

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Complainant,

v.

PUGET SOUND ENERGY

Respondent.

DOCKETS UE-220066, UG-220067, and UG-210918 (*Consolidated*)

**RESPONSE TESTIMONY OF GLENN A. WATKINS
ON BEHALF OF
WASHINGTON STATE OFFICE OF ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

Exhibit GAW-1T

July 28, 2022

RESPONSE TESTIMONY OF GLENN A. WATKINS

EXHIBIT GAW-1T

DOCKETS UE-220066, UG-220067, and UG-210918 (*Consolidated*)

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I. INTRODUCTION AND SUMMARY

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

2 A. My name is Glenn A. Watkins. My business address is 6377 Mattawan Trail,
3 Mechanicsville, Virginia 23116.

4 **Q. What is your professional and educational background?**

5 A. I am President and Senior Economist with Technical Associates, Inc., which is an
6 economics and financial consulting firm with an office in Hanover, Virginia.
7 Except for a six-month period during 1987 in which I was employed by Old
8 Dominion Electric Cooperative, as its forecasting and rate economist, I have been
9 employed by Technical Associates continuously since 1980.

10 During my 40-year career at Technical Associates, I have conducted
11 hundreds of marginal and embedded cost of service, rate design, cost of capital,
12 revenue requirement, and load forecasting studies involving electric, gas,
13 water/wastewater, and telephone utilities throughout the United States and
14 Canada. I have provided expert testimony in Alabama, Arizona, Delaware,
15 Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Massachusetts,
16 Michigan, Montana, Nevada, New Jersey, North Carolina, Ohio, Pennsylvania,
17 Vermont, Virginia, South Carolina, Washington, and West Virginia. This
18 experience includes serving as a witness for the Public Counsel Unit of the
19 Washington State Office of the Attorney General (Public Counsel) in several
20 proceedings before the Washington Utilities and Transportation Commission
21 (UTC or Commission). In addition, I have provided expert testimony before state

1 and federal courts as well as before state legislatures. I provide a more complete
2 description of my education and experience in Exhibit GAW-2.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. Public Counsel retained Technical Associates to evaluate the accuracy and
5 reasonableness of Puget Sound Energy's (PSE or Company) electric sales and
6 load forecasts used for revenue requirement and rate design purposes as well as its
7 electric and natural gas class cost of service studies (CCOSS), proposed
8 distribution of revenues by class (rate spread), and residential rate designs. The
9 purpose of my testimony, therefore, is to comment on PSE's proposals on these
10 issues and to present my findings and recommendations based on the results of
11 the studies I have undertaken on behalf of Public Counsel.

12 **Q. Please summarize your findings and recommendations.**

13 A. With regard to the Company's electric operations, I have determined that its
14 forecasted energy sales and billing demands are unreasonably understated and
15 adjusted to three rate schedules for each year of the multi-year rate plan. On
16 issues concerning class cost of service, I have accepted the Company's results.
17 With regard to electric rate spread, I have accepted the Company's approach as it
18 relates to base rates and its refundable and non-refundable riders. I disagree with
19 PSE's rate spread relating to the Colstrip rider. Finally, I recommend no increase
20 to the Residential customer charge.

21 With regard to the Company's natural gas operations, I agree with the
22 Company's class cost of service results as well as the Company's proposed
23 natural gas rate spreads (for base rates, refundable, and non-refundable riders).

1 Finally, I recommend a smaller increase to the Residential natural gas customer
2 charge than that proposed by the Company

II. ELECTRIC OPERATIONS

A. Forecasted Sales (KWh) and Billing Demands (KW or KV_a)

3 **Q. Is the Company's forecasted KWh sales and KW load forecast particularly**
4 **important as it relates to its proposed multi-year rate plan?**

5 A. For multiple reasons, yes. For some rate schedules, the Company is projecting
6 significant reductions in usage and billing demand volumes between the test year
7 (normalized) and the rate years. Because these forecasted usages and billing
8 demands serve as a foundation in developing the ultimate rates designed for each
9 year of the rate plan, any unreasonable forecasted reductions in usage and billed
10 demands will overstate the actual rates that customers will pay.¹

11 Furthermore, and as my testimony will explain later in more detail, any
12 unreasonable forecasted reductions in usage (and resulting revenues at current
13 rates) will actually impact the revenue requirements associated with the various
14 rider or tracker mechanisms the Company is proposing in this case. This is
15 because the vast majority of the forecasted usage reductions (and attendant
16 revenues at current rates) occur during what the Company refers to as the gap
17 year; i.e., between the test year ending June 2021 and December 2022. The
18 Company's total requested increase for Rate Year 1 (2023) is dependent on its
19 projected operating income during the gap year. Therefore, to the extent that

¹ Actual rates are calculated as required revenue divided by billing determinants. Therefore, if billing determinants (the denominator) is understated, the ultimate rate will be overstated.

1 revenues are understated in the gap year, operating income in the gap year is
2 understated. This then causes the required increase in Rate Year 1 to be
3 overstated.

4 The Company is proposing a different ratemaking approach in which some
5 costs will be recovered in base rates while others will be recovered in a Colstrip
6 Rider (Schedule 141C), a Refundable Rider (Schedule 141R), and a Non-
7 Refundable Rider (Schedule 141N). With regard to the interplay between these
8 riders, under the Company's proposal, a reduction in base rates is first calculated,
9 and then a projected refundable rider is calculated such that the "non-refundable"
10 rider becomes the residual of the remaining requested overall increase. To the
11 extent that the overall requested increase is overstated due to unrealistic revenue
12 reductions during the gap year, the non-refundable rider is also overstated. This
13 has material impacts on how the various rider revenue requirements are assigned
14 to individual classes.

15 **Q. Have you examined the Company's energy sales and load forecasts for the**
16 **gap year and subsequent rate years within the proposed multi-year rate**
17 **plan?**

18 A. Yes. Company witness Birud Jhaveri sponsors the specific KWh and billing
19 demand forecasts by specific rate schedule as discussed on pages 12 and 13 of
20 testimony. Witness Jhaveri refers to these forecasts as the Company's "load"
21 forecast. I will also refer to these forecasts as load forecasts.² The following table

² Technically, "load" refers to power (kW or kVA) while energy usage refers to KWh.

1 provides a summary of PSE’s forecasting energy sales (at the meter) by rate
 2 schedule for the test year, gap year, and each year of the multi-year rate plan:

3

TABLE 1
 PSE Forecasted Energy Sales

		MWh @ Meter ³				
		Test Year				
		6/2021	12/2022	12/2023	12/2024	12/2025
Rate Schedule		(Normalized)	Gap Year	RY 1	RY 2	RY 3
7 (7D1&2)	Residential	11,355,355	10,857,353	10,846,482	10,953,273	11,003,417
8,24	Sec. GS	2,658,833	2,628,117	2,697,633	2,730,372	2,726,800
7A,11,25	Sec. GS	2,856,046	2,836,809	2,911,699	2,948,172	2,946,456
12,26,26P	Sec. GS	1,761,911	1,789,712	1,831,289	1,853,862	1,858,617
29	Sec. Pump. & Irr.	15,294	14,336	14,668	14,778	14,769
10,31	Pri. GS	1,307,770	1,318,295	1,332,008	1,335,448	1,324,706
35	Pri. Pump. & Irr.	4,388	4,565	4,663	4,695	4,694
43	Pri. Interrupt.	114,099	114,881	118,190	119,782	119,354
46	High Volt Interrupt.	100,810	78,958	78,251	77,611	76,484
49	High Volt GS	513,294	504,163	504,715	499,683	489,052
3,50-59	Lighting	69,893	64,560	62,703	61,382	60,001
449,459	Retail Wheeling	1,945,214	1,900,721	1,895,530	1,895,104	1,883,722
SC	Special Contract	278,070	289,426	289,426	289,426	289,426
5	Firm Resale	7,372	7,520	7,521	7,552	7,521
Total		22,988,349	22,409,416	22,594,778	22,791,140	22,805,019

