

**EXHIBIT NO. ___(RJR-1CT)
DOCKET NO. UE-14____
2014 PSE PCORC
WITNESS: RONALD J. ROBERTS**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

Docket No. UE-14____

**PREFILED DIRECT TESTIMONY (CONFIDENTIAL) OF
RONALD J. ROBERTS
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**PUBLIC
VERSION**

MAY 23, 2014

PUGET SOUND ENERGY, INC.

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

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1 **PUGET SOUND ENERGY, INC.**

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

4 **I. INTRODUCTION**

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

7 A. My name is Ronald J. Roberts. My business address is 10885 N.E. Fourth Street
8 Bellevue, WA 98004. I am the Director of Thermal Resources for Puget Sound
9 Energy, Inc. ("PSE").

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 No. ___(RJR-2).

13 **Q. What are your duties as Director of Thermal Resources for PSE?**

14 A. I plan, organize, and direct PSE's gas and coal electric energy production,
15 including operations, maintenance and modernization of PSE's owned and
16 jointly-owned generating facilities. My duties also include managing PSE's
17 thermal purchased power agreements. Furthermore, I assist the resource
18 acquisition team in performing due diligence evaluations of potential thermal
19 resource acquisitions. I am responsible for overseeing the safe operation of PSE's
20 natural gas and coal generation plants and optimizing their operation in a manner
21 that will benefit our customers and develop our employees to their maximum

1 potential. I work to promote and support a culture of total safety in our
2 operations.

3 **Q. Please summarize your testimony.**

4 A. First, I provide an overview of the production operations and maintenance
5 (“O&M”) expense included in the 2014 power cost only rate case (“PCORC”).
6 Second, I discuss O&M expense for PSE’s jointly-owned thermal-coal resources.
7 Finally, I discuss both non-major maintenance and major maintenance O&M
8 expense included in the PCORC for PSE’s wholly owned and jointly-owned
9 combustion turbine facilities.

10 **Q. What other testimonies are addressing production O&M costs?**

11 A. Production O&M expense associated with PSE’s hydro and wind facilities will be
12 addressed in the Prefiled Direct Testimony of Mr. Paul K. Wetherbee, Exhibit
13 No. ___(PKW-1T).

14 **II. OVERVIEW OF RATE YEAR PRODUCTION**
15 **OPERATIONS AND MAINTENANCE**
16 **EXPENSE**

17 **A. Rate Year Production Operations and Maintenance Expense**

18 **Q How has PSE prepared its rate year production operations and maintenance**
19 **expense for the rate year?**

20 A. PSE developed the rate year production O&M expense in accordance with the
21 Final Order in Docket UE- 130617 (“2013 PCORC”). For most plants, PSE

1 utilizes test year O&M expense and makes certain pro forma adjustments as
2 previously allowed by the Commission.

3 **Q. Please identify the basis used for rate year production O&M when rate year**
4 **production O&M is not based upon test year expense.**

5 A. Rate year O&M expenses for PSE's jointly-owned facilities, Colstrip Units 1 and
6 2, Colstrip Units 3 and 4 and the Frederickson 1 Generating Station ("Freddy 1"),
7 are developed from budgets and business plans provided by the plant operator and
8 approved by the owners. For PSE's hydroelectric plants, rate year O&M expense
9 undertaken to comply with the FERC license requirements is based upon
10 scheduled rate year activity required under the terms of the FERC licenses. For
11 PSE's wind generating stations, rate year royalties, rents and contract
12 maintenance expense are pro formed to reflect rate year projected wind
13 generation. This is consistent with the methodology used to determine rate year
14 O&M expenses in the last several rate cases. Finally, major maintenance expense
15 at PSE's combustion generating facilities is based upon the historical test period,
16 updated to reflect projected rate year amortization of major maintenance events as
17 discussed below.

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

19 A. The rate year production O&M costs are forecast to be \$133.1 million,¹ a decrease
20 of \$2.6 million as compared to the 2013 PCORC production O&M costs of

¹ See Exhibit No. ___(KJB-4), page 5, line 11.

1 \$135.7 million.² Please see Exhibit No. ___(RJR-3) for a summary of the rate
2 year production O&M costs.

3 **B. Pro forma Adjustments to Operations and Maintenance Expense**

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

6 A. The test year for this proceeding is January 2013 through December 2013. PSE
7 has made certain adjustments to test year expenses in calculating the December
8 2014 through November 2015 (“rate year”) production O&M expense as follows:

- 9 (i) added \$7.2 million to test year production O&M to reflect
10 projected Colstrip O&M costs based upon forecasted O&M
11 costs provided by the plant operator, PPL Montana;
- 12 (ii) added \$1.6 million to rate year O&M to reflect rate year
13 amortization of contract major maintenance:
- 14 • added \$0.5 million to test year O&M to reflect rate
15 year amortization associated with a \$2.2 million
16 combustion inspection (\$0.7 million increase to
17 amortization expense) and a \$1.9 million steam
18 turbine major inspection (\$0.2 million increase to
19 amortization expense) at Goldendale to be
20 completed in May 2014; less test year amortization
21 removed from rate year associated with a 2011 hot
22 gas path inspection that will not extend into the rate
23 year (\$0.4 million reduction to amortization
24 expense). See major maintenance discussion below;
 - 25 • added \$0.6 million to test year O&M to reflect rate
26 year amortization associated with a \$3.2 million
27 steam turbine full-scale inspection performed at the

² The amounts reflected on lines 19 and 47 of Exhibit No. ___(KJB-8) differ from the amounts reflected here due to the reclassification of benefits and taxes, the application of the production and conversion factors, as well as the revenue requirement calculation on a unit cost basis.

