Exh. GAW-1T
Dockets UE-240004, UG-240005, UE-230810
Witness: Glenn A. Watkins

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-240004, UG-240005 and UE-230810 (Consolidated)**

TESTIMONY OF

GLENN A. WATKINS

ON BEHALF OF STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Cost of Service, Rate Spread, Rate Design

August 6, 2024

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I. INTRODUCTION AND SUMMARY

Q. Please state your name and business address.

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

Q. What is your professional and educational background?

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

During my 43-year career at Technical Associates, I have conducted hundreds of marginal and embedded cost of service, rate design, cost of capital, revenue requirement, and load forecasting studies involving electric, gas, water/wastewater, and telephone utilities throughout the United States and Canada. I have provided expert testimony in Alabama, Alaska, Arizona, Delaware, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, New Jersey, North Carolina, Ohio, Pennsylvania, Vermont, Virginia, South Carolina, Washington, and West Virginia. This experience includes serving as a witness for the Public Counsel Unit of the Washington State Office of the Attorney General (Public Counsel) in several proceedings before the Washington Utilities and Transportation Commission (WUTC or Commission). In addition, I have provided expert testimony before state and federal

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

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

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

Q. Please summarize your findings and recommendations.

A. With regard to the Company's natural gas operations, I have determined that its normalized and forecasted Residential sales (therms) and base rate revenues are unreasonably understated such that I adjusted Rate Schedule 23 for the test year and each year of the multi-year rate plan (MYRP).

On issues concerning class cost of service (both electric and natural gas), I have accepted the Company's results and found them to be in compliance with WAC 480-85.

With regard to electric and natural gas rate spreads, I have accepted the Company's approach as it relates to base rates.

Finally, with respect to electric operations, I recommend no increase to Residential or Small General Service customer charges. With regard to natural gas operations, some increase is justified to the Residential customer charge albeit not as large as that requested by PSE, and for firm Commercial & Industrial customers, I have accepted the Company's proposed customer charge.

II. PSE SALES & BASE RATE REVENUE FORECASTS

Q. How is the Company's forecasted sales and base rate revenue forecasts important as it relates to its proposed multi-year rate plan?

A. The Company makes an adjustment to actual test year billing determinants and base rate revenues (at current rates) to "normalize test year sales volumes based on what PSE considers to be normal weather. With regard to the two forecasted rate years (Calendar Years 2025 and 2026), the Company forecasts sales volumes and attendant revenue at current rates based on a multitude of criteria including number of customers, forecasts of normal weather, business and economic activity, penetration of electric vehicle (EV) charging and customers switching between rate schedules.

Q. As a general matter, how does PSE forecast sales volumes (billing determinants) for the proposed MYRP?

A. The Company utilizes a traditional bifurcated forecasting approach wherein: number of customers by general rate class are forecasted; and usages per customer (kWh or therms) are separately forecasted by general rate class. Then, the forecasted number of customers

are multiplied by forecasted usages per customer (UPC) to develop total forecasted usage billing determinants.

Q. Have you examined the Company's test year normalizations and forecasts for the Gap Year (2024), Rate Year 1 (2025) and Rate Year 2 (2026)?

A. Yes. The Company's test year normalizations and forecasted usage levels by rate class were conducted by PSE's forecasting department and were provided to Company witnesses Christopher Mickelson (electric) and John Taylor (natural gas). Because the Company does not have a specific witness that addresses and quantifies the details of its various normalization and forecasting procedures, several formal data requests were served on the Company along with informal discussions with PSE's forecasting personnel. These discovery requests and informal discussions related to the details and specifics of the Company's procedures, data, and modeling.

Q. Please discuss your examination and investigation of the Company's forecasted number of customers by rate schedule for its electric and natural gas operations.

A. With regard to the Company's forecasted number of customers by rate schedule, my investigation determined that the Company's forecast of number of customers is reasonable for both its electric and natural gas operations. Specifically, with regard to electric operations, the Company reasonably forecasts customer growth from the actual test year ending June 2023 through the MYRP that ends December 2026. With regard to natural gas operations, the Company assumes that there will be no new residential customers starting in 2024 due to the most recent Washington State Building code

update, natural gas bans in the cities of Seattle and Shoreline, and PSE's margin allowance for gas line extensions.[1] Given the regulatory constraints concerning any growth in natural gas customers, I have concluded that the Company's forecasts of natural gas customers is reasonable and appropriate.

Q. Please discuss your examination and investigation of the Company's normalization and forecasted usages per customer by rate schedule for its electric and natural gas operations.

A. In conducting its test year weather normalization and forecasts of future usages per customer, PSE developed specific econometric (linear regression) models by general rate class. These models and analyses include: expectations of what can be considered "normal" weather;[2] economic and employment growth during the forecast horizon; interactive (dummy) variables to reflect differences in individual monthly usages; interactive variables to reflect the impacts during the COVID pandemic; and, customer migrations across rate schedules.

With regard to the Company's electric operations, my examination determined that the Company's test year normalized and forecasted UPCs are reasonable across all rate classes.

However, with regard to the Company's natural gas operations, I determined that the Company's test year normalized and forecasted UPCs for the Residential class are

[1] Jacobs, Exh. JJJ-1T at 4:1-8.
[2] The magnitude of weather is generally defined as cooling degree days (CDD) and heating degree days (HDD). PSE's models utilize various definitions of CDD and HDD, e.g., Base 65, Base 60, etc.

understated. With regard to all other natural gas rate schedules, I determined that the Company's normalized and forecasted UPCs are within the range of reasonableness.

Q. Please explain your evaluation of the Company's natural gas normalized and forecasted UPCs for the Residential class (Rate 23).

