

**EXH. PKW-25CT
DOCKET UE-200980
2020 PSE PCORC
WITNESS: PAUL K. WETHERBEE**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent

Docket UE-200980

**PREFILED SUPPLEMENTAL DIRECT TESTIMONY
(CONFIDENTIAL) OF**

PAUL K. WETHERBEE

ON BEHALF OF PUGET SOUND ENERGY

**REDACTED
VERSION**

FEBRUARY 2, 2021

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PUGET SOUND ENERGY

**PREFILED SUPPLEMENTAL DIRECT TESTIMONY
(CONFIDENTIAL) OF PAUL K. WETHERBEE**

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1 **PUGET SOUND ENERGY**

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4 **I. INTRODUCTION**

5 **Q. Are you the same Paul K. Wetherbee who provided prefiled direct testimony**
6 **in this docket on behalf of Puget Sound Energy (“PSE”)?**

7 A. Yes, I filed prefiled direct testimony, Exh. PKW-1CT, and 23 supporting exhibits,
8 Exh. PKW-2 through Exh. PKW-24.

9 **Q. What is the purpose of your prefiled supplemental direct testimony?**

10 A. I present an update to the rate-year power costs presented in my prefiled direct
11 testimony for changes that have occurred since PSE developed the input
12 assumptions for its initial filing dated December 9, 2020. I sponsor twelve new
13 exhibits in support of this prefiled supplemental direct testimony, all of which are
14 updates to exhibits presented in PSE’s initial filing.

15 **Q. Please summarize the updated power costs proposed by PSE in this**
16 **supplemental direct testimony.**

17 A. Projected rate year power costs in this supplemental filing are \$769.1 million,
18 \$8.7 million (or 1.2 percent) higher than the initially filed power costs of
19 \$760.4 million. Please see Exh. PKW-26C and Exh. PKW-27C for comparisons
20 of these updated power costs with power costs in PSE’s initial filing.

1 **II. UPDATE TO PROJECTED RATE YEAR POWER COSTS**

2 **Q. What power cost inputs did PSE change relative to its initial filing?**

3 A. PSE updated six types of inputs for its calculation of power costs in this
4 supplemental filing:

- 5 • Forward natural gas prices were updated to average prices
6 for the three-month period ending January 12, 2021. The
7 original filing included average prices for the three-month
8 period ending October 21, 2020.

- 9 • Power and natural-gas-for-power hedges were updated to
10 include transactions entered as of January 12, 2021. The
11 original filing included transactions as of October 21, 2020.

- 12 • Rates for PSE’s transmission contracts with Bonneville
13 Power Administration (“BPA”) were updated to the rates
14 filed in BPA’s initial proposal for its BP-22 rate proceeding
15 (“BP-22”).

- 16 • Costs associated with PSE’s Mid-Columbia (“Mid-C”) hydroelectric
17 contracts were updated to include more recent
18 budget information provided by Chelan County Public
19 Utility District (“PUD”) and Grant County PUD.

- 20 • Tariff rates associated with PSE’s contracts for natural gas
21 pipeline capacity were updated to include rates in effect as
22 of January 1, 2021.

- 23 • Planned outage schedules for PSE’s thermal resources were
24 updated to include planned outages as of January 1, 2021.

25 **Q. How did PSE update projected power costs for the rate year?**

26 A. PSE updated forward gas prices and fixed-price power hedges in the Aurora
27 hourly dispatch model. PSE first ran the Aurora model for the entire Western
28 Interconnect 80 times, once for each hydro year, using the updated gas prices to
29 produce updated market power prices for each hydro year. PSE then ran the Two-

1 Zone Aurora model 80 times using the power price outputs from the Western
2 Interconnect model along with updated gas prices and fixed-price power hedges
3 to produce updated cost and dispatch information for PSE's portfolio. Average
4 Aurora cost and energy outputs from these 80 Two Zone model runs are presented
5 in Exh. PKW-28C. Power costs calculated outside of Aurora were then updated to
6 include updated input assumptions and the new prices and dispatch information
7 from Aurora. Not-in-Aurora power costs are summarized in Exh. PKW-29C.

