EXHIBIT NO. ___(DAD-1T)
DOCKETS UE-17____/UG-17____
2017 PSE GENERAL RATE CASE
WITNESS: DANIEL A. DOYLE

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-17____** **Docket UG-17____**

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF

DANIEL A. DOYLE

ON BEHALF OF PUGET SOUND ENERGY

JANUARY 13, 2017

PUGET SOUND ENERGY

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PUGET SOUND ENERGY

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF DANIEL A. DOYLE

I. INTRODUCTION

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

A. My name is Daniel A. Doyle. My business address is 10885 NE Fourth Street, P.O. Box 97034, Bellevue, WA 98009-9734. I am Senior Vice President and Chief Financial Officer of Puget Sound Energy ("PSE").

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

A. Yes. It is Exhibit No. ___(DAD-2). This exhibit also describes my duties as PSE's Chief Financial Officer.

Q. What has prompted PSE to file a general rate case at this time?

A. In Order 07 in Docket No. UE-121697, footnote 9, the Commission required PSE to file a general rate case ("GRC") no sooner than April 1, 2015, and no later than April 1, 2016. In that order, the Commission stated as follows:

> The mechanism will remain in place, at a minimum, until the effective date of new rates set in PSE's next general rate case. PSE will file a general rate case no sooner than April 1, 2015, and no later than April 1, 2016, unless otherwise agreed to by the parties to PSE's last general rate case.[1]

[1] *WUTC v. Puget Sound Energy, Inc.*, Docket UE-121697, Order 07 at ¶ 8 (2013).

After a hearing on a motion to amend Order 07, however, the Commission, in its Notice of Action dated March 17, 2016, relieved PSE of its obligation under Order 07 to file a general rate case by April 1, 2016, and instead, required the general rate case to be filed no later than January 17, 2017.

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

A. My prefiled direct testimony discusses the results of decoupling, the earnings sharing mechanism, the expedited rate filing, and annual K-factor increases since they were instituted in July of 2013. It also addresses cost of equity, equity in the capital structure, certain cost management and efficiency efforts at PSE, and certain aspects of PSE's decommissioning and remediation proposals as they pertain to the shutdown of Colstrip Units 1 & 2.

II. SUMMARY OF THE RATE PLAN

Q. Please summarize the series of orders issued by the Commission in 2013 that created PSE's rate plan.

A. In 2013, the Commission approved a series of orders that provided and approved the following new and innovative mechanisms for PSE that constituted the rate plan: (i) a decoupling mechanism; (ii) a net rate increase resulting from an expedited rate filing; (iii) annual K-factor increases of 3% and 2.2% for electric and gas delivery, respectively; and (iv) an earnings sharing mechanism.

Q. How have these mechanisms operated in practice, both individually and collectively?

A. The series of orders issued by the Commission that constitute PSE's rate plan resulted in each of the following financial results over the past years:

(i) an approximate $30 million net electric and gas rate increase from the expedited rate filing in July 2013;

(ii) annual K-factor increases to delivery revenues of 3.0% for electric and 2.2% for gas in July 2013, January 2014, January 2015, January 2016, and January 2017; and

(iii) the recognition of net electric decoupling revenue of approximately $59 million and net gas decoupling revenue of approximately $116 million from July 1, 2013, through September 30, 2016.

Coupled with PSE's efforts to pursue cost savings and efficiencies, these financial results have allowed PSE to begin to consistently earn rates of return and returns on equity slightly below its authorized rate of return and return on equity on an adjusted actual basis across all time periods. These results indicate that the effects of regulatory lag and attrition were mitigated under the rate plan.

Generally speaking, the same is true of normalized results in Commission Basis Reports filed for periods subsequent to the implementation of the rate plan, although normalized returns tend to trend higher than actual adjusted returns, as discussed later as it relates to excess earnings sharing calculations.

Q. Has PSE prepared a comparison of PSE's adjusted actual and normalized rates of return and returns on equity?

A. Yes. Please see Table 1 below for a comparison of PSE's adjusted actual and normalized rates of return and returns on equity (as reflected in PSE's filed Commission Basis Reports) to the authorized rates of return and returns on equity in place during the respective calendar year (or twelve months ended June 30, 2016, for the most recent mid-year Commission Basis Report filing) for electric operations. PSE will update this with 2016 calendar year results on rebuttal.

Table 1. Comparison of PSE's Adjusted Actual and Normalized Rates of Return and Returns on Equity for Electric Operations

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
		Rate of Return			Return on Equity		
	Year	Adjusted Actual (2)	Normalized (3)	Authorized	Adjusted Actual (2)	Normalized (3)	Authorized
1	2016 (1)	7.76%	7.99%	7.77%	9.66%	10.13%	9.80%
2	2015	7.52%	8.05%	7.77%	9.13%	10.25%	9.80%
3	2014	7.53%	7.74%	7.77%	9.01%	9.44%	9.80%
4	2013	7.50%	7.56%	7.77%	8.95%	9.06%	9.80%
5	2012	7.46%	7.14%	7.80%	8.78%	8.11%	9.80%
6	2011	7.75%	6.62%	8.10%	9.31%	6.98%	10.10%

Notes:
(1) 12 months ended June 30, 2016

(2) Adjusted actual returns: Exclude ASC 815 (formerly FAS 133) gains or losses and include tax benefits of interest
(3) Normalized returns: 2011 - 2016 (June) CBR filed with WUTC

Table 2 below provides a comparison of PSE's adjusted actual and normalized rates of return and returns on equity (as reflected in PSE's filed Commission Basis Reports) to the authorized rates of return and returns on equity in place during the respective calendar year (or twelve months ended June 30, 2016 for the

most recent mid-year Commission Basis Report filing) for gas operations. This table will be updated with 2016 calendar year results on rebuttal.

Table 2. Comparison of PSE's Adjusted Actual and Normalized Rates of Return and Returns on Equity for Gas Operations

(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Rate of Return			Return on Equity		
Year	Adjusted Actual (2)	Normalized (3)	Authorized	Adjusted Actual (2)	Normalized (3)	Authorized
2016 (1)	8.16%	8.44%	7.77%	10.49%	11.06%	9.80%
2015	7.62%	8.17%	7.77%	9.34%	10.49%	9.80%
2014	7.80%	7.87%	7.77%	9.56%	9.71%	9.80%
2013	7.22%	7.34%	7.77%	8.37%	8.62%	9.80%
2012	7.99%	7.46%	7.80%	9.87%	8.78%	9.80%
2011	9.19%	6.78%	8.10%	12.25%	7.30%	10.10%

Notes:
(1) 12 months ended June 30, 2016
(2) Adjusted actual returns: Exclude ASC 815 (formerly FAS 133) gains or losses and include tax benefits of interest
(3) Normalized returns: 2011 - 2016 (June) CBR filed with WUTC

Q. Did PSE's rate plan achieve other policy objectives?

A. Yes. In addition to the mitigation of the continuing effects of attrition and regulatory lag, the rate plan achieved other important policy objectives. First, the combined effects of the expedited rate filing and the K-factor annual increases allowed PSE to avoid filing at least one and possibly two general rate cases during the rate plan period. From PSE's perspective, this achieved the Commission's objective of reducing the burden of frequent general rate cases on its regulatory docket along with the time, energy, and cost that accrues to all of the parties that participate in general rate case proceedings.

Second, the combination of the expedited rate filing increase and the annual K-factor increases from the rate plan imparted a more predictable and gradual increase to PSE's base rates as compared to increases resulting from general rate

cases, which tend to be larger and less predictable from a customer perspective. In fact, had PSE filed this general rate case request without the benefit of the aforementioned rate plan, the requested increase would be approximately $155 million higher, as illustrated in Table 3 below.

Table 3. Projected 2017 General Rate Case Request in the Absence of the Effects of the Rate Plan Benefits

	Table 3	(A)	(B)	(C)
	Summary ($ millions)	**2013 ERF Impact**	**2014-2017 K-factor Impact**	**Total Impact**
1	**Electric**	$30	$89	$119
2	**Gas**	($2)	$38	$36
3	**Total**	$28	$127	**$155**

Q. Please describe the benefits achieved through implementation of the expedited rate filing mechanism.

A. The expedited rate filing contributed to the avoidance of costly and time-consuming general rate cases. When coupled with the earnings sharing mechanism, PSE's customers were protected from excessive over earnings. That said, the expedited rate filing could benefit from additional clarity from the Commission. In particular, clarity with respect to what, if any, cost of capital updates are required in expedited rate filings and under what circumstances it would be helpful.

