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August 10, 2015

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

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84111

Attn: Gary Widerburg
Commission Secretary

Re: **Docket No. 03-035-14 – Quarterly Compliance Filing – 2015.Q2 Avoided Cost Input Changes**

PacifiCorp (dba Rocky Mountain Power) hereby respectfully submits an original and ten copies of its quarterly Schedule 38 compliance filing. An electronic copy of this filing will be provided to psc@utah.gov.

Commission orders dated October 31, 2005, and February 2, 2006, in Docket No. 03-035-14 require the Company to keep a record of any changes, including data inputs, made to the Proxy and GRID models used in calculating avoided costs. The orders further require the Company to notify the Commission and Division of Public Utilities of updates made to the models used in the approved Proxy and Partial Displacement Differential Revenue Requirement (PDDRR) avoided cost methodologies. The Commission order dated June 9, 2015 in Docket No. 14-035-140 requires the Company to identify routine and non-routine updates or modeling changes. Non-routine updates will become effective in three weeks if the update is unchallenged by any party or upon resolution by settlement or Commission action if challenged by any party.

The Company identifies six routine updates:

1. Load Forecast – Update the load forecast dated September 2014 to the forecast dated May 2015.
2. Generic Updates- Update the avoided cost model to reflect the most current contract, hydro, thermal, transmission and short term firm contract assumptions. Assumptions were last updated April 2015.
3. QF Queue – Update the QF queue to include additional potential and signed QFs. This change moves the QF queue from a total nameplate of 3,864 MW to a total nameplate of 4,431 MW. In the June 9, 2015 Commission Order in Docket No. 14-035-140 the Commission approved a settlement revising the Company's Schedule 38 tariff provisions. In accordance with the settlement, the Company has notified all projects currently in the queue of their status under the revised provisions. Projects will be removed from the

queue if they do not proceed to the next step within 30 days or fail to adhere to the Schedule 38 tariff provisions thereafter.

4. Capacity Contribution – Incorporate the Commission Order June 26, 2015 in Docket No. 14-035-140 wherein the Commission approved updated capacity contribution values for wind and solar QFs.
5. Gas and Electric Market Prices – Update to the most current Official Forward Price Curve dated June 30, 2015 (1506 OFPC).
6. Wind Integration – Update wind integration costs to reflect current costs.

The Company identifies four non-routine updates:

1. Solar Degradation – The Company has previously used a simplifying assumption where solar resources are modeled using their initial nameplate values in the partial displacement and also in a QFs avoided costs calculations. In Docket No 15-035-41, DPU voiced concern over this simplifying assumption.¹ Going forward, the Company will identify the solar degradation associated with each solar project and will adjust the partial displacement calculation to reflect the reduced capacity and energy provided by the solar resource. In addition, when a solar QF requests avoided cost prices, the QFs forecast capacity and energy will be adjusted to reflect that QF’s solar degradation characteristics over the life of the project. For instance, a 50 MW solar tracking QF with a start date of January 2016 and degradation rate of 0.5% would displace 19.55 megawatts in 2016, but only 18.38 megawatts in 2028. This non-routine change increases avoided costs by \$0.09/MWh on a 20-year nominal levelized basis starting in 2016.
2. Wyoming 2028 Transmission Rights – In the 2015 IRP, a 423 MW CCCT was included in Wyoming Northeast transmission bubble in 2028 to offset the retirement of the Dave Johnston plant and to balance the power need in the region. As a result of the partial displacement calculation, this CCCT is fully displaced by potential QFs located primarily in Utah and during some hours the region is resource deficit. The Company currently has no firm transmission rights that would allow energy to be imported. The modeling change assumes that the Company can acquire firm transmission rights on existing transmission lines that would allow energy to be imported into the region. This non-routine change has no impact on avoided costs on a 20-year nominal levelized basis starting in 2016.
3. Reserve Shortage – The current avoided cost calculation does not include the costs associated with the change in unserved reserve requirement (“reserve shortage”) that occurs when a QF which does not provide reserves displaces a CCCT that does provide reserves and the remaining resources do not have sufficient reserve carrying capability to cover the difference. The increase in unserved reserve requirement represents a reduction in the reliability of the system and is an implied cost to all customers that but for the QF would not have been incurred. The reserve shortage cost will be calculated by multiplying unserved reserve requirement by the average monthly system balancing transaction price less the cost of a dispatchable coal resource. The cost of unserved reserves assumes the Company would have made an additional market purchase and backed down a thermal resource that was not already providing all of its available