8 **Q. How do gas prices for this supplemental filing compare with those in the**
9 **initial filing and the 2019 general rate case ("GRC")?**

10 A. Use of a single price can be misleading because there are different projected gas
11 prices for each month of the rate year and for the different trading hubs from
12 which PSE purchases gas. Additionally, these prices do not consider the impact of
13 the fixed-price gas contracts at the price cut off date, which may significantly
14 change the average gas price. For purposes of comparison, however, the average
15 forward gas price at the Sumas trading hub for the rate year is \$2.99 per million
16 British thermal units ("MMBtu") for the three months ended January 12, 2021,
17 which is \$0.17 per MMBtu higher than the average \$2.83 per MMBtu price
18 included in PSE's initial filing. Please see Exh. PKW-30C for the rate year natural
19 gas prices and Aurora power price outputs used in this supplemental filing. The
20 average gas price reflected in power costs from the 2019 GRC Final Order was
21 \$2.17 per MMBtu for the three months ended December 5, 2019. Table 1 below
22 presents average rate year gas price comparisons.

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Table 1. Average Annual Rate Year Gas Prices

Rate Case =>	2020 PCORC Supplemental	2020 PCORC Initial Filing	2019 GRC
3-Mo Average at =>	1/12/21	10/21/20	12/5/19
Rate Year	June 2021 – May 2022	June 2021 – May 2022	May 2020 – April 2021
Sumas	\$2.99	\$2.83	\$2.17
Change from Prior	\$0.17	\$0.66	\$(0.31)

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Q. What hedges are included in rate year power costs?

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A. Rate-year power costs in this supplemental filing include gas-for-power and power contracts that were transacted as of January 12, 2021, for delivery during the rate year (June 2021 through May 2022). Table 2 below provides a summary of the fixed-price rate-year power portfolio hedges included in rate-year power costs. Fixed-price power hedges are included as an input to the Aurora model. Exhibit PKW-31C includes fixed-price gas for power hedges and the calculation of their impact to power costs in this filing.

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Table 2. PSE’s 2020 PCORC Rate Year Short-Term Fixed-Price Power Portfolio Hedges at January 12, 2021

	MWh Volume	Rate Year Cost	Avg. \$/MWh
Net On-Peak Power Purchases	████████	████████	████████
Net Off-Peak Power Purchases	████████	████████	████████
	Dth Volume	Rate Year Cost	Avg. \$/Dth
Net Gas for Power Purchases	████████	████████	████████

1 **Q. What updates to BPA transmission rates did PSE make for this supplemental**
2 **filing?**

3 A. PSE updated the rates associated with its transmission contracts with BPA to the
4 rates filed by BPA in its initial proposal for the BP-22 rate case beginning
5 October 1, 2021. New BPA transmission rates will be implemented on October 1,
6 2021 and, therefore, will be in effect for the last eight months of the rate year in
7 this proceeding. Current BPA transmission rates will remain in effect for the first
8 four months of the rate year. PSE made no changes to the rates for the first four
9 months of the rate year relative to those included in its initial filing, which are
10 existing BPA rates.

11 **Q. What is the impact to rate-year power costs from updates to BPA**
12 **transmission rates for the last eight months of the rate year?**

13 A. PSE's rate-year purchased transmission costs are \$6.2 million higher than those
14 included in the initial PCORC filing. Exhibit PKW-32C presents PSE's
15 calculation of purchased transmission costs for the rate year, including a
16 comparison to amounts included in the initial filing.

17 **Q. Are the transmission rates in BPA's initial BP-22 rate case proposal final?**

18 A. No. A final Record of Decision in the BP-22 rate case is not expected until late
19 July 2021, after the time that rates established in this PCORC filing are scheduled
20 to take effect. The procedural schedule in BP-22 indicates that a draft Record of
21 Decision is expected on June 11, 2021.

