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VIA ELECTRONIC FILING

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-1166

Attn: Filing Center

RE: UM 1716 —PacifiCorp's Cross-Answering Testimony

PacifiCorp d/b/a Pacific Power encloses for filing in the above-referenced docket its Cross-Answering Testimony.

If you have questions about this filing, please contact Natasha Siores at (503) 813-6583.

Sincerely,

R. Bryce Dalley
Vice President, Regulation

Enclosures

Docket No. UM 1716
Exhibit PAC/200
Witness: Brian S. Dickman

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

PACIFICORP

Cross-Answering Testimony of Brian S. Dickman

July 2016

1 **Q. Are you the same Brian Dickman that previously provided testimony in this**
2 **proceeding?**

3 A. Yes.

4 **Q. Have you reviewed the testimony filed by parties to this proceeding on June 30,**
5 **2016?**

6 A. Yes.

7 **Q. What is the purpose of your testimony?**

8 A. My testimony responds to the reply testimony of Idaho Power Company (IPC), Portland
9 General Electric Company (PGE), Citizens Utility Board of Oregon (CUB), Oregon
10 Department of Energy (ODOE), The Alliance for Solar Choice (TASC), and collective
11 testimony of Renewable Northwest, Oregon Solar Energy Industries Association,
12 Northwest Energy Coalition, and Northwest Sustainable Energy for Economic
13 Development (RNW). Specifically I will respond to policy and procedural concerns
14 raised by TASC and RNW, the appropriate elements to be included in the RVOS model,
15 and modeling/input concerns raised by various parties.

16 **Q. Do the parties to this proceeding generally agree that RVOS methodology proposed**
17 **by Staff witness Mr. Olson is reasonable?**

18 A. Yes. Although, as several parties noted, determining the proper inputs to the
19 methodology is a critical aspect of assessing whether the methodology produces a
20 reasonable RVOS.¹

¹ For example, CUB notes that “without a better understanding of the inputs that will be used, CUB cannot endorse the model.” CUB/100, Jenks-Hanhan/4. Similarly, PGE notes that “while we agree in principle with the approach recommended by Mr. Olson, the devil is in the details and there are many details that we do not currently have.” PGE/100, Brown-Murtaugh/4.

1 **Q. What is your response to TASC’s recommendation that the Commission formally**
2 **recognizes the principles of transparency, granularity, and completeness with**
3 **respect to the RVOS model inputs?**

4 A. Generally, the Company agrees that these are noteworthy principles. However, the
5 Company is mindful that the Commission does not need to establish a new standard of
6 review in determining a value of solar by adopting these principles. The principles as
7 outlined by TASC should be weighed on a case-by-case basis and considered consistently
8 with any other valuation or procedure used by the Commission. More specifically, the
9 Company offers the following observations:

- 10 Transparency: TASC recommends that inputs or datasets be made
11 publicly available. While the Company agrees that transparency is
12 important, some inputs must be provided on a confidential basis to protect
13 the utility and its customers from potential harm.
- 14 Granularity: TASC and RNW argue strongly for the use of hourly data,
15 but there are instances when data will not be available at that level of
16 granularity. Hourly data is not available or used for analyses in other rate
17 setting processes so the lack thereof should not be used as a pretext to
18 automatically invalidate a result.
- 19 Completeness: TASC states “a[n] avoided cost category should not be
20 assigned zero value simply because the value is uncertain or difficult to
21 quantify.”² The Company’s position is if an element is uncertain it
22 should be excluded from RVOS rather than assigned an unproven or
23 hypothetical value.

24 **Q. How should the sufficiency/deficiency periods be used for RVOS?**

25 A. As I stated in my reply testimony, the sufficiency/deficiency periods used to value
26 avoided capacity in RVOS should be determined in a manner similar to standard avoided
27 costs for Qualifying Facilities which uses the next major thermal resource acquisition in

² See TASC/100, Gilfenbaum/4

1 the Company's latest Integrated Resource Plan (IRP) to identify the deficiency period. In
2 addition, the resource deficiency period for the RVOS should reflect the latest
3 information available regarding the Company's resource needs.

4 **Q. Do you agree with RNW that aligning the RVOS with the IRP process could result**
5 **in a backward looking RVOS?**

6 A. Yes, as explained in my reply testimony, the RVOS should be updated as often as
7 necessary to generate an accurate RVOS that takes into account current market and grid
8 conditions. Additionally, a reasonable term should be established for RVOS. Locking in
9 a RVOS for a 25-year term would result in a RVOS that is quickly out of date. Instead,
10 the Company proposes to update the RVOS on a regular basis to keep it closely aligned
11 with changes in resource need, solar penetration, and market conditions.

12 **Q. Do you agree with RNW's recommendation that the Commission explore the benefit**
13 **of Oregon utilities developing distribution resource plans (DRP)?**

14 A. Not at this time. Obligating the utilities to develop DRPs would likely add incremental
15 cost for potential benefits that are unclear at this time. If utilities should be required to
16 create DRPs, this should be investigated separately from this proceeding.