A. Residential natural gas usage is exceptionally weather sensitive such that I first evaluated the Company's normalized and forecasted Residential UPCs relative to recent actual experience in relation to HDDs. The following table provides this comparison:

TABLE 1
Residential Natural Gas
UPC & HDD65

	UPC	HDD65
Actual		
2018/2019	755	4,319
2019/2020	765	4,449
2020/2021	747	4,386
2021/2022	784	5,059
2022/2023	757	4,696
PSE Normalized/Forecasted		
Test Year	709	4,379
CY 2024	679	4,336
CY 2025	659	4,262
CY 2026	653	4,244

The Company utilized a "normalized" HDD for the test year of 4,379 which then translates into a normalized UPC of 709 therms. At the same time, the actual 2020/2021 year HDDs were similar (4,386), yet actual Residential UPC was 747 therms, which is significantly greater than the forecasted (normalized) UPC. Similarly, during the 2018/2019 year, the HDDs were only 4,319 (considerably lower than the normalized test year) yet actual UPC was 755 therms. This pattern continues throughout the forecast

period such that for Calendar Year 2024, the Company forecasts 4,336 HDDs with a corresponding UPC of only 679 therms. As a result, I conducted my own multivariate regression analysis of Residential natural gas usages per customer.

Q. Please explain the details of your Residential natural gas UPC model.

A. I first developed a database that included monthly Residential UPCs and actual HDD65s for the period July 2018 through June 2023 (60 separate observations).[3] I then ran a multivariate regression analysis based on this data set that resulted in the following functional form and coefficients:

UPC_t =	Variable	Coefficient
	Intercept	51.428
	HDD65	0.087
	January	5.801
	February	(4.382)
	March	(9.275)
	April	(28.292)
	May	(36.901)
	June	(38.877)
	July	(36.005)
	August	(36.395)
	September	(35.227)
	October	(27.028)
	November	(9.894)
	December	Base Month

The above model resulted in an R^2 of 99.63 percent,[4] wherein all coefficients were statistically significant.

[3] Provided in response to WUTC Data Request No. 88, Attachment B.

[4] R^2 can take a value from 100% to 0% and measures the percentage of fitted values to actual values. For example, an R^2 of 100% perfectly captures (fits) all variations in usage across every month. An R^2 of 0% means that the fitted and actual are truly random such that the model captures no variations in usage across months. Therefore, an R^2 of 99.63% is extremely robust in that the model explains virtually all variations in historical usage.

With the above model developed, the test year (ending June 2023) weather was normalized utilizing the Company's new definition of "normal" weather that incorporates climate change, as discussed by Company witness Jacobs.[5] Furthermore, the Gap Year, Rate year 1, and Rate Year 2 UPCs were forecasted utilizing the Company's climate change based normal weather as defined by HDD65. Monthly HDDs decline annually due to the continuing effects of climate change within PSE's forecast of "normal" weather. In this regard, I have accepted and utilized the Company's changing definition of "normal" weather over the forecast horizon.

Q. What are the results of your Residential natural gas UPC test year normalization and forecasts for the Gap Year, Rate Year 1, and Rate Year 2.

A. The individual monthly normalized (forecasted) Residential UPCs are provided in my Exhibit GAW-3. The following table provides an annual summary of Residential natural gas UPCs:

TABLE 2
Staff Forecasted
Residential Natural Gas UPC

Period	Residential UPC
Test Year (Normalized)	743.6
Gap Year (2024)	739.9
Rate Year 1 (2025)	733.5
Rate Year 2 (2026)	731.9

[5] Jacobs, Exh. JJJ-1T at 3:7-14; Exh. JJJ-3 at 127-129.

Q. How do your test year normalized and forecasted Residential UPCs compare to the Company's normalization and forecasted amounts?

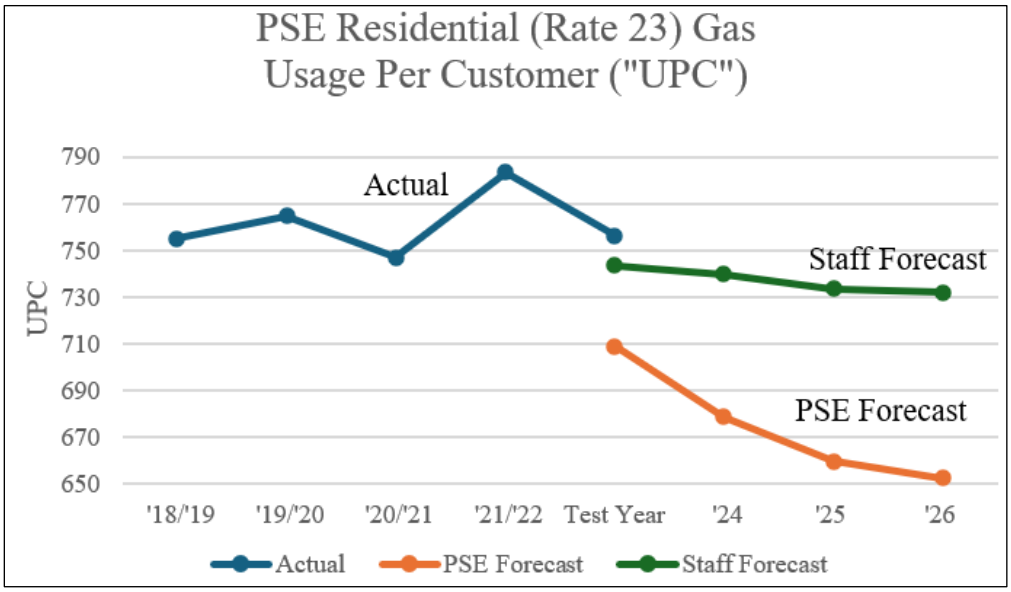
A. The following table compares the Company's and Staff's test year normalized and forecasted Residential UPCs:

