19 • First, the utility must determine whether new resources are
20 necessary.⁴
- 21 • Once a need has been identified, the utility must determine
22 how to fill that need in a cost-effective manner. When a utility
23 is considering the purchase of a resource, it must evaluate that
24 resource against the standards of what other purchases are

³ *WUTC v. Puget Sound Energy*, Docket UE-031725, Order 12 ¶ 19 (Apr. 7, 2004).

⁴ *See e.g., WUTC v. Puget Sound Power & Light Co.*, Docket UE-921262, *et al.*, Nineteenth Supplemental Order at 11 (Sept. 27, 1994).

1 available, and against the standard of what it would cost to
2 build the resource itself.⁵

- 3 • The utility must analyze the resource alternatives using current
4 information that adjusts for such factors as end effects, capital
5 costs, impact on the utility's credit quality, dispatchability,
6 transmission costs, and whatever other factors need specific
7 analysis at the time of a purchase decision.⁶

- 8 • The utility should inform its board of directors and/or
9 management about the purchase decision and its costs. The
10 utility should also involve the board of directors and/or
11 management in the decision process.⁷

- 12 • The utility must keep adequate contemporaneous records that
13 will allow the Commission to evaluate its actions with respect
14 to the decision process. The Commission should be able to
15 follow the utility's decision process; understand the elements
16 that the utility used; and determine the manner in which the
17 utility valued these elements.⁸

18 **Q. Do the resource acquisitions PSE is seeking recovery for in this case meet the**
19 **Commission's prudence standard?**

20 A. Yes. As I explain below, the DR PPAs will help PSE meet its DR obligations set
21 forth in CETA and the specific Commission direction in Order 08. Among the
22 responses to the RFPs, the PPAs were the best resources in terms of the
23 quantitative and qualitative metrics defined in the RFP and in reducing customer
24 segment overlap between DR providers. PSE performed the analyses and decision-
25 making processes expected by the Commission; PSE's management was closely
26 involved in the decision to acquire the resources; and PSE's decision-making

⁵ *Id.* at 11.

⁶ *Id.* at 2, 33-37, 46-47.

⁷ *Id.* at 37, 46.

⁸ *Id.* at 2, 37, 46.

1 process throughout the RFP was thoroughly documented in Exh. GA-8C: The
2 Independent Evaluator's Final Report on Puget Sound Energy's 2022 Targeted
3 Distributed Energy Resources Request for Proposals. The independent evaluator
4 concludes in the Final Report that the selected offers represent the lowest
5 reasonable cost package of offers when considering factors such as offer size;
6 need; customer overlap; and risk factors such as PSE's IT requirements and that
7 the qualification and ranking of bids was done in conformance with the RFP rules.

8 **B. The AutoGrid PPA Is Prudent**

9 1. **Project overview.**

10 **Q. Please describe the AutoGrid PPA.**

11 A. As described in Section I, AutoGrid is the implementation vendor responsible for
12 PSE's incentivized residential DR programs. The programs are: Flex Smart
13 (ADR) and Flex Rewards (BDR). AutoGrid is also one of two vendors
14 responsible for the implementation of PSE's BDRP.

15 **Q. Was the AutoGrid PPA a resource considered in the 2022 DER RFP?**

16 A. Yes, the AutoGrid proposal was submitted, with all other competing proposals by
17 the March 21, 2022, deadline set for the 2022 DER RFP. AutoGrid's proposal
18 went through the entire RFP evaluation process. The proposal was selected as part
19 of the final short list because of its cost effectiveness and overall ranking based on
20 quantitative and qualitative metrics measured in the RFP. PSE and AutoGrid were
21 in contract negotiations between May and July of 2023. A contract with AutoGrid

1 was signed on July 14, 2023, and customer enrollment began on August 1, 2023.
2 Dispatchable events became available on November 1, 2023. The contract is
3 provided as Exhibit GA-9C.

4 **Q. What are the terms of the AutoGrid PPA?**

5 A. The terms of the AutoGrid PPA (Exh. GA-9C) include (i) the recruitment and
6 aggregation of customers into several of PSE's DR programs (Flex Smart, Flex
7 Rewards, BDRP); (ii) development of supporting program collateral; (iii)
8 responsibility for issuing customer incentive payments, providing additional
9 support for meeting a minimum 30 percent benefit of program activities to named
10 communities; DR event notification development and delivery; and (iv) VPP
11 integration, along with measurement and verification reporting associated with
12 assessing the results of DR events. AutoGrid will receive performance-based
13 payments from PSE based on a per MW capacity and a fixed per MW energy
14 associated with its achieved curtailment respective to each program it supports.

