**BEFORE THE WASHINGTON**

**UTILITIES AND TRANSPORTATION COMMISSION**

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| WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant,v.PACIFICORP D/B/A PACIFIC POWER & LIGHT COMPANY,  Respondent. | ))))))))))) | **DOCKET NO. UE-144160****DECLARATION OF JOHN R. LOWE**  |

John R. Lowe declares:

1. My name is John R. Lowe. I am the Executive Director of the Renewable Energy Coalition (“REC”). My business address is 12050 SW Tremont Street, Portland, Oregon 97225.
2. I am over the age of twenty-one, have personal knowledge of the facts set forth herein, and am competent to testify to those facts.
3. The purpose of this declaration is to oppose Pacific Power & Light Company’s (“PacifiCorp”)[[1]](#footnote-1) Schedule 37 avoided cost update that was filed in this proceeding on December 29, 2014. REC recommends that the Washington Utilities and Transportation Commission (the “Commission”) retain Schedule 37’s current rate design with a monthly kilowatt (“kW”) capacity payment, and a megawatt hour (“MWh”) energy charge. REC also recommends that the Commission increase the monthly kW capacity payment, and/or MWh energy charge because they under compensate Washington qualifying facilities (“QF”) for the capacity and energy they provide to PacifiCorp.

 **Background**

1. REC was established in 2009, and is comprised of over thirty members who own and operate nearly forty non-intermittent QFs in Oregon, Idaho, Washington, Utah, and Wyoming. REC’s members have power purchase agreements with Northwest utilities, including PacifiCorp. Yakima-Tieton Irrigation District has been a Coalition member since 2011, and sells its power to PacifiCorp from two about 1.5 MW hydroelectric projects (the Orchard and Cowiche projects). These facilities have been operating since 1986, and have been a consistent reliable source of generation even in drought years due to their senior water rights. As an irrigation district, the power sales for these facilities are reinvested into the community, and providing significant benefits to the local economy.
2. REC actively participates in utility rate proceedings and investigations in the Northwest regarding power purchase agreement terms and conditions including avoided cost prices, integrated resource planning, interconnection, and other matters relevant to QFs and independent power producers. REC also monitors and lobbies legislatures on energy policy matters. In addition, REC provides consulting services to individual members on contractual, operational, interconnection, and other issues related to their electric generation facilities and the interface with the purchasing utility.
3. PacifiCorp has 141 existing QFs representing 1,732 MW of installed capacity in all six of its state jurisdictions.
4. In contrast, PacifiCorp currently has only three Washington QFs selling power to the company. These are the Yakima-Tieton Irrigation District’s Orchard and Cowiche projects, and Deruyter Dairy’s 1.2 MW methane facility. The Deruyter Dairy methane facility is the only Washington QF that has been built in and currently selling power to PacifiCorp since 1990. To my knowledge, the only other QF to have sold to PacifiCorp since 1990 in Washington was the City of Walla Walla. The City has since decided to terminate sales to PacifiCorp after the original purchase power agreement expired and the prices dramatically dropped in accordance with recent Schedule 37 prices. The total MWs of all three operating projects selling power to PacifiCorp in Washington is about 4 MWs, which represents less than 0.3% of all PacifiCorp’s MWs of QF contracts.
5. In its other states, PacifiCorp has 816 MW of newly executed wind and solar qualifying facility power purchase agreements from 36 projects having in-service dates by the end of 2016. PacifiCorp 2015 Integrated Resource Plan (“IRP”) at 4. As of March 2015, PacifiCorp had about 89 requests for new QF contracts in its other states, all but two of which are wind and solar.
6. In my experience based upon 35-years plus of implementing the Public Utility Regulatory Policies Act (“PURPA”) in the Northwest, it is highly unlikely that all requests for new contracts or even all QFs that sign contracts with the utility will result in a constructed QF that sells electricity to the utility. In other words, many QFs request contracts or enter into contracts, but are unable to complete financing and construction of their facility. Regardless, the requests for contracts and the number of new contracts in PacifiCorp’s non-Washington service territory are significant.
7. PacifiCorp has zero newly executed QF power purchase agreements in Washington. PacifiCorp has no interconnection or power purchase agreement requests from any QFs in Washington. It is significant that there are no requests for contracts or new contracts in Washington, especially given the requests and new contracts in other states.
8. The numbers of PacifiCorp’s Washington QFs and MWs has been and continues to be significantly lower than PacifiCorp’s other states. This indicates that PacifiCorp’s Washington implementation of the Public Utility Regulatory Policies Act has not been, and is currently not, favorable to the development of QFs. Favorable contract terms, including length of contract and prices, are necessary to encourage the development of QFs. Washington has a number of significant untapped renewable energy resources that could be developed to benefit utility customers and the local economy with proper implementation of PURPA. The need for expansion of the Washington renewable portfolio standard, compliance with the Environmental Protection Agencies (“EPA”) Section 111(d) rules or other regulator requirements could also be reduced with the development and retention of cost effective QFs.

