

**EXH. RJR-1CT
DOCKET UE-20____
2020 PSE PCORC
WITNESS: RONALD J. ROBERTS**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent

Docket UE-20____

PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF

RONALD J. ROBERTS

ON BEHALF OF PUGET SOUND ENERGY

**REDACTED
VERSION**

DECEMBER 9, 2020

PUGET SOUND ENERGY

**PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF
RONALD J. ROBERTS**

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PUGET SOUND ENERGY

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EXHIBITS

- Exh. RJR-2 Professional Qualifications
- Exh. RJR-3 Colstrip Units 3 and 4 Ownership and Operations Agreement
- Exh. RJR-4C Coal Supply Agreement, dated as of December 5, 2019, by and among Avista Corporation, NorthWestern Corporation d/b/a NorthWestern Energy, PacifiCorp, Portland General Electric Company, Puget Sound Energy, and Westmoreland Rosebud Mining, LLC
- Exh. RJR-5C Presentation to the PSE Energy Management Committee, dated July 23, 2019, Regarding the Development of Coal Supply Contract Negotiations
- Exh. RJR-6C Presentation to the PSE Energy Management Committee, dated August 29, 2019, regarding the Coal Supply Agreement
- Exh. RJR-7C Summary of PSE’s Analysis of the Alternate Agreement Between Westmoreland and Talen Montana
- Exh. RJR-8 Summary of Test Year Production O&M Expenses
- Exh. RJR-9 Summary of Rate Year Production O&M Expenses
- Exh. RJR-10 Summary of the Adjustments to Test Year Production O&M Expense in Calculating the Rate Year Production O&M Expense
- Exh. RJR-11C Comparison of Major Maintenance O&M Expense for Single- and Combined- Combustion Turbine Facilities Included in this Proceeding to Major Maintenance O&M Expense for Single- and Combined- Combustion Turbine Facilities Included in the 2019 General Rate Case Rate

Exh. RJR-12 Comparison of Hydroelectric Production O&M Expense
Included in this Proceeding to Hydroelectric Production
O&M Expense Included in the 2019 General Rate Case

Exh. RJR-13C Comparison of Wind Production O&M Expense Included
in this Proceeding to Wind Production O&M Expense
Included in the 2019 General Rate Case

1 **PUGET SOUND ENERGY**

2 **PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF**
3 **RONALD J. ROBERTS**

4 **I. INTRODUCTION**

5 **Q. Please state your name and business address.**

6 A. My name is Ronald J. Roberts. My business address is 355 110th Ave NE,
7 Bellevue WA 98004.

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

10 A. Yes. Please see the First Exhibit to the Prefiled Rebuttal Testimony of Ronald J.
11 Roberts, Exh. RJR-2.

12 **Q. What are your duties as Vice President, Energy Supply for PSE?**

13 A. As Vice President, Energy Supply, I am responsible for (i) generation and natural
14 gas storage, (ii) generation and transmission development, (iii) load serving
15 operations, and (iv) the energy supply merchant function.

16 **Q. What is the nature of this prefiled direct testimony in this proceeding?**

17 A. This prefiled direct testimony will:

- 18 (i) address the Coal Supply Agreement, dated as of December 5, 2019
19 (the "Coal Supply Agreement"), by and among Avista Corporation
20 ("Avista"), NorthWestern Corporation d/b/a NorthWestern Energy
21 ("NorthWestern Energy"), PacifiCorp, Portland General Electric
22 Company ("Portland General Electric"), PSE, and Westmoreland
23 Rosebud Mining, LLC ("Westmoreland"), for the supply of coal to
24 Colstrip Units 3 and 4 for the period beginning January 1, 2020,
25 and ending on December 31, 2025; and

1 (ii) present production operations and maintenance (“O&M”) costs.

2 **II. COAL SUPPLY AGREEMENT FOR COLSTRIP UNITS 3 AND 4**

3 **Q. Please describe Colstrip Units 3 and 4 and PSE’s interest in the facility.**

4 A. Colstrip Units 3 and 4 consist of two coal-fired steam electric plant units located
5 in eastern Montana, about 120 miles southeast of Billings, Montana. Colstrip
6 Units 3 and 4 began operation in 1984 and 1986, respectively, and each unit
7 produces up to 740 megawatts (“MW”) net.

8 Colstrip Units 3 and 4 are jointly owned by six entities—five regulated utilities
9 and one independent power producer. The Colstrip Units 3 and 4 Ownership and
10 Operations Agreement¹ treats the two units as a single project (referred to as the
11 “Project”), and each owner of Colstrip Units 3 and 4 has an ownership interest in
12 the Project that is referred to as the “Project Share” owned by that owner. Please
13 see the Second Exhibit to the Prefiled Direct Testimony of Ronald J. Roberts,
14 Exh. RJR-3, for a copy of the Colstrip Units 3 and 4 Ownership and Operations
15 Agreement.