Q. Please describe the benefits achieved through implementation of the decoupling mechanism.

A. From PSE's perspective, the decoupling mechanism met the Commission's policy objectives of (i) mitigating the through-put incentive and (ii) normalizing the

impacts of weather and other changes in customer usage patterns. PSE is satisfied that the decoupling mechanism has operated well in practice by mitigating the through-put incentive. Furthermore, the decoupling mechanism properly captures under-recoveries of fixed revenues per customer for future collection and over-recoveries of fixed revenues per customer for future refund. PSE further believes that the "soft cap" on decoupling revenue recoveries is an appropriate policy feature to protect customers from excessive rate increases while leaving refunds unbounded. That said, PSE has identified minor adjustments to the soft cap percentages that may be appropriate for certain rate classes. Please see the Prefiled Direct Testimony of Mr. Jon A. Piliaris, Exhibit No. ___(JAP-1T), for a discussion of the proposed adjustments on the soft cap percentages for certain rate classes.

III. RESULTS OF DECOUPLING

Q. Please discuss the results of PSE's decoupling mechanism.

A. The Second Exhibit to the Prefiled Direct Testimony of Daniel A. Doyle, Exhibit No. ___(DAD-3), summarizes the major components and results of the decoupling mechanism and rate plan activity by year for the period July 1, 2013, through September 30, 2016, for both electric and gas operations. Exhibit No. ___(DAD-3) analyzes decoupling and rate plan activity in three major categories:

(i) decoupling revenue accrued for electric and gas operations (column B of Exhibit No. ___(DAD-3).

(ii) Net Decoupling Activity (column E of Exhibit No. ___(DAD-3). For internal accounting and reporting purposes, PSE combines decoupling revenue accrued (column B of Exhibit No. ___(DAD-3), any Generally Accepted Accounting Principles ("GAAP") 24-month revenue recognition reserves (column C of Exhibit No. ___(DAD-3), and interest on decoupling deferrals (column D of Exhibit No. ___(DAD-3) in a single category, Net Decoupling Activity, to capture all of the major activities related to decoupling.

(iii) Net decoupling and rate plan activity (column G of Exhibit No. ___(DAD-3) which is comprised of Net Decoupling Activity (column E of Exhibit No. ___(DAD-3) minus any Sharing of Excess Rate of Return (column F of Exhibit No. ___(DAD-3). Again for internal accounting and reporting purposes, PSE combines net decoupling activity and sharing of excess rate of return in a single category to capture the total financial impacts of decoupling and rate plan activity.

Q. Please discuss the results of PSE's decoupling mechanism related to electric operations.

A. For electric operations, PSE has recorded:

(i) $58.6 million of net decoupling revenue from July 1, 2013, to September 30, 2016. (*See* Exhibit No. ___(DAD-3), at column B, line 5.) This equates to approximately .85% of total electric revenue recorded for that period. (*See* Exhibit No. ___(DAD-3), at column I, line 5.)

(ii) $60.6 million of net decoupling activity from July 1, 2013, to September 30, 2016. (*See* Exhibit No. ___(DAD-3), at column E, line 5.) This equates to approximately .88% of total electric revenue recorded during that period. (*See* Exhibit No. ___(DAD-3), at column J, line 5.)

(iii) $44 million of net decoupling and rate plan activity from July 1, 2013 to September 30, 2016. (*See* Exhibit No. ___(DAD-3), at column G, line 5.) This equates to approximately .64% of total electric revenue recorded during that period. (*See* Exhibit No. ___(DAD-3), at column K, line 5.)

It is noteworthy that the electric decoupling mechanism operated properly in both directions based on whether billed revenues exceeded or fell short of fixed revenues per customer during any given month.

Additionally, PSE recorded the following for electric operations for the period July 1, 2013, to September 30, 2016:

(i) an immaterial reserve for decoupling revenues that will not be collected within 24 months in accordance with Generally Accepted Accounting Principles ("GAAP") (*see* Exhibit ___(DAD-3) at column C, line 5);

(ii) total accrued interest of $2.4 million (*see* Exhibit ___(DAD-3) at column D, line 5); and

(iii) excess earnings of $16.5 million through the earnings sharing mechanism (*see* Exhibit ___(DAD-3) at column F, line 5).

Each of these results are discussed in further detail later in this testimony.

Finally, during the period July 1, 2013, to September 30, 2016, PSE collected $8.6 million of net decoupling revenue in cash. (*See* Exhibit No. ___(DAD-3) at column L, line 5.) The total net cash collections are not directly comparable to the total net decoupling revenue accrued during the 39-month period analyzed on Exhibit No. ___(DAD-3), because decoupling revenues are accrued during the 12-month period ending December 31, but net cash is collected or refunded during the 12-month period beginning May 1 of the following year. Accordingly, cash collections or refunds lag the initial recording of decoupling revenue.

Q. Please discuss the results of PSE's decoupling mechanism related to gas operations.

A. For gas operations, PSE has recorded:

(i) $115.7 million of net decoupling revenue from July 1, 2013, to September 30, 2016. (See Exhibit No. ___(DAD-3), at column B, line 10.) This equates to approximately 3.82% of total gas revenue recorded for that period. (See Exhibit No. ___(DAD-3), at column I, line 10.)

(ii) $106.8 million of net decoupling activity from July 1, 2013, to September 30, 2016. (*See* Exhibit No. ___(DAD-3), at column E, line 10.) This equates to approximately 3.53% of total gas revenue recorded during that period. (*See* Exhibit No. ___(DAD-3), at column J, line 10.)

(iii) $97.6 million of net decoupling and rate plan activity from July 1, 2013 to September 30, 2016. (*See* Exhibit No. ___(DAD-3), at column G, line 10.) This equates to approximately 3.23% of total gas revenue recorded during that period. (*See* Exhibit No. ___(DAD-3), at column K, line 10.)

As with the electric decoupling mechanism, it is noteworthy that the gas decoupling mechanism operated properly in both directions based on whether billed revenues either exceeded or fell short of fixed revenue per customer during any given month.

Additionally, PSE recorded the following for gas operations for the period July 1, 2013, to September 30, 2016:

(i) a reserve for decoupling revenues of $13.3 million that will not be collected within 24 months in accordance with Generally Accepted Accounting Principles ("GAAP") (*see* Exhibit ___(DAD-3) at column C, line 10);

(ii) total accrued interest of $4.4 million (*see* Exhibit ___(DAD-3) at column D, line 10); and

(iii) excess earnings of $9.2 million through the earnings sharing mechanism (*see* Exhibit ___(DAD-3) at column F, line 10).

Each of these results are discussed in further detail later in this testimony.

Finally, during the period July 1, 2013, to September 30, 2016, PSE collected $16 million of net decoupling revenue in cash. (*See* Exhibit No. ___(DAD-3) at column L, line 10.) The total net cash collections are not directly comparable to the total net decoupling revenue accrued during the 39-month period analyzed on Exhibit No. ___(DAD-3), because decoupling revenues are accrued during the 12-month period ending December 31, but net cash is collected or refunded during the 12-month period beginning May 1 of the following year. Accordingly, cash collections or refunds lag the initial recording of decoupling revenue.

Q. Please explain column C on Exhibit No. ___(DAD-3), entitled "24 month GAAP Revenue Recognition Reserve."

A. With respect to revenue recovery mechanisms such as decoupling, ASC 980-605-25-4 **(**Regulated Operations Revenue Recognition) requires that revenues accrued in connection with such mechanisms must be collected in cash within 24 months from the close of PSE's fiscal year. To the extent that the cash recovery is expected to take longer than 24 months, the portion of revenue that will be collected beyond 24 months cannot be recognized as "earned" revenue during PSE's current fiscal year. The application of this began with PSE's gas decoupling mechanism for the twelve months ended December 31, 2015, and may have an impact for both electric and gas for the twelve months ended December 31, 2016, depending on fourth quarter 2016 decoupling results.

In 2015, PSE determined that $10 million of accrued gas decoupling revenues (Exhibit No. ___(DAD-3) at column C, line 8) would not be collected in cash within the subsequent 24 months, primarily due to the operation of the soft cap of 3% built into the gas decoupling mechanism. This soft cap prevents customer rates from rising more than 3%, when customer rates are adjusted to collect accrued decoupling revenues over the 12-month period beginning May 1 of any given year.

