Exhibit No. JP-1T
Docket UE-23____
Witness: Jack Painter

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFICORP dba PACIFIC POWER & LIGHT COMPANY Respondent.	Docket UE-23____

PACIFICORP

DIRECT TESTIMONY OF JACK PAINTER

June 2023

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ATTACHED EXHIBITS

Q. Please state your name, business address, and present position with PacifiCorp dba Pacific Power & Light Company (PacifiCorp or Company).

A. My name is Jack Painter and my business address is 825 NE Multnomah Street, Suite 600, Portland, Oregon 97232. My title is Net Power Cost Specialist.

QUALIFICATIONS

Q. Briefly describe your education and professional experience.

A. I received a Bachelor of Arts degree in Business Administration with a Finance major from Washington State University in 2007. I have been employed by PacifiCorp since 2008 and have held positions in the regulation and jurisdictional loads departments. I joined the regulatory net power costs group in 2019 and assumed my current role as a Net Power Cost Specialist in 2020.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have previously provided testimony to the public utility commissions in Washington, Oregon, California, Utah, Wyoming, and Idaho.

PURPOSE OF TESTIMONY

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

A. My testimony presents and supports the Company's calculation of the Power Cost Adjustment Mechanism (PCAM) for the 12-month period from January 1, 2022, through December 31, 2022 (Deferral Period). More specifically, I provide the following:

- Background on the PCAM and an accounting of how the PCAM balance was calculated for the Deferral Period;

- Discussion of the main differences between adjusted actual net power costs (Actual NPC) and net power costs in rates (Base NPC), both allocated on a Washington Inter-Jurisdictional Allocation Methodology (WIJAM) basis;[1]

- Discussion about the Company's participation in the Western Energy Imbalance Market (WEIM) with the California Independent System Operator (CAISO) and the benefits from the WEIM that are passed through to customers; and

- Background on the Production Tax Credit (PTC) Tracker and an accounting of how the PTC balance was calculated for the Deferral Period.

Additionally, PacifiCorp's filing includes testimony from Ramon J. Mitchell, who addresses the prudence of PacifiCorp's risk management practices and hedging activities as required by the Commission order from the 2022 Power Cost Only Rate Case.[2]

Q. Please explain the settlement stipulation in PacifiCorp's last general rate case in docket UE-191024 (2021 Rate Case).

A. The parties to the 2021 Rate Case originally settled the proceeding in July of 2020 and agreed to an update to the Base NPC calculation that would occur in October of 2020 (October Update). The October Update reflected a $17.9 million increase to Base NPC over the $101.7 million that was estimated in the original settlement. Since the October Update NPC increase was greater than the balance of the PCAM deferred balancing account at that time, to make up for the shortfall between the Base NPC from the October Update and the estimated baseline established in the Stipulation, the Parties proposed, and the Washington Utilities and Transportation Commission

[1] The new WIJAM was approved in the Company's last general rate case in Docket No. UE-191024 and became effective beginning January 1, 2021.
[2] *WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket No. UE-210402, Order 06 at ¶154 (Mar. 29, 2022).

(Commission) approved, the reflection of this difference in the PCAM deferred balancing account.

Q. How is the incremental increase in Base NPC from the October Update reflected in the PCAM deferral account?

A. A step is added to the calculation of the 2022 PCAM deferral balance to include the deferred portion of the Base NPC: the Deferred NPC Baseline Adjustment (DNBA). The DNBA is equal to the $/megawatt-hour (MWh) difference between the October Update (October NPC) and Base NPC multiplied by the actual sales.

$$Deferred\ NPC\ Baseline\ Adjustment$$
$$= (October\ NPC_{\$/MWh} - Base\ NPC_{\$/MWh}) \times Actual\ Sales_{MWh}$$

The DNBA is calculated and added to the PCAM balance monthly. This amount does not run through the dead and sharing bands but is added in after the bands are applied. Interest accrues monthly consistent with the past operation of the PCAM.

