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***VIA ELECTRONIC FILING
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Steven V. King
Executive Director and Secretary
Washington Utilities and Transportation Commission
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P.O. Box 47250
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RE: Docket UE-144160—Rebuttal Declaration of Brian S. Dickman

Pacific Power & Light Company, a division of PacifiCorp (Pacific Power or Company), submits for filing the Rebuttal Declaration of Brian S. Dickman in the above-referenced proceeding.

If you have any informal inquiries regarding this matter, please contact Ariel Son, Manager, Regulatory Projects, at (503) 813-5410.

Sincerely,


R. Bryce Dalley
Vice President, Regulation

Enclosures

that the Company's Washington avoided costs do not adequately account for the risk of relying on market transactions and that they should include perpetual capacity payments for qualifying facilities (QFs) that are renewing existing agreements. Finally, I respond to arguments that uncertainty surrounding potential environmental regulations supports including the cost of certain required environmental upgrades at existing coal facilities in avoided cost prices.

Sufficiency/Deficiency

6. Mr. Twitchell argues that PacifiCorp is currently in a capacity deficient position because it acquires capacity via Front Office Transactions (FOTs) and that QF purchases allow PacifiCorp to avoid FOT purchases.¹ I agree with Mr. Twitchell that PacifiCorp's Integrated Resource Plan (IRP) identifies FOTs as necessary to address capacity shortfalls. As a matter of practice, the Company has for many years referred to the period before acquisition of the next major thermal resource as the "resource sufficiency period" or "the short run" despite the recognized reliance on market transactions in its IRPs. In the 2013 IRP Update, on which the current filing is based, the Company relies on FOTs, which are representative of short-term wholesale market purchases, to balance the Company's capacity needs before the next major thermal resource acquisition in 2027. Reliance on FOTs represents the least-cost, lowest-risk option for acquiring near-term capacity before the next major thermal resource acquisition.

7. Mr. Twitchell misinterprets the Company's filing as not including "any value for capacity in its avoided cost rate."² The Company's filing calculates the avoided costs before 2027 using the GRID model to capture the impact of QF generation that displaces

¹ Twitchell Dec. at ¶ 16-17.

² Twitchell Dec. at ¶ 14

short-term market transactions. Contrary to Mr. Twitchell's declaration, the Company contends that the avoided market transactions represent the cost of energy *and capacity* that the Company will incur before the acquisition of the next thermal resource. In the Company's past avoided cost filings in Washington, the sufficiency-period avoided costs have included a separate payment based on the fixed costs of a simple cycle combustion turbine (SCCT) in addition to the avoided cost of displaced market transactions and other existing resources. As demonstrated in the Company's 2013 IRP Update, however, the Company has no plans to acquire a SCCT or other major thermal generating resource until 2027 at the earliest. Continuing to include the fixed costs of a thermal generating resource in avoided cost prices before 2027 clearly does not represent the cost of energy and capacity that the Company will actually incur without the addition of a QF.

8. Mr. Twitchell observes that "[a]ny QF that enters Pacific Power's system prior to a future market purchase will reduce the amount of capacity that the Company needs to acquire, and must be compensated appropriately for those avoided capacity costs."³ Based on that observation, Mr. Twitchell concludes that the fixed costs of the next combined cycle combustion turbine (CCCT) in the Company's IRP, shown to be needed in 2027, should be included in avoided cost prices beginning in 2015. This conclusion misapprehends the nature of FOT market purchases. FOTs are the lowest-cost, least-risk option for addressing near-term capacity shortages. FOTs are firm products, and the sellers supply all necessary reserves. For example, a 100 MW firm market purchase requires the seller to deliver 100 MW to PacifiCorp regardless of circumstance. To ensure delivery, the seller must hold the required level of reserves as warranted by its system to ensure supply. Accordingly, PacifiCorp does not need to hold additional reserves on its 100 MW firm front office

³ Twitchell Dec. at ¶ 19.

purchase, and the price of the seller's capacity is embedded in the price of the market transaction.