¹ “Colstrip Units 3 and 4 Ownership and Operations Agreement” refers to the Ownership and Operation Agreement, dated as of May 6, 1981, by The Montana Power Company, Puget Sound Power and Light Company, The Washington Water Power Company, Portland General Electric Company, Pacific Power and Light Company, and Basin Electric Power Company, as amended and revised.

1 Table 1 below provides the Project Share held by each owner under the Colstrip
2 Units 3 and 4 Ownership and Operations Agreement.

3 **Table 1. Project Shares in Colstrip Units 3 and 4**

<u>Owner</u>	<u>Project Share</u>
PSE	25%
Portland General Electric	20%
Avista	15%
NorthWestern Energy	15%
Talen Montana, LLC (“Talen Montana”)	15%
PacifiCorp	10%

4 The Project Share of each of Talen Montana and NorthWestern Energy, however,
5 is allocated to a single unit, resulting in Talen Montana holding a 30 percent
6 interest in Colstrip Unit 3, and NorthWestern Energy holding a 30 percent interest
7 in Colstrip Unit 4. Talen Montana and NorthWestern Energy have entered into a
8 reciprocal sharing agreement in which each party realizes 15 percent of the output
9 of each unit.

10 The current operator of Colstrip Units 3 and 4 is Talen Montana, a subsidiary of
11 Talen Energy.

12 **Q. What fuel does Colstrip utilize to produce energy?**

13 A. Colstrip Units 3 and 4 were designed and built as mine-mouth coal plants to burn
14 the coal available from the Rosebud mine, currently owned by Westmoreland
15 (formerly Western Energy Company). The mine is adjacent to the plant, also
16 located in Colstrip, Montana. State permits for the Colstrip Units 3 and 4 specify
17 the use of Rosebud seam coal as the fuel to use for the two units. A conveyor belt

1 delivers coal to the plant property, which is slightly more than six miles from the
2 Rosebud mine. Colstrip Units 3 and 4 have used Rosebud coal as their exclusive
3 fuel source since the units began generating in the mid-1980s.

4 **Q. Please describe the previous coal supply arrangement for Colstrip Units 3**
5 **and 4.**

6 A. The term of the previous coal supply agreement began on January 1, 1998 and
7 expired in accordance with its terms on December 31, 2019. Costs to transport the
8 coal were part of a separate agreement. Historically, all owners of Colstrip Units 3
9 and 4 have been party to the same coal supply agreement, and the contracts have
10 specified that coal from the Rosebud mine would be the exclusive fuel source for
11 the two units.

12 The terms of the previous coal supply agreement relied on a ‘cost-plus’ model,
13 meaning the cost included labor and other items to mine coal through a least-cost
14 mining plan approved by the coal buyers.

15 **Q. Please provide the language from the state permit that requires the use of**
16 **Rosebud seam coal in Colstrip Units 3 and 4.**

17 A. Colstrip Unit 3 began commercial operation in 1984, and Colstrip Unit 4 began
18 commercial operation in 1986. The units were sited and constructed pursuant to a
19 certificate issued under the Major Facility Siting Act, Mont. Code Ann. § 75-20,
20 *et seq.* (the “MFSA Certificate”). The MFSA Certificate governs Colstrip Units 3

1 and 4 and their associated facilities. The MFSA Certificate requires the coal from
2 the Rosebud mine be the exclusive fuel source for Colstrip Units 3 and 4:²

3 XV.

4 The fuel to be used in Units #3 and #4 will be Rosebud seam coal
5 from the Colstrip area. (Berube 7-902). It will be mined from areas
6 designated C, D, and E, shown on Exhibits 52, 53, 140 and 141.
7 (Berube 8-102701029; Rice 28-3635-3636, 3640-3641). Based
8 upon Certificate amendment in 2014, Units 3&4 are also allowed to
9 utilize Rosebud seam coal mined from areas A, B, F and G, such
10 coal having been shown to be of substantially the same or better
11 quality for emissions control related purposes.” XV, and amendment,
12 In the Matter of the Application of PPL Montana, LLC to Amend
13 the Colstrip 3 and 4 Certificate of Environmental Compatibility and
14 Public Need, signed January 20, 2015.

15 **Q. Has any effort been made to change or amend the permits to allow coal other**
16 **than Rosebud seam coal to be burned in Colstrip Units 3 and 4?**

17 A. Yes. In January of 2019, Talen Montana submitted a request to the Montana
18 Department of Environmental Quality to modify the plant’s Title V Operating
19 Permit No. OP0513-14 and Montana Air Quality Permit No. 0513-10, which
20 govern the underlying conditions of the MFSA Certificate related to coal
21 utilization. The request was made to allow coal other than Rosebud seam coal to
22 be used at Colstrip Units 3 and 4 or to remove the condition. Under a separate
23 action, Talen Montana also sought a modification to the MFSA Certificate to
24 allow the change.

25 The Montana Department of Environmental Quality approved the permit changes
26 in the spring of 2019. Westmoreland formally challenged the amendments to the

² Major Facility Siting Act Certificate at section XV.

