

November 19, 2014

***VIA ELECTRONIC FILING
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Public Utility Commission of Oregon
3930 Fairview Industrial Drive SE
Salem, Oregon 97302-1166

Attn: Filing Center

**RE: UM 1610 Phase II—Investigation into Qualifying Facility Contracting and Pricing
Response Testimony of PacifiCorp regarding Solar Capacity Contribution**

PacifiCorp d/b/a Pacific Power encloses for filing in this docket the reply testimony of Gregory N. Duvall regarding the solar capacity contribution.

Inquiries may be directed to Natasha Soares, Director, Regulatory Affairs & Revenue Requirement, at (503) 813-6583.

Sincerely,



R. Bryce Dalley
Vice President, Regulation

Enclosure

cc: Service List—UM 1610

CERTIFICATE OF SERVICE

I certify that I served a true and correct copy of PacifiCorp's Phase II Solar Capacity Contribution Response Testimony on the parties listed below via electronic mail and/or US mail in compliance with OAR 860-001-0180.

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Dated this 19th day of November, 2014.

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Docket No. UM-1610
Exhibit PAC/700
Witness: Gregory N. Duvall

**BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON**

PACIFICORP

Response Testimony of Gregory N. Duvall

November 2014

1 **Q. Are you the same Gregory N. Duvall who previously submitted direct**
2 **testimony in this proceeding on behalf of PacifiCorp d/b/a Pacific Power**
3 **(PacifiCorp or the Company)?**

4 A. Yes.

5 **Q. What is the purpose of your response testimony?**

6 A. My testimony responds to the issues raised in the testimony of Brittany Andrus on
7 behalf of Staff of the Public Utility Commission of Oregon (Staff), David W.
8 Brown on behalf of Obsidian Renewables, LLC (Obsidian), and Kacia Brockman
9 on behalf of the Oregon Department of Energy (ODOE). Bill Eddie on behalf of
10 OneEnergy, Inc. did not file testimony, but submitted comments indicating it
11 concurs with the testimony submitted by Obsidian. In my testimony I'll refer to
12 these groups collectively as the Parties.

13 **Q. Did anyone else file testimony?**

14 A. Yes. Robert Macfarlane of Portland General Electric (PGE) and Michael J.
15 Youngblood of Idaho Power Company (Idaho Power) each filed testimony that
16 supported the concepts included in my opening testimony. Both recommend the
17 Commission not adopt the changes requested by Obsidian in its April 2014
18 motion for clarification and supported by the Parties in opening testimony.

19 **Q. Please summarize the proposals made by the Parties regarding the payment**
20 **of capacity to solar qualifying facilities (QFs).**

21 A. Staff argues that the proposal it sponsored, and the Commission approved, in
22 Phase 1 of UM 1610 is incorrect and the long-standing rate design of Oregon's
23 proxy method should be abandoned and replaced by an alternative rate design.

1 Staff's proposed rate design is based on the contention that a solar QF should be
2 paid a set dollar amount for capacity over the course of a year regardless of how
3 many hours it generates during on-peak hours. Based on this novel approach,
4 Staff provides two alternative methodologies for spreading the target capacity
5 dollars across a QF's output to determine a volumetric (i.e. \$/MWh) payment to
6 the QF. Under either alternative, Staff suggests that the \$/MWh payment should
7 be based on a typical solar resource's generation profile from each utility's
8 acknowledged IRP.

9 ODOE and Obsidian both support Staff's proposal to abandon the long-
10 standing proxy method and adopt new methodologies for calculating the solar
11 capacity adder.

12 PGE, Idaho Power and PacifiCorp support the Commission's decision in
13 Phase 1 of UM 1610 and advocate that the changes proposed by the Parties are
14 not appropriate and would result in payments to QFs that exceed avoided costs.

15 **Q. Did any of the Parties present new arguments that you did not already**
16 **anticipate and address in your opening testimony?**

17 A. With respect to the solar capacity adder calculation, no. The Parties' opening
18 testimony supported the assertion that the Commission inadvertently introduced a
19 "double discount" of capacity when it adopted the capacity adder for solar QFs. I
20 addressed the shortcomings of this argument in my direct testimony. The Parties'
21 positions boil down to a proposal that the solar capacity adder should be
22 determined as a fixed dollar amount equal to the cost of an avoided thermal
23 resource adjusted for the solar capacity contribution, and that each solar QF

1 should receive the fixed dollar amount regardless of its actual output during on
2 peak hours.

3 Obsidian also contends that the Company should not be allowed to use the
4 solar capacity contribution of 13.6 percent included in its 2013 IRP, arguing that
5 it should be updated to the higher capacity contribution figures that will likely be
6 included in the Company's 2015 IRP.

7 **Q. Did Staff and ODOE limit their arguments to apply only to the solar capacity**
8 **adder?**

9 A. No. Both indicated that they would make similar arguments later in this docket
10 related to capacity payments under standard avoided costs.