9. I agree that a QF that enters PacifiCorp's system will reduce the need for FOT purchases (which, in turn, addresses a capacity shortfall) during its five-year term. Under current circumstances, when a QF comes online, the capacity costs that PacifiCorp avoids are an incremental amount of market purchases. Mr. Twitchell provides the following quotation from FERC Order No. 69: "If [a QF] demonstrates a degree of reliability that would permit the utility to defer or avoid construction of a generating unit *or the purchase of firm power from another utility*, then the rate for such a purchase should be based on the avoidance of both energy and capacity costs."⁴ Rather than undermine the Company's proposed avoided cost rates, this quotation clearly recognizes that avoided capacity may be in the form of purchases from other providers, or, as is the case here, the avoidance of FOT purchases that are the lowest-cost, least-risk option for addressing capacity shortages. Mr. Twitchell acknowledges in his declaration: "By purchasing power from QFs, the Company can avoid some of these future market purchases. Pacific Power's avoided cost rate must compensate QFs for the value of avoided FOTs."⁵ The Company's proposed avoided cost prices include avoidance of short-term firm market transactions. Including a thermal resource capacity adder on top of the price of avoided market transactions would over-compensate QFs and would squarely conflict with PURPA's "customer indifference" standard.⁶

10. Mr. Twitchell argues that, although QF contracts in Washington are limited to a five-year fixed-price term, they help to defer thermal resources identified for 2027 and

⁴ Order No. 69, 45 Fed. Reg. 12,214, 12,225 (Feb. 25, 1980)(emphasis added).

⁵ Twitchell Dec. at ¶ 21

⁶ *Southern Cal. Edison Co., et al.*, 71 FERC ¶ 61,269, 62,080 (1995) (In enacting PURPA, "[t]he intention [of Congress] was to make ratepayers indifferent as to whether the utility used more traditional sources of power or the newly-encouraged alternatives.")

beyond. This argument is predicated on Mr. Twitchell's incorrect assumption that in the IRP all QFs are assumed to renew their contracts upon expiration. That is not the case.

PacifiCorp's IRP does not make a blanket assumption that all existing QFs will renew; instead, it only assumes that certain small QFs are extended through the end of the planning period while contracts with other QFs will expire according to their terms.⁷ In fact, in the 2015 IRP existing QF contracts with a combined name plate capacity of only approximately 122 MW were assumed to be renewed before the next thermal resource acquisition in 2028. Most of these QFs are hydro projects that have existed for many years. Furthermore, the magnitude of their generation at the time of peak load is less than the name plate capacity of the generators and is not significant enough to have a material impact on the timing of the next major thermal resource acquisition in the IRP.

11. If the Commission determines that some form of capacity adder is appropriate during the sufficiency period, the adder should reflect the current Commission-approved construct. Currently, PacifiCorp's capacity adder is limited to one-fourth of the SCCT cost, representing peak periods of demand during three out of twelve months annually.⁸

Mr. Twitchell has proposed including a capacity adder across all months. The construct Mr. Twitchell has proposed would conflict with PacifiCorp's resource procurement plans, where FOTs are required during the third-quarter peak period. Including a capacity adder during the remaining nine months of the year would incorrectly inflate avoided cost prices in conflict with PURPA's customer indifference standard. Significantly, under Mr. Twitchell's proposal, the Company's Washington customers would be required to pay QFs the cost of avoided market purchases *and* the full fixed cost of a new CCCT from the beginning of the

⁷ PacifiCorp 2015 IRP, Volume 1 at 75.

⁸ One-fourth of the costs of a SCCT were included to represent peak periods of demand during three out of twelve months annually.

QF contract, even though the next CCCT acquisition is not planned until at least 2027.⁹

12. Mr. Lowe is critical of the fact that current avoided cost rates only include three months' worth of the fixed costs of a SCCT. He argues, "If PacifiCorp acquires a SCCT peaking resource, then it will incur its fixed costs for all twelve months out of the year. In other words, PacifiCorp is unlikely to acquire a SCCT for only those months for which it has peak capacity need."¹⁰ Mr. Lowe's argument implies that the avoided costs should only reflect costs the Company will incur, but he fails to acknowledge that the Company currently has no plans to acquire any SCCT.