4 **Q. As a general matter, how did PSE conduct its KWh sales and billing demand**
 5 **forecasts?**

6 A. As set forth in Company’s response to UTC Staff Data Request No. 181, the
 7 Company utilized a traditional approach in forecasting: (1) number of customers;
 8 (2) average use per customer; and, (3) other adjustments such as additional
 9 electric vehicle (EV) load.⁴

10 **Q. Have you examined the reasonableness of the Company’s forecasted number**
 11 **of customers?**

³ See Birud Jhaveri Workpaper, NEW-PSE-WP-BDJ-5-ELEC-RATE-SPREAD-DESIGN-22GRC-01-2022.XLSX, Tab: Exhibit (BDJ-MYRP-SUM).

⁴ Glenn A. Watkins, Exh. GAW-3 (PSE Response to UTC Data Request No. 181).

1 A. Yes. I examined the Company’s forecasted number of customers and evaluated
 2 each rate schedule based on historical trends as well as the Company’s prior
 3 forecasts. As a result, I have concluded that the Company’s forecasted number of
 4 customers by rate schedule for the gap year and each year of the multi-year rate
 5 plan are reasonable. The following table provides a summary of the Company’s
 6 forecasted number of customers by rate schedule for the test year, gap year, and
 7 each year of the multi-year rate plan:

TABLE 2
 PSE Forecasted Number of Customers ⁵

Rate Schedule		Test Year				
		6/2021 (Normalized)	12/2022 Gap Year	12/2023 RY 1	12/2024 RY 2	12/2025 RY 3
7 (7D1&2)	Residential	1,063,538	1,084,903	1,098,947	1,113,174	1,127,263
8,24	Sec. GS	133,020	135,610	137,355	139,051	140,651
7A,11,25	Sec. GS	8,108	8,402	8,412	8,533	8,656
12,26,26P	Sec. GS	842	852	881	944	1,044
29	Sec. Pump. & Irr.	658	662	668	675	681
10,31	Pri. GS	491	507	511	514	515
35	Pri. Pump. & Irr.	2	2	2	2	2
43	Pri. Interrupt.	147	150	151	153	154
46	High Volt Interrupt.	6	6	6	6	6
49	High Volt GS	18	18	18	18	18
449,459	Retail Wheeling	20	20	20	20	20
SC	Special Contract	90	89	89	89	89
5	Firm Resale	8	8	8	8	8
Total Excl. Lighting		1,206,947	1,231,228	1,247,069	1,263,186	1,279,107

8 **Q. Have you examined the reasonableness of the Company’s forecasted average**
 9 **usages per customer?**

10 A. Yes. Based on the Company’s forecasted total MWh sales by rate schedule and its
 11 forecasted number of customers, I was able to calculate the Company’s forecasted
 12 annual usages per customer by specific rate schedule. I then calculated the
 13 Company’s percentage change in usage per customer from the actual normalized

⁵ Jhaveri, Exh. BDJ-5, specific rate designs (number of bills divided by 12).

1 usage per customer during the test year. The following tables provide the
 2 Company's total forecasted usages per customer by rate schedule and the percent
 3 changes from one period to the next period:

TABLE 3
 PSE Forecasted Annual KWh Per Customer

Rate Schedule		Test Year				
		6/2021 (Normalized)	12/2022 Gap Year	12/2023 RY 1	12/2024 RY 2	12/2025 RY 3
7 (7D1&2)	Residential	10,677	10,008	9,870	9,840	9,761
8,24	Sec. GS	19,988	19,380	19,640	19,636	19,387
7A,11,25	Sec. GS	352,258	337,632	346,126	345,495	340,401
12,26,26P	Sec. GS	2,092,738	2,101,824	2,078,378	1,962,874	1,779,747
29	Sec. Pump. & Irr.	23,246	21,672	21,950	21,896	21,682
10,31	Pri. GS	2,665,745	2,599,260	2,604,941	2,599,779	2,571,580
35	Pri. Pump. & Irr.	2,193,822	2,282,500	2,331,500	2,347,500	2,347,000
43	Pri. Interrupt.	777,949	767,475	781,162	784,324	774,312
46	High Volt Interrupt.	16,801,675	13,159,667	13,041,833	12,935,167	12,747,333
49	High Volt GS	28,782,826	28,270,822	28,301,776	28,019,607	27,423,477
449,459	Retail Wheeling	97,260,708	95,036,050	94,776,500	94,755,200	94,186,100
SC	Special Contract	3,095,402	3,251,279	3,251,279	3,251,279	3,251,279
5	Firm Resale	921,542	940,000	940,125	944,000	940,125

TABLE 4
 PSE Forecasted Annual Percent Change In KWh Usage Per Customer

Rate Schedule		6/2021	12/2022	12/2023	12/2024
		To 12/2022	To 12/2023	To 12/2024	To 12/2025
7 (7D1&2)	Residential	-6.27%	-1.38%	-0.31%	-0.80%
8,24	Sec. GS	-3.04%	1.34%	-0.02%	-1.27%
7A,11,25	Sec. GS	-4.15%	2.52%	-0.18%	-1.47%
12,26,26P	Sec. GS	0.43%	-1.12%	-5.56%	-9.33%
29	Sec. Pump. & Irr.	-6.77%	1.28%	-0.25%	-0.98%
10,31	Pri. GS	-2.49%	0.22%	-0.20%	-1.08%
35	Pri. Pump. & Irr.	4.04%	2.15%	0.69%	-0.02%
43	Pri. Interrupt.	-1.35%	1.78%	0.40%	-1.28%
46	High Volt Interrupt.	-21.68%	-0.90%	-0.82%	-1.45%
49	High Volt GS	-1.78%	0.11%	-1.00%	-2.13%
449,459	Retail Wheeling	-2.29%	-0.27%	-0.02%	-0.60%
SC	Special Contract	5.04%	0.00%	0.00%	0.00%
5	Firm Resale	2.00%	0.01%	0.41%	-0.41%

5 As a starting point, I evaluated the Company's forecasted trends from the
 6 actual normalized test year usage per customer to December 2022 (the gap year).
 7 This period encompasses a year and a half (18 months). I then observed that three

1 traditional rate schedules are forecasted to have significant changes over this
2 18-month period (more than +/- 5 percent). Specifically, as shown in the table
3 above, Residential (Rate 7) usage per customer is forecasted to decline by 6.27
4 percent, Secondary Pumping & Irrigation (Rate 29) is forecasted to decline by
5 6.77 percent, and High Voltage Interruptible (Rate 46) is forecasted to decline by
6 21.68 percent. I further investigated these three rate schedules.