15 **Q. What are the rate year costs of the AutoGrid PPA?**

16 A. Table 4 below summarizes the seasonal load reduction targets and associated
17 costs. The contracted MW load reduction may exceed the original target to
18 achieve committed capacity.

Table 4: AutoGrid PPA Rate Year Costs

Year	2025		2026	
Season	Summer	Winter	Summer	Winter
Contracted Load Reduction (MWs)	69.2	46.2	97	66.7
Seasonal Cost	\$6,964,771	\$4,649,890	\$6,563,526	\$4,513,270
Program Year Total Cost (Summer/Winter)	\$11,614,661		\$11,076,796	

1 **2. Demonstration of need.**

2 **Q. What is the AutoGrid PPA's contribution to meeting PSE's clean energy**
3 **need under CETA?**

4 A. One hundred percent of AutoGrid's PPA contributes to meeting PSE's clean
5 energy need under CETA by reducing or shifting consumption to mitigate or
6 negate the need for PSE to rely on peaking plants to fill delivery demand gaps.

7 **Q. Please summarize the benefits that PSE's customers will receive from the**
8 **AutoGrid PPA.**

9 A. As described in Section I of my testimony, the AutoGrid PPA provides a
10 meaningful contribution toward meeting PSE's significant DR needs by 2025.
11 The AutoGrid PPA is part of a lowest reasonable cost portfolio solution based on
12 an alternative analysis performed throughout the 2022 DER RFP evaluation and
13 negotiation period. Enrolled customers receive incentives related to their

1 participation in DR programs and are provided feedback on their performance
2 during a DR event.

3 **3. Evaluation of alternatives.**

4 **Q. How did PSE select the AutoGrid PPA over other alternatives considered as**
5 **part of the 2022 DER RFP?**

6 A. The AutoGrid proposal ranked among the top DR proposals provided based on
7 the quantitative and qualitative metrics measured in the RFP evaluation, as well as
8 its high Societal Cost Test score and large capacity offering. Reference Table 1:
9 2022 RFP DR Turnkey Proposals for a summary of the RFPs.

10 AutoGrid was selected for the residential ADR market based on its cost-
11 effectiveness, overall score, and ability to deliver higher MWs. PSE did not
12 choose Bidder A (even though it initially showed up as more cost-effective) as it
13 was targeting the same residential ADR market as AutoGrid but was unable to
14 increase its much lower MW capacity. With consideration to the above, and in
15 addition to the fact that selecting both bidders would have cannibalized the
16 residential market and added a considerable level of unnecessary friction to the
17 customer experience, PSE committed to a single ADR vendor with AutoGrid.

18 Additionally, AutoGrid was selected to provide a portion of the BDRP MW
19 target. Alternative Bidders B and C offered business DR but were not as cost-
20 effective or comprehensive as the bids received from AutoGrid and Enel X. Due
21 to AutoGrid and Enel X's national accounts, unique business models, and better-

1 rated cost-effectiveness, PSE moved forward with both Enel X and AutoGrid's
2 bids to serve business customers.

3 **4. Board of Directors or management involvement.**

4 **Q. Describe how PSE's Board of Directors or management was involved in the**
5 **decision to enter into the AutoGrid PPA.**

6 A. At the end of PSE's evaluation process for the 2022 DER RFP, it provided the
7 results to the Energy Management Committee ("EMC"), a board of senior
8 representatives delegated with approving major transmission, distribution, and
9 generation projects. The first meeting on September 30, 2022, presented the
10 resource acquisitions team's findings and recommendations. This presentation is
11 provided as Exh. GA-11C: DER RFP EMC Informational Presentation. A second
12 meeting was held on October 27, 2022, during which the EMC voted to approve
13 the DER RFP short list portfolio and to move forward with negotiations. This
14 presentation is provided as Exh. GA-12C: DER RFP EMC Decisional
15 Presentation. As PSE's procurement process does not require Board approval for
16 contracts of the AutoGrid PPA's size, the final approval role was owned by PSE's
17 Vice President of Clean Energy Strategy and Planning.

1 **5. Contemporaneous documentation.**

2 **Q. Did PSE maintain relevant contemporaneous documentation related to its**
3 **decision to enter into the AutoGrid PPA?**

4 A. Yes, PSE has maintained relevant documentation related to its decision to enter
5 into the AutoGrid PPA. This documentation is provided in Exh. GA-11C and
6 Exh. GA-12C.