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Mint Farm Generating Station in April 2014. See major maintenance discussion below;

- added \$0.3 million to test year amortization to reflect rate year amortization associated with the \$1.9 million Mint Farm Generating Station hot gas path inspection performed in May 2013. The rate year includes a full twelve month's amortization as compared to the seven month's amortization included in the test year;

- added \$0.2 million to test year O&M to reflect rate year amortization associated with a \$1.5 million hot gas path inspection to be performed on Frederickson Unit #2 in May 2014. See major maintenance discussion below;

- (iii) added \$1.3 million to test year wind production O&M expense to reflect projected rate year contract maintenance costs under the Vestas and Siemens maintenance contracts as well as rent and royalty payments for the Hopkins Ridge, Wild Horse/Wild Horse Expansion and Lower Snake River Phase I ("LSR Phase 1") wind projects based upon forecasted rate year wind generation. Rate year costs for PSE's wind facilities are discussed in the Prefiled Direct Testimony of Mr. Paul K. Wetherbee, Exhibit No. ___(PKW-1T);

- (iv) added \$0.1 million to rate year O&M to remove a credit from test year associated with major maintenance performed at the Encogen Generating Station in 2012;

- (v) reduced LSR Phase 1 test year O&M \$0.7 million to remove the Siemens 2012 performance bonus paid in the 2013 test year. The 2012 performance bonus was not accrued in 2012, thus the 2013 test year O&M expense included both the 2012 performance bonus paid in 2013 and accruals for the 2013 performance bonus to be paid in 2014;

- (vi) reduced test year O&M \$0.4 million to reflect lower scheduled rate year FERC relicensing costs associated with the Baker River and Snoqualmie Falls hydroelectric projects. Baker River and Snoqualmie Falls licensing costs

1 are discussed in the Prefiled Direct Testimony of Mr. Paul
2 K. Wetherbee, Exhibit No. ___(PKW-1T);

- 3 (vii) reduced test year production O&M expense \$0.2 million to
4 reflect projected Freddy 1 O&M costs based upon
5 forecasted O&M costs provided by the plant operator,
6 Atlantic Power Corporation. This reduction reflects the
7 successful negotiation by PSE to remove the Budget
8 Financial Performance Base and Stretch Payment incentive
9 fees effective January 1, 2014.

10 **III. THERMAL-COAL RESOURCE OPERATIONS AND**
11 **MAINTENANCE COSTS**

12 **Q. What are the sources of operation and maintenance costs for the Colstrip**
13 **Generating Station?**

14 A. The O&M costs for both of PSE's jointly-owned facilities, the Colstrip units and
15 Freddy 1, are developed from budgets and business plans provided by the plant
16 operator and approved by owners. Colstrip fuel costs are developed from annual
17 operating plans prepared by the coal supplier, Western Energy Company. The
18 WUTC has approved of this practice for determining rate year power costs in the
19 past several general rate proceedings.

20 **Q. Are Colstrip unit major overhauls and other outages occurring in the rate**
21 **year included in the preparation of the power costs?**

22 A. Yes, Colstrip overhauls and other outages are inputs to the AURORA model and
23 are used in determining rate year power costs, which are discussed in the Prefiled
24 Direct Testimony of Mr. David E. Mills, Exhibit No. ___(DEM-1CT).
25 Additionally, the average of the most recent four years of other maintenance
26 outages and deratings, forced outages and forced deratings of the units, called the

1 planning forced outage rate (“FOR”) are calculated and the available energy
2 production is reduced by this average. In this case, the four-year average covers
3 the time period 2010 through 2013. The FOR for Colstrip Units 1 and 2 of
4 [REDACTED] percent is calculated separately from the FOR for Colstrip Units 3 and 4 of
5 [REDACTED] percent because of the differences in the unit design and equipment.

6 **Q. What are the major overhauls that are included for the rate year?**

7 A. There is one outage and one unit derating planned during the rate year. Unit 2
8 will be offline for [REDACTED] for its planned overhaul from [REDACTED]
9 [REDACTED]. Unit 1 will be reduced to [REDACTED]
10 [REDACTED]
11 [REDACTED] for scrubber cleaning and repair.

12 **Q. What other assumptions are input to the AURORA model for the Colstrip**
13 **units?**

14 A. The AURORA model uses several Colstrip-specific data inputs. In addition to the
15 FOR input, PSE’s AURORA model also includes (1) the four-year average heat
16 rate for Units 1 and 2 and Units 3 and 4; (2) the average transmission line losses
17 on the Colstrip transmission system of [REDACTED] percent; and (3) the forecasted costs
18 of coal and the average rate year coal heat content from the coal supplier’s annual
19 operating plans.