1 **Q. Has PSE used BPA rates that are not yet final in its calculation of rate year**
2 **power costs in prior rate cases?**

3 A. Yes. PSE has routinely used preliminary or estimated BPA rates in its rate case
4 power cost projections, and these estimates have been accepted by the
5 Commission in past cases. In some cases, however, final BPA rates became
6 available prior to the conclusion of PSE's case; thus, PSE was able to utilize the
7 final rates. Final BPA rates were not available for final power cost calculations in
8 PSE's 2006 GRC, 2007 GRC, and 2014 power cost only rate case ("PCORC").

9 **Q. What BPA rate assumptions did PSE use for its final power cost calculations**
10 **in the 2006 GRC and 2007 GRC?**

11 A. In both the 2006 GRC and 2007 GRC, PSE's final power costs assumed a 2.5
12 percent increase to BPA transmission rates in the period for which final rates were
13 not available.

14 **Q. What BPA rate assumption did PSE use for its final power cost calculations**
15 **in the 2014 PCORC?**

16 A. In its 2014 PCORC, PSE assumed BPA rate increases of 9.7 percent and 6.1
17 percent for its initial filing and supplemental filing, respectively, based on
18 information provided by BPA during its pending rate case. As part of the
19 settlement in that case, PSE's final power costs included no change to BPA
20 transmission rates, where the new BPA rates were to be in effect for the last two
21 months of PSE's rate year.

1 **Q. Why did PSE include BPA's proposed rates for the last eight months of the**
2 **rate year in this supplemental filing?**

3 A. There is a long history of including estimated or preliminary rate increases in
4 PSE's rate year power costs, including in 2006 when power costs were litigated
5 and in 2007 when power costs were settled.

6 BPA's proposed rates are the most current and best source of information
7 available at this time. The procedural schedule in BP-22 indicates that a draft
8 Record of Decision is expected on June 11, 2021, and there could be an updated
9 proposal or settlement prior to that. If the Commission orders PSE to update
10 power costs in the compliance filing in this case, PSE should be able to update to
11 the most current available information at that time.

12 **Q. How did PSE update costs associated with its Mid-C hydroelectric contracts**
13 **for this supplemental filing?**

14 A. PSE updated rate year costs for its Mid-C hydroelectric contracts to include the
15 most recent cost information provided by Chelan County PUD for the Rocky
16 Reach and Rock Island hydroelectric projects and by Grant County PUD for the
17 Priest Rapids hydroelectric project. These costs are calculated outside of the
18 Aurora model and are presented in Exh. PKW-33C, which includes a comparison
19 to costs in the initial filing.

1 **Q. What is the impact to rate year power costs associated with updates to Mid-C**
2 **hydroelectric contract costs?**

3 A. Rate year Mid-C hydroelectric contract costs in this supplemental filing are \$2.4
4 million higher than costs included in the initial filing.

5 **Q. What updates did PSE make to pipeline tariff rates for this supplemental**
6 **filing?**

7 A. PSE updated pipeline tariff rates to the rates in effect as of January 1, 2021. The
8 net effect of updates to pipeline tariff rates is a \$1.8 million increase to rate-year
9 power costs. Exhibit PKW-34C includes the updated rates and PSE's calculation
10 of fixed pipeline transportation costs for the rate year.

11 **Q. Has PSE provided other exhibits to support proposed rate year power costs**
12 **in this filing?**

13 A. Yes. The following exhibits present additional calculations in support of PSE's
14 updated rate year power costs:

- 15 • Exh. PKW-35C includes the calculation of rate year day-ahead
16 wind integration costs,
- 17 • Exh. PKW-36C shows the calculation of incremental costs
18 associated with running PSE's thermal plants on distillate fuel for
19 testing purposes, and
- 20 • Exh. PKW-37C shows the calculated adjustment to Aurora costs to
21 remove non-fuel start-up costs that are included in Aurora output
22 for PSE's natural gas-fired peaker plants.

1 **Q. Please summarize PSE's updated power cost projection for this proceeding.**

2 A. PSE's projected rate-year power costs are \$769.1 million, \$8.7 million (or
3 1.2 percent) higher than the initially filed power costs of \$760.4 million.

4 **III. CONCLUSION**

5 **Q. Does that conclude your prefiled supplemental direct testimony?**

6 A. Yes, it does.