

May 15, 2017

# VIA ELECTRONIC FILING

Public Utility Commission of Oregon 201 High Street SE, Suite 100 Salem, OR 97301-3398

Attn: Filing Center

## RE: UE 327-2016 Power Cost Adjustment Mechanism

PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) encloses for electronic filing its 2016 Power Cost Adjustment Mechanism (PCAM) filing. In Order No. 12-493, the Public Utility Commission of Oregon (Commission) approved a PCAM to allow the Company to recover the difference between actual net power costs (NPC) incurred to serve customers and the base NPC established in the Company's annual transition adjustment mechanism (TAM) filing. The amount recovered from or refunded to customers for a given year is subject to the following parameters:

- Asymmetrical Deadband. Any PCAM difference between negative \$15 million and positive \$30 million will be absorbed by the Company.
- Sharing Band. Any PCAM difference above or below the deadband will be shared 90 percent by customers and 10 percent by the Company.
- Earnings Test. If the Company's earned return on equity (ROE) is within plus or minus 100 basis points of the authorized ROE, there will be no recovery from or refund to customers.
- Amortization Cap. The amortization of deferred amounts are capped at six percent of the revenue for the preceding calendar year.

Included as Attachment A is a summary of the calculation of the Company's PCAM for calendar year 2016; additional descriptions of the calculation are provided below. Detailed workpapers supporting Attachment A are provided separately on the enclosed CD.<sup>1</sup> On an Oregon-allocated basis, actual PCAM costs were \$60,189 less than base PCAM costs established in the 2016 TAM (Docket UE 296). The application of the deadband results in no recovery for the 2016 PCAM.

## **PCAM Calculation**

On a monthly basis, actual PCAM costs are compared to base PCAM on a per-unit basis. PCAM costs are established in the Oregon TAM and include NPC, Energy Imbalance Market (EIM) costs, and Other Revenues. EIM benefits are included in NPC. Any differences in the system

<sup>&</sup>lt;sup>1</sup> Confidential workpapers are provided to the Commission under OAR 860-01-0070.

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per-unit cost are multiplied by the actual megawatt hours of Oregon retail sales in that month to determine Oregon's share of any differential. The calculation uses the formula below:

 $(PCAMC_a \div Load_a) - (PCAMC_b \div Load_b) = System PCAM Unit Cost Differential$ 

System PCAM Unit Cost Differential × Load<sub>o</sub>+(SR<sub>a</sub>- SR<sub>b</sub>)=PCAM Differential

Where:

PCAMC <sub>a</sub>	= Total Company Adjusted Actual NPC (Excluding Situs
	Resources) plus other costs/benefits reflected in Oregon TAM
Load <sub>a</sub>	= Actual System Retail Load
PCAMC <sub>b</sub>	= Total Company Base NPC (Excluding Situs Resources) adjusted
	for Direct Access plus other costs/benefits reflected in Oregon
	TAM
Load <sub>b</sub>	= Base System Retail Load
Load <sub>o</sub>	= Actual Oregon Retail Load
SR <sub>a</sub>	= Actual Situs Resource Value
SR <sub>b</sub>	= Forecasted Situs Resource Value

The cumulative PCAM differential (under- or over-recovery) is first compared against the asymmetrical deadband. Cumulative PCAM differential amounts in excess of the asymmetrical deadband are then subject to the sharing band (90 percent customers, 10 percent company). Monthly balances accrue interest at the Company's authorized rate of return in Oregon for 2016. The final step is to apply, if necessary, the earnings test to determine if any amount is eligible for recovery from or refund to customers. To the extent earnings are within plus or minus 100 basis points of the authorized ROE, no recovery or refund is allowed under the approved PCAM design.