Q. When do rates for the 2021 Rate Case and therefore the DNBA end?

A. The 2021 Rate case is in effect from January 1, 2021, through April 30, 2022.

Q. When do rates for the 2022 Power Cost Only Rate Case (PCORC) docket UE-210402 begin?

A. Rates for the 2022 PCORC begin on May 1, 2022. The 2022 PCORC established new Base NPC rates, new Base PTC rates, and eliminated the DNBA.

Q. Are you proposing a rate change to Schedule 97 as part of this proceeding?

A. Yes. If the cumulative PCAM deferred balancing account meets the surcharge or credit threshold of $17 million, there would be a proposed change to Tariff Schedule 97. Since the ending balance in the 2022 PCAM deferred balancing account

is a $71.5 million surcharge, the Company proposes to change Tariff Schedule 97 using a 24-month amortization period beginning January 1, 2024. Over the course of the amortization period, the Company expects to recover a total of $77.3 million, which includes interest through the two-year amortization period as shown in workpaper 4.[3] Any difference between the amount the Company expects to collect and actual customer collections at the end of the amortization period will be included in the 2025 PCAM deferred balancing account to be filed in June 2026.

SUMMARY OF THE PCAM DEFERRAL CALCULATION

Q. Please briefly describe the Company's PCAM authorized by the Commission.

A. The Commission's Order 09 in docket UE-140762 approved the PCAM to allow the Company to track unexpected variations in power costs in the PCAM deferral account. In most years, if the cumulative positive or negative balance in the PCAM deferral account, including monthly interest, exceeds $17 million, either a surcharge or sur-credit is triggered.

Q. Please summarize the Company's calculation of the PCAM deferral for the Deferral Period.

A. For the Deferral Period, the cumulative PCAM differential was a $72.7 million charge before application of the deadband and asymmetrical sharing bands. After application of the deadband and asymmetrical sharing bands, the filing results in a deferral charge of $59.4 million. The DNBA adjustment when applied to actual Washington sales results in a charge of $6.2 million. Including interest, the total PCAM recovery for the deferral period is $71.5 million.

[3] NEW-PAC-PCAM-WP4-6-15-23.xlsx

Q. Have you provided detailed support for the calculation of the PCAM balance with your testimony?

A. Yes. Exhibit No. JP-2 includes a detailed calculation of the Company's 2022 PCAM deferral on a monthly basis. Detailed confidential workpapers supporting Exhibit No. JP-2 are provided separately.

2022 PCAM CALCULATION

Q. Please describe the Company's calculation of the PCAM deferral for the Deferral Period.

A. As previously noted, the PCAM deferral is calculated on a monthly basis as the difference between Base NPC collected through general rates and Actual NPC. The accrued PCAM variance is subject to the following parameters:

- Symmetrical Deadband: Any PCAM difference between negative $4 million and positive $4 million will be absorbed by the Company.
- Asymmetrical sharing of the PCAM difference as follows:
  - Between $4 and $10 million; shared 50 percent by customers and 50 percent by the Company;
  - Greater than $10 million; shared 90 percent by customers and 10 percent by the Company;
  - Between -$4 and -$10 million; shared 75 percent by customers and 25 percent by the Company; and
  - Less than -$10 million; shared 90 percent by customers and 10 percent by the Company.
- Amortization of Deferral: The amortization of PCAM variances are deferred until the balance of the deferral balancing account results in either a surcharge or credit greater than $17 million.

For the Deferral Period, the PCAM differential was a $72.7 million charge. After application of the deadband and asymmetrical sharing bands plus the DNBA adjustment, the Company is seeking approval to charge the PCAM balancing account

with $71.5 million including interest. A summary of the deferral calculation is shown in Table 1.