1. Residential (Rate Schedule 7)

7 **Q. Please explain your investigation of the Company's forecasted reduction in**
8 **residential usage per customer.**

9 A. In response to UTC Staff Data Request No. 181, the Company stated:

10 **Observed energy consumption trends.** Residential user per
11 customer has been declining in recent years. Weather normalized
12 residential use per customer has declined, on average, 0.5 percent
13 per year and one percent per year for the five and ten years prior to
14 2020, respectively. However, with the pandemic's disruption of
15 normal daily life, residential customer electric energy consumption
16 increased by approximately three percent during 2020-2021.
17 Calendar year 2019 is the most recent year of "typical" residential
18 energy consumption patterns prior to the pandemic and is used as a
19 baseline in the load forecast assumptions. The load forecast assumes
20 the residential energy consumption patterns will return to pre-
21 pandemic "business as usual" levels in early 2022.⁶

22 Based on information and data that I have from previous PSE rate cases, I was
23 able to evaluate the Company's claim that residential usage has declined
24 approximately 0.5 percent per year during the last five years. Specifically, I
25 calculated the weather normalized usage per customer for the 12-month period

⁶ Watkins, Exh. GAW-3 (PSE Response to WUTC Staff Data Request No. 181).

1 ending September 2016⁷ and the 12-month period ending December 2018.⁸ For
2 the 12-month period ending September 2016, the average normalized residential
3 usage per customer was 10,443 KWh while the average normalized usage per
4 residential customer as of December 2018 was 10,313 KWh. This period
5 encompassed 2.25 years. Therefore, the compound annual rate of change was
6 -0.56 percent.⁹ As such, the Company's claim that residential usage has declined
7 by about 0.5 percent per year is reasonable.

8 I then evaluated the Company's claim that the COVID pandemic resulted
9 in increased residential usage such that a further downward adjustment is required
10 to reflect this abnormal additional usage during the test year. Social behavior
11 associated with the COVID pandemic began in early 2020. As discussed above, I
12 evaluated the trend in residential usages per customer between September 2016
13 and December 2018, which occurred before the pandemic. Therefore, since this
14 reflects a "business as usual" time period, the trends in usage per customer can be
15 extrapolated through the gap year (December 2022). In this way, any effects on
16 usage due to the pandemic are not considered or reflected. Specifically, I applied
17 a -0.56 percent compound annual rate of change from December 2018 through
18 December 2022 (four years). As a result, I was able to estimate a normalized,

⁷ Jon A. Piliaris, Exh. JAP-39, *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Dockets UE-170033 & UG-170034 (*consol.*) (filed Apr. 03, 2017)

⁸ Piliaris, Exh. JAP-6, *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Dockets UE-190529 & UG-190530 (*consol.*) (filed June 20, 2019)

⁹ $[(10,313 \div 10,443)^{(1 \div 2.25)}] - 1$.

1 non-pandemic-influenced, residential usage per customer for the 12-month period
2 ending December 2022 (gap year) of 10,085 KWh.¹⁰

3 The Company estimates that, due to the growth in electric vehicle (EV)
4 penetration, residential energy sales will increase by an additional 31,589 MWh
5 between June 2021 and December 2022.¹¹ I accepted this assumed level of
6 increased penetration in EV usage. Therefore, in addition to my estimated gap
7 year average use per customer of 10,085 KWh, I added an additional 29 KWh
8 associated with increased EV penetration.¹² As a result, my total estimated
9 residential usage per customer during the gap year (December 2022) is 10,114
10 KWh as compared to PSE's estimate of 10,008 KWh. My December 2022
11 estimate of 10,114 KWh results in a compound annual change in usage per
12 customer of -3.55 percent annually from the actual weather normalized usage of
13 10,677 KWh during the test year (June 2021).¹³ My estimate more reasonably
14 reflects the "normal" decline in usage per customer as well as any abnormal
15 impacts due to the COVID pandemic. This is because the pre-pandemic annual
16 rate of change was approximately -0.56 percent while I have estimated an annual
17 rate of change of -3.55 percent, which accounts for any unusual effects during the
18 test year due to the pandemic.

¹⁰ $10,313 \times [(1 - 0.005574)^4]$.

¹¹ Watkins, Exh. GAW-3 (PSE Response to WUTC Staff Data Request No. 181).

¹² Calculated as: $31,589,000 \text{ KWh} \div 1,084,903 \text{ customers}$.

¹³ $[(10,114 \div 10,677)^{(1 \div 1.5)}] - 1$.

1 rate plan. The following table provides my recommended adjustment to
2 residential MWh sales volumes:

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TABLE 6
Public Counsel
Residential Sales Adjustment
(MWh)

Year	PSE Forecast	Public Counsel Forecast	Public Counsel Adjustment
12/2022	10,857,353	10,972,303	114,950
12/2023	10,846,482	11,073,619	227,137
12/2024	10,953,273	11,175,609	222,336
12/2025	11,003,417	11,275,387	271,970

4 I also provide the calculations supporting the amounts in Table 6 above in my
5 Exhibit GAW-4.

2. Secondary Pumping & Irrigation (Rate Schedule 29)

6 **Q. Please explain your investigation of the Company's forecasted reduction in**
7 **Secondary Pumping & Irrigation (Rate Schedule 29) usage per customer.**

8 A. Similar to residential energy (KWh) usage per customer, the Company forecasts
9 that Secondary Pumping and Irrigation (Rate Schedule 29) will decline by 6.77
10 percent between the test year and the gap year as shown in Table 4, above. I
11 investigated the trends in this rate schedule's energy usage and observed that the
12 energy usage per customer has been relatively constant over time as shown in the
13 table below:

14 //
15 //
16 //

1

TABLE 7
Rate 29 Secondary Pumping & Irrigation¹⁴

12-Months Ending		KWh Usage Per Customer
September 2016	Actual	23,583
December 2018	Actual	24,299
June 2021	Actual	23,246
December 2022	Forecast	21,672

2

Because energy usage per customer has remained relatively constant over the historical period investigated, I recommend utilizing the test year energy usage per customer throughout the multi-year rate plan.

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More troubling is the Company's forecasted billing demands for this rate schedule. While the actual test year Winter billing demand was 2,736 KW, PSE forecasts that this will drop to 1,333 KW for the gap year (a decline of more than 51 percent). Similarly, the actual Summer billing demand was 4,347 KW during the test year while PSE forecasts this will drop to 3,787 KW during the gap year (a decline of 12.9 percent). Given the load characteristics of this rate schedule, PSE's forecasted billing demands are clearly unreasonable for this rate schedule. As such, I have utilized the test year billing demands per customer (both Winter and Summer) throughout the multi-year rate plan. In addition, I have accepted the Company's forecasted growth in number of customers about one percent per year.

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Q. What are your recommended adjustments to Rate Schedule 29, Secondary Pumping & Irrigation, during each year of the multi-year rate plan?

16

¹⁴ Watkins, Exh. GAW-4.

