Exhibit No. DGW-1T Docket UE-______ Witness: David G. Webb

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of

PACIFICORP DBA PACIFIC POWER & LIGHT COMPANY,

Docket UE-____

2019 Power Cost Adjustment Mechanism

PACIFICORP DBA PACIFIC POWER & LIGHT COMPANY

DIRECT TESTIMONY OF DAVID G. WEBB

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ATTACHED EXHIBITS

Exhibit No. DGW-2: 2019 PCAM Deferral Calculation

1	Q.	Please state your name, business address, and present position with PacifiCorp
2		dba Pacific Power & Light Company (PacifiCorp or Company).
3	A.	My name is David G. Webb and my business address is 825 NE Multnomah Street,
4		Suite 600, Portland, Oregon 97232. My title is Manager, Net Power Costs.
5		QUALIFICATIONS
6	Q.	Briefly describe your education and professional experience.
7	A.	I received a Master of Accountancy degree from Southern Utah University in 1999
8		and a Bachelor of Science degree in Business Management from Brigham Young
9		University in 1994. I am a Certified Public Accountant licensed in the state of
10		Nevada. I have been employed by PacifiCorp since 2005 and have held various
11		positions in the regulation, finance, fuels, and mining departments. I assumed my
12		current role managing the regulatory net power cost group in 2019.
13	Q.	Have you testified in previous regulatory proceedings?
14	A.	Yes. I have previously provided testimony to the public utility commissions in Utah,
15		Wyoming, Idaho, and Oregon.
16		PURPOSE OF TESTIMONY
17	Q.	What is the purpose of your testimony in this proceeding?
18	A.	My testimony presents and supports the Company's calculation of the Power Cost
19		Adjustment Mechanism (PCAM) for the 12-month period from January 1, 2019,
20		through December 31, 2019 (Deferral Period). More specifically, I provide the
21		following:
22		• Background on the PCAM and an accounting of how the PCAM balance was
23		calculated for the Deferral Period;

1		• Discussion of the main differences between adjusted actual net power costs		
2		(Actual NPC) and net power costs in rates (Base NPC), both allocated on a		
3		West Control Area Inter-Jurisdictional Allocation Methodology (WCA) basis;		
4		• Discussion about the Company's participation in the energy imbalance market		
5		(EIM) with the California Independent System Operator (CAISO) and the		
6		benefits from EIM that are passed through to customers.		
7	Q.	Are additional witnesses presenting testimony specifically for the PCAM and		
8		Tariff Schedule 97 in this case?		
9	A.	No. Since the cumulative PCAM deferral balancing account does not exceed the		
10		surcharge or credit threshold of \$17 million, there are no proposed changes to Tariff		
11		Schedule 97.		
12		SUMMARY OF THE PCAM DEFERRAL CALCULATION		
13	Q.	Please briefly describe the Company's PCAM authorized by the Washington		
14		Utilities and Transportation Commission (Commission).		
15	A.	The Commission's Order 09 in Docket UE-140762 approved the PCAM to allow the		
16		company to track unexpected variations in power costs in the PCAM deferral		
17		account. If the cumulative positive or negative balance in the PCAM deferral		
18		account, including monthly interest, exceeds \$17 million either a surcharge or sur-		
19		credit is triggered.		
20	Q.	Please summarize the Company's calculation of the PCAM deferral for the		
21		Deferral Period.		
21 22	A.	Deferral Period. For the Deferral Period the cumulative PCAM differential was an approximate		

1		bands. After application of the deadband and asymmetrical sharing bands, the filing
2		results in a deferral credit of approximately \$2.1 million, including interest.
3	Q.	Have you provided detailed support for the calculation of the PCAM balance
4		with your testimony?
5	А.	Yes. Exhibit No. DGW-2 includes a detailed calculation of the Company's 2019
6		PCAM deferral on a monthly basis. Detailed confidential workpapers supporting
7		Exhibit No. DGW-2 are provided separately.
8		2019 PCAM CALCULATION
9	Q.	Please describe the Company's calculation of the PCAM deferral for the
10		Deferral Period.
11	А.	As previously noted, the PCAM deferral is calculated on a monthly basis as the
12		difference between Base NPC collected through general rates and Actual NPC,
13		including actual non-NPC EIM costs. The accrued PCAM variance is subject to the
14		following parameters:
15 16		• Symmetrical Deadband: Any PCAM difference between negative \$4 million and positive \$4 million will be absorbed by the company.
17		• Asymmetrical sharing of the PCAM difference as follows:
18 19 20 21 22 23 24 25		 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.
26 27 28		• 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.

