EXHIBIT NO. ___(RG-15T)
DOCKET NO. UE-121373
WITNESS: ROGER GARRATT

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Petition of **PUGET SOUND ENERGY, INC.** **for Approval of a Power Purchase Agreement for Acquisition of Coal Transition Power, as Defined in RCW 80.80.010, and the Recovery of Related Acquisition Costs**	**Docket No. UE-121373**

PREFILED SUPPLEMENTAL TESTIMONY (NONCONFIDENTIAL) OF
ROGER GARRATT
ON BEHALF OF PUGET SOUND ENERGY, INC.

REDACTED VERSION

NOVEMBER 19, 2012

PUGET SOUND ENERGY, INC.

PREFILED SUPPLEMENTAL TESTIMONY (NONCONFIDENTIAL)
OF
ROGER GARRATT

Q. Are you the same Roger Garratt who provided in this proceeding prefiled direct testimony, Exhibit No. ___(RG-1HCT), and supporting exhibits on August 20, 2012, and prefiled supplemental testimony, Exhibit No. ___(RG-10HCT), and supporting exhibits on November 16, 2012, each on behalf of Puget Sound Energy, Inc. ("PSE")?

A. Yes.

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

A. This supplemental testimony responds to the Testimony of Mr. David C. Gomez, Exhibit No. ___(DCG-1HCT), witness for the Staff of the Washington Utilities and Transportation Commission ("Commission Staff") regarding an alleged "error" in PSE's methodology for calculating equity return associated with the Coal Transition PPA. The "error" cited by Commission Staff is not a mathematical error and is instead a difference in methodology. PSE stands by its levelized cost calculation.

Q. Please summarize the differences in methodology.

A. On November 2, 2012, Commission Staff submitted testimony that asserted that PSE's calculation contained an "error" because it used 31 days for every month:

> [PSE]'s worksheet used 31 months for every month, which overstated the MWh delivered under the [Coal Transition] PPA and consequently resulted in an erroneous equity adder of $2.92 per MWh. A $2.92 equity adder results in a total equity payment of $98.1 million. The equity return based on a corrected [PSE] equity adder of $2.57 is $86.2 million ($11.8 million difference).[1]

On the evening of November 15, 2012, Commission Staff submitted revised testimony that alleged that PSE's calculation contained an "error" in cell B17 and not because the worksheet used 31 days for every month:

> The nominal return calculated by [PSE] in Exhibit No. ___(RG-9), cell B15 is $86,224,923/1,000,000. Staff worked its way backwards in the worksheet in Exhibit No. ___(RG-9) and identified [PSE]'s error in cell B17. The correct formula should be expressed as: = - PMT(0, 133, B15) instead of = B16/XNPV(B9,I27:I159,B27:B159).[2]

In short, Commission Staff asserts that PSE did not levelize the equity return correctly.

Q. Please define levelized cost.

A. A levelized cost is an approach that results in equal (or "levelized") payments over the applicable time period (e.g., the term of a power purchase agreement or the depreciable life of a rate-based asset) and which has an equivalent present

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[1] Gomez, Exh. No. ___(DCG-1HCT) at page 11, footnote 23 (filed on November 2, 2012).

value to the present value of the stream of payments based on the traditional, front-end loaded regulatory methodology resulting from earning a fixed return upon a declining asset value. In other words, a levelized approach converts the present value to an annuity.

Q. What is the advantage of levelizing the equity component of the Coal Transition PPA?

A. The advantage of levelizing the equity component of the Coal Transition PPA is to protect customers in the event the agreement is terminated early for any reason. This approach was discussed with stakeholders during the legislative process.

Q. How did PSE calculate the levelized cost of the equity component of the Coal Transition PPA?

A. PSE has calculated the levelized cost of the equity component of the Coal Transition PPA using its pre-tax return on equity allowed in PSE's last general rate case as its interest cost. This calculation properly accounts for the time value of money and calculates levelized costs in accordance with the same methodology that PSE has used to levelize costs in all of PSE's requests for proposals for the past decade.

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[2] Gomez, Exh. No. ___(DCG-1HCT) at page 11, footnote 23 (filed on November 15, 2012).

Q. How did Commission Staff calculate the levelized cost of the equity component of the Coal Transition PPA?

A. Commission Staff purports to calculate the levelized cost of the equity component of the Coal Transition PPA through the use of the Microsoft Excel payment function that uses the following variables:

(i) interest (Commission Staff uses a zero interest rate);
(ii) the time period for the payments (133 months), and
(iii) the principal amount ($86,220,000).

In using an interest rate of zero, Commission Staff has, in effect, calculated a simple average by dividing the principal amount ($86,220,000) by the time period for payments (133 months):

$$\frac{\$86{,}220{,}000}{133} = \$648{,}270.68$$

Compare Exhibit No. ___(RG-16) at page 1 (Table 1, Column B, Row 17) (Commission Staff's purported "levelized cost" of the equity component of the Coal Transition PPA), with Exhibit No. ___(RG-16) at page 1 (Table 1, Column B, Row 18) (the quotient of the principal amount ($86,220,000) and the time period for payments (133 months)).