Q. What will happen to the combined $13.7 million reduction to electric and gas decoupling revenue, as of September 30, 2016, in the future?

A. In accordance with ASC 980-605-25-4, PSE can only recognize the $13.7 million reduction to electric and gas decoupling revenue (i.e., the sum of Exhibit No. ___(DAD-3) at column C, lines 5 and 10) as "earned" revenue in the future when collection becomes probable within 24 months of PSE's fiscal year end. In effect, PSE's earned revenue is reduced by $13.7 million, which is retained as a liability until collection becomes probable. Once recovery becomes probable, the reserve is reversed and the $13.7 million of revenue is re-established on PSE's books.

Q. Do you have any comments on Exhibit No. ___(DAD-3) with respect to decoupling mechanism interest accruals?

A. Yes. PSE uses the interest rates for natural gas and electricity published by the Federal Energy Regulatory Commission ("FERC") when calculating interest accruals for the decoupling mechanism. FERC calculates rates in accordance with

FERC regulations—specifically, Section 35.19a and Section 154.501(d), for electric and gas respectively. These rates are applied to PSE's end-of-month regulatory asset and regulatory liability balances and interest is accrued to Interest Revenue for regulatory assets and Interest Expense for regulatory liabilities. According to the FERC website, the average annual interest rate remained at 3.25% from 2010 to 2015 and increased to 3.43% in 2016.

Q. Do you have any observations regarding how the decoupling mechanism has operated in practice?

A. Yes. PSE is satisfied that the decoupling mechanism has operated well in practice. It properly captures under-recoveries of fixed revenues per customer for future collection as well as over-recoveries of fixed revenues per customer for future refund. Second, PSE believes that the soft cap is an appropriate component of the mechanism. PSE has identified minor adjustments to the soft cap percentages that may be appropriate for certain rate classes. Please see the Prefiled Direct Testimony of Mr. Jon A. Piliaris, Exhibit No. ___(JAP-1T).

Q. Does PSE recommend continuing the decoupling mechanism into the future?

A. Yes. From PSE's perspective, the decoupling mechanism has generally operated as intended and has achieved the Commission's objectives of (i) mitigating the through-put incentive and (ii) normalizing the impacts of weather and other impacts on customer usage patterns.

IV. EARNINGS SHARINGS MECHANISM

Q. What is the purpose of PSE's current earnings sharing mechanism?

A. PSE's current earnings sharing mechanism is intended to (i) provide the incentive for PSE to continue to identify efficiencies in its cost structure and (ii) allow ratepayers and investors to share equally in any financial benefits from earnings in excess of PSE's authorized rate of return.

Q. What is the history of PSE's current earnings sharing mechanism?

A. PSE and the Northwest Energy Coalition ("NWEC") initially proposed an earnings sharing mechanism that included a 25 basis point dead band. Under that proposal, PSE's customers and investors would have shared equally in earnings that exceeded PSE's 7.77 percent authorized rate of return by 25 basis points. In other words, the proposal of PSE and NWEC would have had PSE's customers and investors share equally in earnings that exceeded a rate of return of 8.02 percent.

In Order 07, however, the Commission expressed its view that PSE's 9.8 percent return on equity was at the high end of the range of reasonableness. As a result, the Commission required that PSE's customers and investors share equally in any earnings that exceed the authorized rate of return of 7.77 percent.

Q. Has PSE's current earnings sharing mechanism operated as intended?

A. Partially but certain economic anomalies remain, that have had a variety of consequences, including:

(i) the current earnings sharing mechanism creates an asymmetrical earnings profile for PSE; and

(ii) the current earnings sharing mechanism could create perverse sharing economics that could require PSE to refund excess earnings that it never earned and retain excess earnings that it did earn.

Q. Please describe how the current earnings sharing mechanism operates.

A. PSE's current earnings sharing mechanism requires that PSE share 50 percent of all earnings in excess of its authorized rate of return. The current earnings sharing mechanism calculates rate of return as PSE's normalized operating income divided by its average-of-monthly-averages rate base. To arrive at normalized operating income, actual operating income is adjusted for numerous Commission-accepted adjustments as reflected in PSE's annual Commission Basis Report. Per WAC 480-90-257 and WAC 480-100-257, the intent of the Commission Basis Report is to depict the electric and gas operations of a utility under normal operational, temperature and power supply conditions during a "test year" reporting period.

Commission-accepted adjustments belong in one of two categories: (i) conforming adjustments and (ii) normalizing adjustments. Examples of conforming adjustments include the following:

(i) adjustments for riders and trackers that are not part of standard net operating income ratemaking; and

(ii) adjustments necessary to remove "non-operating" items such as ASC 815 (formerly FAS 133) and portions of Directors' and Officers' Insurance.

Examples of normalizing adjustments include the following:

(i) adjustments to restate the test year for "normal" conditions such as temperature and power costs similar to what is done in a general rate case;

(ii) adjustments that normalize certain test year expenses, such as bad debt expense, pension plan expense, injuries and damages, and rate case expenses, consistent with treatment in a general rate case; and

(iii) adjustments to remove non-recurring transactions.

Q. What is the purpose of the Commission Basis Report?

A. The Commission Basis Report is an important document for monitoring a utility's earnings performance on a normalized test year basis between rate cases. It answers the question, "If the company filed a rate case for the test year/reporting period in question, would it be under or over earning its allowed rate of return after considering all appropriate conforming and normalizing adjustments?" In this regard, the Commission Basis Report provides timely and useful information not only to the Commission but to PSE and intervenors as well. That said, the normalized rate of return calculation included in the Commission Basis Report can be an inappropriate mechanism for calculating excess earnings with respect to earning sharing mechanisms.

Q. Why can the normalized rate of return calculation included in the Commission Basis Report be an inappropriate mechanism for calculating excess earnings with respect to earning sharing mechanisms?

A. The normalized rate of return calculation included in the Commission Basis Report can be an inappropriate mechanism for calculating excess earnings with

respect to earning sharing mechanisms because where certain unforeseen dynamics exists, such as materially higher or lower power costs, the revenue sharing mechanism as currently designed can produce results that are unexpected and irrational.

For purposes of an example, assume for a given reporting period that reduced snowpack resulted in a material reduction in available hydropower and available wind power was materially below normal, both of which forced PSE to replace lower-cost hydro and wind power with higher cost purchases in the marketplace. With respect to the reporting period in question, actual power costs would obviously be higher than normal or expected and correspondingly actual net operating income would be lower than normal or expected, all else being held equal.

Continuing with this example, now assume that it is time to prepare the Commission Basis Report and normalize the actual power costs for the sample reporting period. For discussion, assume that actual power costs must be reduced by $50 million to normalize power costs for average hydro and wind conditions. For sake of simplicity, (i) ignore the impacts of the power cost adjustment sharing bands, (ii) assume that this is the only normalizing adjustment required in the preparation of the hypothetical Commission Basis Report, and (iii) PSE has, despite increased power costs, exactly earned its allowed rate of return on an actual basis.

The end-result of processing this normalization adjustment would be an increase in normalized net operating income of $32.5 million ($50 million net of 35% tax

expense) compared to actual net operating income for the reporting period. This simple example clearly demonstrates that if earnings sharing were calculated from the normalized net operating income PSE would indeed share $16.25 million ($32.5 million times 50%) of "excess" earnings that it did not earn on an actual, non-normalized basis.

Conversely, if hydro and wind power availability was above normal production levels, to the point where more expensive market purchases would be displaced and actual power costs would be lower than normal or expected and actual net operating income would be higher than normal or expected, all else being equal.

Continuing with this example, when PSE prepares the Commission Basis Report and normalizes the actual power costs for the sample reporting period, power costs must be increased by $50 million to normalize power costs for average hydro and wind conditions. Assuming again, for the sake of simplicity, that one ignores the impacts of the power cost adjustment sharing bands, assumes this is the only normalizing adjustment required and that PSE exactly over-earned its allowed rate of return on an actual basis by $32.5 million, the end result would be a decrease in net operating income of $32.5 million ($50 million net of 35% tax expense) compared to actual net operating income for the reporting period. This simple example also clearly demonstrates that if earnings sharing are calculated from the normalized net operating income, PSE would not share $16.25 million ($32.5 million times 50%) of excess earnings that PSE did actually earn.