1 **Q. What is the nature of the \$7.3 million adjustment to test year maintenance**
2 **for Colstrip Units 1 and 2 included in Exhibit No. ___(RJR-3)?**

3 A. The primary driver of this adjustment is a planned major overhaul of Colstrip Unit
4 2 in the amount of \$6.5 million as discussed above. There were no major outages
5 performed on Colstrip Units 1 and 2 during the test year. Each Colstrip unit is
6 overhauled on a three-year cycle and due to this timing there was no overhaul
7 performed during the 2013 test year.

8 **Q. Does PSE anticipate making any updates to the rate year O&M expense for**
9 **its jointly-owned facilities?**

10 A. PSE proposes to update production O&M expense for its jointly-owned facilities
11 if information changes during this proceeding.

12 **IV. OPERATIONS AND MAINTENANCE EXPENSE OF PSE'S**
13 **SIMPLE CYCLE AND COMBINED CYCLE COMBUSTION**
14 **TURBINE GENERATION FACILITIES**

15 **A. Non-Major Maintenance and Operating Expense of PSE's Simple**
16 **Cycle and Combined Cycle Combustion Turbine Facilities**

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

19 A. As previously discussed, PSE generally uses a test year level of production O&M
20 expense to represent a normal level of operating expenses for PSE's owned and
21 operated gas fired turbines. For PSE's jointly-owned gas fired turbine, Freddy 1,
22 the plant operators budget, except for major maintenance costs, represents the rate
23 year level of production O&M expense. To summarize:

1 (i) The Goldendale, Mint Farm, Encogen, Sumas, Ferndale,
2 Frederickson, Fredonia, Whitehorn and Crystal Mountain
3 facilities rate year production O&M expense is based upon
4 actual test year production O&M expense;

5 (ii) The jointly-owned Freddy 1 rate year production O&M
6 expense is based upon projected rate year operating costs
7 provided by the plant operator, Atlantic Power Corporation
8 (formerly Capital Power Corporation).

9 This methodology is consistent with the manner in which production O&M
10 expense was determined in PSE's 2009 and 2011 general rate cases as well as the
11 2013 PCORC.

12 **B. Major Maintenance of PSE'S Simple Cycle and Combined Cycle**
13 **Combustion Turbine Facilities**

14 **Q. What is the basis for major maintenance events and expenditures included in**
15 **this filing?**

16 A. Major maintenance included in this proceeding reflects the rate making treatment
17 as established in the 2013 PCORC³. In general, if the cost of a major
18 maintenance event performed at any of PSE's gas fired generating facilities is
19 \$500,000 or greater, the costs incurred shall be deferred and amortized over the
20 period until the next scheduled equivalent major maintenance event for that
21 facility. The deferred amount will not be treated as a regulatory asset. If a major
22 maintenance event occurs during the test year but does not meet the \$500,000
23 threshold, the cost of the major maintenance will be included in test year
24 production O&M expense as incurred. Amortization associated with events that

³ Order 06 7:20; Settlement Stipulation 6:17-8:19.

1 have occurred prior to and during the test year have been included in the rate year
2 to the extent that the associated amortization extends into the rate year.

3 Amortization that ends prior to the rate year were excluded from the rate year.

4 Finally, amortization associated with major maintenance events that occur after
5 the test year but that are known and measurable at the time of the evidentiary
6 hearing are included in rate year production O&M expense.

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

10 A. PSE's rate year major maintenance expense is \$2.4 million as compared to \$5.8
11 million in the 2013 PCORC. Major maintenance amortization included in this
12 filing is associated with the hot gas path inspection performed at the Mint Farm
13 Generating Station in May 2013 (\$0.6 million projected rate year amortization); a
14 \$3.2 million steam turbine full-scale inspection to be performed at the Mint Farm
15 Generating Station in April 2014 (\$0.6 million projected rate year amortization); a
16 \$2.2 million combustion inspection and a \$1.9 million steam turbine major
17 inspection to be performed at the Goldendale Generating Station in May 2014
18 (\$0.7 million and \$0.2 million projected rate year amortization, respectively); and
19 a \$1.5 million hot gas path inspection of Unit 2 at the Frederickson Generating
20 Station to be performed in May 2014 (\$0.2 million projected rate year
21 amortization). Though the costs of the 2014 events are estimated amounts, once
22 the aforementioned events have been completed and the costs become known, the

1 associated amortization will be recalculated based upon known and measurable
2 costs and incorporated into this filing.

3 **C. Status of Major Maintenance Contracts**

4 **Q. What is the status of major maintenance contracts for PSE's thermal**
5 **generating facilities?**

6 A. PSE currently has long term major maintenance contracts with General Electric
7 International ("GEI") to provide combustion turbine major maintenance services
8 at the Goldendale Generating Station and Mint Farm Generating Station. These
9 contracts are expected to expire in 2016 and 2026, respectively. There is also a
10 long term maintenance contract with GEI at Freddy 1 that will terminate in 2021.

11 **V. CONCLUSION**

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

13 A. Yes.