In short, Commission Staff ignores the cost of deferring payments by calculating simple average cost rather than the levelized cost of the net present value.

Q. What does PSE mean by the phrase "the cost of deferring payments"?

A. As shown on Exhibit No. ___(RG-9), the total net present value of the equivalent plant is $66.76 million. The equity returns on this equivalent plant reflect a declining rate base of such plant. PSE's levelized cost calculation, however, uses a steady "rate base" set equal to the average volume of the power to be delivered under the Coal Transition PPA and that does not decline over time. In other words, PSE's levelized cost calculation results in (i) PSE receiving less equity return in the first few years of the term of the Coal Transition PPA than it would if it were to purchase an equivalent plant and (ii) PSE receiving more equity return in the last few years of the term of the Coal Transition PPA than it would if it were to purchase an equivalent plant. Overall, however, the total net present value of the equity returns associated with an equivalent plant is $66.76 million.

Q. Can PSE provide an example of "the cost of deferring payments"?

A. Yes. Please see Exhibit No. ___(RG-16) at pages 3-6 (Table 3, Column G) for a calculation of the equity returns associated with an equivalent plant with a declining rate base. If PSE were to purchase an equivalent Plant, PSE would receive an equity return of approximately $1.29 million in the first month. Exhibit No. ___(RG-16) at page 3 (Table 3, Column G, Row 1). To make these payment streams equivalent, Commission Staff would need to include an interest component in its calculation. If Commission Staff were to use PSE's currently authorized rate of return of 7.8 percent in the Microsoft Excel payment function, the resulting answer would still be erroneous because that payment function does not calculate present value. Instead, that payment function simply calculates a return of principle and interest on a nominal basis.

Q. Did PSE create an exhibit that demonstrates that PSE's calculation reflects the cost of deferring payments?

A. Yes. Please see Exhibit No. ___(RG-16), at pages 3-6 (Table 3). In Column K (Monthly Return calculation), PSE multiplies the Levelized Return PSE Method $/MWh (Column B, Row 23) by the monthly contract generation (Column I) and divides the result by 1,000,000 to calculate the equity return expressed in millions of dollars by month. Similarly, PSE presents the same calculation using the Commission Staff method in Column J.

Please see Exhibit No. ___(RG-16), at page 1 (Table 1) and at page 2 (Table 2). Columns B and Rows 26 of each of Tables 1 and 2 calculate the net present value cost of the monthly equity returns calculated based on the respective levelized cost calculation methodologies. PSE's method results in a present value cost approximately equal to the original present value cost in Column B, line 16 of each of Tables 1 and 2. Commission Staff methodology, however, results in a present value (Column B, line 26) that is 14% lower than the original present value cost in Column B, line 16 of each of Tables 1 and 2.

Q. Does PSE find any other errors with respect to Commission Staff's calculation of the equity return for the Coal Transition PPA?

A. As stated in the Prefiled Rebuttal Testimony of Mr. Roger Garratt, Exhibit No. ___(RG-10HCT), PSE does not agree with Commission Staff that the cost of an equivalent plant should be based on the costs of the Ferndale Cogeneration Station.

Commission Staff's methodology for calculating the equity return on the Coal Transition PPA also fails to take into consideration the "equivalent capacity" of the agreement. The average capacity and energy of the Coal Transition PPA is 346 aMW during its term. *See* Exhibit No. ___(RG-9). Commission Staff incorrectly asserts that the average energy of the Coal Transition PPA is 327 MW by including an arbitrary six percent forced outage rate to reflect short term power interruptions. Please see Exhibit No. ___(RG-13) for Commission Staff's Response to PSE Data Request No. 016. The use of a forced outage rate is not applicable because the Coal Transition PPA is not a unit-contingent contract.

Instead of using the 346 MW average capacity, Commission Staff inappropriately focuses on other plants with differing average capacities—of [redacted] MW, [redacted] MW and [redacted] MW of capacity. In contrast, PSE applied the $/KW cost to the equivalent capacity (346 MW) to calculate the estimated cost to build the equivalent plant. PSE then calculated the levelized annual equity return in dollars and spread this out over each hour of the year (8,760 hours) to calculate a levelized $/MWh rate. PSE believes this is an appropriate way to spread the cost over the year for a fixed price/firm delivery contract.

Q. Is PSE's calculation of the levelized equity return expressed as $2.92 per MWh correct?

A. Yes. PSE believes that this is the most appropriate equity return calculation for a fixed price / firm delivery Coal Transition PPA with resupply rights.

Q. Does that conclude your supplemental testimony?

A. Yes.

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