In short, for situations where certain unforeseen dynamics exist, such as materially higher or lower power costs, the revenue sharing mechanism as currently designed can produce results that are unexpected and irrational.

Q. How does PSE suggest that this apparent anomaly be fixed in the future?

A. In considering adjustments to the existing mechanism, PSE performed analysis using the December 31, 2015 Commission Basis Report to illustrate this point in reality. In simplest terms, PSE reviewed the 2015 Commission Basis Report conforming and normalizing adjustments and re-calculated operating income by excluding the normalizing adjustments. For the 2015 Commission Basis Report, those adjustments were:

(i) temperature normalization,

(ii) power costs,

(iii) rate case expenses,

(iv) bad debts,

(v) Montana tax,

(vi) injuries & damages expense, and

(vii) any other normalizing adjustments as applicable, though there were none for this analysis.

On the electric side, this reduced operating income by $9.2 million (see Table 4, row 4, column G) and reduced the rate of return by 18 basis points (see Table 4, row 6, column G). Accordingly, by removing the above normalizing adjustments, PSE would not share $4.6 million (9.2 million times 50%) of pre-tax excess

earnings that it did not actually earn, as it was required to do under the current earnings sharing methodology.

Table 4. Electric Results of Operations for the Twelve Months Ended December 31, 2015

Table 4

RESULTS OF OPERATIONS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015

LINE NO.	A	B ACTUAL RESULTS OF OPERATIONS	C TOTAL CBR NORMALIZED ADJUSTMENTS	D CBR NORMALIZED RESULTS OF OPERATIONS	E NON-NORMALIZED ROR SHARING ADJUSTMENTS	F NON-NORMALIZED ROR SHARING RESULTS	G DIFFERENCE (D-F)
1	TOTAL OPERATING REVENUES	2,305,084,096	(34,907,980)	2,270,176,116	(54,262,311)	2,250,821,785	19,354,331
2	TOTAL PRODUCTION EXPENSES	782,182,580	114,975,688	897,158,269	110,251,390	892,433,970	4,724,299
3	TOTAL OPERATING REV. DEDUCT.	$ 1,961,082,322	$ (111,667,444)	$ 1,849,414,878	$ (121,835,239)	$ 1,839,247,083	$ 10,167,795
4	NET OPERATING INCOME	$ 344,001,774	$ 76,759,464	$ 420,761,238	$ 67,572,928	$ 411,574,702	$ 9,186,536
5	RATE BASE	$ 5,226,826,587	$ (2,073,017)	$ 5,224,753,571	$ (2,073,017)	$ 5,224,753,571	$ -
6	RATE OF RETURN	6.58%	0.00%	8.05%	0.00%	7.88%	0.18%

On the gas side, operating income was reduced by $294 (Table 5, row 4, column G), which obviously had an immaterial impact on rate of return (Table 5, row 6, column G).

Table 5. Gas Results of Operations for the Twelve Months Ended December 31, 2015

Table 5

RESULTS OF OPERATIONS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015

LINE NO.	A	B ACTUAL RESULTS OF OPERATIONS	C TOTAL CBR NORMALIZED ADJUSTMENTS	D CBR NORMALIZED RESULTS OF OPERATIONS	E NON-NORMALIZED ROR SHARING ADJUSTMENTS	F NON-NORMALIZED ROR SHARING RESULTS	G DIFFERENCE (D-F)
1	TOTAL OPERATING REVENUES	$ 947,548,564	$ (74,076,483)	$ 873,472,081	$ (74,269,965)	$ 873,278,598	$ 193,482
2	TOTAL PRODUCTION EXPENSES	$ 403,309,816	$ (9,827,203)	$ 393,482,613	$ (9,827,203)	$ 393,482,613	$ -
3	TOTAL OPERATING REV. DEDUCT.	$ 432,882,294	$ (92,290,787)	$ 340,591,507	$ (92,483,976)	$ 340,398,319	$ 193,189
4	NET OPERATING INCOME	$ 111,356,454	$ 28,041,507	$ 139,397,960	$ 28,041,213	$ 139,397,666	$ 294
5	RATE BASE	$ 1,706,005,751	$ -	$ 1,706,005,751	$ -	$ 1,706,005,751	$ -
6	RATE OF RETURN	6.53%	0.00%	8.17%	0.00%	8.17%	0.00%

This exercise, using PSE's 2015 Commission Basis Reports and excluding the normalization adjustments, validates an important point—normalization adjustments can skew, and have skewed, the measurement of financial performance for excess earnings sharing purposes.

Therefore, PSE recommends that, the earnings sharing mechanism be modified to exclude all normalizing adjustments and all conforming adjustments should be retained for calculating operating income. This will align excess earnings sharing

economics closer to actual results (whether they be higher than or lower than "normal") and eliminate the unintended and irrational results that can occur in the normalizing process resulting in more consistent and fair economics for customers and shareholders alike. In addition, this approach eliminates the need to borrow on the margin to refund to customers excess earnings that PSE did not realize in reality.

Q. You referenced another anomaly that creates an asymmetrical earnings profile due to the current sharing bands in the earnings sharing mechanism. Please explain.

A. Currently, the customer shares in any over-earning that PSE experiences, but does not share in any under-earning that PSE experiences. This relationship alters the traditional balance that should exist in a utility's opportunity to earn its allowed rate of return.

Q. How does the operation of PSE's current earnings sharing mechanism alter the traditional balance that should exist in a utility's opportunity to earn its allowed rate of return?

A. Generally speaking, authorized rates of return and returns on equity are set for utilities with the understanding that there should be the opportunity, but not a guarantee, for utilities to earn those benchmarks. In other words, utilities will over-earn and under-earn their authorized rates of return and authorized returns on equity over time. On average those actual rates of return and actual returns on equity should, over time, approximate the authorized rates of return and the

authorized returns on equity, all else being equal. However, it is important to recognize that "all things are not equal" in terms of how over-earning and under-earning balance out when an earnings sharing mechanism is implemented.

Q. Please provide an overview of the earnings sharing provision approved by the Commission as part of the rate plan.

A. In paragraph 165 of Order 07 the Commission required that to the extent PSE's earnings exceed its currently authorized rate of return of 7.77 percent, such excess earnings should be shared equally, that is 50/50, between customers and PSE. Stated alternatively, for every two dollars of excess earnings PSE will retain one dollar and refund one dollar to customers.

Q. Why did the Commission implement such a sharing mechanism?

A. Broadly speaking, the Commission wanted to retain the incentive for PSE to continue to identify efficiencies in its cost structure, the full effect of which should be captured in PSE's next general rate case. PSE and NWEC initially proposed an earnings sharing mechanism that included a 25 basis point dead band. Under that proposal, 50/50 sharing would have begun after PSE over-earned its 7.77 percent rate of return by 25 basis points, or 8.02 percent. However, the Commission viewed PSE's 9.8 return on equity to be at the high end of a range of reasonableness. As a result, the Commission required that any earnings that exceed PSE's authorized rate of return of 7.77 percent must be shared equally between PSE and customers.[2]

[2] Order 07 at ¶¶ 164-65.

Q. Does this sharing mechanism have any impact on PSE's earnings profile?

A. Yes, the sharing mechanism creates an asymmetrical earnings profile around PSE's 7.77 percent rate of return. In very simple terms, PSE must earn two dollars to receive one dollar of upside earnings but is impacted dollar-for-dollar on the downside when it has yet to earn its allowed rate of return. It is analogous to depositing money with a bank in a variable rate demand account and after establishing the initial interest rate on the date the account is opened, at say 3%, and agreeing henceforth that all interest rate decreases below 3% are borne 100% by the depositor but only 50% of interest rate increases above 3% benefit the depositor. Clearly, this represents an asymmetrical earning profile for the depositor.

Q. Please explain in more detail the asymmetry in earnings that results from the earnings sharing provision.

A. Authorized rates of return and ROEs are set for utilities with the understanding that there should be the opportunity for utilities to earn those benchmarks on average over time. In other words, utilities may over-earn and under-earn their authorized rates of return and ROEs, but, all things being equal, the actual rates of return and ROEs should approximate the authorized rates of return and ROEs over time. PSE originally proposed the sharing of earnings after 25 basis points of over-earning (i.e., the dead band) because it mitigates some of the asymmetry on rates of return and ROE associated with the earnings sharing and it better maintained upside and downside parity around the opportunity to earn its

authorized rate of return and ROE. This is demonstrated on Exhibit No. ___(DAD-4).