TABLE 3
Comparison of PSE & Staff Forecasted
Residential Natural Gas UPCs

Period	PSE	Staff
Test Year (Normalized)	708.9	743.6
Gap Year (2024)	678.7	739.9
Rate Year 1 (2025)	659.5	733.5
Rate Year 2 (2026)	652.6	731.9

Q. Please provide a graphical depiction of recent actual Residential UPCs to those forecasted by PSE and Staff.

A. The following graph provides this comparison of actual and forecasted Residential natural gas UPCs:



As the graph above shows, Staff's normalized test year and forecasted Residential UPCs are lower than any recent actual year, including those years with similar weather (HDDs), and also incorporates the climate change reduction in what PSE has defined as "normal" weather going forward. This graph also shows the unrealistic normalization and forecast of PSE's UPCs wherein these amounts are well below any level of reasonableness or expectation.

Q. The above analysis normalizes and forecasts Residential natural gas usage per customer. Did you then multiply these amounts by number of customers to develop test year normalized and forecasted sales volumes and base rate revenues?

A. Yes. Because the Company and I utilized the same number of test year and forecasted Residential natural gas customers, Staff's normalized and forecasted UPCs were multiplied by number of customers for each month during the period July 2022 (beginning of test year) through December 2026 (end of Rate Year 2). In addition, the current Residential base delivery rate is $0.45613/therm such that I was also able to develop monthly normalized/forecasted Residential base delivery rate revenues during the period. My Exhibit GAW-4 provides a comparison of Staff's and PSE's monthly normalized/forecasted total Residential (Rate 23) therm sales and base rate revenues at current rates which are summarized on an annual basis in the tables below:

TABLE 4
Comparison of PSE & Staff Proposed Therm Sales
(Residential Rate Schedule 23)

	Usage Per Customer (Therms)			PSE	Staff	Staff
	PSE Proposed	Staff Proposed	Therm Sales	Therm Sales	Therm Sales	Therm Adjustment
Test Year	708.9	743.6	34.7	576,566,861	604,795,810	28,228,949
Gap Year (2024)	678.7	739.9	61.1	555,750,480	605,813,571	50,063,091
Rate Year 1 (2025)	659.5	733.5	74.0	539,959,592	600,542,908	60,583,316
Rate Year 2 (2026)	652.6	731.9	79.3	534,322,352	599,261,048	64,938,696

TABLE 5
Comparison of PSE & Staff Proposed Volumetric Delivery Revenues
(Residential Rate Schedule 23)

	Staff Volumetric Delivery Revenue	PSE Volumetric Delivery Revenue	Staff Revenue Adjustment
Test Year	$275,865,513	$262,989,442	$12,876,070
Gap Year (2024)	$276,329,744	$253,494,466	$22,835,278
Rate Year 1 (2025)	$273,925,636	$246,291,769	$27,633,868
Rate Year 2 (2026)	$273,340,942	$243,720,454	$29,620,487

III. CLASS COST OF SERVICE, RATE SPREAD, AND RATE DESIGN

A. Electric Class Cost of Service

Q. Have you examined the Company's proposed electric class cost of service study (CCOSS) for this case?

A. Yes. Witness Mickelson sponsors the Company's electric class cost of service study in this case. In this regard, witness Mickelson conducted two studies. The first study complies exactly with WAC 480-85, while witness Mickelson's second and recommended study seeks an exemption from the WAC Rules on one issue as it relates to the treatment of FERC Account 565 (Transmission of Electricity by Others).

Q. Do you agree with witness Mickelson's requested exemption from the WAC Rules as it relates to FERC Account 565?

A. Yes. As set forth on page 18 of witness Mickelson's direct testimony, the costs included in this account relate to the wheeling of energy and are not a function of peak demand,

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

Q. Please provide a summary of witness Mickelson's as-filed CCOSS results.

A. The following table provides a summary of witness Mickelson's as-filed CCOSS results:

TABLE 6
PSE As-Filed CCOSS
Results Under Current Rates

Class	ROR	Indexed ROR	Parity Ratio
Residential	1.60%	87%	0.99
Sec. GS (< 51 KW)	3.28%	178%	1.05
Sec. GS (51-350 KW)	1.56%	84%	1.00
Sec. GS (> 350 KW)	0.60%	32%	0.98
Primary GS	1.44%	78%	1.00
Primary Irrigation	-8.81%	-477%	0.49
Primary Schools	1.08%	58%	0.99
High Voltage	4.74%	257%	1.11
Lighting	3.24%	175%	1.02
Retail Wheeling	14.95%	809%	1.71
Special Contract	-2.63%	-142%	0.44
Firm Resale	-6.74%	-365%	0.94
Total System	1.85%	100%	1.00

Q. Subsequent to the filing on February 15, 2024, did the Company discover a minor error in its CCOSS?

A. Yes. In response to Microsoft Data Request No. 3, the Company discovered an error in certain amounts allocated to the Special Contract rate. This error also transcended into certain allocation factors. While the Company indicated that it would make the required changes in its rebuttal filing, the following tables provides a summary of the Company's corrected CCOSS as provided in response to Microsoft Data Request No. 3:

TABLE 7
PSE Corrected CCOSS
Results Under Current Rates

Class	ROR	Indexed ROR	Parity Ratio
Residential	1.59%	86%	0.99
Sec. GS (< 51 KW)	3.26%	177%	1.05
Sec. GS (51-350 KW)	1.54%	84%	0.99
Sec. GS (> 350 KW)	0.58%	32%	0.98
Primary GS	1.43%	77%	1.00
Primary Irrigation	-8.80%	-476%	0.49
Primary Schools	1.06%	57%	0.98
High Voltage	4.74%	257%	1.11
Lighting	3.23%	175%	1.02
Retail Wheeling	14.95%	809%	1.71
Special Contract	-2.08%	-113%	0.51
Firm Resale	-6.74%	-365%	0.94
Total System	1.85%	100%	1.00

As can be seen by comparing Tables 5 and 6, the Company's correction has an immaterial impact on CCOSS results.

