825 NE Multnomah, Suite 2000 Portland, Oregon 97232



December 30, 2016

## VIA ELECTRONIC FILING

Steven V. King Executive Director and Secretary Washington Utilities and Transportation Commission 1300 S. Evergreen Park Drive SW P.O. Box 47250 Olympia, WA 98504-7250

#### RE: Advice 16-06—Schedule 37—Avoided Cost Purchases from Cogeneration and Small Power Purchases

Pacific Power & Light Company (Pacific Power or Company), a division of PacifiCorp, submits proposed tariffs applicable to Pacific Power's electric service in the state of Washington in compliance with RCW 80.28.050, WAC 480-107-095, and the Washington Utilities and Transportation Commission's (Commission) Rules and Regulations. The Company respectfully requests an effective date of February 15, 2017.

Sixth Revision of Sheet No. 37.2 Schedule 37 Avoided Cost Purchases from Cogeneration and Small Power Production

The Company's current avoided cost prices and Schedule 37 became effective on February 15, 2016. This filing updates the Company's estimated avoided cost prices and Schedule 37 using updated inputs to the Generation and Regulation Initiative Decision (GRID) model. Recognizing the Commission's intent to resolve issues related to capacity payments through a generic investigative proceeding, the Company and Staff have agreed to include a separate capacity payment based on one-fourth the cost of a simple cycle combustion turbine (SCCT) in accordance with the Company's previously used methodology. The Company is committed to working with Staff and stakeholders on avoided cost calculation methodologies with "an eye to bringing forward a proposed avoided cost that will not lead to protracted litigation."<sup>1</sup>

It is respectfully requested that all formal correspondence and Staff requests regarding this filing be addressed to:

By e-mail (preferred):	datarequest@pacificorp.com
By regular mail:	Data Request Response Center PacifiCorp 825 NE Multnomah, Suite 2000 Portland, Oregon, 97232

<sup>&</sup>lt;sup>1</sup> Order No. 04 at ¶ 30.

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Please direct informal questions to Ariel Son, Regulatory Projects Manager, at (503) 813-5410.

Sincerely,

RBDalli

R. Bryce Dalley Vice President, Regulation

Enclosures

Attachment A: Summary of the Company's Avoided Cost Calculation Methodology Attachment B: Summary Page of Tariffs Attachment C: Proposed Tariff Schedule 37

cc: Irion Sanger, REC

ATTACHMENT A

### PACIFIC POWER & LIGHT COMPANY AVOIDED COST CALCULATION

## WASHINGTON - DECEMBER 2016

Washington Utilities and Transportation Commission rule WAC 480-107-055, related to schedules of estimated avoided costs, states that avoided costs should be based on:

- (a) The most recent project proposals received pursuant to an RFP issued under these rules;
- (b) Estimates included in utility's current integrated resource plan filed pursuant to WAC 480-100-23;
- (c) The results of the utilities most recent bidding process;
- (d) Current projected market prices for power.

The starting point for the avoided cost calculation in this filing is the load and resource balance from the Company's 2015 Integrated Resource Plan (IRP), filed on March 31, 2015. The avoided cost prices are then developed consistent with the West Control Area inter-jurisdictional allocation methodology adopted by the Washington Utilities and Transportation Commission in Docket UE-061546.

#### Loads and Resources

**Table 1** presents the Company's west control area loads and resource balance. Table 1 shows an energy balance with a surplus of 175 aMW in 2017 declining to a deficit of 25 aMW in 2026. The winter peak has a capacity deficit of 48 MW in 2017 increasing to a deficit of 698 MW in 2026. The summer peak has a capacity deficit of 192 MW in 2017 increasing to 583 in 2026.

## **Avoided Cost Calculation**

Resource deficiency period is assumed to begin when the load and resource balance is short in both energy and capacity on an annual basis. Based on the load and resource balance shown in **Table 1**, the avoided cost calculation is separated into two distinct periods: (1) the Short Run – a period of resource sufficiency (2017-2020); and (2) the Long Run – a period of resource deficiency (2021 through 2026).

## 1. <u>Short Run Avoided Costs</u>

During periods of resource sufficiency, the Company's avoided energy costs are based on the displacement of purchased power and existing thermal resources as modeled by the Company's GRID model. The model input data includes the monthly load and resource data, which are the basis for the annual summary of loads and resources shown in **Table 1**. To calculate short-run avoided costs, two production cost studies are prepared, where the only difference between the two studies is an assumed 50 aMW resource modeled at zero cost. The results of the production cost model runs are provided as **Table 2**.

Winter capacity costs in this period are based on a three-month capacity purchase using the cost of a simple cycle combustion turbine (SCCT). The annual value as shown in **Table 3** is one-fourth of the capacity cost of a simple cycle combustion turbine.

# 2. Long Run Avoided Costs

During the resource deficiency period, avoided costs are the fixed and variable costs of a combined cycle combustion turbine (CCCT).<sup>1</sup>

Long Run Avoided Costs use the peak credit method to separate the non-fuel costs of the proxy CCCT into capacity and energy components. Under the method, non-fuel costs associated with the construction of a CCCT that exceed the cost of a SCCT are designated as capitalized energy and added to the variable production (fuel) cost of the CCCT in the total avoided energy costs. **Table 3** shows the capitalized energy costs. In the current study, the fixed costs of the SCCT are greater than the fixed costs of a CCCT so capitalized energy costs are zero.

The fuel cost of the CCCT defines the avoided variable energy costs. **Table 4** shows the CCCT fuel cost and the total avoided energy costs.

Because energy generated by a qualifying facility may vary, avoided costs at 75 percent, 85 percent and 95 percent capacity factors are prepared to illustrate the impact of differing generation levels. These calculations are shown in **Table 5**.

Avoided energy costs are differentiated between on-peak and off-peak periods. To make this calculation, the Company applies all capacity costs to meet on-peak prices. On an annual basis, approximately 57 percent of all hours are on-peak and 43 percent are off-peak. **Table 6** shows the calculation of on-peak and off-peak avoided energy prices.

For informational purposes, **Table 7** shows a comparison between the avoided costs currently in effect in Washington and the proposed avoided costs in this filing.

**Table 8** shows the calculation of the total fixed costs and fuel costs of the CCCT andSCCT that are used in Table 3 and Table 4.

#### **Gas Price Forecast**

The electricity and natural gas prices used in this filing are from the Company's Official Forward Price Curve dated October 2016. Both the electricity and natural gas prices are inputs to the Company's GRID model in the calculation of the proposed short-run avoided energy costs in this filing. Natural gas prices are also used to calculate the fuel costs of the CCCT proxy resource for the Long Run avoided costs, as shown in **Table 9**.

<sup>&</sup>lt;sup>1</sup> CCCT (Dry "J" Adv 1x1) - West Side Options (1500') as modeled for the 2015 IRP. Fuel costs are from the Company's October 2016 Official Forward Price Curve.