7 **6. Determination of prudence.**

8 **Q. Was the AutoGrid PPA a prudent investment?**

9 A. Yes. PSE’s DR capacity provided by the AutoGrid PPA will help meet the
10 expected clean energy and DR needs of PSE’s customers for years to come. Based
11 on the resource needs described herein, the robust analysis performed during
12 PSE’s 2022 DER RFP evaluation, and the benefits to PSE’s customers described
13 in my testimony, PSE is seeking a determination of prudence, recovery of the
14 costs, and to earn a return on the PPA. See the Prefiled Direct Testimony of Susan
15 Free, Exh. SEF-1T for the earnings calculations. PSE is requesting to recover a
16 return on the PPA based on paragraph 32 of the Settlement Stipulation and
17 Agreement on Revenue Requirement and All Other Issues Except Tacoma LNG
18 and Green Direct, approved in PSE’s last general rate case, Dockets UE-
19 220066/UG-220067: “The cost of any DER PPA for distributed generation,
20 battery resources and demand response costs are eligible for recovery through

1 PSE’s PCORC, PCA Mechanism and/or annual power cost update and are eligible
2 for potential earning on PPAs pursuant to RCW 80.28.410.”

3 **C. The Oracle PPA Is Prudent**

4 **1. Project overview.**

5 **Q. Please describe the Oracle PPA.**

6 **A.** As described in Section I, Oracle is the contracted implementation vendor
7 responsible for Flex Events, PSE’s opt-out BDR program.

8 **Q. Was the Oracle PPA a resource considered in the 2022 DER RFP?**

9 **A.** Yes, the Oracle proposal was submitted with all other competing proposals by the
10 March 21, 2022, deadline set for the 2022 DER RFP. Oracle’s proposal went
11 through the entire RFP evaluation process. The proposal was selected as part of
12 the final short list because of its cost effectiveness and overall ranking based on
13 quantitative and qualitative metrics measured in the RFP. Contracted negotiations
14 occurred between February and April of 2023. A contract with Oracle was signed
15 on April 3, 2023, and it was launched in August of 2023. The DR scope of work,
16 master service agreement, and amendment are provided as Exh. GA-10C.⁹

⁹ Opower is a subsidiary of Oracle.

1 **Q. What are the terms of the Oracle PPA?**

2 A. The terms of the Oracle PPA, provided in Exh. GA-10C, include the recruitment
3 of customers into the program, development of supporting program collateral,
4 additional support for meeting a minimum 30 percent benefit of program
5 activities to named communities, DR event notification development and
6 delivery, and VPP integration, along with measurement and verification reporting
7 associated with assessing the results of DR events. Oracle will receive a fixed
8 seasonal payment from PSE for the activities detailed above.

9 **Q. What are the rate year costs of the Oracle PPA?**

10 A. Table 5 below summarizes the seasonal load reduction targets and costs
11 associated with the Oracle PPA. The contracted load reduction may exceed the
12 original target to achieve committed capacity.

Table 5: Oracle PPA Rate Year Costs

Year	2025		2026	
Season	Summer	Winter	Summer	Winter
Contracted Load Reduction (MWs)	11.5	12.4	11.5	12.4
Seasonal Cost	\$479,234	\$516,739	\$479,234	\$516,739
Program Year Total Cost (Summer/Winter)	\$995,973		\$995,973	

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2. Demonstration of need.

Q. What is the Oracle PPA's contribution to meeting PSE's clean energy need under CETA?

A. One hundred percent of Oracle's PPA contributes to meeting PSE's clean energy need under CETA by reducing or shifting consumption to mitigate or eliminate the need for PSE to rely on peaking plants to fill delivery demand gaps.

Q. Please summarize the benefits that PSE's customers will receive from the Oracle PPA.

A. As described in Section I of my testimony, the Oracle PPA provides a meaningful contribution toward meeting PSE's significant DR needs by 2025. The Oracle PPA is part of a lowest reasonable cost portfolio solution based on alternatives analysis performed throughout 2022 DER RFP evaluation and negotiation period. Enrolled customers are provided feedback on their energy usage during a DR event, as well as tips for reducing their energy usage.

3. Evaluation of alternatives.

Q. How did PSE select the Oracle PPA over other alternatives considered as part of the 2022 DER RFP?

A. The Oracle proposal ranked among the top DR proposals provided based on the quantitative and qualitative metrics measured in the RFP evaluation, as well as its

1 high Societal Cost Test score. There were no similar opt-out behavioral proposals.
2 See Table 1: 2022 RFP DR Turnkey Proposals for a summary of the RFPs.

