

December 12, 2017

***VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY***

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

Attn: Filing Center

RE: UE 323—Response to ALJ Bench Request No. 1

PacifiCorp d/b/a Pacific Power encloses for filing its Response to ALJ Bench Request No. 1. The enclosed CD includes the confidential attachment to ALJ Bench Request No. 1. The confidential attachment is designated as Protected Information under Order No. 16-128 and may only be disclosed to qualified persons as defined in that order.

As indicated on the attached certificate of service, a copy of this filing is being served on all parties on the service list.

Please direct any informal inquiries to Natasha Siores at (503) 813-6583.

Sincerely,



Etta Lockey
Vice President, Regulation

Enclosures

cc: Service List—UE 323

ALJ Bench Request 1

PacifiCorp, dba Pacific Power, is directed to file a narrative explanation and/or supporting calculations explaining its Day-Ahead/Real-Time (DA/RT) adjustment value shown in its indicative update and final transition adjustment mechanism (TAM) compliance filings made in this docket on November 8 and 15, 2017.

In Order No. 17-444, the Commission modified PacifiCorp's proposed DA/RT adjustment so that the company would only use data from years following its participation in the Energy Imbalance Market (EIM). In doing so, the Commission acknowledged uncertainty over the exact amount of its post-EIM DA/RT adjustment, and asked the company to make the precise calculation that appropriately accounts for the additional volumes component of DA/RT. This also left the company the discretion to update the DA/RT costs with the most recent historical data.

PacifiCorp's indicative update explains that it excluded from the DA/RT adjustment the periods before the company began participating in the Energy Imbalance Market (EIM). Excluding calendar years 2011 through 2014 decreased the adjustment and net power cost (NPC) by approximately \$85,000 on an Oregon allocated basis. The company did not, however, explain the steps of its calculation.

PacifiCorp is directed to file a brief explanation of its DA/RT calculation for informational purposes, showing the annual historical values for 2015 and 2016 that comprise the post-EIM DA/RT adjustment, indicating whether any 2017 historical costs were used, and how the additional balancing volumes are added to the DA/RT costs. This filing should be made in this docket by December 12, 2017. PacifiCorp should submit its informational filing to the Commission's Filing Center, and the filing will be subject to the ongoing TAM protective order.

Response to ALJ Bench Request 1

PacifiCorp calculated its original Day-Ahead/Real-Time (DA/RT) adjustment using 60 months of historical data, beginning in July 2011. The data went through June 2016, aligning it with the 48-month average used in this case to forecast forced outages, which also ends in June 2016. In Order No. 17-444, the Public Utility Commission of Oregon (Commission) directed the Company to exclude pre-energy imbalance market (EIM) data from the DA/RT adjustment. To comply, the Company subtracted 42 months of pre-EIM data from its DA/RT data set, and recalculated the DA/RT adjustment using data from January 2015 through June 2016 only. The modified DA/RT adjustment reflects no data after June 2016.

The Company used the method approved by the Commission in docket UE 296, specifically Order No. 15-394, to calculate the modified DA/RT adjustment. The Company revised the calculation only to remove pre-EIM data as directed by the Commission in Order No. 17-444. The DA/RT adjustment has two components:

1. The forward market price is adjusted by a price adder to reflect historical variations from average actual market prices for purchase and sales, and
2. The system balancing transaction volume is adjusted to reflect transactions on a forward basis using standard block products, balanced on an hourly basis in real-time markets.

In the modified DA/RT adjustment, the Company first calculated the modified price adder using post-EIM historical data. The average cost differential between the price of actual day-ahead and real-time transactions and the monthly market price is divided by the average volume in the post-EIM historical period. This price adder on a unit cost basis is added to the forward price curve (FPC) then input to the Generation and Regulation Initiative Decision Tool (GRID) to simulate system dispatch. Table 1, provided below, shows the DA/RT costs using the original 60 month data set (i.e. July 2011 through June 2016), and the revised post-EIM data set (i.e. January 2015 through June 2016). The DA/RT costs are \$26.9 million using post-EIM data, which is \$740,000 lower than the DA/RT costs using the original data set.

The additional DA/RT balancing volume is calculated by first identifying monthly and daily 25 megawatts (MW) standard heavy load hour (HLH)/light load hour (LLH) products from the GRID dispatched system balancing volume, then rebalancing the GRID dispatch volume by monthly, daily and hourly transactions to maintain GRID's forecasted market position. Table 2, provided below, shows GRID dispatched system balancing volume and incremental DA/RT balancing volume in the two different data sets. In the post-EIM scenario, the incremental DA/RT balancing sales volume is 2.1 million megawatt-hours (MWh), approximately 21 percent of GRID's dispatched system balancing sales volumes. The incremental DA/RT balancing volume decreased 68,000 MWh as a result of using the post-EIM data set.

The modified DA/RT adjustment decreases total Company net power costs (NPC) by \$350,782, approximately \$85,000 on an Oregon allocated basis. This impact reflects the combined effect of the modified price adder and reduced incremental system balancing volume in the post-EIM period. The complete calculation was provided in the 3-day confidential work papers supporting the Company's November Indicative filing, specifically the file "NovO01_OR TAM18w_DA-RT Price Adder (1706) CONF DART."

Please refer to Confidential Attachment ALJ Bench Request 1, which provides the detailed calculation used to produce Table 1 and Table 2.

Confidential information is designated as Protected Information under Order No. 16-128 and may only be disclosed to qualified persons as defined in that order.