**PacifiCorp Schedule 37**

1. PacifiCorp purchases power from QFs two MWs or smaller in Washington pursuant to its Schedule 37 Cogeneration and Small Power Production rate schedule. QFs above 2 MWs must negotiate contracts with PacifiCorp. No QFs larger than 2 MWs have been built in Washington and sold their power to PacifiCorp. All of PacifiCorp’s other states have larger QFs, and every state but Washington has at least one QF 20 MWs or larger. Even the recently built 15 MW Tieton Dam project in PacifiCorp’s service territory northwest of Yakima had to sell its output out of state. The fact that PacifiCorp’s avoided cost rates and contract terms were less favorable than transmitting the power out of state is illustrative of the problems facing local energy developers in PacifiCorp’s Washington service territory.
2. Avoided cost rates under Schedule 37 include capacity and energy payments. The capacity payment is based on a fixed dollar per kW month rate. Under the currently effective Schedule 37, the fixed dollar per kW month capacity rates for the five-year period of 2015-2019 start at $2.49 and rise to $2.66. The energy payment is a fixed dollar per MW hour rate. Under the currently effective Schedule 37, the fixed dollar per MW hour energy rates for the five-year period of 2015-2019 start at $31.92 and rise to $40.22.
3. Fixed energy and capacity rates are only available to QFs for the first five years of any contract.
4. PacifiCorp’s avoided cost rates in Schedule 37 are significantly lower than the avoided cost rates for Puget Sound Energy (“PSE”) and Avista. Also, PacifiCorp files Schedule 37 in all other states except California, and the rates and/or terms are more favorable in all of those states compared to Washington. This indicates that PacifiCorp’s avoided cost rates and/or terms need improvement rather than further degradation in the form of eliminating capacity payments

**PacifiCorp’s Proposed Revision to Schedule 37 Avoided Cost Rates**

1. PacifiCorp has proposed to eliminate the dollar per kW month capacity rate.
2. PacifiCorp supports its proposal because its 2013 integrated resource plan (“IRP”) Update indicates that its next major thermal resource will be acquired in 2027. PacifiCorp claims that QFs will not cause the company to avoid capacity costs because the company may not need to acquire a new thermal resource until 2027.
3. Prior to 2027, PacifiCorp has a significant energy and capacity resource need. In this proceeding, PacifiCorp states that it will rely upon market purchases, or front office transactions for both its energy and capacity needs. PacifiCorp proposes that Schedule 37 only include the company’s estimates of the market purchase prices. The value of these market purchases would be estimated using PacifiCorp’s Generation and Regulation Initiative Decision computer model.
4. PacifiCorp has proposed an alternative rate design. PacifiCorp proposes to differentiate the fixed dollar per MWh energy rate into a heavy load hour and a light load hour rate. This does not change the effective value of sales from consistent 24-7 producer like Yakima-Tieton’s irrigation system hydro projects, but could change the compensation paid to wind and solar projects.

**Renewable Energy Coalition Proposed Schedule 37 Avoided Cost Rates**

1. REC recommends that the kW month capacity rate should at a minimum be retained because QFs are providing the company with capacity. REC further recommends that the: 1) the dollar per kW month capacity rate be increased to better reflect the capacity resources the company plans to acquire; and/or 2) the dollar per kWh energy rate be increased because it does not accurately reflect expected energy costs.