Q. Have you determined if witness Mickelson's CCOSS results are reasonable across classes?

A. Yes. For several reasons, I have concluded that the end results of witness Mickelson's electric CCOSS results are reasonable across all classes.

First, and with the one minor exception explained above, the Company's study comports with the Commission's Order that resulted in the implementation of WAC-480-85. In this regard, the CCOSS requirements within WAC-480-85 were the product of numerous compromises by various stakeholder groups including virtually all Washington utilities, Public Counsel, The Energy Project, and various industrial intervenor interests. The process that culminated in WAC-480-85 involved numerous meetings and

workshops between various stakeholder groups for more than three years.[6] I am a firm believer that no cost allocation study (CCOSS) is surgically precise and that experts have differing views on cost causation and cost allocation, and it is important to recognize that the CCOSS method set forth in WAC-480-85 is indeed a compromise of various experts' opinions and positions.

Second, with regard to the establishment of the Renewal Future Peak Credit (RFPC) method now mandated in WAC 480-85, PSE's approach in this case uses the same approach that was used and approved by the Commission in a fully litigated rate case involving Avista Utilities (Docket UE-200900).[7]

Third, while the mechanics and conceptual framework of the Company's study in this case are significantly different than the studies conducted prior to the implementation of WAC 480-85, the new methodology has had a minimal impact on PSE's cost of service results. With this said, in prior cases, I evaluated PSE's CCOSS studies using alternative methodologies[8] and concluded that the Company's study results were reasonable.

Considering all factors, I conclude that witness Mickelson's CCOSS results in this case are reasonable across all classes.

[6] From the beginning, I was directly involved in all meetings, workshops, and negotiations on behalf of Public Counsel.
[7] *Wash. Utils. & Transp. Comm'n v. Avista Utilities*, Docket Nos. UE-200900, UG-200901, and UE-200894 (Consolidated), Final Order 08/05, 109-110, ¶ 311 (Sept. 27, 2021).
[8] In prior cases, I utilized the Probability of Dispatch and Base-Intermediate-Peak methods. *See Wash. Utils. & Transp. Comm'n v. Puget Sound Energy,* Dockets UE-220066 and UG-220067, Response Testimony of Glenn Watkins, Exh. GAW-1T (filed July 28, 2022).

B. Electric Rate Spread

Q. Please explain witness Mickelson's proposed rate spread associated with the Company's proposed base rates.

A. Witness Mickelson's proposed rate spread is separated between a "traditional" revenue increase and the Company's proposed Targeted Electrification Pilot.

With respect to the Company's proposed "traditional" revenue increase, witness Mickelson first increased Special Contract, Retail Wheeling, and Firm Resale rate schedules to full cost of service as has been done in prior cases. For all other classes, witness Mickelson used CCOSS results as a guide in gradually moving all rate classes to full parity. Specifically, because the High Voltage class parity ratio is materially above other classes, this class was assigned 90 percent of the average percent change (after the assignment of Special Contract, Retail Wheeling, and Firm Resale). Conversely, because the Primary Irrigation class parity ratio is materially below other classes, this class was assigned 150 percent of the average percentage increase (after the assignment of Special Contract, Retail Wheeling, and Firm Resale). All remaining classes received an equal percentage increase due to their parity ratios being close to 1.00.

With regard to PSE's proposed Targeted Electrification Pilot, which is linked to the "targeted electrification initiatives" set forth in the 2022 rate case settlement,[9] each rate schedule's proposed revenues are in proportion to the total funding allocated to the Targeted Electrification Pilot program. As a result, the Residential class received 97.97 percent of these revenues.

[9] *Wash. Utils. & Transp. Comm'n v. Puget Sound* Energy, Dockets UE-220066, *et. al*. Final Order 24/10, Appx. A, Settlement Stipulation O.

The following tables provide a summary of witness Mickelson's corrected proposed base rate spreads for the 2025 and 2026 rate years as well as the cumulative revenue increases based on test year (June 2023) revenues:[10]

TABLE 8
PSE Proposed 2025 Base Rate Spread - Corrected
($000)

Voltage & Rate Schedule	2025 Base Rate Revenue (Current Rates)	PSE Proposed MYRP 2025 Increase			
		Before Electrification Pilot	Electrification Pilot	Total Increase	Percent Change
Residential - 7 (307) (317) (327)	$1,204,729	$327,465.1	$8,547.5	$336,012.6	27.89%
Secondary Voltage					
<= 50 kW - 08 (24) (324)	$276,203	$75,076.6	$22.2	$75,098.8	27.19%
> 50 kW but <= 350 kW - 7A (11) (25)	$269,455	$73,242.3	$22.2	$73,264.4	27.19%
> 350 kW - 12 (26) (26P)	$166,248	$45,188.8	$22.2	$45,211.0	27.19%
> 50 kW but <= 350 kW - 29	$1,218	$331.1	$22.2	$353.3	29.00%
Total Secondary Voltage	$713,124	$193,838.8	$88.6	$193,927.4	27.19%
Primary Voltage					
General Service - 10 (31)	$115,242	$31,324.7	$22.2	$31,346.9	27.20%
Irrigation - 35	$273	$111.3	$22.2	$133.5	48.89%
Electric Schools - 43	$10,672	$2,900.9	$22.2	$2,923.1	27.39%
Total Primary Voltage	$126,188	$34,337.0	$66.5	$34,403.4	27.26%
High Voltage - 46/49	$40,725	$9,962.7	$22.2	$9,984.9	24.52%
Retail Wheeling - 449/459	$13,585	$528.6	$0.0	$528.6	3.89%
Special Contract	$3,169	$4,136.8	$0.0	$4,136.8	130.53%
Lighting - 03, 50-59	$16,783	$4,562.0	$0.0	$4,562.0	27.18%
Total Retail	$2,118,303	$574,830.9	$8,724.8	$583,555.7	27.55%
Firm Resale - 5	$307	$821.1	$0.0	$821.1	267.70%
Total Company	$2,118,610	$575,652.0	$8,724.8	$584,376.8	27.58%

[10] Witness Mickelson's "corrected" rate spread is provided in the Company's response to Microsoft Data Request No. 3, and the tables incorporate the corrections made within this data response.