11 **Q. Do you agree with Staff that solar QFs would be undercompensated for the**
12 **value of capacity due to the rate design approved by the Commission in**
13 **Order No. 14-058?**¹

14 A. No. The rate design approved by the Commission in Order No. 14-058 defines
15 avoided costs. Staff argues that if the capacity costs are spread over the on-peak
16 generation of the avoided thermal resource, as has been done for many years, a
17 solar QF will be undercompensated because it is expected to be available for
18 fewer hours than the avoided resource. In my direct testimony, I demonstrated
19 that this is not an unintended consequence, but is a representation of the costs
20 actually avoided by the Company. I will not repeat those arguments here, but the
21 main points are summarized as follows:

22 • Avoided costs during the deficiency period are defined as the cost of a

¹ Staff/300, Andrus/7.

1 proxy resource and are intended to reflect the actual deferral or avoidance
2 of that resource. Applying the adjustment to capacity contribution as
3 approved by the Commission is an appropriate approach to implementing
4 the Commission's decision to include a capacity contribution of less than
5 100 percent for intermittent resources.

- 6 • It is correct to base avoided costs on the characteristics of the resource that
7 is being *avoided*, rather than on the characteristics of the *QF*. The fact that
8 a solar QF is available for fewer hours than the avoided resource compels
9 a lower payment.
- 10 • The proxy thermal resources provide several benefits to the utility that are
11 not provided by a solar QF, including the ability to dispatch the resource
12 on an as-needed basis, the ability to dispatch over the *entire* on-peak
13 period, and the ability to provide operating reserve capacity.

14 **Q. Does Staff's proposal overpay avoided costs?**

15 A. Yes. For many years, the Commission has defined Schedule 37 avoided costs
16 using the same rate design approved by the Commission in Phase 1 of Docket
17 UM 1610. Under the long-standing rate design, solar QFs and wind QFs would
18 receive avoided capacity costs for the on-peak hours they were generating and
19 therefore would not receive 100 percent of the capacity costs associated with the
20 avoidance of a proxy CCCT despite the fact that they were assumed to have a
21 capacity contribution of 100 percent. In Oregon, avoided costs have been defined
22 historically in this manner. Changing the capacity contribution from 100 percent
23 to 13.6 percent should reduce the capacity payment to QFs by 86.4 percent as

1 compared to the previous avoided costs. This is what the Commission ordered in
2 Phase 1.

3 Staff on the other hand has proposed to abandon the Commission-
4 approved rate design and proposes a new methodology that will result in prices
5 that exceed actual avoided costs. For example, assume the capacity contribution
6 remained at 100 percent. Staff's proposal to convert the CCCT capacity dollars to
7 a \$/MWh rate using a typical solar capacity factor rather than the CCCT capacity
8 factor would increase prices to QFs simply by reducing the number of hours over
9 which capacity costs are spread. This change in rate design therefore results in
10 higher prices for the same QF than are currently determined by the Commission
11 to equal avoided costs.

12 In Order No. 14-058, the Commission recognized "that the application of
13 our current [avoided cost] methodology may result in the utility and its customers
14 offering prices in excess of actual avoided costs."² Staff's proposal, as supported
15 by ODOE, Obsidian, and OneEnergy, would further exacerbate the potential for
16 avoided cost payments that exceed utilities' actual avoided costs.

17 **Q. What are the implications of accepting Staff's proposal?**

18 A. The implication is that the Commission has incorrectly set avoided cost prices for
19 years and that all parties that have reviewed Schedule 37 avoided cost prices over
20 the last decade got it wrong. This cannot be possible. Staff's proposal is a
21 significant change in the approved method for setting Schedule 37 avoided cost
22 prices in Oregon which should have been addressed in Phase 1 where all aspects

² Docket UM 1610, Order No. 14-058 at 7 (Feb. 24, 2014).

1 of the avoided cost methodology were open for debate. If the Commission wants
2 to reopen the issue of what methodology ought to be used to set Schedule 37
3 avoided cost prices, then it ought to allow all aspects of the methodology to be
4 addressed. As noted in my direct testimony, there are significant issues with the
5 mismatch of energy quantities between the solar QF and the avoided renewable
6 proxy resource that the Company believes result in overpayment of avoided costs
7 to solar resources. This would certainly be an issue the Company would request
8 be addressed if the Commission wants to address changes to the rate design as
9 proposed by Staff.

10 **Q. Have any other states served by PacifiCorp recognized that solar QFs would**
11 **be overpaid if capacity payments are made to QFs as fixed dollar amounts?**

12 A. Yes. In Utah, the Company recently updated Schedule 37 rates to eliminate fixed
13 capacity payments to all QF types, eliminating the issue of overpaying QFs with
14 low capacity factors. The Utah Public Service Commission approved the updated
15 rates on October 21, 2014. Under the newly approved rates in Utah, capacity
16 dollars are spread to the on-peak hours using the capacity factor of the avoided
17 thermal resource – the same method employed in Oregon for years.