Q. Please elaborate.

A. Rates of return and ROEs are related, in that reductions to rates of return will have direct effects on ROEs. The difference between regulated income (the numerator in ROE) and regulated operating income (the numerator in rate of return) is regulated interest expense (rate base times authorized weighted average cost of debt). Likewise, there is a relationship between the denominator in rate of return (rate base) and the denominator in ROE (equity invested in rate base which is rate base times the authorized equity ratio). Consequently, authorized rate of return and ROE bear a direct relation to one another.

Lines 4 through 6 on Exhibit No. ___(DAD-4) demonstrate this relationship when there is no earnings sharing. Line 6 demonstrates that, on average across all over- and under-earning scenarios, the average actual ROE equals the authorized ROE of 9.80 percent. Lines 7 through 9 illustrate PSE and NWEC's proposal by showing that, when the earnings sharing begins after 25 basis points above the authorized rate of return, PSE can still earn very close to its authorized ROE of 9.80 percent on average, as shown on line 9, column I.

Ultimately, beginning earnings sharing after 25 basis points does not significantly prevent PSE from earning the authorized ROE on average, however, earnings sharing beginning at the authorized rate of return clearly alters the upside and downside parity around the opportunity to earn the authorized ROE. This results

in an asymmetrical earnings profile, biased to the downside that, all else being equal, increases PSE's risk profile. Ultimately, as demonstrated on lines 10 through 12 of Exhibit No. ___(DAD-4), the earnings sharing that begins immediately after PSE's rate of return ceiling is breached creates the more pronounced asymmetrical earnings profile referred to above. As demonstrated on line 12, column I of Exhibit No. ___(DAD-4), the 50 percent earnings sharing that begins above a rate of return of 7.77 percent results in a 14 basis point reduction to PSE's average ROE, using the assumptions in the example provided.

Q. Should the asymmetry on PSE's earning profile due to the earnings sharing approved in Final Order No. 07 be taken into consideration when setting PSE's ROE?

A. Yes. But a more direct way to address the problem is to re-introduce the 25 basis point dead band into the sharing mechanism as originally proposed by PSE and NWEC. Doing so will reestablish parity and balance in PSE's earnings profile and eliminates the need for any adjustment to return on equity. To the extent the commission opposes reintroducing the 25 basis point deadband, it should consider no less than a 14 basis point adder to Dr. Morin's recommended return on equity, which is supported by the calculation provided on Exhibit No. ___(DAD-4).

V. COST MANAGEMENT AND EFFICIENCY UPDATE

Q. Has the Commission encouraged PSE to address efficiencies?

A. Yes. In Order No. 07, in Dockets UE-121697 and UG-121706 (consolidated) and Dockets UE-130137 and UG-130138 (consolidated),[3] the Commission approved a multi-year rate plan for PSE and expressed an expectation that PSE would implement efficiencies during the course of the rate plan. Specifically, the Commission stated as follows:

> This multi-year rate plan will provide the Company with ample opportunity to implement efficiencies that will afford the Company with the earnings opportunities it seeks. And these cost savings, which we will monitor carefully, will then be incorporated into rates for the benefit of ratepayers.[4]

Q. Have there been cost efficiencies achieved by PSE during the rate plan period?

A. Yes. PSE's growth rate in operating expenses, which reflect the cost management and efficiencies implemented during the rate plan period, is now closely aligned with PSE's customer growth to responsibly set annual operating and maintenance budgets. The restructuring of PSE's benefit plans, as discussed in the Prefiled Direct Testimony of Thomas M. Hunt, Exhibit No. ___(TMH-1T), has slowed the increase in costs associated with employee benefit programs and the overall cost management achievements are reflected in the Prefiled Direct Testimony of Katherine J. Barnard, Exhibit No. ___(KJB-1T).

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[3] *WUTC v. Puget Sound Energy, Inc.*, Order 07, Dockets UE-121697 and UG-121705 (consolidated) and Dockets UE-130137 and UG-130138 (consolidated) ("Order 07").

[4] Order 07 at ¶ 22.

PSE has implemented additional efficiencies related to debt refinancings, bonus depreciation elections, efficiencies from certain lobbying activities to change the normalization requirements for treasury grants, and minimizing to the extent possible the cost of decommissioning and remediating Colstrip Units 1 & 2. PSE's overall to implement broader-based cost efficiencies during the rate plan period are discussed below.

Q. What was PSE's overall approach to harvesting cost efficiencies during the rate plan period?

A. As an organization that provides essential services to its customers, it is incumbent upon PSE to provide that service at a reasonable price to customers and simultaneously maintain its financial performance to adequately reward both debt and equity investors and maintain access to the capital markets at a reasonable cost. To meet these important ends, PSE implemented a broad-based approach to manage operating expenditures. Simply put, growth in budgets and spending during the rate plan period were targeted at the rate of customer growth. It should be noted that this approach was intended to be more of a guideline to manage spending rather than a strict target.

As reflected in the Prefiled Direct Testimony of Katherine J. Barnard, Exhibit No. ___(KJB-1T), actual operating expenditures were managed, on a combined basis, to a compound average growth rate of approximately 1.2% from 2011 to 2016. This equates to a compound average customer growth rate on a combined basis of 0.8% over the same timeframe. This is an extremely positive result given that (i) PSE's approved operating expense growth rate from 2006 to 2011 was

approximately 3.8%, and (ii) general inflation from 2011 to 2016 was 1.2%. Please see the Prefiled Direct Testimony of Katherine J. Barnard, Exhibit No. ___(KJB-1T). In fact, had the operating expense growth rate continued at the historical 3.8%, PSE would have incurred $136 million in additional operating expenses. In the final analysis, it is clear that PSE's approach to managing and constraining operating expenditures, and more importantly harvesting cost efficiencies, contributed significantly to the dual objectives of providing service at a reasonable price to customers and adequately rewarding both debt and equity investors to maintain adequate access to capital markets at a reasonable cost.

Q. What actions did PSE's undertake to cost effectively manage its capital structure during the rate period?

A. PSE took advantage of favorable economic conditions and consummated the following refinancings that reduced the embedded cost of debt in its capital structure:

(i) in 2013, PSE refinanced two Pollution Control Bonds, which resulted in annual savings of $1.9 million and importantly these savings were reflected in the (ERF) revenue requirement at the beginning of the rate plan;

(ii) in 2014, the PSE refinanced and reduced the size of its operating company credit facility, resulting in a $5.3 million reduction in commitment fees;

(iii) in addition 2015, PSE called two Sr. Secured bonds with a combined notional of $400 million and refinanced that debt at lower rates, which resulted in $6.1 million in annual savings.

Additionally, in 2016, PSE commenced a tender offer to repurchase its hybrid bond from the bondholders at a discount and refinance those bonds at favorable

rates for the long term. That tender offer was commenced with the full knowledge that in December of 2017, the current 6.974% fixed interest rate on the bonds would contractually convert to a short term variable rate equal to 3-month LIBOR plus a 253 basis point spread. While the tender offer was ultimately unsuccessful, customers will nonetheless receive an approximate $6 million annual savings based on the conversion of interest rates on the bonds from the current fixed rate of 6. 974% to the average short term rate of 4.8% supported in the Prefiled Direct Testimony of Brandon J. Lohse, Exhibit No. ___(BJL-1T).

In sum total, these refinancings will save customers $19.3 million in annual pretax interest costs. PSE's financings are further discussed in the Prefiled Direct Testimony of Brandon J. Lohse, Exhibit No. ___(BJL-1T).

Q. Please discuss the efficiencies related to bonus depreciation elections.

A. Bonus depreciation allowed PSE to voluntarily claim a tax deduction of 50% of the cost of eligible assets in the year the eligible assets were placed in service in lieu of standard accelerated depreciation schedules allowable in the tax code for 2012 through and including 2016. Under current tax law, bonus depreciation deductions are set at 50% for 2016 and 2017, 40% for 2018, 30% for 2019 and goes to zero thereafter.

Q. How much bonus depreciation did PSE claim during the stay out period?

A. From 2013 through 2015, PSE claimed about $656.8 million in tax deductions for bonus deprecation, which created incremental deferred tax liabilities, holding everything else equal. Ignoring the impact of net operating losses associated with

bonus depreciation, which created a short-lived offset to these incremental deferred tax liabilities, PSE's bonus depreciation elections reduced rate base on the margin by approximately $229.9 million.