1 A. The following table provides my recommended adjustment to Rate Schedule 29
 2 MWh sales and KW billing demands during each year of the multi-year rate plan:

TABLE 8
 Public Counsel
 Secondary Pumping & Irrigation Adjustment
 (MWh and Billing KW)

Year	PSE Forecast	Public Counsel	
		Forecast	Adjustment
Energy (MWh)			
12/2022	14,336	15,377	1,041
12/2023	14,668	15,534	866
12/2024	14,778	15,689	911
12/2025	14,769	15,834	1,065
Winter Demand (KW)			
12/2022	1,333	2,751	1,418
12/2023	1,378	2,779	1,401
12/2024	1,396	2,807	1,411
12/2025	1,399	2,833	1,434
Summer Demand (KW)			
12/2022	3,787	4,371	584
12/2023	3,935	4,415	480
12/2024	3,980	4,459	479
12/2025	3,981	4,501	520

4 The calculations supporting the amounts in Table 8 above are also provided in my
 5 Exhibit GAW-4.

3. High Voltage Interruptible Service (Rate Schedule 46)

6 **Q. Please explain your investigation of the Company’s forecasted reduction in**
 7 **High Voltage Interruptible Service (Rate Schedule 46) usage per customer.**

8 **A. The Company forecasts that High Voltage Interruptible (Rate Schedule 46)**
 9 **energy usage per customer will decline by 21.7 percent between the test year and**
 10 **the gap year as shown in Table 4, above. I investigated the trends in this rate**
 11 **schedule’s energy usage and observed that the energy usage per customer has**

1 customers for this rate schedule such that I have accepted the Company’s
 2 forecasted number of customers throughout the multi-year rate plan period.

3 **Q. What are your recommended adjustments to Rate Schedule 46, High Voltage**
 4 **Interruptible, during each year of the multi-year rate plan?**

5 A. The following table provides my recommended adjustment to Rate Schedule 46
 6 MWh sales and KV_a billing demands during each year of the multi-year rate plan:

7

TABLE 10
 Public Counsel
 High Voltage Interruptible Adjustment
 (MWh and Billing KV_a)

Year	PSE Forecast	Public Counsel	
		Forecast	Adjustment
Energy (MWh)			
12/2022	78,958	100,810	21,852
12/2023	78,251	100,810	22,559
12/2024	77,611	100,810	23,199
12/2025	76,484	100,810	24,326
Demand (KV_a)			
12/2022	342,089	410,250	68,161
12/2023	337,746	410,250	72,504
12/2024	333,917	410,250	76,333
12/2025	329,590	410,250	80,660

8 I also provide the calculations supporting the amounts in Table 10 above in my
 9 Exhibit GAW-4.

10 **Q. Have you calculated the additional current base rate revenue associated with**
 11 **your adjustments to the Company’s energy and billing demand forecasts for**
 12 **the three rate schedules discussed above?**

13 A. Yes. Exhibit GAW-5 provides the detailed calculations of the current base rate
 14 revenue adjustments for Rate Schedules 7, 29, and 46, and are summarized below:

1

TABLE 11
Public Counsel Adjustment to Current Base Rate Revenues

	PSE	Public Counsel	Adjustment
<u>Residential (Rate 7)</u>			
2022	\$1,181,367,964	\$1,192,842,643	\$11,474,679
2023	\$1,181,455,600	\$1,204,127,235	\$22,671,635
2024	\$1,193,395,425	\$1,215,587,872	\$22,192,447
2025	\$1,199,531,745	\$1,226,675,071	\$27,143,326
<u>Sec. Pumping/Irrig. (Rate 29)</u>			
2022	\$1,248,001	\$1,340,198	\$92,197
2023	\$1,275,277	\$1,353,914	\$78,637
2024	\$1,285,576	\$1,367,397	\$81,821
2025	\$1,286,375	\$1,380,056	\$93,681
<u>HV Interruptible (Rate 46)</u>			
2022	\$5,173,244	\$6,524,365	\$1,351,121
2023	\$5,123,030	\$6,524,365	\$1,401,335
2024	\$5,077,889	\$6,524,365	\$1,446,476
2025	\$5,005,738	\$6,524,365	\$1,518,627
<u>TOTAL ADJUSTMENT</u>			
2022	\$1,187,789,209	\$1,200,707,205	\$12,917,996
2023	\$1,187,853,907	\$1,212,005,514	\$24,151,607
2024	\$1,199,758,890	\$1,223,479,634	\$23,720,744
2025	\$1,205,823,858	\$1,234,579,492	\$28,755,634

2 **Q. Have you also calculated the incremental costs associated with your sales and**
 3 **load forecast adjustment?**

4 **A.** Yes. I have utilized the Company’s forecasted power costs as set forth in
 5 Company witness Paul Wetherbee’s Exhibit PKW-5C. Because witness
 6 Wetherbee forecasts power costs at transmission level, it was necessary to
 7 increase these costs per MWh to reflect energy losses at the meter. The following
 8 table provides the incremental power costs associated with my sales and load
 9 adjustment for each year of the multi-year rate plan:

TABLE 12
 Public Counsel
 Variable Cost and Gross Margin Adjustment

	Gap Year 12/2022	Rate Year 1 12/2023	Rate Year 2 12/2024	Rate Year 3 12/2025
PSE Forecasted Power Costs/MWh @ Trans. ¹⁶	\$42.264	\$42.264	\$42.359	\$40.300
System Loss Factor @ 7.8104% ¹⁷	7.8104%	7.8104%	7.8104%	7.8104%
Forecasted Power Costs/MWh @ Meter	\$45.845	\$45.845	\$45.948	\$43.714
<u>Public Counsel MWh Adjustment (@ Meter)</u>	<u>137,843</u>	<u>250,562</u>	<u>246,446</u>	<u>297,361</u>
Public Counsel Variable Cost Adjustment	\$6,319,368	\$11,486,915	\$11,323,586	\$12,998,953
Public Counsel Base Rate Revenue Adjustment	\$12,917,996	\$24,151,607	\$23,720,744	\$28,755,634
Public Counsel Gross Margin Adjustment	\$6,598,628	\$12,664,692	\$12,397,158	\$15,756,681

B. Electric Class Cost of Service

1 **Q. Have you examined the Company’s proposed electric CCROSS for this case?**

2 A. Yes. Witness Birud Jhaveri sponsors the Company’s electric class cost of service
 3 study in this case. In this regard, witness Jhaveri conducted two studies. The first
 4 study complies exactly with WAC 480-85, while witness Jhaveri’s second and
 5 recommended study seeks an exemption from the WAC Rules on one issue as it
 6 relates to the treatment of FERC Account 365 (Transmission of Electricity by
 7 Others).

8 **Q. Do you agree with witness Jhaveri’s requested exemption from the WAC**
 9 **Rules as it relates to FERC Account 365?**

10 A. Yes. As set forth on Page 19 of witness Jhaveri’s direct testimony, costs in this
 11 account relate to the wheeling of energy so are not a function of peak demand,

¹⁶ Paul K. Wetherbee, Exh. PKW-5C. Year 2022 assumed to be the same as 2023.

¹⁷ Calculated per Jhaveri workpaper, WP-BDJ-3-ELEC-PROD-ADJ-FACTOR, Tab: GPI (F2021). Includes station losses.

1 and therefore relate to the supply of energy, not incurred to meet capacity (peak
 2 load) requirements on the PSE system.