Table 1
Summary of PCAM Account Balance

Calendar Year 2022 PCAM Deferral	
Actual PCAM Costs ($/MWh)	$ 50.81
Base PCAM Costs ($/MWh)	33.48
PCAM Cost Differential ($/MWh)	17.33
Washington Sales (MWh)	4,181,079
Total PCAM Differential*	$ 72,671,801
Total Deferrable ABOVE Deadband	-
Total Deferrable BELOW Deadband	68,671,801
Washington Deferral after Sharing	59,404,621
DNBA Adjustment	6,235,305
Interest Accrued through December 31, 2022	703,704
Interest Accrued January 1, 2023 through March 31, 2023	1,052,084
Interest Accrued April 1, 2023 through June 30, 2023	1,271,584
Interest Accrued July 1, 2023 through December 31, 2023	2,799,978
Requested PCAM Recovery	**$ 71,467,276**

* *Calculated monthly*

Q. How is the PCAM differential calculated on a monthly basis?

A. The PCAM differential is calculated by subtracting the NPC collected in base rates from the PCAM Adjusted Actual Costs as shown in the formula below:

$$\text{PCAMC} - (\text{Base NPC}_{\$/\text{MWh}} \times \text{Actual Sales}) = \text{PCAM Differential}$$

Where:

PCAMC - Adjusted actual WIJAM NPC costs allocated to Washington using allocation factors calculated with actual jurisdictional load

Base $NPC_{\$/MWh}$ - Base NPC unit cost; calculated by dividing Washington-allocated NPC as established in a rate proceeding by the Washington sales-at-meter used to set rates in the rate proceeding

Actual Sales - Actual Washington retail sales at the meter

The cumulative PCAM variance is first compared against the symmetrical deadband. Cumulative amounts in excess of the symmetrical deadband are then subject to the sharing bands. The customer portion of the PCAM variance is tracked in the deferral balancing account and monthly balances accrue interest at the current Federal Energy Regulatory Commission (FERC) interest rate. A rate change is triggered when the customer surcharge or credit exceeds $17 million.

Q. What were the WIJAM-adjusted Actual NPC for the Deferral Period and how were they determined?

A. The WIJAM-adjusted Actual NPC in the Deferral Period was approximately $212 million. This amount captures all components of NPC as defined in the Company's general rate case and power cost only rate case proceedings and modeled by the Company's Generation and Regulation Initiative Decision Tool (GRID) model and Aurora model respectively. Booked NPC are adjusted to reflect a balanced WIJAM consistent with the methodology used in the 2021 Rate Case and the 2022 PCORC. Specifically, it includes amounts booked to the following FERC accounts:

Account 447 - Sales for resale;

Account 501 - Fuel, steam generation; excluding fuel handling, start-up fuel (gas and diesel fuel, residual disposal) and other costs that are not modeled in GRID;

Account 503 - Steam from other sources;

Account 547 - Fuel, other generation;

Account 555 - Purchased power; and

Account 565 - Transmission of electricity by others.

Q. What adjustments are made to Actual NPC and why are they needed?

A. The Company adjusts Actual NPC to reflect the ratemaking treatment of several items, including:

- out of period accounting entries booked in the Deferral Period that relate to operations before implementation of the PCAM on April 1, 2015;
- reductions to coal costs for legal fees related to fines and citations;
- revenue from a contract related to the Leaning Juniper wind resource;
- an adjustment for costs related to participation in the Western Power Pool's (WPP)[4] Western Resource Adequacy Program (WRAP); and
- an adjustment for costs of the WEIM Body of State Regulators (BOSR) fees charged for commission related work as a participant in the WEIM.

Q. Please state the amount of the adjusted Actual NPC that were allocated to Washington and describe how the amount was calculated.

A. Washington-allocated Actual NPC were approximately $212.4 million during the Deferral Period. To arrive at this value, the Company applied the allocation methodology approved by the Commission using actual allocation factors from calendar year 2022.

[4] Western Power Pool was formerly known as Northwest Power Pool.

Q. How much of base PCAM costs did the Company collect from Washington customers during the Deferral Period?

A. During the Deferral Period, the Company received $139.8 million in base PCAM revenue from Washington customers, $72.7 million less than Washington-allocated Actual NPC.

Q. What was the total amount of the deferral over the Deferral Period?

A. After application of the deadband and asymmetrical sharing bands to the NPC differential plus the DNBA adjustment, the deferral was a $71.5 million charge including interest, as shown in Table 1.