Q. What effect did the marginal reduction to rate base have on customer rates?

A. Holding everything else equal, the $229.9 million incremental reduction in rate base reduces customer bills annually by approximately $23.7 million ($229.9 million times the after-tax cost of capital grossed up for Federal Income Tax of 10.3%).

Q. How will the deferred tax liabilities from bonus depreciation elections benefit customers into the future?

A. The incremental deferred tax liabilities will continue to benefit customers on a declining scale generally over 15-20 years until standard tax depreciation schedules (and the resulting deferred tax liabilities) "catch up" to the bonus depreciation deduction taken when a qualifying asset was placed in service. Accordingly, customers will benefit for years to come due to the incremental deferred taxes arising from the bonus depreciation elections PSE has made and plans to make in the future under current tax law.

Q. Did the bonus depreciation election have any impact on PSE's excess earnings sharing calculation?

A. Yes. As I explained above, PSE's bonus depreciation elections reduced rate base during the rate plan period. PSE's earnings sharing calculation is based on rate of return calculation or, more specifically, normalized operating income divided by

average of monthly averages rate base. As a matter of simple mathematics, PSE's rate of return was higher on the margin due to its bonus depreciation elections (higher deferred tax liabilities reduced rate base) and directly contributed to the excess earning PSE recorded for refund to customers.

Q. Are there other efforts that PSE has pursued or initiated that financially benefit customers?

A. Yes. In 2011, PSE's lobbying efforts were instrumental in reversing the normalization requirement for Treasury Grants. Under those normalization requirements it was permissible under the tax code to either amortize the Treasury Grants above the line to the benefit of customers or alternatively take a rate base reduction for the benefit of customers, but not both. As a direct result of PSE's lobbying efforts with respect to the passage of Section 1096 of Public Law No. 112-81 (House Resolution 1540), it became permissible to take advantage of both: (i) above the line amortization of Treasury Grants and production tax credits for the direct benefit of customers and (ii) a rate base deduction for the unamortized Treasury Grants on the balance sheet for the direct benefit of customers. With respect to the Lower Snake River wind farm Treasury Grants, which are being amortized as a credit to customers over a ten-year period, PSE's ability to reduce rate base or similarly provide an interest credit for the unamortized Treasury Grants on the balance sheet will result in an incremental $65.9 million of savings to customers.

Q. Did the reversal of the normalization requirements for Treasury Grants result in any additional benefit to PSE or its customers?

A. Yes. Had the normalization requirements for Treasury Grants not been reversed or been eliminated, PSE would be unable to repurpose Treasury Grants to offset the cost of decommissioning and remediating Colstrip Units 1 & 2 and the customer benefits of PSE's repurposing proposal (discussed later in this testimony) would be significantly reduced.

Q. Are there or have there been any normalization requirements for production tax credits?

A. No.

Q. Has PSE created efficiencies with respect to future decommissioning and remediation costs for Colstrip Units 1 & 2?

A. Yes. In summary, PSE successfully advocated for legislation that allows for the repurposing of certain Treasury Grants and production tax credits to offset future decommissioning and remediation costs for Colstrip Units 1 & 2. This alternative approach will cost customers less than traditional cost recovery mechanisms, such as (i) establishing a new tracking mechanism or (ii) a regulatory asset that would be included in rate base and amortized in the future. This creative and innovative solution to recovering future decommissioning and remediation costs will save customers approximately $71.2 million in nominal terms and $49.5 million on a net present value basis compared to the estimated rate impacts associated with recovering these cost through a tracking mechanism. From any perspective, PSE's

approach solves a very real and significant cost recovery problem and is a win-win for customers and PSE.

Q. Can you summarize the cost efficiencies that PSE has produced in response to the rate plan?

A. Yes. PSE has achieved the following cost savings over the course of the rate plan:

(i) PSE estimates that it saved approximately $136 million against historical operational spending trends through its efforts to limit growth in operational spending to the rate of customer growth, as reflected in the Prefiled Direct Testimony of Katherine J. Barnard, Exhibit No. ___(KJB-1T).

(ii) PSE saved $19.3 million annually through refinancings and managing its capital structure.

(iii) PSE saved $23.7 million through its voluntary bonus depreciation elections and resulting rate base reductions, which will continue into the future.

(iv) PSE provided customers $65.9 million in interest credits through September 2016 associated with the Lower Snake River wind farm Treasury Grants related to the elimination of normalization requirements for Treasury Grants, an effort which also made it possible to repurpose Treasury Grants to offset future Colstrip Units 1 & 2 decommissioning and remediation. (It should be noted that similar benefits exist with respect to Wild Horse Wind farm Treasury Grants in the amount of $8.1 million.)

(v) PSE will save customers an estimated $71.2 million nominally and $49.5 million on a net present value basis through the repurposing of certain Treasury Grants and Production Tax Credits to offset future Colstrip Units 1 & 2 decommissioning and remediation costs.

(vi) PSE's decision to join the CAISO Energy Imbalance Market will provide future power cost savings, as discussed in the Prefiled Direct Testimony of David E. Mills, Exhibit No. ___(DEM-1T).

(vii) As discussed in the Prefiled Direct Testimony of Tom M. Hunt, Exhibit No. ___(TMH-1T), PSE restructured certain benefit plans. The operating expense portion of those savings are included in the $136 million discussed in (i) above. The capital component is "netted" in PSE's rate base in this proceeding. PSE expects these savings to continue into the future as well.

VI. COST OF EQUITY AND EQUITY IN CAPITAL STRUCTURE

Q. What is PSE's requested return on equity in this proceeding?

A. PSE's requested return on equity in this proceeding is 9.80 percent.

Q. Has PSE prepared an analysis of the projected cost of PSE equity during the rate year?

A. Yes. PSE has retained the services of Dr. Roger A. Morin to prepare an analysis of the projected cost of PSE equity during the rate year. Please see Exhibit No. ___(RAM-1T). PSE agrees with Dr. Morin's analysis and conclusion that 9.80 percent is a fair and reasonable return on common equity.

Q. What is the equity ratio in the capital structure that PSE is requesting in this proceeding?

A. PSE's requested equity ratio in this proceeding is 48.5 percent.

Q. Is the proposed capital structure consisting of 48.5 percent equity appropriate for PSE?

A. Yes, the proposed capital structure consisting of 48.5 percent equity is appropriate for PSE for several reasons.

First, a capital structure that contains 48.5 percent equity is lower than the actual capital structure that PSE maintained during the test year. PSE's average actual capital structure during the test year, calculated using an average of the monthly averages methodology, contained 48.9 percent equity.

Second, PSE considers a capital structure that includes 48.5 percent equity to be a reasonable level of equity to attract debt investment at a reasonable cost. PSE seeks the financial strength to maintain its current level of credit ratings and to have the flexibility to access the capital markets during varying financial market conditions.

Third, a capital structure that contains 48.5 percent equity contains a lower equity ratio than the average equity ratios for natural gas and electric utilities approved by regulatory bodies across the country in the test year period for this proceeding. Please see Exhibit No. ___(DAD-5), which shows that the average equity ratios for natural gas and electric utilities approved by regulatory bodies across the country from October 2015 through September 2016 was 50.6 percent. Thus, PSE's requested capital structure with an equity ratio of 48.5 percent is 210 basis points lower than the average equity ratio of 50.6 percent approved by regulatory bodies across the country for natural gas and electric utilities from October 2015 through September 2016.

Fourth, PSE's requested capital structure that includes 48.5 percent equity contains a lower equity ratio than the average authorized equity ratio of 49.6 percent for the comparable companies identified in the Prefiled Direct Testimony of Dr. Roger A. Morin, Exhibit No. ___(RAM-1T). Please see Exhibit

No. ___(RAM-11) for the authorized equity ratios of the comparable companies in PSE's proxy group.

Q. What was PSE's actual capital structure during the test year?

A. PSE's average capital structure (calculated using an average of the monthly averages methodology) during the test year included a 48.9 percent equity ratio, as show in Table 6 below:

Table 6 Actual Test Year Capital Structure

Capital Component	Test Year (Average)
Short Term Debt	0.8%
Long Term Debt	50.3%
Total Debt	51.1%
Common Equity	48.9%
Total Capitalization	**100.0%**

Please see Exhibit No. ___(BJL-3) for the calculation of PSE's average capital structure during the test year.