 **A. The Commission Should Retain a kW Month Capacity Rate**

1. PacifiCorp needs both energy and capacity that can be avoided by QF purchases. In its 2015 IRP, PacifiCorp plans to meet its energy and capacity needs over its twenty-year planning horizon with short-term market purchases, demand side management, coal plant conversions, and almost 3,000 MWs of new natural gas facilities. PacifiCorp is also planning on significant investments in its existing coal fleet to maintain its existing energy and capacity resources that will be made before the acquisition of its next thermal resource. QFs that sell power to PacifiCorp will help the company avoid its need for these energy and capacity resources, including coal plant investments and new gas generation facilities.
2. PacifiCorp’s IRP plans on acquiring a new combined cycle combustion turbine in 2027 or 2028 (2013 IRP Update and 2015 IRP). PacifiCorp’s planned resource acquisitions have historically been inaccurate, especially during the longer-term. For example, in 2008 PacifiCorp did not “plan” on acquiring a new thermal resource until 2012. However, PacifiCorp acquired the 520 MW Chehalis plant in 2008. PacifiCorp’s resource needs identified in its current IRPs may be even more inaccurate. PacifiCorp’s actual resource acquisitions could significant change if its IRP assumptions prove inaccurate, including but not limited to: 1) changes in Washington’s RPS; 2) PacifiCorp joining the California Independent System Operator; 3) the adoption of a federal RPS; 4) adoption of a state or federal carbon tax; 5) the adoption of EPA’s Section 111(d) rules; 6) closure of part or all of the Colstrip or other coal generation facilities; 7) the inability to capture the high levels of demand side management; and 8) the lack of availability of power in the wholesale market. All of these policies could result in a reduction in coal generation, and an increase in renewables, baseload gas, and peaking gas generation well before 2027.
3. In the past, PacifiCorp’s IRPs planned to acquire a new thermal resource in about four or five years. As each subsequent IRP was released, the four to five year time period remained constant, but the actual date for the company’s planned thermal resource acquisition moved further out in time. For example, in 2005 the next planned thermal resource acquisition was 2010, in 2007 the planned next thermal resource acquisition was 2012, in 2009 the next planned thermal resource acquisition was 2014, etc.
4. The next planned thermal resource acquisition in PacifiCorp’s most recent IRPs is now much longer than five years. Specifically, PacifiCorp claims that it will not build a new thermal resource until 2028, which is in 12 or 13 years. Under PacifiCorp’s approach, this will result in much longer and historically unprecedented “sufficiency” periods.
5. PacifiCorp’s proposal to not make capacity payments until the acquisition of a planned thermal resource acquisition could mean that there will always be a period of resource “sufficiency” and no capacity payments. If the resource sufficiency period is short and the contract term length is limited to five years, projects will receive no or only a year or two of capacity payments. With longer sufficiency periods, as is the case now, projects will no longer receive capacity payments. This means that existing Washington projects that have always received capacity payments will no longer be paid for the capacity they provide to PacifiCorp.
6. Under PacifiCorp’s proposal, Washington QFs will not be paid for capacity if they enter into a contract when the next thermal resource acquisition is in six years (2021) or longer. For example, assume that PacifiCorp is planning its next thermal resource acquisition in six years (2021). Under PacifiCorp’s proposal, a QF that enters into a new five-year contract in 2015 will not be paid for capacity during the entire contract term. In 2021, PacifiCorp will have a new IRP, which will likely not be planning on a new thermal resource for more than five years, and its new Schedule 37 will not have any capacity payments. If the QF renews its contract and enters into a new five-year contract in 2021, then the QF will again not be paid for capacity. The QF will have caused PacifiCorp to reduce both its energy and capacity needs (including the capacity related to the next planned thermal resource), however, the QF will not be paid for capacity under the company’s approach.
7. All QFs provide capacity during all years, including the years before the next acquisition of a new thermal resource. For example, QFs can reduce PacifiCorp’s need to re-invest in its coal fleet. In addition, PacifiCorp plans on QFs as capacity resources. In its 2015 IRP, PacifiCorp is planning on the availability of 255 MWs of QFs to meet its system peak. PacifiCorp 2015 IRP at 62. These QFs have been causing, and those that renew their contracts will continue to cause, PacifiCorp to avoid capacity costs.
8. It is particularly inappropriate to not pay QFs that PacifiCorp plans on entering into follow-on contract extensions a full capacity payment. A QF that is seeking renewal and/or extension of its contract should receive a capacity payment because the capacity that it provides has already been included in the utility’s IRP load resource balance. In other words, PacifiCorp’s IRP assumes these QFs renew their contracts. Without including these QFs in its resource plans, the company would have would need to acquire new capacity and energy resources.