1 Board of Environmental Review. The resulting proceedings were still ongoing
2 into September 2020. Talen Montana and Westmoreland, however, subsequently
3 reached a settlement, wherein there was agreement that Talen Montana would
4 request that the Montana Department of Environmental Quality approve removal
5 of the amendments in the permits that related to the use of non-Rosebud mine coal
6 and the requirement for a train unloading facility.

7 **Q. Does PSE have a continuing need to supply coal to Colstrip Units 3 and 4?**

8 A. Yes. Section 2(g) of Amendment 1 to the Colstrip Units 3 and 4 Ownership and
9 Operating Agreement, dated October 11, 1991, states, in part, as follows with
10 respect to the coal requirements for Colstrip Units 3 and 4:

11 Each project user agrees to order an amount of coal sufficient to
12 generate the minimum energy required by Section 13(d) of this
13 Agreement and to timely provide the Operator with its coal delivery
14 schedules to be furnished to the Coal Supplier under Section 3 of the
15 Coal Supply Agreement.³

16 When the above section is read in conjunction with Section 13(d) of the Colstrip
17 Units 3 and 4 Ownership and Operations Agreement, the generally accepted
18 interpretation is that if one owner of Colstrip Units 3 and 4 requests the facility
19 run, then each and every other owner must provide enough coal to maintain their
20 share of the minimum generation capability of the facility. Therefore, the
21 amended Section 2(g) and Section 13(d) of the Colstrip Units 3 and 4 Ownership

³ Roberts, Exh. RJR-3, at 50.

1 and Operations Agreement are the two provisions that require each owner to have
2 a coal supply agreement in place during the lives of Colstrip Units 3 and 4.

3 **Q. How long will one or both units of Colstrip Units 3 and 4 continue to**
4 **operate?**

5 A. At this time, it is not known how long Colstrip Units 3 and 4 will continue to
6 operate. The Colstrip Units 3 and 4 Ownership and Operations Agreement does
7 not contain clear provisions for the owners to decide on the retirement or closure
8 of one or both of the units. Section 31 of the Colstrip Units 3 and 4 Ownership
9 and Operations Agreement merely cites actions that must be taken to close one or
10 more of the units after the decision to stop producing energy has been made.

11 During negotiation of the Coal Supply Agreement, NorthWestern Energy
12 expressed its intention to take energy from Colstrip Unit 4 through 2042.

13 Nonetheless, the Colstrip Units 3 and 4 Ownership and Operations Agreement
14 provides an affirmative requirement to PSE and other co-owners to be in a
15 position to provide coal necessary to meet the minimum generation requirements
16 of such co-owner at Colstrip Units 3 and 4 at a reasonable cost to customers.

17 **Q. When did the six co-owners of Colstrip Units 3 and 4 begin evaluating coal**
18 **supply options for the period after December 31, 2019?**

19 A. In 2009, the six co-owners of Colstrip Units 3 and 4 began evaluating coal supply
20 options for the period after December 31, 2019. The co-owners looked at several
21 coal supply options, including other Montana coal supplies from suppliers other
22 than Westmoreland, suppliers providing Powder River Basin coal, and continuing

1 purchasing coal from Westmoreland. The co-owners considered the multiple
2 logistical and cost issues that would have accompanied the use of coal from a
3 source other than the Rosebud mine. For example, the use of coal from a source
4 other than the Rosebud mine would have required substantial capital investments
5 for delivery of the coal through the construction of either truck or train
6 transportation and related unloading facilities. Those facilities were not, and are
7 still not, part of the Colstrip plant facility. Ultimately, six co-owners of Colstrip
8 Units 3 and 4 concluded that the most appropriate option was to pursue a coal
9 supply agreement with Westmoreland to supply coal to those units after
10 December 31, 2019.

11 **Q. What actions were taken between completion of the initial work conducted**
12 **by the six co-owners and the signing of the Coal Supply Agreement?**

13 A. The six co-owners of Colstrip Units 3 and 4 continued to perform due diligence
14 for securing a coal supply for those units. These due diligence efforts included,
15 for example, the engagement of external consultants to study Westmoreland
16 mining options for Rosebud Mine, reviewing federal rules relevant to coal
17 generation emissions, organizing the co-owners' positions, and selecting common
18 counsel for purposes of negotiations of a new coal supply agreement. In 2015, the
19 six co-owners of Colstrip Units 3 and 4 and Westmoreland engaged in more
20 frequent communications and negotiations to secure a coal supply for the units for
21 the period after December 31, 2019.

1 **Q. Please provide a short narrative of the timeline and actions taken by PSE**
2 **with regard to securing a supply of coal for Colstrip Units 3 and 4 for the**
3 **period after December 31, 2019.**

4 A. In all matters related to the Coal Supply Agreement, PSE worked in collaboration
5 with the other five co-owners of Colstrip Units 3 and 4, while keeping the interest
6 of PSE customers at the forefront of PSE's decision-making.

7 From 2012 to 2015, the six co-owners of Colstrip Units 3 and 4 and
8 Westmoreland traded high level term sheets and proposals. In addition, the six co-
9 owners engaged a third-party consultant with mining expertise to analyze possible
10 mining scenarios and cost for Rosebud mining operations.

