

May 4, 2018

VIA ELECTRONIC FILING

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

Attn: Filing Center

**RE: UM 1729—Standard Avoided Cost Purchases from Eligible Qualifying Facilities –
Compliance Filing—Corrected Supporting Workpaper**

On April 26, 2018, PacifiCorp d/b/a Pacific Power provided updated standard avoided cost information in this docket in compliance with OAR 860-029-0040(4)(a) and OAR 860-001-0420 and Order No. 18-096 in this docket and Order Nos. 14-058 and 16-174 in docket UM 1610.

In support of the filing, PacifiCorp included Appendix 1- Avoided Cost Study and Appendix 2- Method Write-up and Minimum Filing Requirements. It was brought to the company's attention that the Minimum Filing Requirements document provided in Appendix 2 included outdated references and notes in the "Explanation" and "IRP Reference" columns. PacifiCorp provides the enclosed corrected Appendix 2 Minimum Filing Requirements document, which replaces the original filed Appendix 2 Minimum Filing Requirements document in its entirety. All other elements of Appendix 1 and Appendix 2 remain correct as filed.

This corrected supporting workpaper has no impact on the avoided cost prices filed on April 26, 2018.

Please direct questions on this filing to me at (503) 813-6583.

Sincerely,



Natasha Siores
Manager, Regulatory Affairs

**Docket UM 1729 / Compliance Filing
Minimum Filing Requirements
Public Utility Commission of Oregon (OPUC) Order No. 16-174 dated May 13, 2016**

I. Resource Sufficiency / Deficiency Demarcation

		Explanation	IRP Reference
1.	Non-renewable: Identify the demarcation year for the end of sufficiency period / start of deficiency period.	Deficiency starting in 2030.	Table 8.17 – 2017 IRP Preferred Portfolio, page 244
2.	Non-renewable: Identify the major resource to be acquired (>100 megawatts (MW) and longer than five years) at end of sufficiency period.	West Side Combined-Cycle Combustion Turbine (CCCT) (Dry "G/H" 1x1) with Duct Firing - West Side Resource (1500').	Table 8.17 – 2017 IRP Preferred Portfolio, page 244.
3.	Renewable: Identify the demarcation year for the end of sufficiency period / start of deficiency period.	Deficiency starting in 2021	Table 8.17 – 2017 IRP Preferred Portfolio, page 244
4.	Renewable: Identify the major resource to be acquired (>100 MW and longer than five years) at end of sufficiency period.	Wyoming wind resource starting in 2021	Table 8.17 – 2017 IRP Preferred Portfolio, page 244 and Plant costs 2017 IRP Chapter 8, Page 220

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II. Gas Price Forecast

		Explanation	IRP Reference
1.	Identify the source of the gas price forecast.	Official forward price curve (OFPC) March 2018	-
2.	If the forecast source differs from that used in the most recent approved avoided cost filing / explain the reason(s) for the change.	The Company updates its OFPC every quarter. The March 2018 OFPC was the most recent curve available at the time of this filing. Currently effective rates were based on the March 2017 OFPC.	-
3.	Provide the yearly forecast price by year / and identify any rounding that has been applied.	Refer to the tabs entitled "Table 10" and "OFPC Source" of the Oregon Schedule 37 Avoided Cost Study work paper.	-
4.	Quantify and describe the extent to which the gas price forecast differs from the most recent approved avoided cost filing, include a description of carbon cost / tax assumption(s).	<p>The Company updates its OFPC every quarter. The March 2018 OFPC was the most recent curve available that would have been used in the Company's April 2018 update. Currently approved rates were based on March 2017 OFPC.</p> <p>Refer to the spreadsheet entitled "13_MFR - II.Gas Price Forecast_20180425" for the comparison of the gas price forecast. Refer to the files entitled "201703 OFPC - Environmental" and "201803 OFPC - Environmental" for the March 2017 OFPC and March 2018 OFPC carbon tax assumptions.</p>	-

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III. Sufficiency Period Prices