3 **4. Board of Directors or management involvement.**

4 **Q. Describe how PSE's Board of Directors or management was involved in the**
5 **decision to enter into the Oracle PPA.**

6 A. At the end of PSE's evaluation process for the 2022 DER RFP, PSE provided the
7 results to its EMC. The first meeting on September 30, 2022, presented the
8 resource acquisitions team's findings and recommendations. See Exh. GA-11C. A
9 second meeting was held on October 27, 2022, during which the EMC voted to
10 approve the DER RFP short list portfolio and to move forward with negotiations.
11 See Exhibit GA-12C. As PSE's procurement process does not require Board
12 approval for contracts the size of the Oracle PPA, the final approval role was
13 owned by PSE's Vice President of Clean Energy Strategy and Planning.

14 **5. Contemporaneous documentation.**

15 **Q. Did PSE maintain relevant contemporaneous documentation related to its**
16 **decision to enter into the Oracle PPA?**

17 A. Yes, PSE has maintained relevant documentation related to its decision to enter
18 into the Oracle PPA. This documentation is provided in Exh. GA-11C and Exh.
19 GA-12C.

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6. Determination of prudence.

Q. Was the Oracle PPA a prudent investment?

A. Yes. PSE’s DR capacity provided by the Oracle PPA will help meet the expected clean energy and DR needs of PSE’s customers for years to come. Based on the resource needs described herein, the robust analysis performed during PSE’s 2022 DER RFP evaluation, and the benefits to PSE’s customers described in my testimony, PSE is seeking a determination of prudence, recovery of the costs, and to earn a return on the Oracle PPA. See the Prefiled Direct Testimony of Susan Free, Exh. SEF-1T, for the earnings calculations. PSE is requesting to earn a return on the Oracle PPA pursuant to paragraph 32 of the Settlement Stipulation and Agreement on Revenue Requirement and All Other Issues Except Tacoma LNG and Green Direct, approved in PSE’s last general rate case, Dockets UE-220066/UG-220067: “The cost of any DER PPA for distributed generation, battery resources and demand response costs are eligible for recovery through PSE’s PCORC, PCA Mechanism and/or annual power cost update and are eligible for potential earning on PPAs pursuant to RCW 80.28.410.”

1 **D. The Enel X PPA Is Prudent**

2 **1. Project overview.**

3 **Q. Please describe the Enel X PPA.**

4 A. As described in Section I, Enel X is one of the two implementation vendors
5 responsible for the implementation of PSE's incentivized business DR program
6 (BDRP).

7 **Q. Was the Enel X PPA a resource considered in the 2022 DER RFP?**

8 A. Yes, the Enel X proposal was submitted, with all other competing proposals by
9 the March 21, 2022, deadline set for the 2022 DER RFP. Enel X's proposal went
10 through the entire RFP evaluation process. The proposal was selected as part of
11 the final short list because of its cost effectiveness and overall ranking based on
12 quantitative and qualitative metrics measured in the RFP. A contract with Enel X
13 was signed in September 2023, and customer enrollment began on October 1,
14 2023. Dispatchable events became available on January 2, 2024.

15 **Q. What are the terms of the Enel X PPA?**

16 A. The Enel X PPA is provided as Exh. GA-13C. The terms of the Enel X PPA
17 include the recruitment of customers into the BDRP; creation of customized
18 curtailment plans, development of supporting program collateral, installation and
19 maintenance of software and onsite equipment if applicable; providing additional
20 support for meeting a minimum 30 percent benefit of program activities to named

1 communities; DR event notification development and delivery, responsible for
 2 issuing customer incentive payments; and VPP integration, along with
 3 measurement and verification reporting associated with assessing the results of
 4 DR events. Enel X will receive performance-based payments from PSE based on
 5 a per MW capacity associated with its achieved curtailment.

6 **Q. What are the rate year costs of the Enel X PPA?**

7 A. Table 6: Enel X PPA Rate Year Costs summarizes the seasonal load reduction
 8 targets and associated costs. The contracted MW load reduction may exceed the
 9 original target to achieve committed capacity.

10 **Table 6: Enel X PPA Rate Year Costs**

Year	2025		2026	
Season	Summer	Winter	Summer	Winter
Contracted Load Reduction (MWs)	25	35	35	40
Seasonal Cost	\$1,670,000	\$2,338,000	\$2,338,000	\$2,672,000
Program Year Total Cost (Summer/Winter)	\$4,008,000		\$5,010,000	

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2. Demonstration of need.