TABLE 9
PSE Proposed 2026 Base Rate Spread - Corrected
($000)

Voltage & Rate Schedule	2026 Base Rate Revenue (Current Rates)	PSE Proposed MYRP 2026 Increase			
		Before Electrification Pilot	Electrification Pilot	Total Increase	Percent Change
Residential - 7 (307) (317) (327)	$1,222	$149,940.9	-$534.3	$149,406.7	12.22%
Secondary Voltage					
<= 50 kW - 08 (24) (324)	$278	$34,053.3	-$1.4	$34,051.9	12.27%
> 50 kW but <= 350 kW - 7A (11) (25)	$270	$33,143.7	-$1.4	$33,142.3	12.27%
> 350 kW - 12 (26) (26P)	$170	$20,830.5	-$1.4	$20,829.1	12.27%
> 50 kW but <= 350 kW - 29	$1	$148.7	-$1.4	$147.3	12.15%
Total Secondary Voltage	$719	$88,176.2	-$5.5	$88,170.7	12.27%
Primary Voltage					
General Service - 10 (31)	$114	$14,002.9	-$1.4	$14,001.5	12.27%
Irrigation - 35	$0	$49.9	-$1.4	$48.6	17.89%
Electric Schools - 43	$11	$1,301.0	-$1.4	$1,299.6	12.25%
Total Primary Voltage	$125	$15,353.8	-$4.2	$15,349.7	12.28%
High Voltage - 46/49	$41	$4,493.6	-$1.4	$4,492.2	11.04%
Retail Wheeling - 449/459	$14	$0.0	$0.0	$0.0	0.00%
Special Contract	$3	$431.0	$0.0	$431.0	12.39%
Lighting - 03, 50-59	$17	$2,051.8	$0.0	$2,051.8	12.27%
Total Retail	$2,141	$260,447.3	-$545.3	$259,901.9	12.14%
Firm Resale - 5	$0	$0.0	$0.0	$0.0	0.00%
Total Company	$2,141	$260,447.3	-$545.3	$259,901.9	12.14%

TABLE 10
PSE Proposed Cumulative Base Rate Spread Over
Test Year Revenues – Corrected
($000)

Voltage & Rate Schedule	Test Year Base Rate Revenue (Current Rates)	Cumulative Total Increase	Percent Change
Residential - 7 (307) (317) (327)	$1,194,480	$513,282.6	42.97%
Secondary Voltage			
<= 50 kW - 08 (24) (324)	$274,417	$112,341.3	40.94%
> 50 kW but <= 350 kW - 7A (11) (25)	$272,826	$103,774.3	38.04%
> 350 kW - 12 (26) (26P)	$152,673	$83,180.3	54.48%
> 50 kW but <= 350 kW - 29	$1,146	$566.7	49.45%
Total Secondary Voltage	$701,062	$299,862.6	42.77%
Primary Voltage			
General Service - 10 (31)	$114,130	$45,372.6	39.76%
Irrigation - 35	$363	$90.6	24.96%
Electric Schools - 43	$10,359	$4,468.9	43.14%
Total Primary Voltage	$124,852	$49,932.1	39.99%
High Voltage - 46/49	$41,466	$13,713.2	33.07%
Retail Wheeling - 449/459	$13,399	$713.9	5.33%
Special Contract	$3,624	$4,421.6	122.01%
Lighting - 03, 50-59	$15,361	$7,979.5	51.95%
Total Retail	$2,094,245	$889,905.6	42.49%
Firm Resale - 5	$434	$692.8	159.46%
Total Company	$2,094,679	$890,598.3	42.52%

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

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

C. Electric Rate Design

Q. Please explain PSE's current Residential rate structure.

A. Currently, PSE's Rate Schedule 7 base rates are comprised of a fixed monthly customer charge plus an inverted two-block energy charge. Under current rates, the base monthly customer charge for single-phase service is $7.49.[11] With regard to the current inverted-block rate, there is about a $0.02 differential ($0.01942) between the first usage block (first 600 kWh) and the second usage block (above 600 kWh).

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

A. Yes. The Company proposes two increases to the current monthly Residential customer charge during its proposed MYRP. For MYRP 2025, the Company proposes a customer charge of $9.74 per month (30 percent increase) which would be increased again to $12.66 in MYRP 2026 (an additional 30 percent increase).[12] Therefore, on a cumulative basis, the Company's proposed $12.66 monthly customer charge in 2026 represents a 69 percent increase over the current customer charge.

Q. Please explain PSE's current Small General Service rate structure.

A. Currently, PSE's Rate Schedule 8 base rates are comprised of a fixed monthly customer charge plus a seasonally differentiated energy charge. Under current rates, the base

[11] Mickelson, Exh. CTM-1T at 39:18. The monthly customer charge for three-phase service is $17.99. Mickelson, Exh. CTM-1T at 39:19.
[12] Similarly, the Company proposes three-phase customer charges of $23.39 (2025) and $30.40 (2026). Mickelson, Exh. CTM-1T at 39:2 - 40:1.

monthly customer charge for single-phase service is $10.21.[13] The current Winter (October through March) energy rate is $0.09254/kWh while the Summer (April through September) energy rate is $0.08934/kWh.