3 **Q. Please provide a summary of witness Jhaveri’s recommended CCOSS**
 4 **results.**

5 A. The following table provides a summary of witness Jhaveri’s recommended
 6 CCOSS results:

TABLE 13
 PSE Recommended CCOSS
 Results Under Current Rates

Class	ROR	Indexed ROR	Parity Ratio
Residential	7.17%	95%	0.99
Sec. GS (< 51 KW)	9.63%	127%	1.05
Sec. GS (51-350 KW)	7.24%	96%	0.99
Sec. GS (> 350 KW)	6.71%	89%	0.98
Primary GS	7.23%	96%	0.99
Primary Pump. & Irr.	-6.28%	-83%	0.60
Primary Interrupt. Schools	10.36%	137%	1.07
Special Contract	3.33%	44%	0.79
High Voltage	16.13%	213%	1.16
Lighting	11.44%	151%	1.23
Retail Wheeling	7.38%	98%	1.00
Firm Resale	-9.03%	-119%	0.60
Total Retail	7.57%	100%	1.00

8 **Q. Have you determined if witness Jhaveri’s recommended CCOSS results are**
 9 **equitable and reasonable across classes?**

10 A. Yes, I have concluded that the end results of witness Jhaveri’s electric CCOSS
 11 results are reasonable and equitable across all classes. While the mechanics and
 12 conceptual framework of the Company’s study in this case significantly differ
 13 from those conducted in prior cases, the changes made to the study in this case
 14 have an immaterial impact on the cost of service results as compared to the
 15 approaches used in prior cases. In response to Federal Executive Agencies (FEA)

1 Data Request No. 13,¹⁸ the Company compared results using the current
2 methodology to its prior methodology and indeed, there is virtually no difference
3 in parity ratios across classes. With this said, in prior cases, I evaluated PSE's
4 CCOSS studies using alternative methodologies¹⁹ and concluded that the
5 Company's study results were indeed reasonable. As such, I conclude that witness
6 Jhaveri's recommended CCOSS results in this case are reasonable and equitable
7 across all classes.

C. Electric Rate Spread

8 **Q. Before you discuss the specifics of electric rate spread, does PSE propose**
9 **significant changes in the structure of rates all customers must pay?**

10 A. Yes. The Company is proposing significant changes in the overall structure of
11 rates all customers must pay during the multi-year rate plan. Specifically, PSE
12 proposes to maintain base rates that will remain constant throughout the multi-
13 year rate plan. In addition to base rates, the Company proposes three new riders to
14 vary each year during the rate plan.

15 The first rider relates to the revenue requirement associated with Colstrip,
16 wherein the Company has eliminated the cost associated with Colstrip within the
17 development of base rates. These Colstrip-related costs will then collect in a
18 reconcilable rider (Rider 141C). In addition to this rider, PSE proposes two more
19 to reflect the recovery of its forecasted plant additions (and retirements) during

¹⁸ Watkins, Exh. GAW-6 (PSE Response to FEA Data Request No. 13).

¹⁹ In its last case, I utilized the Probability of Dispatch and Base-Intermediate-Peak methods.

1 the multi-year rate plan. These riders are 141R (Refundable) and 141N (Non-
2 Refundable). The refundable rider will be those subject to the Company's annual
3 prudence review that will then be transferred to the non-refundable riders after
4 they are approved within the annual review process.

5 An understanding of the proposed new riders is required because PSE
6 proposes different rate spreads across base rates and the new riders.

1. Base Rate Spread

7 **Q. Please explain witness Jhaveri's proposed rate spread associated with the**
8 **Company's proposed base rates.**

9 A. Due to the Company's proposal to collect costs associated with Colstrip in a
10 separate rider, PSE is proposing a slight revenue reduction to base rates. In
11 developing the rate spread associated with base rates, witness Jhaveri relied
12 primarily on the results of PSE's recommended CCOSS based on the test year
13 ending June 2021. More specifically: (1) the class whose parity ratio is more than
14 110 percent of parity (High Voltage) received 150 percent of the adjusted average
15 percentage decrease; (2) the class whose parity ratio is more than 105 percent
16 (Electric Schools) received 125 percent of the adjusted average decrease; (3) the
17 class whose parity ratio is below 80 percent (Primary Irrigation & Pumping)
18 received no reduction to base rates; and (4) all remaining classes received the
19 adjusted system average percentage decrease.²⁰

20 The following table provides a summary of witness Jhaveri's proposed

²⁰ The Special Contract, Choice/Retail Wheeling, and Firm Resale class changes are based specifically on the Company's CCOSS results.

1 base rate spread based on test year (June 2021) usages and billing determinants:

2

TABLE 14
 PSE Proposed Base Rate Spread
 Test Year 2021 Consumption ²¹
 (\$000)

Class	Schedule	Proforma Revenue	Proposed Revenue Change	Pct Change
Residential	7 (7D1, 7D2)	\$1,231,055	(\$7,250)	-0.59%
Secondary <= 50 kW	8/24	\$271,509	(\$1,599)	-0.59%
Secondary 50 kW - 350 kW	7A/11/25/29	\$267,614	(\$1,576)	-0.59%
Secondary > 350 kW	12/26/26P	\$151,321	(\$891)	-0.59%
Primary General Service	10/31	\$110,793	(\$653)	-0.59%
Primary Irrigation	35	\$276	\$0	0.00%
Primary Interruptible ES	43	\$10,372	(\$76)	-0.74%
High Voltage	46/49	\$40,944	(\$362)	-0.88%
Choice/Wheeling/SC	449/459/SC	\$13,317	(\$728)	-5.47%
Lighting	50-59	\$17,784	(\$105)	-0.59%
Total Retail Sales		\$2,114,984	(\$13,241)	-0.63%
Firm Resale		\$346	\$231	66.87%
Total Sales		\$2,115,329	(\$13,010)	-0.62%

3 However, the new rate design begins with Rate Year 1 (2023) and because the
 4 Company is forecasting a multitude of adjustments between the test year and rate
 5 years including material changes in billing determinants for some classes, the
 6 actual amount of proposed reductions to base rates are lower than those presented
 7 above for the test year. The Company's base rate changes for Rate Year 1 are
 8 summarized below:

9 //
 10 //
 11 //
 12 //

²¹ Jhaveri, Exh. BDJ-5 at 1.

1

TABLE 15
 PSE Proposed Base Rate Spread
 Rate Year 1 (2023) ²²
 (\$000)

Class	Schedule	Proposed Base Rate Revenue	Base Rate Change
Residential	7 (7D1, 7D2)	\$1,175,313	(\$6,143)
Secondary <= 50 kW	8/24	\$273,738	(\$1,619)
Secondary 50 kW - 350 kW	7A/11/25/29	\$272,040	(\$1,597)
Secondary > 350 kW	12/26/26P	\$154,385	(\$917)
Primary General Service	10/31	\$111,274	(\$657)
Primary Irrigation	35	\$291	\$0
Primary Interruptible ES	43	\$10,726	(\$78)
High Voltage	46/49	\$38,235	(\$343)
Choice/Wheeling/SC	449/459/SC	\$12,953	(\$889)
Lighting	50-59	\$15,860	(\$94)
Total Retail Sales		\$2,064,816	(\$12,336)
Firm Resale		\$574	\$231
Total Sales		\$2,065,390	(\$12,105)

2

Q. Have you determined if the Company’s proposed electric rate spread associated with base rates is reasonable?

3

4

A. Yes. Witness Jhaveri reasonably reflects cost of service study results and moves classes closer to parity in a gradual manner. As a result, witness Jhaveri’s approach is reasonable and consistent with sound ratemaking practices.

5

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²² Jhaveri, Exh. BDJ-5 at1. The revenue change is based on forecasted 2023 billing determinants.

2. Colstrip Rider

1 **Q. Please explain witness Jhaveri's proposed rate spread associated with the**
2 **Company's proposed Colstrip Rider 141C.**

3 A. As I note above, the Company's forecasted revenue requirement for costs
4 associated with Colstrip will change each year during the multi-year rate plan
5 such that it proposes each year's revenue requirement as follows:

6	Rate Year 1	\$53.881 million
7	Rate Year 2	\$58.029 million
8	Rate Year 3	\$80.563 million

9 Witness Jhaveri proposes to spread the annual Colstrip revenue
10 requirements based on the allocation factor used to assign total production plant,
11 i.e., the Company's Renewable Peak Credit allocation factor. This approach
12 would allocate 80 percent of the Colstrip costs to classes based on 2021 peak
13 demands while allocating the remaining 20 percent to classes based on 2021
14 energy usages.