		Explanation	IRP Reference
1.	List the market hub(s) used for market price projections, the source for the forward price curves, and any adjustments or blending used in deriving the sufficiency period prices.	Market prices for California-Oregon Border (COB), Mid-Columbia (Mid-C) and Palo Verde (PV) from the March 2016 OFPC are blended based on change in system balancing purchases and sales using two the Generation and Regulation Initiative Decision Tool (GRID) runs - with and without a 50 MW qualifying facility (QF) resource.	-
2.	Provide the transmission costs assumed used in sufficiency period prices.	No transmission costs are incorporated in standard sufficiency period avoided cost pricing.	-
3.	Provide all other component(s) used to calculate sufficiency period prices.	Prices for wind resources are adjusted to account for wind and solar integration costs. Wind integration cost: \$0.57/MWh (2016\$), Solar integration cost:\$0.60/MWh (2016\$) For the complete calculation of sufficiency period prices, refer to Oregon Schedule 37 Avoided Cost Study work paper.	Flexible Reserve Study from 2017 IRP, 2017 IRP Volume II-Appendix F, Table F.2 on Page 75

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IV. Standard Rates Deficiency Period Resource

		Explanation	IRP Reference
1.	Provide the resource type, geographic location, nameplate capacity, and annual capacity factor.	CCCT (Dry "G/H" 1X1) West Side Resource (1,500') with Duct Firing available in 2030, Annual Energy weighted CF is 70.3 percent. Refer to Table 9 of Oregon Schedule 37 Avoided Cost Study work paper.	2017 IRP Table 6.1 and Table 6.2.
2.	Provide the source of natural gas supply / and the costs assumed for interconnection / infrastructure upgrades, transmission, storage, and any other costs necessary to deliver gas.	Burner Tip West Side Gas, refer to Table 10 of Oregon Schedule 37 Avoided Cost Study work paper.	-
3.	Provide the assumed heat rate. Include assumptions to account for elevation / temperature, and cooling method.	Refer to Table 9 of Oregon Schedule 37 Avoided Cost Study work paper.	2017 IRP Table 6.1 and Table 6.2.
4.	List the costs assumed for interconnection facilities.	-	2017 IRP Table 6.1 and Table 6.2.
5.	List the components of transmission costs used and their respective values.	-	2017 IRP Table 6.1 and Table 6.2.
6.	List the tax assumptions used.	-	2017 IRP Table 6.1 and Table 6.2.

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V. Renewable Rates Deficiency Period Resource

		Explanation	IRP Reference
1.	Provide the resource type, geographic location / nameplate capacity, and annual capacity factor.	Wyoming wind resource with 41% CF available in 2021 from the 2017 IRP. Refer to Table 12 of Oregon Schedule 37 Avoided Cost Study work paper.	Table 8.17 – 2017 IRP Preferred Portfolio, page 244 and Plant costs 2017 IRP Chapter 8, Page 220
2.	Provide assumptions used for mechanical availability, annual hours of curtailment / and annual megawatt-hours (MWh) of energy curtailed.	None.	
3.	List the costs assumed for interconnection facilities.	-	Table 6.2 – 2017 IRP - Plant Costs (2016\$).
4.	List the components of transmission costs used and their respective values.	-	Table 6.2 – 2017 IRP - Plant Costs (2016\$).
5.	List the tax assumptions used. This includes assumed taxes paid (federal, state / local), and assumed tax benefits (e.g. PTC / investment tax credits (ITC) / grants in lieu of credits).	PTC (First Year levelized value of \$17.76/MWh (in 2016\$) escalated by inflation rate). Refer to Table 12 of Oregon Schedule 37 Avoided Cost Study work paper.	Table 6.2 – 2017 IRP - Plant Costs (2016\$).
6.	Provide the capacity contribution value, and the method used to derive the capacity contribution value / for solar and wind resource types.	Capacity Contribution values - Wind: 11.8 percent, Fixed Solar: 53.9 percent, and Tracking Solar: 64.8 percent.	2017 IRP Wind and Solar Capacity Contribution Study, 2017 IRP Volume II-Appendix N, Table N.1, page 316.
7.	Provide the wind integration cost used / and the method used to derive the wind integration cost.	Wind integration cost: \$0.57/MWh (2016\$), Solar integration cost:\$0.60/MWh (2016\$)	Flexible Reserve Study from 2017 IRP, 2017 IRP Volume II-Appendix F, Table F.2 on Page 75