1	For the Deferral Period, the PCAM differential was approximately a \$6.3 million
2	credit. After application of the deadband and asymmetrical sharing band, the
3	company is seeking approval to credit the PCAM balancing account with
4	approximately \$2.1 million including interest. A summary of the deferral calculation
5	is shown in Table 1.

Summary of I Critici Recount D	aiance	
Calendar Year 2019 PCAM Deferral		
Actual PCAM Costs (\$/MWh)	\$	30.25
Base PCAM Costs (\$/MWh)		31.76
PCAM Cost Differential (\$/MWh)		(1.51)
Washington Sales (MWh)		4,144,590
Total PCAM Differential*	\$	(6,269,634)
Total Deferrable ABOVE Deadband Total Deferrable BELOW Deadband		- (2,269,634)
Washington Deferral after Sharing		(1,702,226)
Interest Accrued through December 31, 2019		(416,596)
Requested PCAM Recovery	\$	(2,118,821)
* Calculated monthly		

 Table 1

 Summary of PCAM Account Balance

1	Q.	How is the PCAM differential calculated on a monthly basis?		
2	A.	The PCAM differential is calculated by subtracting the NPC collected in base rates		
3		from the PCAM Adjusted Actual Costs as shown in the formula below:		
		PCAMC - (Base NPC _{$MWh × Actual Sales) = PCAM Differential$}		
		Where:PCAMC -Adjusted actual WCA NPC costs allocated to Washington using allocation factors calculated with actual jurisdiction load plus Washington allocated actual non-NPC EIM cost		
		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	
4		The cumulative PC	CAM variance is first compared against the symmetrical	
5		deadband. Cumulative amounts in excess of the symmetrical deadband are then		
6		subject to the sharing bands. The customer portion of the PCAM variance is tracked		
7		in the deferral balancing account and monthly balances accrue interest at the current		
8		Federal Energy Regulatory Commission (FERC) interest rate. A rate change is		
9		triggered when the customer surcharge or credit exceeds \$17 million.		
10	Q.	What were the total-Cor	npany adjusted Actual NPC for the Deferral Period and	
11		how were they determin	ed?	
12	A.	The total-Company adjust	ted Actual NPC in the Deferral Period were approximately	
13		\$541 million on a WCA basis. This amount captures all components of NPC as		
14		defined in the company's general rate case proceedings and modeled by the		
15		Company's Generation and Regulation Initiative Decision Tool (GRID) model.		
16		Booked NPC are adjusted to reflect a balanced WCA consistent with the methodology		

1		used in Docket UE-140762. Specifically, it includes amounts booked to the following		
2		FERC accounts:		
3		Account 447 - Sales for resale, excluding on-system wholesale sales and other		
4		revenues that are not modeled in GRID;		
5		Account 501 - Fuel, steam generation; excluding fuel handling, start-up fuel		
6		(gas and diesel fuel, residual disposal) and other costs that are		
7		not modeled in GRID;		
8		Account 503 - Steam from other sources;		
9		Account 547 - Fuel, other generation;		
10		Account 555 - Purchased power, excluding the Bonneville Power		
11		Administration (BPA) residential exchange credit pass-through		
12		if applicable; and		
13		Account 565 - Transmission of electricity by others.		
14	Q.	What adjustments are made to Actual NPC and why are they needed?		
15	A.	The company adjusts Actual NPC to reflect the ratemaking treatment of several items,		
16		including:		
17	• out of period accounting entries booked in the Deferral Period that relate to			
18	operations before implementation of the PCAM on April 1, 2015;			
19	• reductions to coal costs for legal fees related to fines and citations; and			
20		• revenue from a contract related to the Leaning Juniper wind resource.		
21	Q.	Please state the amount of the adjusted Actual NPC that were allocated to		
22	Washington and describe how the amount was calculated.			
23	А.	Washington-allocated Actual NPC were approximately \$125 million during the		