Q. Does PSE also propose to increase the Small General Service (Rate Schedule 8) fixed monthly customer charge?

A. Yes. The Company also proposes two increases to the current monthly Small General Service customer charge during its proposed MYRP. For MYRP 2025, the Company proposes a customer charge of $13.27 per month (30 percent increase) which would be increased again to $17.25 in MYRP 2026 (an additional 30 percent increase).[14] Therefore, on a cumulative basis, the Company's proposed $17.25 monthly customer charge in 2026 represents a 69 percent increase over the current customer charge.

Q. Does witness Mickelson assert that the Company's proposed significant increases to the Residential and Small General Service fixed monthly customer charges are cost-based?

A. Yes. On direct testimony, page 31, witness Mickelson asserts the following:

> PSE's proposed monthly customer charge, also known as the "basic charge," is cost-based. This charge covers customer-related costs such as the cost of meters, service drops, meter reading, meter maintenance, and billing. The allocation of these costs to the basic charge is justified by the fact that they vary with the number of customers rather than usage. Importantly, PSE's proposal prevents the customer charges from exceeding the respective cost of service study results for each customer class.[15]

[13] The monthly customer charge for three-phase service is $25.95.
[14] Similarly, the Company proposes three-phase customer charges of $33.74 (2025) and $43.86 (2026). Mickelson, Exh. CTM-1T at 47:12-18.
[15] Mickelson, Exh. CTM-1T at 31:3-9.

Q. Do you agree with witness Mickelson that customer charges should cover the cost of meters, service drops, meter reading, meter maintenance, and billing?

A. Yes. However, witness Mickelson's customer cost analysis includes not only these direct costs required to connect and maintain a customer's account but also a multitude of indirect overhead costs. Furthermore, witness Mickelson's customer cost analysis includes a material mathematical error.

Q. What is witness Mickelson's calculated monthly basic charge (i.e., "customer cost") for Residential and Small General Service customers?

A. Witness Mickelson calculates a "cost-based" Residential customer charge of $12.89 per month and a "cost-based" Small General Service customer charge of $19.72 per month.

Q. Do you agree with witness Mickelson's calculated monthly Residential and Small General Service customer costs of $12.89 and $19.72, respectively?

A. No. Witness Mickelson's calculated basic charge (customer) costs contains a multitude of general and overhead expenses that are not required to connect nor maintain a customer's account. Furthermore, witness Mickelson's inclusion of these general and overhead expenses are contrary to his own statement referenced above, i.e., his opinion that customer costs should include "the cost of meters, service drops, meter reading, meter maintenance, and billing."

Q. Please explain the general and overhead costs included in witness Mickelson's customer cost calculations.

A. Witness Mickelson's customer cost calculations include a host of allocated general plant and general plant depreciation as well as an assignment of administrative and general expenses. Specifically, witness Mickelson included $166.4 million of general plant ($143.6 million allocated to Residential) and $29.5 million of A&G expenses ($23.9 million allocated to Residential).[16]

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

A. Yes. In the 2015 PacifiCorp rate case (Docket UE-140762), that company conducted a similar customer cost analysis that included not only the direct costs required to connect and maintain a customer's account but also included costs associated with transformers as well as a host of costs associated with overhead (general plant and administrative and general expenses). In that case, Staff witness Jeremy Twitchell also conducted a customer analysis. While witness Twitchell's analysis excluded some of the overhead costs included by the Company, it also included the costs associated with transformers.[17] Public Counsel conducted a direct customer cost analyses which excluded the costs of transformers as well as other overhead costs.[18]

In its Final Order, the Commission determined:

> We reject the Company's and Staff's proposals to increase significantly the basic charge to residential customers. **The Commission is not prepared to move away from the long-accepted principle that basic charges should reflect only "direct customer costs" such as meter reading and billing.** Including distribution costs in the basic charge and increasing it 81 percent, as the Company proposes in this case, does not

[16] Per WP-CTM-5-COS-Model-24GRC-02-2024.xlsx, Tab: UnitCost which is derived from Tab: CustomerTotal.
[17] *Wash. Utils. & Transp. Comm'n v. Pac. Power & Light Co*., Docket UE-140762, Order 08, Final Order at 86-87, ¶ 204 (Mar. 25, 2015) (hereinafter "2014 PacifiCorp GRC").
[18] I was the witness for Public Counsel in Docket UE-140762.

promote, and may be antithetical to, the realization of conservation goals.[19]

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

A. Yes. I have conducted a direct customer cost analysis that includes only those costs required to connect and maintain a customer's account. As my Exhibit GAW-5 shows, I utilized Staff's capital structure and recommended return on equity of 9.50 percent. My analysis produces a direct Residential customer cost of $5.98 per month and a Small General Service customer cost of $8.11 per month.[20]

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

A. Yes. However, in the interest of rate continuity, I recommend maintaining the Residential and Small General Service customer charges at their current level.

D. Natural Gas Cost of Service

Q. Have you examined the Company's proposed natural gas CCOSS for this case?

A. Yes. Witness John Taylor sponsors the Company's natural gas class cost of service study in this case. In this regard, witness Taylor also conducted two studies. The first study

[19] *2014 PacifiCorp GRC* at 91, ¶ 216 (emphasis added).
[20] As a point of comparison, using the Company's proposed 2025 capital structure and 9.95% return on equity produces a Residential customer cost of $6.03 per month and a Small General Service customer cost of $8.20 per month.

complies exactly with WAC 480-85; the second (and recommended) study seeks an exemption from WAC Rules relating to the allocation of FERC Account 870 (Distribution Supervision & Engineering - Operations).