11 From 2015 to 2017, the six co-owners of Colstrip Units 3 and 4 and
12 Westmoreland engaged in continued and more detailed contract negotiations.
13 During that period, Westmoreland also worked to obtain permits to allow mining
14 in additional areas of the Rosebud mine—specifically, Area F and Area G. The
15 permit for Area F of the Rosebud mine was ultimately approved in 2019. The
16 permit for Area G of the Rosebud mine has not yet been finalized.

17 By late 2016-early 2017, the six co-owners of Colstrip Units 3 and 4 and
18 Westmoreland had reached a near majority on a proposed coal supply agreement
19 based on a “cost-plus” arrangement with a ten-year term. In February of 2017,
20 however, Talen Montana notified the group that—due to a change in its
21 ownership structure and pending legal issues related thereto—it would not be

1 entering into an updated coal supply agreement, and the parties put the
2 negotiations on hold.

3 Negotiations restarted in spring of 2018, with subsequent discussions interrupted
4 by the bankruptcy filing of Westmoreland. As discussions progressed, the terms
5 of a new coal supply contract changed to meet the needs of the six co-owners of
6 Colstrip Units 3 and 4. The main changes were a shorter term of the contract and
7 a movement away from a “cost-plus” agreement to a fixed priced agreement,
8 which included all costs (inclusive of transportation).

9 In mid-2019, however, Talen Montana informed the parties that (i) the proposed
10 changes to the structure of the coal supply agreement no longer met its needs and
11 (ii) it was interested in pursuing a different pricing structure for the coal supply
12 agreement. Subsequently, Talen Montana and Westmoreland engaged in separate,
13 parallel negotiations for a new coal supply arrangement.

14 After Talen Montana started negotiating directly with Westmoreland, the five
15 other co-owners of Colstrip Units 3 and 4 required the insertion of a “most
16 favored nations” clause in the Coal Supply Agreement. The clause allows any
17 owner the option to amend or enter into a new coal supply agreement if
18 Westmoreland enters into a new or amended coal supply agreement with one or
19 more of the other co-owners of Colstrip Units 3 and 4. The terms of the new or
20 amended agreement must be no less favorable to any purchaser of coal from
21 Westmoreland.

1 **Q. Did the co-owners of Colstrip Units 3 and 4 reconsider other sources for the**
2 **supply of coal prior to the execution of the Coal Supply Agreement?**

3 A. Yes. In March of 2019, the six co-owners of Colstrip Units 3 and 4 began
4 discussions with [REDACTED] (“[REDACTED]”) to
5 potentially provide coal for Colstrip Units 3 and 4. The co-owners held these
6 discussions in parallel with the continued negotiations with Westmoreland.
7 [REDACTED] would likely have supplied coal by rail and likely from sources
8 outside Montana. The delivery of non-Montana coal would have necessitated the
9 installation of rail access and a coal unloading facility at Colstrip Units 3 and 4.
10 Additionally, the coal to be provided would not have been sourced from the
11 Rosebud mine and would have necessitated a change in permits.
12 As noted previously, Talen Montana sought to amend the MFSA Certificate, but
13 Westmoreland appealed the MFSA Certificate, which raised concerns as to
14 whether [REDACTED] could meet timelines for the construction of necessary
15 coal unloading facilities. Additionally, the six co-owners had concerns regarding
16 the continuity of coal supply and transportation and logistical issues for the
17 delivery of coal, especially in the cold weather months. Ultimately the price,
18 transportation logistics/cost, and necessary changes to the MFSA Certificate made
19 a new coal supply agreement with Westmoreland a better fuel option than
20 pursuing [REDACTED] as the new coal supplier.

1 **Q. When did PSE execute the Coal Supply Agreement?**

2 A. PSE and all of the co-owners of Colstrip Units 3 and 4 other than Talen Montana
3 executed the Coal Supply Agreement on December 5, 2019 with an effective date
4 of January 1, 2020. Please see the Third Exhibit to the Prefiled Direct Testimony
5 of Ronald J. Roberts, Exh. RJR-4C, for a copy of the Coal Supply Agreement.

6 **Q. What are the specifics of the Coal Supply Agreement?**

7 A. Generally, the Coal Supply Agreement is a fixed-price contract, with a quarterly
8 price adjustment based on federal indices. Coal transportation costs are included
9 as part of the Coal Supply Agreement. The term runs from January 1, 2020,
10 through December 31, 2025. Each buyer must purchase a minimum volume of
11 coal. If a buyer exceeds its minimum annual volume requirement, then the base
12 price per ton reduces for the tons in excess of the minimum annual volume. If a
13 buyer fails to purchase its minimum annual volume requirement, then the buyer
14 has an option (i) to pay a per ton fee that is less than the per ton price or
15 (ii) purchase the make-up volume in the first six months of the following year.

16 **Q. Please describe PSE's executive and management review and approval of the**
17 **Coal Supply Agreement.**

18 A. In my prior position as Director of Thermal Resources, I kept PSE management
19 apprised of progress and major development of coal supply contract negotiations
20 in regular one-on-one meetings. As the negotiations began to coalesce, my team
21 provided an informational update to PSE's Energy Management Committee.
22 Please see the Fourth Exhibit to the Prefiled Direct Testimony of Ronald J.