13. Mr. Twitchell calculated example payments to a 2 MW QF generator under various annual capacity factor assumptions, using the Company's current rate, proposed rate, and Staff's proposed rate. Based on Table 2 in his declaration, Mr. Twitchell concluded that Staff's additional capacity costs made only a small (i.e. maximum \$687) difference on an annual basis. Table 2, however, miscalculated the impact of Staff's proposal by including only one month of the capacity payment instead of all twelve months during a year. The corrected impact of Staff's proposal is an increase in annual avoided cost payments to a 2 MW QF ranging from over \$32,000 to \$98,000 annually. Over a five-year contract the difference ranges from over \$163,000 to approximately \$490,000. A corrected Table 2 is provided below.

Corrected Table 2: Rate Comparisons, 2016			
Capacity Factor	Current Rate	Company Proposal	Staff Proposal
90%	\$585,557	\$538,004	\$636,932
50%	\$325,309	\$298,891	\$353,851
30%	\$195,186	\$179,335	\$212,311

⁹ The recently-filed 2015 IRP delayed the next CCCT acquisition until 2028.

¹⁰ Lowe Dec. at ¶ 30.

Renewable Portfolio Standard (RPS) Incremental Cost Method

14. Mr. Twitchell argues that the method for calculating incremental costs in the context of renewable portfolio standard reporting is well suited for the avoided cost calculation. The incremental cost calculation compares the cost of an RPS eligible resource to a non-eligible resource (i.e., CCCT) available at the time of the eligible resource's acquisition. However, the incremental cost calculation is simplified in that it compares the eligible resource to a CCCT assumed to be procured at the same time and in the same size increment (adjusted for capacity contribution), whether or not the utility would actually have procured a CCCT if it had not acquired the eligible resource.

15. This simplification is inappropriate for determining the price to be paid to QFs that choose when and where to provide generation to the Company. When calculating the costs that can be avoided due to the addition of a QF, it is imperative to account for the utility's current resource procurement plans and the timing of new resource additions without the QF. Indeed, FERC's PURPA regulation clearly defines avoided costs as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."¹¹ Retail customers should not be required to pay a QF in 2015 the cost of a CCCT when the utility would otherwise not incur such costs until 2027.

Market Risk

16. Mr. Twitchell suggests that purchases from QFs mitigate risk associated with market purchases, and recommends that PacifiCorp quantify avoided market risks (i.e., a "market risk premium") as part of its next avoided cost update.¹² Mr. Twitchell's position is

¹¹ 18 C.F.R. § 292.101(b)(6)

¹² Twitchell Dec. at ¶ 25-31.

built on a faulty premise that QF purchases eliminate market risks.

17. First, fixed-price PURPA contracts may create financial risk for utilities, rather than mitigate risk. Market prices are in a period of sustained decline, due in significant part to historically low natural gas prices. When market prices are dropping, fixed price avoided cost contracts (even those with limited five-year terms) expose PacifiCorp's customers to financial risk, as the QF purchases get locked in at above-market rates. Staff witness Mr. David C. Gomez recognized this risk in his testimony in Docket UE-130043 when discussing the recent downward trend in avoided cost prices driven in part by lower market prices for natural gas. Mr. Gomez stated, "While this kind of price risk would also be present in any contract with a Washington QF, the risk impact is offset by the smaller size and output of the project and the shorter term lengths of the purchase agreements, as directed by Commission policy."¹³

18. Second, fixed-price QF contracts are not appropriate hedging mechanisms. A power or natural gas hedge must provide three components to be effective: (1) a predetermined quantity; (2) a predetermined time the product will be received; and (3) a predetermined price. Unlike an appropriate hedging mechanism, QF resources provide only a predetermined price. Additionally, QF resources are not without risk because their output is difficult to predict and their generation output is largely out of a utility's control.