Q. Please describe how the interest on the PCAM deferral balance was determined.

A. Interest is accrued monthly on the PCAM deferral balance during the deferral period and from the end of the deferral period until Schedule 97 rates become effective January 1, 2024, at the FERC interest rates that are published quarterly. As shown in Table 1, the 2022 PCAM accrued $5.8 million of interest. Additionally, interest accrues through the amortization period while rates are being collected. The Company expects to collect $5.9 million throughout the amortization period.

Q. Are costs related to Western Power Pool's (WPP) Western Resource Adequacy Program (WRAP) and the CAISO WEIM Body of State Regulators (BOSR) included in the PCAM?

A. Yes. Costs have been included related to the participation in the WRAP and the WEIM BOSR. Both costs were included in the 2023 Rate Case in docket UE-230172 for rates effective on March 1, 2024. Because this PCAM filing covers the 2022 deferral period, calendar year 2022 costs have been included in this filing and 2023

costs will be included in the 2023 PCAM, but costs will not be included in the 2024 PCAM filing if approved in the 2023 Rate Case. Washington allocated costs are $4,428 for participation in the WEIM BOSR and $35,688 for participation in the WPP WRAP.

Q. Is the Company requesting a rate change with this filing?

A. Yes. The PCAM balancing account exceeds the customer surcharge or credit threshold of $17 million and the Company is requesting a rate change to schedule 97 with a 24-month amortization period beginning January 1, 2024. Please refer to Table 2 below for a summary of the deferred balancing account.

Table 2
Deferred Balancing Account

	Washington Customers
Balancing Account Activity	
Beginning Deferral Balance	$ -
2022 PCAM Deferral	59,404,621
DNBA Adjustment	6,235,305
Interest	703,704
Activity Through December 31, 2022	66,343,630
Interest Accrued January 1, 2023 through March 31, 2023	1,052,084
Interest Accrued April 1, 2023 through June 30, 2023	1,271,584
Interest Accrued July 1, 2023 through December 31, 2023	2,799,978
December 31, 2022 Ending Balance	$ 71,467,276

DIFFERENCES IN NPC

Q. On a WIJAM basis, what was the difference between Actual NPC and Base NPC for the Deferral Period?

A. Actual NPC for the Deferral Period were $212 million, which was $75 million more than Base NPC for the Deferral Period. Table 3 below provides a high-level summary of the difference between the Base NPC and Actual NPC by category on a WIJAM basis.

Table 3
Net Power Cost Reconciliation ($millions)

Base NPC	**$**	**137**
Increase/(Decrease) to NPC:		
Wholesale Sales Revenue		(0)
Purchased Power Expense		43
Coal Fuel Expense		(2)
Natural Gas Expense		31
Wheeling and Other Expense		2
Total Increase/(Decrease)		75
2021 GRC Settlement Adjustment		0
Total Company NPC Difference	**$**	**75**
Adjusted Actual NPC	**$**	**212**

Q. Please describe the Base NPC the Company used to calculate the NPC component of the PCAM deferral.

A. Two Base NPC rates were used to calculate the 2022 PCAM deferral. First, the 2021 Rate Case established Base NPC of $122 million using a test period of January 2021 through December 2021 and became effective January 1, 2021, and ended April 30,

2022. Second, the 2022 PCORC established Base NPC of $146 million using a test period of January 2022 through December 2022 and became effective May 1, 2022.

Q. Please describe some of the weather events that impacted NPC during the Deferral Period.

A. Similar to 2021, calendar year 2022 was also marked by several extreme and unforeseeable weather events that had a collective impact on Actual NPC during the year. Multiple heat waves across the Company's service territories throughout July, August, and September had a significant effect on market prices, ultimately leading to an increase in NPC. Cumulatively, the NPC differential for those months amounted to $16.4 million, or almost a quarter of the entire $72.7 million variance on a Washington-allocated basis.