1		Deferral Period. To arrive at this value, the Company applied the allocation
2		methodology approved by the Commission using actual allocation factors from
3		calendar year 2019.
4	Q.	Please summarize the calculation of the Washington-Allocated Actual Non-NPC
5		EIM Costs.
6	A.	The company has included in the PCAM actual non-NPC EIM costs of \$0.4 million
7		that are not otherwise included in NPC. These EIM costs include the return on rate
8		base, ongoing operations and maintenance expense, and depreciation expense. This
9		treatment was approved by the Commission to match recovery of EIM costs and
10		benefits.1 As described in more detail later on in my testimony, the EIM provides
11		benefits to customers in the form of reduced Actual NPC.
12	Q.	How much of Base PCAM costs did the Company collect from Washington
13		customers during the Deferral Period?
13 14	A.	customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in
13 14 15	A.	customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more
 13 14 15 16 	A.	customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs.
 13 14 15 16 17 	А. Q.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period?
 13 14 15 16 17 18 	А. Q. А.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period? After application of the deadband and asymmetrical sharing band, the deferral was
 13 14 15 16 17 18 19 	А. Q. А.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period? After application of the deadband and asymmetrical sharing band, the deferral was approximately \$2.1 million credit including interest, as shown in Table 1.
 13 14 15 16 17 18 19 20 	А. Q. А. Q.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period? After application of the deadband and asymmetrical sharing band, the deferral was approximately \$2.1 million credit including interest, as shown in Table 1. Please describe how the interest on the PCAM deferral balance was determined.
 13 14 15 16 17 18 19 20 21 	А. Q. А. Q. А.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period? After application of the deadband and asymmetrical sharing band, the deferral was approximately \$2.1 million credit including interest, as shown in Table 1. Please describe how the interest on the PCAM deferral balance was determined. Interest is accrued monthly on the PCAM deferral balance at the FERC interest rates
 13 14 15 16 17 18 19 20 21 22 	А. Q. А. Q. А.	 customers during the Deferral Period? During the Deferral Period, the Company received approximately \$132 million in Base PCAM revenue from Washington customers, approximately \$6.3 million more than Washington-allocated Actual NPC and EIM Costs. What was the total amount of the deferral over the Deferral Period? After application of the deadband and asymmetrical sharing band, the deferral was approximately \$2.1 million credit including interest, as shown in Table 1. Please describe how the interest on the PCAM deferral balance was determined. Interest is accrued monthly on the PCAM deferral balance at the FERC interest rates that are published quarterly. Over the Deferral Period, the PCAM balance accrued

¹ Wash. Utils and Transp. Comm'n v. PacifiCorp, Docket UE-152253, Order 12 at 74 (September 1, 2016).

1 \$0.4 million of interest refundable to customers.

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

3 A. No. Since the PCAM balancing account does not exceed the customer surcharge or 4 credit threshold of \$17 million, the Company is requesting the balance be updated to 5 include the current year deferral. See Table 2 for a summary of the deferred 6 balancing account.

Deferred Balancing Account				
Washington				
	Customers			
Balancing Account Activity				
Beginning Deferral Balance	\$ (7,332,177)			
2019 PCAM Deferral	(1,702,226)			
Interest	(416,596)			
Activity Through December 31, 2019	(9,450,998)			
December 31, 2019 Ending Balance	\$ (9,450,998)			

Table 2
Deferred Balancing Account

7

DIFFERENCES IN NPC

- 8 Q. On a WCA basis, what was the difference between Actual NPC and Base NPC
- 9 for the Deferral Period?
- 10 A. Actual NPC for the Deferral Period were \$541 million, less than Base NPC for the
- 11 Deferral Period by approximately \$10 million. Table 3 below provides a high level
- 12 summary of the difference between the Base NPC and Actual NPC by category on a
- 13 WCA basis.

Table 3 Net Power Cost Reconciliation (\$millions)			
Base NPC	\$	551	
Increase/(Decrease) to NPC:			
Wholesale Sales Revenue		31	
Purchased Power Expense		(39)	
Coal Fuel Expense		(15)	
Natural Gas Expense		2	
Wheeling and Other Expense		11	
Total Increase/(Decrease)		(10)	
Adjusted Actual NPC	\$	541	

1Q.Please describe the Base NPC the Company used to calculate the NPC component2of the PCAM deferral.

- A. The Base NPC of \$551 million was established in Docket UE-140762 using a test
 period of April 2015 through March 2016.
- 4 period of April 2015 through March 2016.

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

- 6 A. Actual NPC were lower than Base NPC due to a \$39 million reduction in purchased
- 7 power expense and a \$15 million reduction in coal fuel expense. These reduced
- 8 expenses were partially offset by a \$31 million decrease in wholesale sales revenues,
- 9 an \$11 million increase in wheeling and other expenses, and a \$2 million increase in

10 natural gas fuel expense.