19. Mr. Lowe incorrectly claims the Company has not conducted an analysis to determine if there will be sufficient market liquidity to enter into the market purchases planned in its IRP and states broadly that the Northwest Power and Conservation Council estimates an overall Northwest market shortfall. In its 2015 IRP the Company explains, "PacifiCorp develops its FOT limits based upon its active participation in wholesale power

¹³ Docket UE-130043, Exhibit No. DCG-1CT, Testimony of David C. Gomez, page 13 lines 4-7.

markets, its view of physical delivery constraints, market liquidity and market depth, and with consideration of regional resource supply.”¹⁴ Appendix J of the 2015 IRP contains the Company’s Western Resource Adequacy Evaluation. Furthermore, the Northwest Power and Conservation Council’s assessment indicates that, even without accounting for generation additions already planned for the region, the power supply in the Pacific Northwest is expected to be adequate through 2020, which is beyond the five-year term over which avoided cost prices are available.

Capacity Costs for Renewing QFs

20. Mr. Lowe argues that renewing QFs should receive a capacity payment since the capacity that it provides has already been included in the utility’s IRP load resource balance. Mr. Lowe’s proposal is a thinly veiled attempt at lengthening the availability of fixed avoided cost prices beyond the five years allowed by the Company’s Washington tariff. The Company recommends the Commission reject this proposal.

21. A utility’s avoided costs are not static, and for this reason, it is logical that avoided cost prices need to be updated to account for changes in market and system conditions, including changes in a utility’s capacity needs over time. As avoided cost prices are updated and new contracts sought, the most current avoided cost price information should be applied to the new contract consistent with the customer indifference standard under PURPA. Mr. Twitchell recognized this in his declaration when he stated, “Washington’s use of a five-year term for the standard offer tariff benefits the Company and ratepayers by ensuring that avoided cost rates accurately reflect current market conditions.”¹⁵

22. Guaranteeing a capacity payment based on a thermal resource to renewing

¹⁴ PacifiCorp 2015 IRP, Volume 1 at 129.

¹⁵ Twitchell Dec. at ¶ 40.

QFs would be harmful to customers. Given the typical contracting and hedging horizons for energy contracts in the utility industry, which are commonly limited to less than 36 months, it is rare for a utility to voluntarily enter into a longer-term fixed-price energy contract (even for a five-year term) without a specified energy resource need due to concerns about price risk, market liquidity, prudence challenges, and other risk considerations. Under the Commission's current policies any QF can obtain a five-year contract at the Company's projected avoided cost. Guaranteeing a capacity payment to renewing QFs as REC argues magnifies the risk and potential harm to customers by providing fixed avoided cost prices for excessive time periods. The combined effect of REC's proposals in this case is to pay a QF the fixed cost of a thermal resource from the beginning of the QF purchase in perpetuity, regardless of the Company's resource procurement plans. A QF seeking a new contract upon expiration of an existing contract should be treated the same as other QFs and avoided cost prices should reflect the utility's then current energy and capacity needs at the time of renewal.

Environmental Upgrades

23. Attached to Mr. Lowe's policy declaration is testimony of Mr. Kevin C. Higgins filed on behalf of REC, the Community Renewable Energy Association, OneEnergy, and Obsidian Renewables, LLC. in Public Utility Commission of Oregon's Docket No. UM 1610. Mr. Lowe submits Mr. Higgins' UM 1610 testimony in support of his argument that capacity payments should reflect costs associated with environmental upgrades required at thermal generating plants.

24. Setting aside the fact that Mr. Higgins is not a witness to this testimony and his testimony is not part of the stipulated record in this proceeding, I will briefly respond to

his arguments, which are fatally flawed for the following reasons:

- The referenced environmental upgrades include capital investment that cannot be avoided by the addition of a Washington QF, even one that is renewable or non-emitting.
- Several of the referenced environmental upgrades that were included in the IRP for planning are not currently required, and alternative compliance scenarios may eliminate the need for the investment irrespective of any new QF generation.
- There is no accounting for the benefits of the existing generation resources that will be lost if the environmental upgrades are eliminated.

25. Mr. Lowe's argument incorrectly implies the environmental upgrades at specific coal plants located in Utah, Wyoming, Colorado, Montana, and Arizona can be avoided by renewable and non-emitting QFs in Washington. This is incorrect. In reality, all of the upgrades listed by Mr. Lowe are for compliance with the Environmental Protection Agency's (EPA) Regional Haze Rule, which is intended to improve the air quality and visibility in national parks and wilderness areas in the proximity of the emitting resource. PacifiCorp cannot avoid these compliance costs by simply adding a 2 MW Washington QF.