Additionally, ongoing drought in the West, which began in the summer of 2020, continued to impact Actual NPC because it reduced the availability of the Company's hydro resources. In 2022, actual generation from hydro resources were 34,893 MWhs, or 13 percent, lower than forecast generation and needed to be replaced to meet customer demand either through system dispatch of other resources, reduced market sales, increased market purchases, or any combination of these options. The estimated impact to WIJAM NPC in 2022 due to decreased hydro MWhs from drought is $4.5 million.

Finally, in December 2022 a historic winter cyclone event occurred across the majority of the U.S., which impacted both market prices and natural gas prices, along with an increase in demand. Natural gas prices across the Company's delivery points drastically increased. At the Sumas natural gas trading hub, average prices were

401 percent higher in December 2022 as compared to December 2021, while market prices at the Mid-Columbia and Four-Corners trading hubs were, on average, 406 percent higher across all load hours. The NPC differential in December alone is $38.6 million, over half of the total Washington-allocated NPC variance.

Q. How has the conflict in Ukraine impacted regional natural gas fuel prices?

A. The ongoing conflict in Ukraine has resulted in decreased availability of natural gas in Europe, which was previously sourced from Russian imports. With decreased European supply, the associated European demand has turned to U.S. domestic supply to fill the gap. This has resulted in increased competition over domestic supply, which has driven regional natural gas fuel prices upwards due to domestic production being unable to keep pace with the increased demand. This increase in natural gas fuel prices correspondingly increases regional natural gas market prices and regional power market prices, in that order. It is difficult to predict (or forecast) how long, and in what direction, these factors will continue to impact regional prices.

Q. Please describe the differences between Actual NPC and Base NPC.

A. Actual NPC were higher than Base NPC due to a $43 million increase in purchased power expense, a $31 million increase in natural gas fuel expense, and a $2 million increase in wheeling and other expenses. These increased expenses were partially offset by a $2 million reduction in coal fuel expense and a $200 thousand increase in wholesale sales revenue.

Q. Please explain the changes in wholesale sales revenue.

A. Wholesale sales revenue increased by $200 thousand relative to Base NPC because the average price of actual wholesale sales market transactions (represented in GRID

and Aurora as short-term firm and system balancing sales) was $30.91/MWh, or 94 percent, higher than Base NPC. The increase in the average price of actual wholesale sales market transactions was partially offset by a decrease in actual wholesale market volumes of 39 gigawatt-hours (GWh), which were 45 percent lower than Base NPC.

Q. Please explain the changes in purchased power expense.

A. Purchased power expense increased primarily due to higher market purchases of $43.4 million (represented in GRID and Aurora as short-term firm and system balancing purchases) with the most significant impact tied to several heat waves throughout July, August, and September, further compounded by ongoing drought dating back to the summer of 2020. Actual market purchases were approximately 90 GWh, or 8 percent, lower than Base NPC, but the average price of actual market purchase transactions was $48.67/MWh, or 97 percent, higher than Base NPC. Company witness Ramon Mitchell also provides additional information on the Company's hedging practices and discusses market exposure in Washington-allocated NPC.

During the summer 2022 heat waves, the Mid-Columbia market hub saw an average increase in heavy load hour market prices of 103 percent, or just over double, in August and September as compared to the same timeframe in 2021. This is significant considering 2021 also experienced an extreme heat dome and drought. The Four Corners market hub saw an average increase in heavy load hour market prices of 151 percent for the same period.

Q. Please explain the changes in coal fuel expense.

A. Coal generation volume decreased by 13 GWh compared to Base NPC and overall coal fuel expense decreased due to the lower average cost of coal generation from $24.43/MWh in Base NPC to $23.67/MWh, or 3 percent, in the Deferral Period.

Q. Please explain the changes in natural gas fuel expense.

A. The total natural gas fuel expense in Actual NPC increased by $31.1 million compared to Base NPC due to an increase in the average cost of natural gas generation from $39.17/MWh in Base NPC to $61.33/MWh, or 57 percent in the deferral period caused by conflict in Ukraine and a historic winter weather event as discussed above. Additionally, natural gas volumes were 335 GWh, or 71 percent, higher than Base NPC during the Deferral Period. Even with higher natural gas prices in 2022, Company owned gas-generating plants were still least-cost dispatch resources, on average, and more economic than market purchases leading to the increase in natural gas output.