Q. What is the Enel X PPA’s contribution to meeting PSE’s clean energy need under CETA?

A. One hundred percent of Enel X’s PPA contributes to meeting PSE’s clean energy need under CETA by reducing or shifting consumption to mitigate or negate the need for PSE to rely on peaking plants to fill delivery demand gaps.

Q. Please summarize the benefits that PSE’s customers will receive from the Enel X PPA.

A. As described in Section I of my testimony, the Enel X PPA provides a meaningful contribution toward meeting PSE’s significant DR needs by 2025. The Enel X PPA is part of a lowest reasonable cost portfolio solution based on alternatives analysis performed throughout 2022 DER RFP evaluation and negotiation period. Enrolled customers receive customized energy curtailment plans, monitoring software for their facility (if applicable), incentives related to event participation, and are provided feedback on their performance during a DR event.

3. Evaluation of alternatives.

Q. How did PSE select the Enel X PPA over other alternatives considered as part of the 2022 DER RFP?

A. The Enel X proposal ranked among the top DR proposals provided based on the quantitative and qualitative metrics measured in the RFP evaluation, as well as its

1 high Societal Cost Test score and large capacity offering. Enel X was selected as
2 one of two vendors to support the BDRP. Each of the selected vendors bring to
3 the program different curtailment methodologies and different customer bases at
4 the national account level, allowing them to recruit from separate business
5 customer verticals with minimal overlap, if any.

6 Alternative Bidders B and C offered business DR but were not as cost-effective or
7 comprehensive as the bids received from AutoGrid and Enel X. Due to AutoGrid
8 and Enel X's national accounts, unique business models, and better-rated cost-
9 effectiveness, PSE moved forward with both Enel X and AutoGrid's bids to serve
10 business customers.

11 **4. Board of Directors or management involvement.**

12 **Q. Describe how PSE's Board of Directors or management was involved in the**
13 **decision to enter into the Enel X PPA.**

14 A. At the end of PSE's evaluation process for the 2022 DER RFP, it provided the
15 results to the Energy Management Committee ("EMC"), a board of senior
16 representatives delegated with approving major transmission, distribution, and
17 generation projects. The first meeting on September 30, 2022, presented the
18 resource acquisitions team's findings and recommendations. See Exh. GA-11C. A
19 second meeting was held on October 27, 2022, during which the EMC voted to
20 approve the DER RFP short list portfolio and to move forward with negotiations.
21 See Exh. GA-12C. As PSE's procurement process does not require Board

1 approval for contracts the size of the Enex X PPA, the final approval role was
2 owned by PSE's Senior Vice President Chief Customer and Transformation
3 Officer.

4 **5. Contemporaneous documentation.**

5 **Q. Did PSE maintain relevant contemporaneous documentation related to its**
6 **decision to enter into the Enel X PPA?**

7 A. Yes, PSE has maintained relevant documentation related to its decision to enter
8 into the Enel X PPA. This information is provided in Exh. GA-11C and Exh. GA-
9 12C.

10 **6. Determination of prudence.**

11 **Q. Was the Enel X PPA a prudent investment?**

12 A. Yes. The DR capacity provided by the Enel X PPA will help meet the expected
13 clean energy and DR needs of PSE's customers for years to come. Based on the
14 resource needs described herein, the robust analysis performed during PSE's 2022
15 DER RFP evaluation, and the benefits to PSE's customers described in my
16 testimony, PSE is seeking a determination of prudence, recovery of the costs, and
17 to earn a return on the PPA. See the Prefiled Direct Testimony of Susan Free,
18 Exh. SEF-1T, for the earnings calculation related to the Enel X PPA. PSE is
19 requesting to earn a return on the PPA pursuant to paragraph 32 of the Settlement
20 Stipulation and Agreement on Revenue Requirement and All Other Issues Except
21 Tacoma LNG and Green Direct, approved in PSE's last general rate case, Dockets

1 UE-220066/UG-220067: “The cost of any DER PPA for distributed generation,
2 battery resources and demand response costs are eligible for recovery through
3 PSE’s PCORC, PCA Mechanism and/or annual power cost update and are eligible
4 for potential earning on PPAs pursuant to RCW 80.28.410.”

5 **VI. CONCLUSION**

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

7 A. PSE requests a Commission finding of prudence for the three DR PPAs
8 (AutoGrid, Oracle, Enel X) selected to meet the 2025 winter cumulative peak DR
9 goal of 86 MW. Additionally, PSE requests to allow for recovery of the 2025 and
10 2026 costs and potential earnings on the DR PPAs pursuant to RCW 80.28.410.

11 **Q. Does that conclude your prefiled direct testimony?**

12 A. Yes.