Q. Is the test year capital structure reflected in Table 6 above calculated in a manner similar to the capital structures calculated in PSE's recent rate proceedings?

A. Yes. The test year capital structure reflected in Table 6 above and provided in Exhibit No. ___(BJL-3) is calculated in a manner similar to the capital structures calculated in PSE's recent general rate cases.

Specifically, PSE removed the following non-regulated activities and the impact of certain other items from PSE's consolidated capital structure:

(i) the retained earnings from unregulated activities such as Puget Western, Inc. ("Puget Western");

(ii) the unrealized retained earnings impacts resulting from the marking to market the value of its hedging activities; and

(iii) the retained earnings impact from pension accounting.

These adjustments have been consistently applied in PSE's Commission Basis Reports and previous general rate cases and have been consistently accepted by the Commission.

Q. Why does PSE remove the retained earnings from Puget Western from its consolidated common equity?

A. PSE removed the retained earnings generated by Puget Western from PSE's consolidated capital structure because the retained earnings generated by this subsidiary are non-regulated. Puget Western is a real estate development and disposition subsidiary.

Q. Why does PSE remove the impacts of certain derivatives from its consolidated common equity?

A. Over the last three general rate cases, the Commission set PSE's rates in a manner that does not recover through customer rates the accounting income and expense from marking derivatives to their market value. PSE removes the corresponding balance sheet impacts of accounting for the market value of derivatives from its consolidated common equity because the expense or income is not recognized in rates. This adjustment removes the variability of the mark-to-market calculations made for financial reporting purposes. The Commission has not recognized

GAAP adjustments in setting rates because such adjustments reflect the measurement of a timing difference for financial reporting purposes and do not reflect "cash" transactions.

Q. Why does PSE remove the retained earnings impacts of pension accounting from its consolidated common equity?

A. Over the last three general rate cases, the Commission set PSE's rates in a manner that reflects actual "cash" pension contributions averaged over a period of time—typically four years—and not the financial reporting income and expense related to the pension plan used in PSE's GAAP financial statements. Therefore, PSE removes the impacts of such financial reporting of pension accounting. PSE's treatment of these items in this proceeding is consistent with past practices.

Q. How does the capital structure requested by PSE in this proceeding compare to the average capital structure approved by regulatory bodies during the test year?

A. The capital structure requested by PSE in this proceeding contains less equity than the average of capital structures approved by most regulatory bodies during the test year. The average capital structure authorized by regulatory bodies for ratemaking purposes during the test year contained a 50.6 percent equity ratio, or 2.1 percent higher than PSE's request in this proceeding. Please see Exhibit No. ___(DAD-5) for a list of the equity ratios authorized by regulatory bodies for the test year ending September 30, 2016.

Furthermore, when the same set of data is sorted by S&P credit ratings, companies with similar credit ratings from the data set also have, on average, higher average equity ratios. Please see Exhibit No. ___(DAD-6) for this analysis.

Q. What do regulators usually consider when determining an appropriate capital structure?

A. Selecting the appropriate capital structure involves the balancing of safety and economy:

> we develop a weighted cost of capital for the Company based on a capital structure that balances safety and economy. Capital structure, and particularly the equity ratio and cost of equity, materially impacts the price customers pay for service. Due to the relative difference between the higher cost of equity and the lower cost of debt, a capital structure with relatively more debt and less equity may result in a lower overall cost of capital. This results in lower rates for customers. This is commonly referred to as "economy." On the other hand, a capital structure with relatively more equity and less debt may result in a higher overall cost of capital and higher rates for customers, but enhanced financial integrity. This is commonly referred to as "safety."[5]

In other words, the economy of lower cost debt, on which PSE has an obligation to pay interest, must be weighed against the safety of relatively higher cost common equity, on which PSE does not have a legal obligation to pay a dividend and provide a return.

[5] *WUTC v. Pac. Power & Light Co., a division of PacifiCorp*, Dockets UE-140762, *et al*., Order 08 at page 11 (Mar. 25. 2015) (footnotes omitted).

Q. Why is the capital structure proposed by PSE appropriate and reasonable for rate setting purposes in this proceeding?

A. The capital structure requested by PSE is appropriate and reasonable for the following reasons:

(i) it is based on actual results from the test year;

(ii) a capital structure with 48.5 percent equity is lower than the average authorized equity ratio recently reflected in customer rates of other regulated utilities;

(iii) a capital structure with 48.5 percent equity is lower than the average authorized equity ratios of the comparable companies identified in the Prefiled Direct Testimony of Dr. Roger A. Morin, Exhibit No. ___(RAM-1T);

(iv) a capital structure with 48.5 percent equity is lower, on average, than companies with similar credit ratings; and

(v) it appropriately balances safety and economy for customers.

Q. Why does the capital structure requested by PSE in this proceeding appropriately balance the risks and costs of funding PSE's utility operations?

A. The capital structure requested by PSE in this proceeding appropriately balances the risks and costs of funding PSE's utility operations for the following reasons:

(i) the capital structure requested by PSE in this proceeding will allow PSE to maintain its current credit ratings and attract debt capital necessary to fund PSE's capital expenditures and operations;

(ii) the capital structure requested by PSE in this proceeding will allow PSE to satisfy merger commitments and debt covenants related to capital structure; and

(iii) the capital structure requested by PSE in this proceeding will allow PSE to provide electric and gas service to customers on reasonable terms.

VII. PROSPECTIVE TREATMENT OF COLSTRIP UNITS 1 & 2 DECOMMISSIONING AND REMEDIATION COSTS

Q. Please summarize the key issues that necessitate consideration of the prospective treatment of decommissioning and remediation costs for Colstrip Units 1 & 2.

A. For more than 40 years, Colstrip Units 1 & 2 have provided reliable and cost effective energy and capacity for the benefit of PSE's customers. During that same period, environmental laws, rules and regulations expanded significantly, as have legal challenges from the environmental community. Colstrip Units 1 & 2 have not been immune to such legal challenges. Indeed, as part of a broader settlement affecting all four Colstrip units, the two owners of Colstrip Units 1 & 2 (PSE and Talen Montana, LLC) recently settled an action brought by the Sierra Club and Montana Environmental Information Center, in part, by agreeing to retire the boilers for Colstrip Units 1 & 2 no later than July 1, 2022. The retirement of the boilers is the precipitating factor driving the consideration of the prospective treatment of decommissioning and remediation costs for Colstrip Units 1 & 2.

Q. How does the agreement to retire the boilers of Colstrip Units 1 & 2 as part of a legal settlement drive consideration of prospective decommissioning and remediation costs in this proceeding?

A. Colstrip Units 1 & 2 have provided reliable and cost effective energy and capacity for the benefit of PSE's customers for over forty years. Those same customers paid for the cost of operating those units, including operation and maintenance expense, depreciation expense, interest expense, and the cost of equity financing. As explained in the Prefiled Direct Testimony of Ms. Katherine J. Barnard, Exhibit No. ___(KJB-1T), decommissioning and remediation costs of Colstrip Units 1 & 2 have not been recovered from customers in any material amount during the 40+ year period those units operated because there was no legal obligation to undertake remediation, the costs for decommissioning and remediation were not known and measurable, and these costs were not included in depreciation rates.

This proceeding is the appropriate venue for considering, reviewing and adjudicating the complex array of issues connected with the imminent retirement of the boilers of Colstrip Units 1 & 2 for the following reasons:

(i) PSE has projected anticipated decommissioning and remediation costs of approximately $109 million (in real dollars) for Colstrip Units 1 & 2 (see the Prefiled Direct Testimony of Mr. Ron Roberts, Exhibit No. ___(RR-1CT), for details of these projected costs);

(ii) the settlement agreement with the Sierra Club and Montana Environmental Information Center requires that the boilers of Colstrip Units 1 & 2 be retired no later than July 1, 2022, which leaves limited time for planning, financing, and

regulatory review of all aspects of decommissioning and remediating activities;

(iii) PSE was successful in obtaining legislation in early 2016 that allows for the repurposing of certain regulatory liabilities (i.e., Treasury Grants and wind-related Production Tax Credits) to offset decommissioning and remediation costs for Colstrip Units 1 & 2 (see Chapter 80.84 RCW (Transition of Eligible Coal Units)); and

(iv) RCW 80.84.020 requires an adjudicative proceeding under chapters 34.05 and 80.04 RCW prior to the authorization of PSE to place amounts from one or more regulatory liabilities into a retirement account to cover decommissioning and remediation costs of eligible coal units.