15 **Q. Do you agree with the Company's proposal to spread the Colstrip revenue**
16 **requirement based 80 percent on peak demands and 20 percent based on**
17 **energy usage?**

18 A. No. Colstrip was built and designed as a base load unit, to serve customers' usage
19 requirements throughout the year. This plant is not, and never has been, a resource
20 utilized to meet peak load requirements, yet the Company's approach would
21 assign Colstrip's cost responsibility to classes as if 80 percent of the cost
22 associated with this plant were attributable to peak load requirements.
23 Furthermore, a significant portion of the Colstrip revenue requirements are

1 associated with dismantlement, restoration, and remediation costs associated with
 2 when PSE owned Units 3 and 4. Again, Units 3 and 4 were base load units, and in
 3 no way related to meeting peak load requirements of a utility in the past. As a
 4 result, and assuming the Commission approves a Colstrip Rider, it should assign
 5 the revenue requirements to classes based on KWh energy usage (including line
 6 losses). The following table compares PSE’s recommended rate spread for the
 7 Colstrip Rider to that of Public Counsel:

TABLE 16
 Colstrip Rate Spread
 (\$000)

Class	Rate Year 1		Rate Year 2		Rate Year 3	
	PSE	PC	PSE	PC	PSE	PC
Residential	\$31,365.6	\$29,035.9	\$33,780.7	\$31,266.4	\$46,900.4	\$43,634.3
Secondary <= 50 kW	\$6,782.6	\$7,068.2	\$7,304.8	\$7,633.2	\$10,141.8	\$10,544.6
Secondary 50 kW - 350 kW	\$7,288.7	\$7,625.7	\$7,849.9	\$8,238.5	\$10,898.7	\$11,389.0
Secondary > 350 kW	\$4,209.5	\$4,797.1	\$4,533.6	\$5,181.5	\$6,294.4	\$7,185.5
Secondary Pump. & Irr.	\$39.1	\$40.7	\$42.1	\$43.8	\$58.5	\$61.2
Primary General Service	\$2,939.7	\$3,332.4	\$3,166.0	\$3,564.8	\$4,395.6	\$4,891.3
Primary Irrigation	\$7.1	\$11.7	\$7.6	\$12.5	\$10.6	\$17.3
Primary Interruptible ES	\$55.8	\$295.6	\$60.1	\$319.6	\$83.5	\$440.5
High Voltage Interruptible	\$49.1	\$246.9	\$52.9	\$263.5	\$73.5	\$364.5
High Voltage Gen. Service	\$1,039.5	\$1,236.3	\$1,119.5	\$1,306.0	\$1,554.3	\$1,768.0
Lighting	\$82.2	\$165.1	\$88.5	\$172.5	\$122.9	\$233.2
Firm Resale	\$15.3	\$18.8	\$16.5	\$20.2	\$22.9	\$27.8
Special Contract	\$6.7	\$6.7	\$6.7	\$6.7	\$6.7	\$6.7
Total	\$53,881.0	\$53,881.0	\$58,029.2	\$58,029.2	\$80,563.9	\$80,563.9

9 As seen above, a very large difference exists between PSE’s and my
 10 recommended Colstrip rate spread relating to the two Interruptible classes,
 11 because PSE proposes to allocate the total revenue requirement based on 80
 12 percent demand and 20 percent energy. However, the Interruptible classes’ peak
 13 demands are zero. Accordingly, they are assigned very few Colstrip-related costs

1 even though these two classes utilize about 215 million KWh per year.²³ These
2 large Interruptible customers have been utilizing Colstrip's output for decades.
3 This illustrates why an allocation method based on the Renewable Peak Credit
4 method (which is based 80 percent on peak demands) is unfair and unreasonable
5 and why an assignment based on energy usage is more appropriate.

6 I provide the calculations supporting my recommended Colstrip Rider rate
7 spread in my Exhibit GAW-7.

3. Refundable (Rider 141R) and Non-Refundable Rider (Rider 141N)

8 **Q. Please explain witness Jhaveri's proposed rate spread associated with the**
9 **Company's proposed Riders 141R and 141N.**

10 A. Similar to its proposed Colstrip Rider, the Company's forecasted revenue
11 requirements relating to its Refundable and Non-Refundable Riders will change
12 each year during the multi-year rate plan such that each year's revenue
13 requirements are as follows:²⁴

	<u>Refundable</u>	<u>Non-Refundable</u>
14 Rate Year 1	\$102.1 million	\$240.0 million
15 Rate Year 2	\$220.2 million	\$184.6 million
16 Rate Year 3	\$334.5 million	\$80.5 million

17
18 Witness Jhaveri proposes to spread the annual Refundable and Non-
19 Refundable Rider revenue requirements based on the total rate base allocation
20 factor derived in PSE's test year CCOSS.

²³ Test year KWh of 214,997,942 per Exhibit BDJ-4, Workpapers, Tab: 2022 GRC Load Research – Energy.

²⁴ Jhaveri, Exh. BDJ-5.

1

TABLE 17
 PSE Electric - Proposed Refundable and Non-Refundable Riders

Rate Schedule	Refundable (Rate 141R)			Non-Refundable (Rate 141N)		
	RY 1	RY 2	RY 3	RY 1	RY 2	RY 3
Residential Service	\$61,695	\$133,093	\$202,166	\$145,083	\$111,592	\$48,635
Secondary <= 50KW	\$11,894	\$25,660	\$38,980	\$27,972	\$21,515	\$9,377
Secondary 50KW - 350 KW	\$12,945	\$27,931	\$42,426	\$30,445	\$23,420	\$10,207
Secondary > 350KW	\$7,096	\$15,311	\$23,257	\$16,689	\$12,838	\$5,594
Secondary Pump. & Irr.	\$65	\$140	\$213	\$153	\$117	\$51
Primary General Service	\$5,111	\$11,028	\$16,751	\$12,020	\$9,247	\$4,030
Primary Irrigation Service	\$25	\$54	\$82	\$59	\$45	\$20
Primary Interruptible ES	\$434	\$937	\$1,424	\$1,022	\$786	\$343
High Voltage Interruptible	\$163	\$353	\$539	\$384	\$296	\$130
High Voltage Gen. Service	\$1,053	\$2,271	\$3,446	\$2,476	\$1,904	\$829
Lighting	\$1,202	\$2,594	\$3,940	\$2,827	\$2,175	\$948
Retail Wheeling	\$71	\$152	\$231	\$166	\$128	\$56
Special Contract	\$295	\$636	\$965	\$693	\$533	\$232
Firm Resale	\$26	\$57	\$86	\$62	\$48	\$21
Total	\$102,076	\$220,217	\$334,505	\$240,049	\$184,643	\$80,472

2 **Q. Do you agree with the Company’s proposal to spread the Refundable and**
 3 **Non-Refundable revenue requirements based on the 2021 total rate base**
 4 **allocation factor?**

5 A. Yes. To the extent the Commission approves the concept of Refundable and Non-
 6 Refundable Riders, the assignment of these revenue requirements based on rate
 7 base are reasonable since the vast majority of these revenue requirements are
 8 plant-related.