1 Roberts, Exh. RJR-5C, for a copy of a presentation, dated July 23, 2019, made to
2 PSE's Energy Management Committee regarding the development of coal supply
3 contract negotiations.

4 On August 29, 2019, PSE submitted an updated presentation on the draft Coal
5 Supply Agreement to the Energy Management Committee along with a
6 presentation regarding the agreement. Please see the Fifth Exhibit to the Prefiled
7 Direct Testimony of Ronald J. Roberts, Exh. RJR-6C, for a copy of the
8 presentation to the Energy Management Committee on August 29, 2019.

9 At that meeting, the Energy Management Committee granted approval to enter
10 into the Coal Supply Agreement. Once finalized, the final Coal Supply
11 Agreement was presented to management for final review and signature.

12 **Q. Which co-owner of Colstrip Units 3 and 4 chose not to sign the Coal Supply**
13 **Agreement, and what alternative did that co-owner choose as its source of**
14 **coal supply for Colstrip Units 3 and 4?**

15 A. Talen Montana was the sole co-owner of Colstrip Units 3 and 4 that did not sign
16 the Coal Supply Agreement. As previously mentioned, Talen Montana announced
17 in the summer of 2019 that it sought a separate coal supply agreement with
18 Westmoreland, and those negotiations continued on a parallel path. Ultimately,
19 Talen Montana and Westmoreland entered into a separate coal supply agreement
20 in March of 2020. The terms of the base contract between Talen Montana and
21 Westmoreland are similar to the base terms of the Coal Supply Agreement but

1 contained a different base price that is tied to a separate revenue sharing
2 agreement.

3 **Q. Were PSE or the other co-owners of Colstrip Units 3 and 4 provided an**
4 **option to choose to elect the same terms and conditions of the separate coal**
5 **supply agreement between Talen Montana and Westmoreland?**

6 A. Yes. Per the terms of the “most favored nations” clause of the Coal Supply
7 Agreement, Westmoreland provided the opportunity to each of the other five co-
8 owners of Colstrip Units 3 and 4 to review and opt into the other agreement
9 between Talen Montana and Westmoreland. PSE reviewed terms of the
10 agreement between Talen Montana and Westmoreland and analyzed the potential
11 long-term cost and price risk. PSE, and each of the other four co-owners of
12 Colstrip Units 3 and 4, chose not to sign the alternate agreement.

13 **Q. Please describe PSE’s analysis of the coal supply agreement between Talen**
14 **Montana and Westmoreland.**

15 A. PSE considered a number of factors in assessing the option to enter into the coal
16 supply agreement between Talen Montana and Westmoreland. Those factors
17 included, for example, market volatility, capacity effects, estimated pricing with
18 the inclusion of a revenue sharing agreement, stability of rates, risk of contract
19 longevity, confidentiality of marketing strategy, and functionality of the revenue
20 sharing agreement.

21 On June 10, 2020, the PSE officer team was briefed on (i) the alternate coal
22 supply agreement between Talen Montana and Westmoreland and (ii) PSE’s

1 analysis of the same. A recommendation was made to the PSE officer team to
2 continue with the Coal Supply Agreement and not enter into the alternate coal
3 supply agreement between Talen Montana and Westmoreland. Please see the
4 Sixth Exhibit to the Prefiled Direct Testimony of Ronald J. Roberts, Exh. RJR-
5 7C, for a summary of PSE’s analysis of the alternate agreement. On the same
6 date, PSE management adopted the recommendation to continue with the Coal
7 Supply Agreement.

8 III. RATE YEAR PRODUCTION O&M EXPENSE

9 A. Overview

10 **Q How has PSE prepared its rate year production O&M expense for the rate**
11 **year?**

12 A. PSE developed the rate year (i.e., June 1, 2021, through May 31, 2022)
13 production O&M expense in accordance with the Final Order in each of PSE’s
14 2017 general rate case⁴ and PSE’s 2019 general rate case⁵ (the “2019 GRC Final
15 Order”). For most plants, PSE utilizes test year O&M expense and makes certain
16 pro forma adjustments as allowed by the Commission.

⁴ *WUTC v. Puget Sound Energy*, Dockets UE-170033 & UG-170034 (consolidated), Order 08 (Dec. 5, 2017) (the “2017 GRC Final Order”).

⁵ *WUTC v. Puget Sound Energy*, Dockets UE-190529, *et al.*, Order 08 (July 8, 2020) (the “2019 GRC Final Order”).

1 **Q. Please identify the basis used for rate year production O&M for those**
2 **situations in which PSE did not use test year expense.**

3 A. PSE develops rate year O&M expenses for its jointly-owned Frederickson 1
4 Generating Station from budgets and business plans provided by the plant
5 operator and approved by the owners.

6 For PSE's wind generating stations, PSE pro forms rate year royalties, rents, and
7 contract maintenance expense to reflect rate year projected wind generation
8 expenses.