IMPACT OF PARTICIPATING IN THE WEIM

Q. What is the CAISO Western Energy Imbalance Market?

A. The CAISO WEIM is an advanced real-time energy market that automatically finds low-cost energy to serve real-time consumer demand across the west by allowing participants to buy and sell power close to the time electricity is consumed. Since its launch in 2014, the WEIM has enhanced grid reliability, improved the integration of renewable resources, lowered carbon emissions, and generated significant cost savings for its participants.

Q. Are the actual benefits from participating in the WEIM included in the PCAM deferral?

A. Yes. Participation in the WEIM provides significant benefits to customers in the form of reduced Actual NPC. The benefits are embedded in Actual NPC through lower fuel costs, lower purchased power costs, and higher wholesale sales revenue.

Q. What are the actual WEIM benefits included in the PCAM deferral?

A. CAISO's WEIM benefits report indicates that PacifiCorp has received $200 million in benefits in 2022. Since inception of the WEIM, PacifiCorp has received $591.4 million in total benefits.

PTC TRACKER

Q. What are PTCs?

A. Renewable electricity PTCs are tax credits derived from the generation at certain eligible company-owned facilities. For each kilowatt-hour of energy generated, the Company receives a credit for a duration of 10 years beginning on the date which the facility became commercially operational. The credit is included as an offset to the Company's federal income taxes and is credited to customers for rate-making purposes.

Q. What is the PTC Tracker?

A. In the 2021 Rate Case, the settlement stipulation and order outlined that PTCs will be credited to customers in a manner that matches the cost in the PCAM without running through the mechanism. Instead, the differences between Base PTCs and Actual PTCs will receive separate accounting treatment and be trued-up on an annual basis. The

PTC Tracker will return or recover the variance in Base PTCs as compared to Actual PTCs on an annual basis consistent with the structure of the PCAM.

Q. Please summarize the Company's calculation of the PTC Tracker for the Deferral Period.

A. For the Deferral Period, the cumulative PTC differential was a $1.4 million charge. Including interest, the total PTC recovery for the deferral period is $1.6 million. In the Company's limited-issue rate case, docket UE-210532, Parties agreed that a one-time refund be issued to customers to update for the delayed in-service dates for these plants, but did not address the differential to the related PTCs at that time because the PTC Tracker existed and was intended to address these discrepancies. A summary of the PTC Tracker calculation is shown in Table 4.

Q. Have you provided detailed support for the calculation of the PCAM balance with your testimony?

A. Yes. Exhibit No. JP-3 includes a detailed calculation of the Company's 2022 PTC deferral on a monthly basis. Detailed confidential workpapers supporting Exhibit No. JP-3 are provided separately.

Table 4
Summary of PTC Tracker Deferral

Calendar Year 2022 PTC Tracker		
Actual PTCs ($/MWh)	$	4.47
Base PTCs ($/MWh)		4.81
PTC Differential ($/MWh)		(0.35)
Washington Sales (MWh)		4,181,079
Total PTC Differential*		$ 1,437,075
Interest Accrued through December 31, 2022		2,495
Interest Accrued January 1, 2023 through March 31, 2023		22,829
Interest Accrued April 1, 2023 through June 30, 2023		27,592
Interest Accrued July 1, 2023 through December 31, 2023		60,756
Requested PTC Recovery		**$ 1,550,746**

* *Calculated monthly*

CONCLUSION

Q. Please summarize your testimony.

A. The PCAM deferral of $71.5 million, including interest for the calendar year 2022 Deferral Period was accurately calculated in compliance with the PCAM tariff and previous Commission orders. The increase is driven by extreme weather events, increased market purchases, and both higher market prices and natural gas fuel prices.

Q. Does this conclude your direct testimony?

A. Yes.