- 11 Q. Please explain the changes in wholesale sales revenue.
- 12 A. Wholesale sales revenue declined relative to Base NPC due to lower market prices.
- 13 The average price of actual market sales transactions was \$4.49/megawatt-hour
- 14 (MWh), or 12 percent, lower than the average price in Base NPC. Lower market

1		prices were partially offset by an increase in wholesale sales volume of market
2		transactions (represented in GRID as short-term firm and system balancing sales).
3	Q.	Please explain the changes in purchased power expense.
4	A.	Purchased power expense decreased due to an \$89 million decrease in long-term
5		purchase power contracts. The expiration of the Hermiston power purchase
6		agreement and the Georgia-Pacific Camas contract resulted in lower purchased power
7		costs of \$85.7 million. Lower long-term purchased power was partially offset by a
8		\$50 million increase in market transactions (represented in GRID as short-term firm
9		and system balancing purchases).
10		Actual market purchases were approximately 2,000 gigawatt-hour (GWh), or
11		63 percent, higher than Base NPC. The increased volume was partially offset by the
12		lower average price of actual market purchase transactions which was \$2.13/MWh, or
13		7 percent, lower than Base NPC.
14	Q.	Please explain the changes in coal fuel expense.
15	A.	Coal fuel expense decreased due to lower coal generation volumes that was partially
16		offset by an increase in the average cost of coal generation. The average cost of coal
17		generation increased from \$23.53/MWh in Base NPC to \$24.85/MWh in the Deferral
18		Period. Coal-fired generation decreased 1,177 GWh, or 11 percent.
19	Q.	Please explain the changes in natural gas fuel expense.
20	A.	The total natural gas fuel expense in Actual NPC increased by \$2 million compared to
21		Base NPC due to an increase in natural gas generation volume of 1,577 GWh, or 67
22		percent, higher than Base NPC during the Deferral Period. Increased natural gas
23		generation volumes were partially offset by lower average cost of natural gas

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generation from \$39.03/MWh in Base NPC to \$23.91/MWh, or 39 percent in the Deferral Period.

Q. Please provide an overview of the Enbridge natural gas pipeline rupture and its impact on Company operations and costs.

5 A. On October 9, 2018, the Enbridge natural gas pipeline that transports natural gas 6 produced in the Western Canadian Sedimentary Basin to consumers in British 7 Columbia (B.C.) and, through interconnecting pipelines, the Northwestern United 8 States (U.S.), experienced a massive rupture. The pipeline was brought back into 9 service in late October 2018, however, at a reduced capacity until testing of the many 10 segments of the pipeline were completed. Spot natural gas prices at the Sumas B.C.-11 U.S. border trading point traded as high as \$159 per million British thermal units on 12 days of intense demand due to cold weather and reduced natural gas supply in the 13 first quarter of 2019.

14 The pipeline rupture and reduced operating capacity impacted electricity 15 prices primarily at the Mid-Columbia power market hub, but also increased electricity 16 prices at other trading points where PacifiCorp transacts. Because of PacifiCorp's 17 geographical and resource diversity, the impact to the Company was not as severe as 18 other utilities and power producers that have a high reliance on Sumas natural gas 19 supplies. PacifiCorp has one natural gas-fired generator—the Chehalis plant—that is 20 sourced from the Sumas natural gas hub. Due to the pipeline rupture, there were 21 times of limited availability of natural gas flowing to the Sumas gas hub and limited 22 ability to withdraw out of storage facilities at Jackson Prairie. With the inability to 23 run Chehalis due to limited gas availability and supplies, plus the impact of

1		uneconomical market conditions, the result contributed to higher prices at Mid-
2		Columbia ultimately increasing net power costs.
3		IMPACT OF PARTICIPATING IN THE EIM
4	Q.	Are the actual benefits from participating in the EIM with CAISO included in
5		the PCAM deferral?
6	А.	Yes. Participation in the EIM provides benefits to customers in the form of reduced
7		Actual NPC. The EIM benefits are embedded in Actual NPC through lower fuel and
8		purchased power costs. The Company is able to calculate the margin realized on its
9		EIM imports and exports, which is the inter-regional benefit. The Company's EIM
10		inter-regional benefit for the deferral period was approximately \$57 million, or
11		\$28.6 million on a WCA basis.
12	Q.	How does the company calculate its actual EIM benefits?
13	A.	Using actual information from the EIM, including five- and 15-minute pricing, the
14		company identifies the incremental resource that could have facilitated the transfer to
15		an adjacent EIM area or the CAISO in each five-minute interval. The benefit is then
16		calculated as the difference between the revenue received less the expense of
17		generation assumed to supply the transfer. In the event of an import, the benefit is
18		equal to the cost of the import minus the avoided expense of the generation that
19		would have otherwise been dispatched.
20	Q.	Does this conclude your direct testimony?
21	A.	Yes.