Q. Do you agree with witness Taylor's requested exemptions from the WAC Rules?

A. Yes. As explained on page 15 of witness Taylor's direct testimony, the functionalization and allocation of Account 870 is properly functionalized as distribution related.[21]

Q. Please provide a summary of witness Taylor's recommended CCOSS results.

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

TABLE 11
PSE Recommended Natural Gas CCOSS
Results Under Current Rates

Class	ROR	Indexed ROR	Parity Ratio
Residential	6.63%	138%	1.10
Commercial & Industrial	1.61%	34%	0.81
Large Volume	3.73%	78%	0.94
Interruptible	1.94%	40%	0.85
Limited Interruptible	10.68%	222%	1.31
Non-Exclusive Interruptible	-3.38%	-70%	0.57
Exclusive Interruptible	7.61%	158%	1.15
Contracts	30.78%	640%	2.26
Total	4.81%	100%	1.00

Q. Have you determined if witness Taylor's recommended natural gas CCOSS results are reasonable across classes?

[21] Taylor, Exh. JDT-1T at 14:18 – 15:9.

A. Yes. I have concluded that the end results of witness Taylor's natural gas CCOSS results are reasonable across all classes.

As indicated above, witness Taylor's CCOSS comports with the Commission's Order that resulted in the implementation of WAC 480-85. As explained earlier (relating to electric CCOSS), the natural gas CCOSS requirements within WAC 480-85 were similarly the product of compromises by various stakeholder groups that involved numerous meetings and workshops.

E. Natural Gas Rate Spread

Q. Please explain witness Taylor's proposed rate spread associated with the Company's proposed natural gas base rates.

A. In developing PSE's proposed rate spread associated with base rates, witness Taylor utilized the results of PSE's recommended CCOSS as a guide in evaluating class revenue responsibility. More specifically, witness Taylor proposes the following class increases:

- Limited Interruptible (Rates 86 and 86T) increased at 75 percent of the system average;
- Residential (Rates 16, 23, and 53) increased at 90 percent of the system average;
- Large Volume (41 and 41T) increased at 110 percent of the system average;
- Firm Commercial & Industrial (Rates 31 and 31T) and Interruptible (Rates 85 and 85T] increased at 125 percent of the system average;
- Non-Exclusive Interruptible (Rates 87 and 87T) increased at 150 percent of the system average; and
- Exclusive Interruptible (Rate 88T) increased to full cost of service (i.e., full parity).

The following tables provide a summary of witness Taylor's proposed base rate spreads for the 2025 and 2026 rate years as well as the cumulative revenue increases based on test year 2023 revenues:

TABLE 12
PSE Proposed 2025 Natural Gas Base Rate Spread
Based on PSE's Forecasted Usage
($000)

Class	2025 Base Rate Revenues (Current Rates) [22]	PSE Proposed MYRP 2025 Increase		
		Increase	Percent Increase	Percent of System Average
Residential – 16, 23, 53	$370,023	$154,691.4	41.81%	90%
Commercial & Industrial – 31, 31T	$125,398	$72,810.6	58.06%	126%
Large Volume – 41, 41T	$22,475	$11,484.1	51.10%	111%
Interruptible 85, 85T	$8,911	$5,174.3	58.06%	126%
Limited Interruptible 86, 86T	$1,176	$409.7	34.84%	75%
Non-Exclusive Interruptible – 87, 87T	$5,147	$3,586.3	69.68%	151%
Exclusive Interruptible – 88T	$1,181	-$664.7	-56.26%	-122%
Contracts	$1,567	$123.2	7.87%	17%
Total	$535,878	$247,615.0	46.21%	100%

TABLE 13
PSE Proposed 2026 Natural Gas Base Rate Spread
Based on PSE's Forecasted Usage
($000)

Class	2026 Base Rate Revenues (Current Rates) [23]	PSE Proposed MYRP 2026 Increase		
		Increase	Percent Increase	Percent of System Average
Residential – 16, 23, 53	$367,451	$170,223.1	46.33%	91%
Commercial & Industrial – 31, 31T	$125,457	$80,720.1	64.34%	126%
Large Volume – 41, 41T	$22,414	$12,690.6	56.62%	111%
Interruptible 85, 85T	$8,805	$5,665.2	64.34%	126%
Limited Interruptible 86, 86T	$1,143	$441.3	38.60%	75%
Non-Exclusive Interruptible – 87, 87T	$5,088	$3,928.2	77.21%	151%
Exclusive Interruptible – 88T	$1,489	-$972.6	-65.30%	-128%
Contracts	$1,558	$269.3	17.29%	34%
Total	$553,405	$272,965.2	51.17%	100%

[22] Based on PSE forecasted usage.
[23] Based on PSE forecasted usage.

TABLE 14
PSE Proposed Natural Gas Cumulative Base Rate Spread Over Test Year Revenues
Based on PSE's Forecasted Usage
($000)

Class	Test Year Base Rate Revenues (Current Rates) [24]	MYRP 2026 Revenues	Cumulative Total Increase	Percent Increase
Residential – 16, 23, 53	$385,830	$537,674	$151,843.9	39.36%
Commercial & Industrial – 31, 31T	$127,170	$206,177	$79,006.9	62.13%
Large Volume – 41, 41T	$23,179	$35,104	$11,925.1	51.45%
Interruptible 85, 85T	$9,203	$14,470	$5,267.3	57.23%
Limited Interruptible 86, 86T	$1,489	$1,585	$95.0	6.38%
Non-Exclusive Interruptible – 87, 87T	$5,236	$9,016	$3,780.4	72.21%
Exclusive Interruptible – 88T	$501	$517	$16.0	3.19%
Contracts	$1,567	$1,827	$259.6	16.56%
Total	$554,176	$806,370	$252,194.2	45.51%