D. Electric Residential Rate Design

9 **Q. Please explain PSE’s current Residential rate structure.**

10 A. Currently, PSE’s Rate Schedule 7 base rates are comprised of a fixed monthly
 11 customer charge plus an inverted two-block energy charge. Under current rates,
 12 the base monthly customer charge for single-phase service is \$7.49.²⁵ With regard
 13 to the current inverted-block rate, there is about a \$0.02 differential (\$0.01983)

²⁵ The monthly customer charge for three-phase service is \$17.99.

1 between the first usage block (first 600 KWh) and the second usage block (above
2 600 KWh).

3 **Q. Is PSE proposing to increase the Residential fixed monthly customer charge?**

4 A. Yes. The Company proposes to increase the current Residential customer charge
5 by 10 percent from \$7.49 to \$8.24 per month.²⁶

6 **Q. Does the Company provide any support for its proposed increase in its
7 Residential fixed monthly customer charge?**

8 A. Yes. On page 30 testimony, witness Jhaveri states that on a cost basis, a customer
9 charge should be set at \$9.61 per month.

10 **Q. Do you agree with witness Jhaveri's calculated Residential customer cost of
11 \$9.61 per month?**

12 A. No. Witness Jhaveri's calculation contains a math error as well as the
13 incorporation of several overhead costs that are not properly collected in fixed
14 monthly customer charges.

15 **Q. Please explain the math error in witness Jhaveri's customer cost calculation.**

16 A. As set forth in Exhibit BDJ-4, page 15 and PSE's CCOSS model, witness Jhaveri
17 calculated a Residential customer charge "revenue requirement" of \$120,636,141.
18 This amount was calculated as:

19
$$[(Net\ Plant\ x\ After\text{-}Tax\ Cost\ of\ Capital) + Expenses] \div Revenue\ Conversion\ Factor$$

20
$$[(\$297,344,197 \times 6.86\%) + \$70,363,392] \div 0.752355$$

²⁶ Similarly, the Company proposes a 10 percent increase in the three-phase customer charge of \$17.99 to \$19.79 per month.

1 The revenue conversion factor increases the equity return to account for income
2 taxes and revenue-related taxes. However, only the equity portion of net plant
3 should be increased by the revenue conversion factor, not the total. Furthermore,
4 operating expenses should not be increased by a revenue conversion factor.²⁷ As a
5 result of this error, witness Jhaveri's \$9.61 customer cost is overstated.²⁸

6 **Q. Please explain the overhead costs included in witness Jhaveri's customer cost**
7 **calculation.**

8 A. Witness Jhaveri's customer cost calculations include a host of allocated general
9 plant and general plant depreciation as well as an assignment of administrative
10 and general expenses. Specifically, witness Jhaveri included \$77.5 million of net
11 general plant, \$3.5 million of general plant depreciation, and \$18.3 million of
12 A&G expenses. These allocated overhead costs reflected in witness Jhaveri's
13 customer cost analysis include:

14 **General Plant**

15 Land and Land Rights
16 Structures & Improvements
17 Office Furniture & Equipment
18 Transportation Equipment
19 Stores Equipment
 Tools & Shop & Garage Equipment
 Lab Equipment
 Power Operated Equipment
 Communication Equipment
 Miscellaneous Equipment
 Other Tangible Property
 Asset Retirement Costs for General Plant

²⁷ Although it may be appropriate to increase expenses for revenue-related taxes, which is 4.76 percent.

²⁸ Accepting all other aspects of witness Jhaveri's calculations, this correction reduces the calculated customer cost from \$9.61 to \$9.01 per month.

1 **Administrative and General Expenses**

2 A&G Exp - Salaries
3 A&G Exp - Office Supplies
4 A&G Exp - Transf (Credit)
5 A&G Exp - Outside Services
6 A&G Exp - Prop Insurance - Other
7 A&G Exp - Injuries & Damages - Other
8 A&G Exp - Pensions & Benefits
9 A&G Exp - Franchise Requirements
 A&G Exp – Reg. Comm. Expenses
 A&G Exp – Reg. Comm. Expenses - FERC
 A&G Exp - Duplicate Charges - Credit
 A&G Exp - General Advertising Expenses
 A&G Exp - Miscellaneous General Expenses
 A&G Exp - Rents
 A&G Exp - Maintenance of General Plant
 A&G Exp - Maintenance of General Plant

10 **Q. Has this Commission provided guidance as to the level of costs that should be**
11 **considered when establishing Residential customer charges?**

12 A. Yes. In the 2015 PacifiCorp rate case (Docket UE-140762), that company
13 conducted a similar customer cost analysis that included not only the direct costs
14 required to connect and maintain a customer’s account but also included costs
15 associated with transformers as well as a host of costs associated with overhead
16 (general plant and administrative and general expenses). In that case, Staff
17 witness Jeremy Twitchell also conducted a customer analysis. While witness
18 Twitchell’s analysis excluded several of the overhead costs included by that
19 company, it did include the costs associated with transformers.²⁹ On behalf of
20 Public Counsel, I conducted a direct customer cost analyses, which excluded the
21 costs of transformers as well as other overhead costs.

²⁹ *Wash. Utils. & Transp. Comm’n v. Pac. Power & Light Co.*, Docket UE-140762, Order 08: Final Order at 86–87 (Mar. 25, 2015).

1 In its Final Order, the Commission determined:

2 We reject the Company's and Staff's proposals to increase
3 significantly the basic charge to residential customers. **The**
4 **Commission is not prepared to move away from the long-**
5 **accepted principle that basic charges should reflect only "direct**
6 **customer costs" such as meter reading and billing.** Including
7 distribution costs in the basic charge and increasing it 81 percent, as
8 the Company proposes in this case, does not promote, and may be
9 antithetical to, the realization of conservation goals. **[Emphasis**
10 **added]**³⁰

11 **Q. In this case, have you conducted an electric Residential direct customer cost**
12 **analysis similar to the analysis you conducted in the 2015 PacifiCorp rate**
13 **case that was approved by the Commission?**

14 A. Yes. I have conducted a direct customer cost analysis that includes only those
15 costs required to connect and maintain a customer's account. As my Exhibit
16 GAW-8 shows, I utilized both Public Counsel's recommended return on equity of
17 8.90 percent and the Company's proposed 9.90 percent return on equity. My
18 analysis produces a direct Residential customer cost of \$6.01 at Public Counsel's
19 recommended rate of return and \$6.13 per month at the Company's requested rate
20 of return.

21 **Q. Given your customer cost findings, could a reduction to the Residential fixed**
22 **monthly customer charge be justified?**

23 A. Yes. At the very least, my analysis supports not increasing the Residential
24 customer charge, but maintaining the charge at its current level.

³⁰ *Id.* ¶ 216 (emphasis added).

III. NATURAL GAS OPERATIONS

A. Natural Gas Cost of Service

1 **Q. Have you examined the Company’s proposed natural gas CCOSS for this**
2 **case?**

3 A. Yes. John Taylor sponsors the Company’s natural gas class cost of service study
4 in this case. In this regard, witness Taylor conducted two studies. The first study
5 complies exactly with WAC 480-85; while Taylor’s second (and recommended)
6 study seeks two exemptions from WAC Rules relating to treatment of the lateral
7 mains associated with the Tacoma LNG plant and the functionalization and
8 allocation of FERC Account 870 (Distribution Supervision & Engineering -
9 Operations).