9 PSE pro forms rate year hydro license expense based upon budgeted
10 license O&M expenses.

11 PSE pro forms amortization of major maintenance expenses for gas-fired
12 generating facilities to reflect rate year amortization expense consistent with
13 previous rate filings.

14 PSE pro forms amortization of major maintenance expenses for Colstrip Units 3
15 and 4 to reflect rate year amortization expense consistent with previous rate
16 filings.

17 **Q. What was PSE's production O&M expense for the test year?**

18 A. The production O&M costs for the test year (July 1, 2019, through June 30, 2020)
19 were \$128.3 million.⁶

⁶ See Roberts, Exh. RJR-9, at 1:24.

1 Please see the Seventh Exhibit to the Prefiled Direct Testimony of Ronald J.
2 Roberts, Exh. RJR-8, for PSE's production O&M expense for the test year.

3 **Q. What is PSE's production O&M expense for the rate year?**

4 A. The rate year production O&M costs are \$113.1 million.⁷ The rate year
5 production O&M expense of \$113.1 million is (i) \$2.2 million less than the
6 production O&M expense of \$115.3 million in the 2019 GRC Final Order and
7 (ii) \$15.2 million less than the production O&M expense of \$128.3 million in the
8 test year.⁸

9 Please see the Eighth Exhibit to the Prefiled Direct Testimony of Ronald J.
10 Roberts, Exh. RJR-9, for PSE's production O&M expense for the rate year.

11 **Q. Please describe the nature of the pro forma adjustments made to production**
12 **O&M costs in this filing.**

13 A. The test year for this proceeding is July 1, 2019, through June 30, 2020. PSE has
14 made the following adjustments to test year expenses in calculating the rate year
15 production O&M expense:

- 16 (i) reduced test year production O&M expense by
17 \$13.5 million to reflect removal of test year non-major
18 maintenance O&M expense associated with Colstrip
19 Units 1 and 2;⁹

⁷ See Roberts, Exh. RJR-10, at 1:24.

⁸ See *id.*

⁹ See Roberts, Exh. RJR-11, at 1:1-2.

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- (ii) reduced test year production O&M expense by \$3.2 million to reflect a decrease in rate year amortization expense associated with Colstrip overhaul costs;¹⁰
- (iii) increased test year production O&M expense by \$0.6 million to reflect budgeted rate year hydro license expense;¹¹
- (iv) increased test year production O&M expense by \$0.5 million to reflect budgeted expense provided by the plant operator for the Frederickson 1 Generating Station;¹²
- (v) reduced test year production O&M expense by \$0.4 million to reflect rate year amortization of major maintenance of single- and combined-cycle combustion turbine facilities;¹³ and
- (vi) increased test year production O&M expense by \$0.8 million to reflect projected rate year contract maintenance costs under the Vestas and Siemens maintenance contracts and rent and royalty payments for the Hopkins Ridge, Wild Horse/Wild Horse Expansion and Lower Snake River Phase I Wind Projects based upon forecasted rate year wind generation;¹⁴

Please see the Ninth Exhibit to the Prefiled Direct Testimony of Ronald J. Roberts, Exh. RJR-10, for a summary of the adjustments to test year production O&M expense in calculating the rate year production O&M expense.

¹⁰ See *id.* at 1:3-4.
¹¹ See *id.* at 1:5-6.
¹² See *id.* at 1:7-9.
¹³ See *id.* at 1:10-18.
¹⁴ See Roberts, Exh. RJR-11, at 1:19-24.

1 **B. Production O&M Expense for Thermal Resources**

2 **1. Production O&M Expense for the Colstrip Steam Electric Station**

3 **Q. What are the sources of production O&M expense for the Colstrip Steam**
4 **Electric Station?**

5 A. For the 2019 general rate proceeding,¹⁵ PSE used test year O&M expense as the
6 basis for developing rate year production O&M expense for Colstrip Units 3
7 and 4. PSE has used this same approach in this proceeding.

8 With respect to overhaul costs incurred for the Colstrip units prior to 2020, PSE
9 has developed production O&M expense in this proceeding in accordance with
10 the methodology outlined in the Settlement Stipulation approved in the
11 2014 power cost only rate case.¹⁶

12 With respect to the overhaul of Colstrip Unit 4 in 2020, PSE will comply with the
13 2019 GRC Final Order and defer such overhaul costs until PSE's next general rate
14 case proceeding. Due to impacts related to the COVID-19 pandemic, the overhaul
15 of Colstrip Unit 4 planned for the spring of 2020 was postponed until the fall. The
16 overhaul began in mid-September of 2020.

17 PSE has not included amortization for this major maintenance event in this
18 proceeding because PSE is deferring these costs for recovery in PSE's next
19 general rate case

¹⁵ Dockets UE-190529, *et al.*.

¹⁶ *WUTC v. Puget Sound Energy*, Docket UE-141141, Order 04, Appx. A (Nov. 3, 2014).