Q. Please describe PSE's legislative activities relating to the decommissioning and remediation costs associated with Colstrip Units 1 & 2.

A. Once it became clear that the retirement of Colstrip Units 1 & 2 was becoming increasingly imminent, the time became ripe for considering and developing fair and appropriate decommissioning and remediation cost recovery mechanisms for presentation to the commission. In particular, PSE desired a proposal for the prospective recovery of decommissioning and remediation costs related to the retirement of Colstrip Units 1 & 2 that would be cost-effective and address intergenerational equity considerations.

Q. What do you mean by intergenerational equity considerations?

A. Intergenerational equity is a ratemaking principle that commissions, in general, follow in the utility ratemaking process. In short, it states that the customers who benefit directly from an asset placed in service or an expense incurred for the provision of their electric or gas services, shall bear the cost burden of those same

assets or expenses. PSE had concerns regarding cost-recovery mechanisms that would burden future customers—who never directly received benefits of the reliable and cost-effective operation of Colstrip Units 1 & 2—with all of the decommissioning and remediation costs of those resources. Thus, the question becomes, "what kind of decommissioning and remediation cost recovery mechanism fairly and appropriately minimizes the intergenerational equity considerations and results in the most cost-effective recovery of the related costs?" This was a balancing act because it is difficult to optimize both the intergenerational equity considerations and cost-effectiveness objectives simultaneously.

Q. Did PSE consider traditional regulatory methods of cost recovery to recover the decommissioning and remediation costs for Colstrip Units 1 & 2?

A. Yes. PSE considered traditional regulatory methods of cost recovery to recover the decommissioning and remediation costs for Colstrip Units 1 & 2. PSE was concerned that traditional regulatory methods of cost recovery would not likely resolve or meet either of the intergenerational equity considerations or the cost-effectiveness objectives. More specifically, creating a regulatory asset for future decommissioning and remediation costs that would be included in rate base and amortized into the future (i) would not resolve the intergenerational equity considerations adequately and (ii) would not likely be the most cost-effective method to recover the decommissioning and remediation costs.

Q. What alternative cost recovery mechanism did PSE consider?

A. PSE considered how it might re-purpose certain regulatory liabilities (i.e., Treasury Grants and wind-related Production Tax Credits) into a fair and appropriate mechanism for the recovery of Colstrip Units 1 & 2 decommissioning and remediation costs. Under this proposal, PSE would repurpose these regulatory liabilities to offset and fund Colstrip Units 1 & 2 decommissioning and remediation costs rather than pass back these tax benefits to customers in the form of lower current rates than would be provided prior to having to incur the decommissioning and remediation costs.

In the 2016 legislative session, PSE worked with the legislature and other stakeholders to enact a bill that provides for the repurposing of tax benefits to recover Colstrip Units 1 & 2 decommissioning and remediation costs. The legislature passed the bill during the 2016 legislative session, and it was subsequently signed into law by Governor Inslee.

Q. Does the use of regulatory liabilities to offset Colstrip Units 1 & 2 decommissioning and remediation costs resolve PSE's intergenerational equity considerations?

A. Yes. The use of regulatory liabilities to offset Colstrip Units 1 & 2 decommissioning and remediation costs resolves PSE's intergenerational equity considerations. In effect, the concept redeploys certain Federal tax policy benefits to absorb and offset Colstrip Units 1 & 2 decommissioning and remediation costs. Doing so saves future generations of customers from the cost burden of

decommissioning and remediating Colstrip Units 1 & 2 thereby resolving the intergenerational equity considerations.

Q. Does the use of regulatory liabilities to offset Colstrip Units 1 & 2 decommissioning and remediation costs resolve PSE's objective of cost-effectiveness?

A. Yes, the use of regulatory liabilities to offset these costs is cost effective on several fronts. First, the mechanism eliminates the need to charge current and future generations of customers for Colstrip Units 1 & 2 decommissioning and remediating costs because the repurposed regulatory liabilities absorb and offset those costs. Second, PSE will continue to treat these regulatory liabilities as reductions to rate base (and thereby benefitting customers) until the tax benefits are fully utilized to offset Colstrip Units 1 & 2 decommissioning and remediating costs. Further, the mechanism eliminates the need for recovery of carrying costs associated with regulatory assets that would likely be established to recover these costs under traditional ratemaking methodologies. In the final analysis, this innovative alternative will save customers approximately $71.2 million in nominal terms and $49.5 million on a net present value basis versus collecting those costs through a new tracker mechanism, as summarized in Table 7 below:

Table 7 Actual Test Year Capital Structure

$ in Millions	Nominal Value	Net Present Value
D&R Expense	$106.8	$47.7
PSE Proposal	$35.6	($1.8)
Customer Benefits	$71.2	$49.5

In fact, on a standalone net present value basis, PSE's proposal reduces projected customer bills. Therefore, PSE's proposal both solves the intergenerational equity concern and is cost-effective for customers as well.

Q. Could regulatory liabilities for Production Tax Credits similarly be repurposed to recover decommissioning and remediation costs?

A. Yes. Regulatory liabilities for Production Tax Credits could similarly be repurposed to recover decommissioning and remediation costs. To date, PSE has generated approximately $200 million of Production Tax Credits. Those Production Tax Credits are currently reflected on PSE's balance sheet as a regulatory liability along with the associated deferred tax treatment. Although these Production Tax Credits have been generated, PSE has not yet had the opportunity to use the credits on tax returns. Therefore, the Production Tax Credits have not yet been "funded" in cash through reduced current taxes payable.

Q. Is the regulatory liability for Production Tax Credits treated as a reduction to PSE's rate base?

A. No, PSE does not currently treat the regulatory liability for Production Tax Credits as a reduction to PSE's rate base. As stated earlier, the Production Tax Credits have been generated and are reflected as a regulatory liability on PSE's balance sheet, but they have not yet been utilized on a tax return. As the Production Tax Credits are utilized on tax returns and become funded in cash through reduced current taxes payable, the funded portion of the regulatory liability will be reclassified to the new FERC 108 account established for Colstrip

Units 1 & 2, at which time it will become a reduction to PSE's rate base. Please see the Prefiled Direct Testimony of Katherine J. Barnard, Exhibit No. ___(KJB-1T), for additional details.

Q. Why have the Production Tax Credits generated not yet been used on tax returns?

A. PSE's elections to deduct bonus depreciation over the past several years is the primary reason why Production Tax Credits generated have not yet been used on tax returns. Generally speaking, the bonus depreciation elections of PSE over the past several years have been significant enough to generate net operating losses for corporate income tax purposes. Those same net operating losses have been carried forward to offset current taxable income in recent years. Current tax law requires that net operating loss carryforwards be utilized to offset current taxable income before any production tax credits can be utilized. In effect, the net operating loss carryforwards resulting from bonus depreciation elections have preempted and pushed to future years the utilization of Production Tax Credits.

Q. When does PSE project that Production Tax Credits can be utilized on the corporate tax returns?

A. Under current tax law, bonus depreciation deductions begin to decrease in 2018—from the current 50% level—and are completely phased out after 2019. As the decrease in bonus depreciation begins in 2018, the utilization of Production Tax Credits will begin to rise. PSE expects the utilization of Production Tax Credits to accelerate into 2019 and beyond.

Based on current tax law, it is highly probable that all of PSE's generated Production Tax Credits will be utilized by 2020. That said, PSE must offer a caveat. The prediction of utilizing Production Tax Credits over the next few years is uncertain and subject to change based on (i) any tax reform that might be enacted by Congress and (ii) how any such tax reform might directly affect the utilization of Production Tax Credits.

Q. What would happen if the combined total of repurposed Treasury Grants and Production Tax Credits were to exceed Colstrip Units 1 & 2 decommissioning and remediation costs?

A. If the combined total of repurposed Treasury Grants and Production Tax Credits were to exceed Colstrip Units 1 & 2 decommissioning and remediation costs, any remaining funds in the retirement account would be returned to customers. *See* RCW 80.84.020(2)(c).

VIII. CONCLUSION

Q. Does that conclude your prefiled direct testimony?

A. Yes, it does.