17 **Q. Do parties generally agree with the elements that E3 has included in the RVOS**
18 **model?**

19 A. There appears to be general agreement that the elements included by E3 are appropriate,
20 but several parties made clarifying comments. The Company highlighted one element –
21 Environmental Compliance – that should not be included or set to zero because it is not
22 currently a cost incurred by PacifiCorp which would be avoided by private solar
23 generation. RNW suggests that Security, Reliability and Resiliency should be included

1 as an element of the RVOS, while CUB agrees that this is a potential element that could
2 be included in the future, and that elements should be reevaluated as solar penetration
3 increases. ODOE suggests that the decision to not include a security element in the
4 RVOS methodology “may warrant additional research.”³ Finally, RNW recommends
5 Ancillary Services be considered separately from Integration impacts.

6 **Q. Why was Security, Reliability and Resiliency excluded as an element in Staff’s**
7 **RVOS model?**

8 A. Staff’s consultant Mr. Arnie Olson defines Security, Reliability and Resiliency as “[t]he
9 potential capability of solar, when deployed in combination with other technologies, to
10 provide backup energy or microgrid islanding capabilities during a loss of service from
11 the utility.”⁴ Parties seem to generally agree with that definition. Mr. Olsen gave the
12 following reason for excluding security, reliability and resiliency as an element in the
13 model:

14 There is one additional element, “Security, Reliability, and Resiliency”
15 that could potentially have value for utility ratepayers. However, this
16 would depend on solar being deployed in a microgrid application that
17 would provide electric service to utility ratepayers who do not adopt solar
18 PV. These applications are quite expensive, and I am not aware of any
19 such applications in Oregon at this time. Therefore, I have not
20 incorporated any quantification of these potential benefits into the RVOS
21 Model.⁵

22
23 **Q. Do you agree with Staff that Security, Reliability, and Resiliency should be excluded**
24 **from the RVOS model?**

³ See ODOE, 100, Broad/2.

⁴ See Staff/200, Olson 23

⁵ See Staff/200, Olson 25-26

1 A. Yes. Parties seem to agree that the Security, Reliability, and Resiliency element provides
2 a “hypothetical” or “potential” value for customers that relies on unplanned technology
3 enhancements. The Company’s position is the Security, Reliability, and Resiliency
4 element should not be included in the RVOS model until a time when the benefits to the
5 utility are real and measureable.

6 **Q. Do you agree with RNW’s recommendation that Ancillary Services be considered
7 separately from the Integration element? ⁶**

8 A. No. RNW provides a different definition of Ancillary Services than the one provided by
9 E3. RNW defines Ancillary Services as “a broad array of services that can help system
10 operators maintain a reliable grid with sufficient power quality.”⁷ However, the services
11 described in RNW’s definition seem more appropriately included in the Security,
12 Reliability, and Resiliency element than as their own element. In fact, RNW’s examples
13 of Ancillary Services, frequency response, voltage support, and peak shaving, are very
14 similar to the examples ODOE gives for the Security, Reliability, and Resiliency element
15 and should not be included until a time when the benefits to the utility are real and
16 measureable.

17 **Q. Do you have any other thoughts on RNW’s recommendation that Ancillary Services
18 be considered separately from the integration element?**

19 A. Yes. Based on the difference in definition RNW argues that the RVOS methodology
20 assumes ancillary services are a cost, as opposed to a benefit. It is important to note that
21 the elements included in RVOS can be both costs and benefits of solar. In fact,

⁶ See RNW-OSEIA-NWEC-NW Seed/100, O’Brien/7.

⁷ See RNW, OSEIA, NWEC, NW SEED/100, O’Brien 8

1 depending on other influences there may be times when elements change from a benefit
2 to a cost and vice versa.

3 **Q. Please explain the primary issue raised by CUB concerning the model/inputs.**

4 A. CUB generally agrees with the RVOS model but states it cannot endorse it without a
5 better understanding of the inputs.⁸ CUB is concerned that the RVOS model with a long
6 term rate “does not recognize the value of protecting customers”⁹ in non-normal
7 conditions; the example CUB used was a low hydro year.

8 **Q. How do you respond to CUB’s concern?**

9 A. A long-term RVOS model may fail to capture the changing value of solar as result of
10 many external conditions including market prices, load, and abnormal weather
11 conditions. Rates are typically set on a normalized basis and modeling inputs are
12 normalized through various modeling techniques, such as averaging or using median
13 forecasts. If the RVOS model is updated regularly, changes in such inputs can be
14 captured on a regular basis. Depending on how RVOS will be used, a different timeline
15 for evaluation may need to be considered for different uses.

16 **Q. Idaho Power and PGE both provide recommendations regarding the determination
17 of the value of T&D deferral. Please comment.**

18 A. Generally, we agree to the concept of developing a resource value of solar model that
19 considers the differences of the utilities’ geographic service territory, network design,
20 data availability, system capacity, constraints and the ability of distributed solar
21 generation to defer or avoid the need to make growth-related T&D investments. The

⁸ CUB/100 Jenks-Hanhan/4

⁹ CUB/100 Jenks-Hanhan/5

1 Company does not think that a “one-size fits all” approach needs to be taken when
2 developing a T&D deferral value for all utilities. The valuation should consider the
3 distinct characteristics of each of the Oregon utilities, including distinct service
4 territories, planning procedures, and data availability. We expect these details will be
5 further explored in the next phase of this proceeding.

6 **Q. Does this conclude your testimony?**

7 **A. Yes.**