1 **Q. What was the amount of non-overhaul related Colstrip production O&M**
2 **expense included in the rate year?**

3 A. PSE's share of non-overhaul related Colstrip production O&M expense is
4 \$19.5 million for Colstrip Units 3 and 4, which amount is based on test year
5 amounts. This compares with non-major production O&M expense of
6 \$18.5 million for Colstrip Units 3 and 4 in the rate year for the 2019 general rate
7 case. These amounts do not include any provision for management reserve. PSE
8 has not included any non-overhaul production O&M expense for Colstrip Units 1
9 and 2.

10 **Q. How has PSE treated common production O&M expenses for Colstrip**
11 **Units 1-4 in this filing?**

12 A. PSE has removed all test year production O&M expense for Colstrip Units 1
13 and 2 from rate year production O&M. This includes all common costs allocated
14 to Colstrip Units 1 and 2. With respect to Colstrip Units 3 and 4, PSE has
15 included the common costs allocated to Colstrip Units 3 and 4 in the test year in
16 the production O&M expense for those units in the rate year.

17 **2. Non-Major Production O&M Expense for PSE's Simple- and**
18 **Combined-Cycle Combustion Turbine Facilities**

19 **Q. What is the basis for the calculation of production O&M expense, other than**
20 **major maintenance, for PSE's owned and jointly-owned generation stations?**

21 A. As discussed previously, PSE generally uses a test year level of production O&M
22 expense to represent a normal level of operating expenses for PSE's owned and

1 operated gas fired turbines. For PSE's jointly-owned gas fired turbine, the
2 Frederickson 1 Generating Station, the plant operator's budget, except for major
3 maintenance costs, is used to represent the rate year level of production O&M
4 expense. This methodology is consistent with the manner in which production
5 O&M expense was determined in PSE's past several general rate case and power
6 cost only rate case proceedings.

7 **Q What was the amount of non-major maintenance related simple- and**
8 **combined cycle combustion turbine production O&M expense included in**
9 **the rate year?**

10 A. The rate year non-major maintenance production O&M expense included in this
11 proceeding is \$40.0 million, a reduction of \$0.8 million relative to the
12 2019 general rate case non-major maintenance production O&M costs of
13 \$40.8 million.

14 **3. Major Maintenance of PSE's Simple- and Combined-Cycle**
15 **Combustion Turbine Facilities**

16 **Q. What is the basis for major maintenance events and expenditures included in**
17 **this filing for PSE's simple- and combined-cycle combustion turbine**
18 **facilities?**

19 A. Major maintenance included in this proceeding reflects the rate making treatment
20 as approved in the past several rate proceedings.

21 In general, if the cost of a major maintenance event performed at any of PSE's
22 gas-fired generating facilities is \$500,000 or greater, PSE defers and amortizes the

1 costs incurred over the period until the next scheduled equivalent major
2 maintenance event for that facility. The deferred amount will not be treated as a
3 regulatory asset. If a major maintenance event occurs during the test year but does
4 not meet the \$500,000 threshold, PSE includes the cost of the major maintenance
5 in test year production O&M expense as incurred.

6 PSE has included amortization associated with events that occurred prior to, and
7 during, the test year in the rate year to the extent that the associated amortization
8 occurs within the rate year. PSE excludes from the rate year amortization that
9 ends prior to the rate year. Finally, PSE includes amortization associated with
10 major maintenance events that occur after the test year but that are known and
11 measurable at the time of the evidentiary hearing in rate year production O&M
12 expense.

13 PSE does not anticipate any additional events that are likely to occur by the
14 evidentiary hearing in this proceeding that would qualify to be pro-formed in this
15 proceeding.

16 **Q. What is the cost for major maintenance associated with PSE's owned and**
17 **jointly-owned simple- and combined-cycle combustion turbine facilities**
18 **included in this proceeding?**

19 A. PSE's rate year major maintenance expense is \$5.0 million as compared to
20 (i) \$5.0 million in the 2019 general rate case and (ii) \$5.3 million in the test year.
21 Please see the Tenth Exhibit to the Prefiled Direct Testimony of Ronald J.
22 Roberts, Exh. RJR-11C, which compares amortization of major maintenance

1 associated with PSE's owned and jointly-owned simple- and combined-cycle
2 combustion turbine facilities included in this proceeding to the 2019 general rate
3 case.

4 **C. Production O&M Expense for Hydroelectric Projects**

5 **Q. How has PSE prepared its forecast of hydroelectric production O&M
6 expense for the rate year?**

7 A. PSE developed the rate year production O&M expense for hydroelectric projects
8 in a manner consistent with the development of O&M expenses in the
9 2019 general rate case. PSE utilizes test year production O&M expense and then
10 makes certain pro forma adjustments as previously allowed by the Commission.

11 **Q. What is PSE's forecast of hydroelectric production O&M expense for the
12 rate year?**

13 A. The forecast for rate year hydroelectric production O&M expense is
14 \$15.4 million, a decrease of approximately \$1.1 million relative to the
15 hydroelectric production O&M expense of \$16.5 million in the 2019 general rate
16 case.¹⁷

17 Please see the Eleventh Exhibit to the Prefiled Direct Testimony of Ronald J.
18 Roberts, Exh. RJR-12, which compares hydroelectric production O&M expense
19 in this proceeding to the 2019 general rate case.