Table 1 – Monthly Average DA/RT Costs

Monthly Average DART Costs (July 2011 - June 2016)

Table 1

Month	System Balancing at Market - Purchase	Actual System Balancing - Purchases	DART Cost - Purchases	System Balancing at Market - Sales	Actual System Balancing - Sales	DART- Costs - Sales	Total DART Costs
1	7,043,255	7,770,722	727,467	(10,990,154)	(10,654,560)	335,594	1,063,061
2	7,377,907	8,589,894	1,211,987	(12,844,676)	(11,177,812)	1,666,864	2,878,851
3	5,605,652	6,012,353	406,701	(9,205,089)	(8,646,808)	558,281	964,982
4	4,763,928	4,905,493	141,565	(8,897,906)	(8,646,074)	251,833	393,397
5	6,598,238	7,357,064	758,826	(6,756,375)	(6,439,889)	316,486	1,075,312
6	12,747,551	15,851,296	3,103,745	(8,215,992)	(7,895,514)	320,478	3,424,223
7	18,500,566	23,947,949	5,447,383	(11,881,464)	(10,092,991)	1,788,473	7,235,855
8	17,613,978	20,287,378	2,673,401	(12,816,890)	(11,580,475)	1,236,415	3,909,816
9	12,054,497	13,489,507	1,435,010	(13,769,754)	(13,182,852)	586,902	2,021,912
10	8,617,915	9,044,628	426,713	(10,986,833)	(10,587,117)	399,716	826,429
11	12,152,989	13,057,862	904,873	(10,837,873)	(10,220,599)	617,275	1,522,148
12	16,933,908	18,598,100	1,664,192	(8,510,080)	(7,834,628)	675,451	2,339,643
Total	130,010,385	148,912,246	18,901,862	(125,713,086)	(116,959,318)	8,753,767	27,655,629

Monthly Average DART Costs - post EIM (January 2015 - June 2016)

Month	System Balancing at Market - Purchase	Actual System Balancing - Purchases	DART Cost - Purchases	System Balancing at Market - Sales	Actual System Balancing - Sales	DART- Costs - Sales	Total DART Costs
1	6,170,561	6,719,685	549,124	(7,683,668)	(7,628,331)	55,337	604,461
2	5,441,035	5,541,213	100,178	(6,389,059)	(6,523,764)	(134,705)	(34,528)
3	4,682,113	5,294,272	612,159	(5,256,930)	(5,105,884)	151,047	763,206
4	3,270,713	3,719,805	449,092	(6,136,970)	(6,082,293)	54,677	503,769
5	4,356,351	4,713,856	357,505	(6,185,422)	(6,137,649)	47,773	405,278
6	15,886,635	20,935,065	5,048,429	(5,021,355)	(4,620,455)	400,900	5,449,330
7	20,947,111	30,109,473	9,162,361	(11,472,418)	(8,551,330)	2,921,088	12,083,449
8	19,103,601	22,611,406	3,507,804	(8,742,730)	(8,159,809)	582,921	4,090,725
9	12,828,958	13,791,226	962,268	(8,333,188)	(8,289,669)	43,519	1,005,787
10	13,325,799	13,821,668	495,869	(6,560,931)	(6,587,504)	(26,573)	469,296
11	12,730,186	13,533,768	803,582	(4,995,771)	(5,024,854)	(29,083)	774,499
12	9,971,653	10,809,492	837,840	(4,662,943)	(4,697,609)	(34,667)	803,173
Total	128,714,716	151,600,928	22,886,211	(81,441,385)	(77,409,151)	4,032,234	26,918,446

Table 2 – Monthly System Balancing Volume

Table 2

Monthly System Balancing Volume (July 2011 - June 2016)

Month	Buy	Sales	Incremental DART	Incremental DART
			Balancing - Buy	Balancing - Sell
1	180,162	676,871	129,534	129,534
2	189,654	491,101	145,097	145,097
3	398,583	501,776	126,664	126,664
4	585,377	894,351	251,618	251,618
5	668,197	846,080	218,666	218,666
6	505,592	766,351	216,847	216,847
7	499,598	912,251	260,381	260,381
8	317,271	1,031,961	193,568	193,568
9	242,968	1,022,722	178,056	178,056
10	227,017	972,079	145,397	145,397
11	211,944	936,532	148,378	148,378
12	209,391	943,401	163,592	163,592
Total	4,235,756	9,995,477	2,177,797	2,177,797

Monthly System Balancing Volume (January 2015 - June 2016)

Month	Buy	Sales	Incremental DART	Incremental DART
			Balancing - Buy	Balancing - Sell
1	191,463	683,780	137,736	137,736
2	303,714	665,987	133,810	133,810
3	306,817	555,327	138,537	138,537
4	606,275	963,392	271,559	271,559
5	725,788	873,418	223,789	223,789
6	459,352	680,189	185,785	185,785
7	419,794	777,683	232,453	232,453
8	341,101	1,041,856	218,957	218,957
9	295,939	1,066,843	194,223	194,223
10	203,940	900,915	105,204	105,204
11	251,030	1,020,877	145,120	145,120
12	189,834	881,340	122,949	122,949
Total	4,295,047	10,111,606	2,110,122	2,110,122

CERTIFICATE OF SERVICE

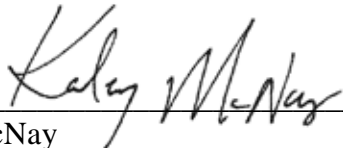
I certify that I served a true and correct copy of PacifiCorp's Response to Bench Request on the parties listed below via electronic mail in compliance with OAR 860-001-0180.

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Dated this 12th day of December, 2017.



 Kaley McNay
 Senior Coordinator, Regulatory Operations