10 **Q. Do you agree with witness Taylor’s requested exemptions from the WAC**
11 **Rules?**

12 A. Yes. As explained on pages 16 and 17 of direct testimony, in Docket UG-151663
13 the parties entered into a Settlement Agreement wherein the Company would not
14 assign costs associated with Tacoma LNG lateral distribution mains to
15 transportation customers. As a result, and because the Tacoma LNG plant is a
16 storage facility, PSE proposes to allocate these lateral distribution mains in the
17 same manner as storage plant.

18 With regard to the functionalization and allocation of Account 870, I
19 suspect there is a typo or simple error in the WAC, in that Account 870 is in fact
20 Distribution Supervision and Engineering as opposed to transmission-related.

1 Whether an error in the WAC or not, it is appropriate to functionalize this expense
 2 as distribution- and not transmission-related.

3 **Q. Please provide a summary of witness Taylor’s recommended CCOSS results.**

4 A. The following table provides a summary of witness Taylor’s recommended
 5 natural gas CCOSS results:

TABLE 18
 PSE Recommended Natural Gas CCOSS
 Results Under Current Rates

Class	ROR	Indexed ROR	Parity Ratio
Residential	7.16%	129%	1.09
Commercial & Industrial	2.92%	53%	0.84
Large Volume	4.38%	79%	0.93
Interruptible	1.31%	24%	0.77
Limited Interruptible	10.78%	194%	1.28
Non-Exclusive Interruptible	-4.09%	-74%	0.49
Contracts	18.42%	332%	1.59
Total	5.56%	100%	1.00

7 **Q. Have you determined if witness Taylor’s recommended natural gas CCOSS**
 8 **results are equitable and reasonable across classes?**

9 A. Yes, I have concluded that the end results of witness Taylor’s natural gas CCOSS
 10 results are reasonable and equitable across all classes.

B. Natural Gas Rate Spread

11 **Q. Does the Company also propose significant changes in the structure of its**
 12 **natural gas rates that all customers must pay?**

13 A. Yes. Similar to its electric operations, the Company is proposing to maintain what
 14 has been known as “base” rates that will remain constant throughout the multi-
 15 year rate plan. In addition to base rates, the Company is proposing two new riders
 16 that will vary each year during the rate plan.

1 These two new riders reflect the recovery of its forecasted plant additions
2 (and retirements) during the multi-year rate plan. These riders are 141R
3 (Refundable) and 141N (Non-Refundable). Similar to its electric operations, the
4 refundable rider will be those subject to the Company’s annual prudence review
5 that will then transfer to the non-refundable riders after approval within the annual
6 review process.

7 As is the case for its electric operations, PSE proposes different rate
8 spreads across base rates and the new riders.

1. Base Rate Spread

9 **Q. Please explain witness Taylor’s proposed rate spread associated with the**
10 **Company’s proposed natural gas base rates.**

11 A. In developing PSE’s proposed rate spread associated with “base” rates, witness
12 Taylor relied primarily on the results of PSE’s recommended CCOSS, which are
13 based on the test year ending June 2021. More specifically, witness Taylor
14 increased the Commercial and Industrial class (Rates 31 and 31T) and the Large
15 Volume class (Rates 41 and 41T) as 125 percent of the system average, because
16 these class’s parity ratios are materially lower than the system average (1.00).
17 With regard to the Interruptible (Rates 85 and 85T) and Non-Exclusive
18 Interruptible classes (Rate 87 and 87T), witness Taylor assigned 150 percent of
19 the system average because these classes’ parity ratios were substantially below
20 1.00. Due to the high parity ratio of the Limited Interruptible class (Rates 86 and
21 86T), witness Taylor assigned no increase to this class. Finally, the Residential
22 class (Schedule 16, 23, and 53) received the remaining requested increase which

1 A. The Company’s forecasted revenue requirements relating to its Refundable and
 2 Non-Refundable Riders will change each year during the multi-year rate plan
 3 such that each year’s revenue requirements are proposed as follows:³²

	<u>Refundable</u>	<u>Non-Refundable</u>
Rate Year 1	\$81.160 million	\$19.568 million
Rate Year 2	\$134.869 million	-\$4.767 million
Rate Year 3	\$174.790 million	-\$21.455 million

8 Witness Taylor proposes to spread the annual Refundable and Non-
 9 Refundable Rider revenue requirements based on the total rate base allocation
 10 factor derived in PSE’s test year CCOSS.

TABLE 20
 PSE Natural Gas - Proposed Refundable and Non-Refundable Riders

Rate Schedule	Refundable (Rate 141R)			Non-Refundable (Rate 141N)		
	RY 1	RY 2	RY 3	RY 1	RY 2	RY 3
Residential	\$52,132	\$86,629	\$112,273	\$12,568	-\$3,063	-\$13,780
Comm. & Indus.	\$21,820	\$36,261	\$46,993	\$5,261	-\$1,282	-\$5,769
Large Volume	\$3,512	\$5,836	\$7,563	\$846	-\$206	-\$929
Interruptible	\$1,752	\$2,913	\$3,774	\$423	-\$103	-\$463
Limited Interruptible	\$176	\$292	\$378	\$42	-\$10	-\$46
Non-Exclusive Interruptible	\$1,768	\$2,938	\$3,808	\$427	-\$103	-\$467
Total	\$81,160	\$134,869	\$174,790	\$19,568	-\$4,767	-\$21,455

11

12 **Q. Do you agree with the Company’s proposal to spread the Refundable and**
 13 **Non-Refundable revenue requirements based on the 2021 total rate base**
 14 **allocation factor?**

15 A. Yes. To the extent that the Commission may approve the concept of Refundable
 16 and Non-Refundable Riders, assigning these revenue requirements based on rate
 17 base is reasonable since the vast majority of these costs are plant-related.

C. Natural Gas Residential Rate Design

18 **Q. Please explain PSE’s current Residential natural gas rate structure.**

³² John Taylor, Exh. JDT-5.

1 A. Currently, PSE's Rate Schedules 23 base rates are comprised of a fixed monthly
2 customer charge plus a flat usage delivery charge. Under current rates, the base
3 monthly customer charge is \$11.52.

4 **Q. Does PSE propose increasing the Residential fixed monthly natural gas**
5 **customer charge?**

6 A. Yes. The Company proposes increasing the current Residential customer charge
7 by 10.7 percent from \$11.52 to \$12.75 per month.

8 **Q. Have you also conducted a natural gas Residential direct customer cost**
9 **analysis similar to the analysis you performed for the Company's electric**
10 **operations?**

11 A. Yes. I have conducted a direct customer cost analysis that includes only those
12 costs required to connect and maintain a customer's account. As my Exhibit
13 GAW-9 shows, I utilized both Public Counsel's recommended return on equity of
14 8.90 percent and the Company's proposed 9.90 percent return on equity of 9.90
15 percent. My analysis produces a direct Residential customer cost of \$12.53 at
16 Public Counsel's recommended rate of return and \$13.00 per month at the
17 Company's requested rate of return.

18 **Q. What are your recommendations regarding PSE's Residential natural gas**
19 **customer charges?**

20 A. Since there is no risk associated with fixed monthly customer charges, my
21 findings of a direct customer cost of \$12.53 are somewhat overstated. Therefore, I
22 recommend an increase in the Residential natural gas customer charge to \$12.50

1 per month. My recommendation here reduces the Company's initial request to
2 increase to the natural gas customer charge from the current \$11.52 to \$12.75.

3 **Q. Does this complete your testimony?**

4 A. Yes.