¹⁷ See Roberts, Exh. RJR-12, at 1:6.

1 **Q. What is the nature of the adjustments that PSE made to test year**
2 **hydroelectric production O&M expense?**

3 A. PSE has increased test year hydroelectric production O&M expense by \$569,257
4 to reflect budgeted rate year FERC license costs associated with the Baker
5 Hydroelectric Project and the Snoqualmie Falls Hydroelectric Project.

6 **Q. Please describe the adjustment to reflect rate year FERC license costs**
7 **associated with the Baker Hydroelectric Project and the Snoqualmie Falls**
8 **Hydroelectric Project.**

9 A. The increase to test year O&M FERC license costs is a result of pro-formed costs
10 to reflect budgeted license O&M costs during the rate year. This is consistent with
11 treatment of license costs in each of the 2013 power cost only rate case,¹⁸ the
12 2014 power cost only rate case,¹⁹ the 2017 general rate case, and the 2019 general
13 rate case.

¹⁸ Docket UE-130617.

¹⁹ Docket UE-141141.

1 **D. Production O&M Expense for Wind Projects**

2 **Q. What is PSE's forecast of wind generation production O&M expense for the**
3 **rate year?**

4 A. The forecast for rate year wind production O&M expense is \$31.4 million, a
5 decrease of approximately \$1.3 million relative to wind production O&M expense
6 of \$32.7 million in the 2019 general rate case.²⁰

7 Please see the Twelfth Exhibit to the Prefiled Direct Testimony of Ronald J.
8 Roberts, Exh. RJR-13C, which compares wind production O&M expense in this
9 proceeding to the 2019 general rate case.

10 **Q. What is the nature of the adjustments PSE has made to test year wind**
11 **production O&M expense?**

12 A. PSE has adjusted test year wind production O&M expenses that total \$0.9 million
13 as described below:

14 (i) added \$0.5 million to test year wind production O&M
15 expense to reflect projected rate year contract maintenance
16 costs under the Vestas maintenance contracts for the
17 Hopkins Ridge and Wild Horse/Wild Horse Expansion
18 Wind Projects;²¹

19 (ii) added \$0.4 million to test year wind production O&M
20 expense to reflect projected rate year contract maintenance
21 costs under the Siemens maintenance contract for the
22 Lower Snake River Phase I Wind Project;²² and

²⁰ See Roberts, Exh. RJR-10, at 1:8-10.

²¹ See Roberts, Exh. RJR-11, at 1:19-20.

²² See *id* at 1:21.

1 (iii) removed \$0.09 million of test year wind production O&M
2 expense to reflect projected rate year royalty costs under
3 the royalty contracts for the Hopkins Ridge, Wild
4 Horse/Wild Horse Expansion, and Lower Snake River
5 Phase I Wind Projects based upon projected rate year wind
6 generation.²³

7 **Q. Please explain PSE's proposed adjustment to wind royalty expense.**

8 A. Wind turbine production royalties represent variable dollar per megawatt-hour
9 fees paid under contract to project stakeholders and land owners upon which the
10 wind turbines are sited. These fees are based on the actual generation of PSE's
11 wind turbines. Consistent with the treatment in the 2017 general rate case,²⁴ and
12 the 2019 general rate case, PSE has pro formed the royalty costs based upon the
13 wind generation included in the rate year projected power costs and the contracted
14 rates in the rate year. The rate year royalty expenses for PSE's wind facilities
15 have increased to \$7.5 million for the rate year, as compared to \$7.2 million in the
16 2019 general rate case.²⁵

17 **Q. Do the wind turbine production royalty payments reflect contract increases?**

18 A. Yes. In accordance with the terms of PSE's development and land lease
19 agreements with project stakeholders, the annual royalty rate paid per megawatt-
20 hour of energy production is subject to an annual adjustment for inflation.

²³ See Roberts, Exh. RJR-11, at 1:22-25.

²⁴ Dockets UE-170033 & UG-170034 (consolidated).

²⁵ See Roberts, Exh. RJR-14C, at 1:4.

1 **Q. What amount has PSE included for routine and corrective maintenance for**
2 **wind turbines?**

3 A. PSE's wind turbines at the Hopkins Ridge, Wild Horse, and the Wild Horse
4 Expansion Wind Projects are maintained by the manufacturer, Vestas, in
5 accordance with the terms of the current service agreements. For the Lower Snake
6 River Phase I Wind Project, Siemens has been contracted to provide all
7 maintenance services.

8 PSE has included \$26.7 million for routine and corrective maintenance for wind
9 turbines, which is approximately \$0.6 million more than the \$26.1 million
10 approved in the 2019 general rate case for routine and corrective maintenance for
11 wind turbines.²⁶

12 IV. CONCLUSION

13 **Q. Does this conclude your prefiled direct testimony?**

14 A. Yes, it does.

²⁶ See Roberts, Exh. RJR-13C, at 1:8.