Actual NPC are compiled using amounts booked to FERC accounts 447, 501, 503, 547, 555, and 565, in a manner consistent with the calculation of NPC as modeled by the Company's Generation and Regulation Initiative Decision Tools model (GRID) in the Company's annual TAM filings. Actual NPC is adjusted to remove accounting entries booked in 2016 that relate to operations before implementation of the PCAM in January 2013. The Company also adjusts actual NPC to reflect the ratemaking treatment of several items, including:

- Sacramento Municipal Utility District (SMUD) wholesale sales contract revenues;
- The exclusion of Rolling Hills wind farm from Oregon rates (consistent with UE 200);
- Reductions to coal costs for management overtime, 50 percent of management incentive compensation, and legal fees related to fines and citations;
- Buy-through of economic curtailment by interruptible industrial customers; and
- Revenue from a contract related to the Leaning Juniper wind resource.

Participation in the EIM provides benefits to customers in the form of reduced Actual NPC. The Company calculated EIM inter-regional benefit for 2016 was approximately \$19.5 million. The

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California Independent System Operator (CAISO) Reports estimated total benefits attributable to PacifiCorp of approximately \$45.5 million on a total-company basis for 2016. The benefits estimated for PacifiCorp in the CAISO Reports include the benefits of EIM operation due to more efficient dispatch (both inter- and intra-regional), reduced renewable energy curtailment, and reduced flexibility reserves. Additionally, EIM costs have been trued-up as part of the PCAM costs. Actual non-NPC EIM costs were \$0.5 million higher than the EIM costs included in the 2016 TAM on a total Company basis.

Other Revenues or Oregon Schedule 205, which are forecasted in the TAM are also included in the PCAM. On a total Company basis actual Other Revenues were \$0.4 million higher than Other Revenues in the 2016 TAM.

Each year base NPC is set in the TAM, and after base NPC is determined certain customers have the option to move to Direct Access (DA) and purchase energy from another Electricity Service Provider (ESS). In the PCAM, base NPC is adjusted for the lost DA load.

The PCAM includes a true-up of the value of energy from solar facilities procured to satisfy the solar capacity standard in ORS 757.370. Consistent with the Commission-approved 2017 Protocol inter-jurisdictional allocation methodology, these resources are situs-assigned to Oregon. Base NPC established in the TAM includes a situs credit for the market value of the solar energy. In the PCAM, the actual market value of the solar energy is compared to the prior forecast, and the difference is included in the balancing account. This treatment is necessary to ensure 100 percent of the energy benefits are assigned to Oregon customers, rather than allocated system-wide.

As described earlier, on an Oregon-allocated basis, actual PCAM costs were \$60,189 less than base PCAM costs. This amount does not exceed the established deadband. Accordingly, no recovery from or refund to customers is necessary. Because Schedule 206, the Power Cost Adjustment Mechanism, is currently set at zero cents per kilowatt hour for all schedules, no tariff change is required at this time.

If you have questions about this filing, please contact Natasha Siores, Manager of Regulatory Affairs, at (503) 813-6583.