 **B PacifiCorp’s Current Schedule 37 Fails to Fully Compensate QFs**

1. PacifiCorp’s avoided cost rates under compensate QFs because they do not fully account for the potential availability of market purchases. Over the twenty-year planning period, PacifiCorp’s 2015 IRP assumes that it will be able to purchase between 727 and 1,411 MWs from the market, or front office transactions. My understanding is that PacifiCorp has not conducted an analysis in its IRP to determine if there will be sufficient market liquidity to enter into these market purchases. The Northwest Power Planning and Conservation Council has estimated an overall Northwest market shortfall, and PSE’s current IRP is studying the impact of a market shortfall on its operations. The acquisition of electricity from QFs would reduce the need for PacifiCorp to rely upon an uncertain wholesale market. I do not have a specific adjustment to PacifiCorp’s Schedule 37 to compensate for the potential market illiquidity; however, this supports increasing the PacifiCorp’s avoided cost rates to reduce this risk. The Commission could also direct PacifiCorp to develop an adder to the energy or capacity rate to account for the risk reduction associated with QFs.
2. PacifiCorp’s kW per month capacity rate under compensates QFs for capacity because its past approach was based on the fixed costs of simple cycle combustion turbine (“SCCT”) for only three months out of year. This means that only one fourth of the fixed costs of a SCCT have been used to calculate the capacity payment. 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. Therefore, it is more appropriate to include the full costs of a SCCT in the capacity payment for QFs.
3. PacifiCorp’s avoided cost rates also under compensate QFs because they do not account for the costs associated with the company’s significant planned investments in environmental upgrades to retain its existing coal facilities. These are actual and planned investments that are not included in the company’s current Schedule 37 avoided cost rates. Without these upgrades, PacifiCorp would have to secure a large amount of new capacity and energy resources, thereby significantly reducing its period of resource sufficiency. PacifiCorp has identified a number of environmental upgrades at its existing coal facilities in its 2015 IRP that it plans to make before the acquisition of its next thermal resource, including:
* Hayden 1 SCR by Jun 2015
* Jim Bridger 3 SCR by Dec 2015
* Hayden 2 SCR by Jun 2016
* Jim Bridger 4 SCR by Dec 2016
* Craig 2 SCR by Jan 2018
* Naughton 3 Conversion by Jun 2018
* Craig 1 SCR by Aug 2021
* Hunter 1 SCR by Dec 2021
* Jim Bridger 2 SCR by Dec 2021
* Jim Bridger 1 SCR by Dec 2022
* Colstrip 4 SCR by Dec 2022
* Huntington 1 SCR by Dec 2022
* Colstrip 3 SCR by Dec 2023
* Hunter 3 SCR by Dec 2024
* Cholla 4 Conversion by Jun 2025

2015 IRP, Vol. II at 298-299.

1. Similarly, PacifiCorp’s proposed extraordinarily long sufficiency period is sending a price signal to prospective QFs that the long-term value of their capacity is worth very little. At the same time, the Company is facing the challenge of compliance with EPA’s proposed Section 111(d) rules and other greenhouse gas regulations, which propose significant reductions in carbon emissions. The proposed rules are creating significant uncertainty with respect to the Company’s long-term resource plan. An important policy question that the Commission should consider is whether it is wise to be signaling to QFs, particularly renewable QFs, that their capacity is of little long-term value, and consequently discouraging their development, at this critical time of changing environmental regulations.
2. In an Oregon Public Utility Commission (“OPUC”) investigation into PURPA and QF policies Docket No. UM 1610, the Renewable Energy Coalition and other QF parties have sponsored the testimony of expert witness Kevin Higgins of Energy Strategies. Mr. Higgins estimated the capacity value of only the first six listed environmental upgrades, which resulted in a capacity value of $47.11 per kW-year. I have attached Mr. Higgins testimony from the OPUC proceeding, which explains how the capacity value with these environmental upgrades was calculated. It would be appropriate to include these capacity costs in PacifiCorp’s Schedule 37 rates.

**Conclusion**

1. PacifiCorp’s current Schedule 37 does not fully compensate QFs for the capacity and energy they provide to the company. This is illustrated by the extremely low level of existing QFs and the lack of any interest in QF development in PacifiCorp’s Washington service territory.
2. At a minimum, the Commission should retain the current kilowatt month capacity payment in PacifiCorp’s Schedule 37. I recommend, however, that the Commission increase the current kW capacity payment. Options to increase the capacity payment are: 1) including the entire annual fixed costs of a SCCT rather than only three months; and 2) including the costs of PacifiCorp’s planned environmental upgrades at its existing coal facilities. The Commission could direct PacifiCorp to make other changes, including a market risk adder to reflect the potential market illiquidity associated with relying upon short-term market purchases.
3. If the Commission does not retain or increase the current kW month capacity payment for all QFs, then REC recommends that the Commission consider other solutions to more accurately compensate QFs. These could include maintaining the capacity payment for already operating QFs that PacifiCorp is relying upon in its IRP, and increasing the contract term for all QFs.

I declare that under the laws of the State of Washington that the foregoing is true and correct. Signed at Portland, Oregon on July 12, 2015.

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John Lowe

1. This declaration refers to Pacific Power & Light Co. as PacifiCorp for the sake of convenience because I discuss both the company’s Washington operations (which are under the name Pacific Power & Light Co.), and the company’s other operations (which are under the name PacifiCorp, or sometimes Rocky Mountain Power). [↑](#footnote-ref-1)