Q. Please explain the Company's proposed revenue reductions to the new Exclusive Interruptible (Rate 88T) class.

A. As indicated earlier, Schedule 88T is designed to recover its full cost of service. In this regard, issues involving the treatment of the regulated portion of the Tacoma LNG project were decided in the Commission's Final Order in Docket No. UG-230393.[25]

Q. Have you determined if the Company's proposed natural gas rate spread associated with base rates is reasonable?

A. Yes. However, it should be understood that the amounts and percentages in Tables 11 through 13 reflect the Company's normalized and forecasted usages and revenues. With

[24] Based on PSE forecasted usage.
[25] *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Docket UG-230393, Final Order 07 (April 24, 2024).

this understanding, witness Taylor's relative increases (percent of system averages) reasonably reflects cost of service study results and moves classes closer to parity in a gradual manner. As a result, witness Taylor's conceptual approach is reasonable and consistent with sound ratemaking practices.

F. Natural Gas Rate Design

Q. Please explain PSE's current Residential natural gas rate structure.

A. Currently, PSE's Rate Schedule 23 base rates are comprised of a fixed monthly customer charge plus a flat usage delivery charge. Under current rates, the base monthly customer charge is $12.50.

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

A. Yes. The Company proposes two increases to the current monthly Residential customer charge during its proposed MYRP. For MYRP 2025, the Company proposes a customer charge of $14.86 per month (18.9 percent increase) which would be increased again to $17.67 in MYRP 2026 (an additional 18.9 percent increase). Therefore, on a cumulative basis, the Company's proposed $17.67 monthly customer charge in 2026 represents a 41.4 percent increase over the current customer charge.

Q. Please explain PSE's current firm Commercial & Industrial rate structure.

A. Currently, PSE's firm Commercial & Industrial (C&I) Rate 31 (sales) and Rate 31T (transportation) have significantly different fixed monthly customer charges but have the

same base delivery rate ($0.41249/therm). Under current rates, the base monthly customer charge for sales customers is $38.89 while this same charge for transportation customers is $364.04.

Q. Does PSE also propose to increase the C&I sales (Rate Schedule 31) fixed monthly customer charge?

A. Yes. The Company also proposes two increases to the current monthly C&I sales customer charge during its proposed MYRP. For MYRP 2025, the Company proposes a customer charge of $50.56 per month (30 percent increase) which would be increased again to $65.72 in MYRP 2026 (an additional 30 percent increase). Therefore, on a cumulative basis, the Company's proposed $65.72 monthly customer charge in 2026 represents a 69 percent increase over the current customer charge.

Q. Does PSE propose to increase the $364.04 transportation (Rate Schedule 31T) fixed monthly customer charge?

A. Technically, no. However, it should be noted that there is only one Rate 31T customer in which the Company will move this customer to sales Rate 31. As such, the fixed monthly customer charge for Rate 31T becomes moot.

Q. Does witness Taylor assert that the Company's proposed significant increases to the Residential and firm C&I fixed monthly customer charges are cost-based?

A. To some extent. On page 29 of his direct testimony, witness Taylor asserts:

> The proposal includes a potential for an up to 30 percent increase in monthly customer charges and an 18 percent increase in demand charges,

to maintain these charges at or below the respective unit costs within the COSS results.[26]

Q. What is witness Taylor's calculated monthly basic charge (i.e., "customer cost") for Residential and firm C&I customers?

A. Witness Taylor calculates a "cost-based" Residential customer charge of $17.63 per month and a "cost-based" firm C&I customer charge of $131.62 per month.

Q. Do you agree with witness Taylor's calculated monthly Residential and firm C&I customer costs of $17.63 and $131.62, respectively?

A. No. Witness Taylor's calculated basic charge (customer) costs contains a multitude of general and overhead expenses that are not required to connect nor maintain a customer's account.

Q. Please explain the general and overhead costs included in witness Taylor's customer cost calculations.

A. Witness Taylor's customer cost calculations include a host of allocated intangible and general plant and associated depreciation as well as an assignment of administrative and general expenses. Specifically, witness Taylor included $84.0 million of intangible plant ($56.8 million allocated to Residential), $85.0 million of general plant ($54.8 million allocated to Residential) and $28.2 million of A&G expenses ($20.3 million allocated to Residential).[27]

[26] Taylor, Exh. JDT-1T at 29:9-12.
[27] Per WP-JDT-4-GCOS-Model-PSE-24GRC-02-2024.xlsx, Tab: CustomerTotal.

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

A. Yes. I conducted a natural gas direct customer cost analysis identical in methodology to that conducted for PSE's electric operations, which includes only those costs required to connect and maintain a customer's account. As my Exhibit GAW-6 shows, and similar to my electric customer cost analysis, I utilized Staff's capital structure and recommended return on equity of 9.50 percent. My analysis produces a direct Residential customer cost of $13.98 per month and a firm C&I customer cost of $112.95 per month.

Q. What are your recommendations regarding PSE's natural gas Residential and firm C&I customer charges?

A. With respect to Residential (Rate 23), my customer cost analysis indicates a justifiable rate of $13.98 as compared to the current rate of $12.50 per month. As a result, I recommend a Residential (Rate 23) fixed monthly customer charge of $14.00 that will be applicable throughout both years of the MYRP.

With respect to firm C&I (Rate 31), my customer cost analysis indicates a justifiable rate of $112.95 per month. However, these costs may be partially influenced by the inclusion of the one Rate 31T customer. Nonetheless, given the Company's proposed two annual increases of 30 percent each, in the interest of rate gradualism, I accept the Company's proposed fixed customer charges for Rate 31 during the MYRP.

Q. Does this complete your testimony?

A. Yes.