¹ See <http://www.psc.state.ut.us/utilities/electric/elecindx/2015/1503541indx.html> Comments dated June 5, 2015.

reserves, i.e. a coal resource. This non-routine change reduces avoided costs by \$0.04/MWh on a 20-year nominal levelized basis starting in 2016.

4. **Wind Integration Reserve Shortage** – The wind integration cost methodology has included the cost of reserve shortages since the 2013.Q1 Compliance Filing dated April 16, 2013. The reserve shortage adjustment accounts for the increase in reserve shortages that occurs when additional reserve requirements are placed on the system. The current method estimates the reserve shortage cost on an annual basis based upon the change in the level of reserve shortage multiplied by the annual intra-hour wind integration costs. The revised methodology uses the monthly reserve shortage calculation discussed in item 3 above. This non-routine change increases wind integration costs by \$0.03/MWh on a 20-year nominal levelized basis starting in 2016.

Additional detail is provided below:

1. **GRID Model Data Updates**

A number of data and modeling assumption updates have occurred in the GRID model since the last filing. **Appendix A** provides a summary of those updates.

2. **Proxy / Partial Displacement Differential Revenue Requirement Avoided Cost Methodology**

The Proxy used in the PDDRR avoided cost methodology is consistent with the Company's 2015 IRP filed with the Commission on March 31, 2015. During the period 2015 through 2029 the proxy will be third quarter heavy load hour only front office transactions. Starting January 2030 the proxy will be a 313 MW combined cycle combustion turbine (CCCT).

3. **Impact to Avoided Cost Prices (\$/MWh)**

Provided as **Appendix B** is a \$/MWh impact study of the above mentioned updates, together with a comparison to the last filing. The updates reflect a total decrease of approximately \$0.52/MWh on a 20-year nominal levelized basis. Avoided costs presented in **Appendix B** were calculated assuming a 100 MW 85% capacity factor QF resource.

4. **Major Changes from the Prior Study**

Provided as **Appendix C** is a \$/MWh step impact study of the routine and non-routine updates from the prior study. Also provided in **Appendix C** is the incremental impact of each change from the prior step.

5. **Integration Costs (Routine Update)**

Provided as **Appendix D** is the wind integration cost calculation, which is based on the reserve requirements developed in the 2014 Wind Integration Study and using the methodology approved in Docket No. 12-035-100. The study is updated to reflect the assumptions included in this 2015.Q2 Compliance Filing.

6. **Integration Costs (Non-routine Update)**

Provided as **Appendix E** is the wind integration cost calculation using the revised reserve shortage calculation as discussed above.

The Company has also provided calculations with additional details on the following:

- Current QF queue
- Front Office Transaction (FOT) displacement adjusted for solar degradation
- Partial displacement adjusted for solar degradation
- Example of reserve shortage calculation

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

By E-Mail (preferred) : datarequest@pacificorp.com

By Regular Mail : Data Request Response Center
PacifiCorp
825 NE Multnomah Street, Suite 2000
Portland, OR 97232

Informal inquiries may be made to Bob Lively at (801) 220-4052 or Dan MacNeil at (503) 813-5523.

Very truly yours,

Jeffrey K. Larsen
Vice President, Regulation

cc: Service List (Docket No. 03-035-14)