Sincerely,

BDalli

R. Bryce Dalley Vice President, Regulation

Cc: Service List 263 Service List 307

Enclosures

Attachment A Power Cost Adjustment Mechanism Calculation Calendar Year 2016

#### Oregon Power Cost Adjustment Mechanism January 1, 2016 - December 31, 2016

Attachment A - Power Cost Adjustment Mechanism Calculation

Line No.	Reference	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Total	d
Actual:															
1 Total Company Adjusted Actual NPC	(2.1)	\$ 127,203,				109,216,551 \$	138,794,928 \$	143,265,430 \$	144,254,617 \$	134,916,244 \$	107,845,931 \$	103,931,350 \$	130,998,259		7,485,897
2 Actual EIM Costs 3 Actual Other Revenues	(4.1) (5.1)	426, (1,561,			426,953 (1,768,781)	426,953 (1,747,381)	426,953 (1,715,988)	426,953 (843,778)	426,953 (797,737)	426,953 (855,595)	426,953 (942,661)	426,953 (919,598)	426,953 (940,098)		5,123,432 5,775,084)
4 Total PCAM Adjusted Actual Costs	(5.1) Sum Lines 1 - 3	\$ 126,069,				107,896,123 \$	137,505,893 \$	142,848,604 \$	143,883,833 \$	134,487,602 \$	107,330,222 \$	103,438,704 \$	130,485,114		6,834,246
5 Actual System Retail Load	(6.1)	4,833,			3,955,473	4,170,986	4,816,827	5,211,360	5,068,349	4,217,359	4,241,153	4,201,068	5,090,010		4,258,193
6 Actual PCAM Costs \$/MWH	Line 4 / Line 5		.08 \$ 26.2			25.87 \$	28.55 \$	27.41 \$	28.39 \$	31.89 \$	25.31 \$	24.62 \$	25.64	\$	26.85
Base:															
7 Total Company Base NPC	(3.1)	\$ 129,704,		, ,	.,,	120,105,052 \$	123,171,745 \$	141,512,037 \$	136,778,990 \$	120,121,765 \$	123,606,984 \$	122,089,847 \$	134,350,901		1,069,669
8 Adjustment for Direct Access	(3.3)	(518,			(386,213)	(546,451)	(535,448)	(879,666)	(834,168)	(638,019)	(542,783)	(540,723)	(686,514)		6,991,986)
9 Base EIM Costs	(3.4)	385, (1.283.			385,157	385,157 (1.283.916)	385,157	385,157	385,157	385,157	385,157	385,157 (1.283.916)	385,157		4,621,885
10 Base Other Revenues 11 Total PCAM Base Costs	(5.2) Sum Lines 7 - 10	\$ 128,287,			(1,283,916) 115,310,473 \$	(1,283,916) 118,659,842 \$	(1,283,916)	(1,283,916) 139,733,612 \$	(1,283,916) 135,046,063 \$	(1,283,916) 118,584,987 \$	(1,283,916)	(1,283,916) 120,650,365 \$	(1,283,916) 132,765,628		5,406,994) 3,292,574
12 Base System Retail Load	(6.1)	4,958,			4,289,404	4,407,265	4,569,872	5,235,253	5,102,162	4,477,075	4,474,992	4,565,913	5,001,303		6,126,562
13 Base PCAM Costs \$/MWh	Line 7 / Line 12		.87 \$ 27.3			26.92 \$	26.64 \$	26.69 \$	26.47 \$	26.49 \$	27.30 \$	26.42 \$	26.55	\$	26.78
14 System PCAM Unit Cost Differential \$/MWh	Line 6 - Line 13	\$ (	.21 \$ (1.1	1) \$ (1.62) \$	(1.47) \$	(1.06) \$	1.91 \$	0.72 \$	1.92 \$	5.40 \$	(1.99) \$	(1.80) \$	(0.91)	\$	0.07
15 Oregon Retail Load	(6.1)	1,226,	008 1,034,27	0 1,055,078	934,416	981,763	1,046,903	1,119,465	1,165,821	940,033	989,523	1,019,959	1,355,734	12,/	2,868,974
Deferral:															
16 Monthly PCAM Differential - Above or (Below) Base	Line 15 * Line 14	\$ 259,	513 \$ (1,150,95	7) \$ (1,712,680) \$	(1,375,626) \$	(1,036,187) \$	1,997,313 \$	806,133 \$	2,238,727 \$	5,077,967 \$	(1,971,863) \$	(1,838,116) \$	(1,234,633)	\$	59,590
Situs Resource True-Up:															
17 Black Cap Actual	(2.2)		552) \$ (3,32			(4,623) \$	(10,209) \$	(12,827) \$	(13,156) \$	(10,801) \$	(4,340) \$	(2,568) \$	(2,861)		(74,102)
<ol> <li>Black Cap Forecast</li> <li>Total Black Cap Situs Resource True-Up</li> </ol>	CY2016 TAM Line 17 - Line 18		339) \$ (5,94 787 \$ 2,62			(9,523) \$ 4,899 \$	(11,042) \$ 833 \$	(15,326) \$ 2,499 \$	(14,459) \$ 1,303 \$	(11,484) \$ 683 \$	(7,706) \$ 3,366 \$	(4,725) \$ 2,157 \$	(4,189) 1,328 #		(101,735) 27,633