26. Furthermore, construction of several of the projects referenced is already underway, underscoring the fact that costs cannot be avoided and should not be included in the determination of avoided costs. In fact, the Hayden 1 SCR has already been placed in service. Engineering, design, and procurement for the Hayden 2, Jim Bridger 3, and Jim Bridger 4 SCR projects are likewise already underway.

27. Mr. Lowe's proposal is also flawed because the list of capital projects he relies on includes SCR projects for which there is no such requirement yet in place (including

SCRs at Hunter 1, Hunter 3, and Huntington 1). Despite this lack of requirement, Mr. Lowe recommends that the entire list of projects be used to calculate an average cost of capacity to be included in avoided costs during the sufficiency period. Potential alternatives to meeting Regional Haze compliance without installing SCR technology include retiring the unit altogether or converting it to be fueled by natural gas. The timing of such compliance alternatives is often different than the SCR installation and also eliminates the cost of SCR installation. As actual requirements are finalized and decisions on Regional Haze related investments are made, they will be included in an IRP for Commission review and acknowledgement.

28. Mr. Lowe's proposal is also flawed because it fails to account for the significant impact on the Company's generation portfolio if the required environmental upgrades are eliminated. Coal plants provide low-cost base load generation as well as operating reserves and load following capability. The decision to invest in environmental upgrades is evaluated in the Company's IRP, and considers the value of retaining the generation from the plant and the inter-temporal and fleet trade-off alternatives. Eliminating an environmental upgrade that is specifically required to comply with Regional Haze means the Company will no longer be able to operate the plant as a coal-fired generator. Mr. Lowe's proposal ignores the obvious impracticality of replacing an entire existing coal unit with many individual renewable QFs. For example, the second project on the list is the SCR at Jim Bridger unit 3, which is scheduled to be placed into service in December 2015. Using the capacity contribution of 36.7 percent for a single-axis tracking solar project (the highest of the wind and solar capacity contributions) listed in the 2015 IRP equates to a need for over 950 MW of new solar capacity from QFs to replace PacifiCorp's approximately 350 MW

share of the capacity lost by eliminating Jim Bridger unit 3. This already unrealistic result does not account for the lost dispatchability and lost energy from a base load generator.

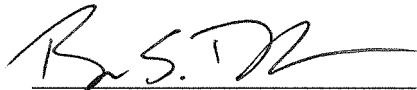
29. The fact that there is uncertainty about the final Section 111(d) rules does not lend credence to Mr. Lowe's arguments. On the contrary, the uncertain nature of the draft Section 111(d) rules and the impact on PacifiCorp's long-term resource plan is one more reason to reject Mr. Lowe's proposal to artificially inflate avoided costs. The Company will continue to plan future resource acquisitions to minimize costs and risk to customers. The preferred portfolio in the Company's 2015 IRP minimizes cost and risk in complying with draft Section 111(d) rules. Imputing additional costs into the avoided cost formula on the premise of unknown and uncertain future changes to the proposed regulations, and based on unrelated compliance investments, will only overstate avoided costs and violate the ratepayer indifference standard embodied in PURPA.

Conclusion

30. To meet the objective of ratepayer indifference, deferred capacity costs must be included in avoided costs in a manner consistent with the Company's resource procurement plans identified in its IRP. The Company's filing is based on its 2013 IRP Update, which indicates that the next avoidable thermal resource will not be procured until 2027 and that the Company will rely on short-term wholesale market transactions to balance its capacity needs before that time. PacifiCorp's retail customers should not be required to pay a QF in 2015 the cost of a CCCT when the utility would otherwise not incur such costs until 2027. Artificially increasing avoided cost prices by including fixed costs of new generators that will not be acquired until at least 2027 or the cost of environmental upgrades at existing facilities that cannot be avoided by the addition of Washington QFs overstates the

costs that the Company will avoid and ultimately results in higher costs passed on to the Company's Washington retail customers.

I declare under the penalty of perjury under the laws of the State of Washington that the foregoing is true and correct. Signed at Portland, Oregon, on July 24, 2015.



Brian S. Dickman