20 Old Mill Solar Actual	(2.3)			\$ - \$		52,422 \$	86,976 \$	82,652 \$	67,068 \$	60,110 \$	32,530 \$	25,090 \$	12,110		469,443
<ol> <li>Old Mill Solar Forecast</li> <li>Total Old Mill Situs Resource True-Up</li> </ol>	CY2016 TAM Line 20 - Line 21		025 \$ 35,18 025) \$ (35,18			79,804 \$ (27,382) \$	96,174 \$ (9,198) \$	78,109 \$ 4,543 \$	63,050 \$ 4,018 \$	58,423 \$ 1,686 \$	43,055 \$ (10,525) \$	23,719 \$ 1,371 \$	17,742 (5,632) #		616,856 (147,412)
23 Total Monthly PCAM Differential - Above or (Below) Base	Line 16 + Line 19 + Line 22	\$ 241,	275 \$ (1,183,52	4) \$ (1,749,990) \$	(1,383,241) \$	(1,058,670) \$	1,988,948 \$	813,175 \$	2,244,048 \$	5,080,336 \$	(1,979,023) \$	(1,834,588) \$	(1,238,937)	s i	(60,189)
24 Cumulative PCAM Differential - Above or (Below) base		\$ 241,	275 \$ (942,24	9) \$ (2,692,239) \$	(4,075,479) \$	(5,134,150) \$	(3,145,202) \$	(2,332,027) \$	(87,979) \$	4,992,358 \$	3,013,335 \$	1,178,748 \$	(60,189)		
25 Positive Deadband - ABOVE Base	Order. 12-493	\$ 30,000,			30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000 \$	30,000,000		0,000,000
26 Negative Deadband - BELOW Base	Order. 12-493	\$ (15,000,	000) \$ (15,000,00	D) \$ (15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000) \$	(15,000,000)	\$ (15,0	5,000,000)
27 Amount Deferrable - ABOVE Deadband 28 Amount Deferrable - BELOW Deadband		s s	- \$ - - \$ -	\$-\$ \$-\$	- \$ - \$	- S - S	- S - S	- \$ - \$	- S - S	- \$ - \$	- S - S	- \$ - \$	-	S S	-
29 Total Incremental Deferrable	Line 27 + Line 28	\$	- \$ -	S - S	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$	-
30 Total Incremental Deferral After 90%/10% Sharing Band	Line 29 * 90%	s	- \$ -	\$-\$	- \$	- \$	- \$	- \$	- \$	- S	- \$	- \$	-	\$	-
Energy Balancing Account:															
31 Monthly Interest Rate	Note 1	0.	64% 0.64	% 0.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%		
32 Beginning Balance	Prior Month Line 35	s	- \$ -	\$-\$	- \$	- \$	- \$	- \$	- \$	- S	- \$	- \$		\$	-
33 Incremental Deferral	Line 30	\$	- \$ -	\$-\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$	-
34 Interest	Line 31 * ( Line 32 + 50% x Line	s	- \$ -	s - s	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	s	-
35 Ending Balance	33) ∑ Lines 32:34	\$	- \$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$		\$	-
Earnings Test: 36 Earned Return on Equity	(7.1)														9.87%
37 Allowed Return on Equity	UE 246														9.80%
38 100bp ROE Revenue Requirement														\$ 28,8	8,879,676
<ul><li>39 Allowed Deferral After Earning Test</li><li>40 Total Deferred</li></ul>														\$ \$	-

Note 1: 7.621% annual interest rate based on Oregon approved rate of return

### **CERTIFICATE OF SERVICE**

I certify that I served a true and correct copy of PacifiCorp's 2016 Power Cost Adjustment Mechanism filing on the parties listed below via electronic mail in compliance with OAR 860-001-0180.

## UE 263

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Dated May 15, 2017.

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Jennifer Ans

Supervisor, Regulatory Operations

### **CERTIFICATE OF SERVICE**

I certify that I served a true and correct copy of PacifiCorp's 2016 Power Cost Adjustment Mechanism filing on the parties listed below via e-mail in compliance with OAR 860-001-0180.

#### **UE 307**

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Dated this 15<sup>th</sup> day of May 2017.

Jennifer Angell O Supervisor, Regulatory Operations