18 **Q. Obsidian advocates developing volumetric rates based on each solar QF**
19 **project's expected annual hours of generation. Is this proposal consistent**
20 **with publishing standard renewable rates in Schedule 37?**

21 A. No. Obsidian's proposal to tailor the standard renewable rates to the individual
22 characteristics of specific QF projects is not compatible with having published
23 Schedule 37 rates available to all QFs that meet the eligibility criteria. Indeed,

1 providing a generic published rate available to all QFs that qualify is the very
2 purpose of Schedule 37. I agree that it is important to account for the unique
3 characteristics of specific QFs, including location and generation profile, but this
4 is only an option under non-standard avoided costs in Oregon.

5 **Q. Obsidian suggests that the avoided costs should be set for each QF based on**
6 **expected production, and that the purchasing utility should be able to adjust**
7 **capacity payments based on actual production. Is this consistent with**
8 **publishing standard renewable rates in Schedule 37?**

9 A. No. Obsidian’s proposal would require adjustments to payments made to QFs
10 after actual production from a specific project is known. Again, it is not clear
11 how this would work given that avoided cost rates under Schedule 37 are
12 determined in advance and available to any QF that meets the eligibility
13 requirements.

14 **Q. How do you respond to Obsidian’s argument that the Commission should**
15 **require the Company to use updated capacity contribution values?**

16 A. Obsidian’s complaints regarding the capacity contribution values, and the
17 appropriate source for such, are not an issue for this portion of Phase 2 in this
18 docket. Obsidian did not raise arguments concerning the capacity contribution
19 values in its motion for clarification. Nonetheless, I find it ironic that Obsidian
20 would argue for an out-of-cycle update to one of the avoided cost inputs when, in
21 Phase 1 of this docket, the Company argued that all inputs to avoided costs should
22 be updated on a frequent basis. In Order No. 14-058 the Commission ordered,
23 “[t]he assumed capacity contribution to peak load would be the contribution

1 estimate used in the utility's acknowledged IRP for the specific type of generation
2 (wind, solar, etc.)."³

3 **Q. Is Obsidian's argument to use updated capacity contribution values**
4 **inconsistent with its argument to implement a rate design that applies**
5 **capacity payments across all hours of an expected solar resource generation**
6 **profile?**

7 A. Yes. The updated capacity contribution values referenced by Obsidian were
8 developed in support of PacifiCorp's 2015 IRP, which will be filed with the
9 Commission in March 2015. These solar capacity contribution values are based
10 on a study that considers hourly loss of load probability data specific to
11 PacifiCorp's system. These data show that hours having the highest loss of load
12 probability, which generally fall within on-peak hours, do not coincide with the
13 highest generation hours from solar resources. The very study used to produce the
14 capacity contribution values that Obsidian argues should be adopted prior to
15 receiving acknowledgement of the 2015 IRP shows that solar resources are not
16 providing capacity at times when PacifiCorp is most likely to need it.

17 **Q. Are there other unrecognized impacts on avoided costs if capacity**
18 **contribution values are updated out of synch with an IRP?**

19 A. Yes. The capacity contribution of intermittent resources assumed in an IRP is an
20 important factor in determining the type and timing of future resource needs. As
21 described by Obsidian, the Company intends to update its capacity contribution
22 values in its next IRP to be filed in 2015. The Company's updated capacity

³ Order 14-058 at 15.

1 contribution values will affect the amount of existing intermittent resources (i.e.
2 the Company's significant wind capacity) that is counted toward the Company's
3 planning reserve margin and will likely impact the timing of the next major
4 thermal resource acquisition. Updating the capacity contribution for avoided cost
5 purposes independent of the downstream impacts of such a change on the IRP,
6 and the next deferrable resource, is inappropriate and would result in avoided cost
7 rates that do not meet the standard of ratepayer indifference.

8 **Q. How large an impact would this be for the Company?**

9 A. If the updated capacity contribution were used, there would be an additional 261
10 megawatts of peak resources available in the IRP based on existing wind projects
11 in the Company's portfolio as of December 31, 2015.

12 **Q. Obsidian states that "PacifiCorp refuses to use the ELCC results until its
13 2015 IRP is acknowledged." Is that an accurate characterization of
14 PacifiCorp's position?**

15 A. No. As described above, PacifiCorp has advocated for frequent updates to
16 avoided cost inputs, including inputs that are not included in an acknowledged
17 IRP. However, the Company's current rates are in compliance with the
18 Commission's order requiring inputs such as the capacity contribution to be
19 consistent with its latest acknowledged IRP.

20 **Q. Do you have any other comments in response to Obsidian's testimony
21 regarding capacity contribution?**

22 A. Yes. Obsidian argues that the "obvious problem is that it is easy for the utilities
23 to provide a [contribution to peak] for renewable solar resources in their

1 respective IRPs that is severely understated. In such case, the entire capacity
2 payment ratemaking exercise would be compromised.”⁴ I disagree with the
3 implication that utilities would intentionally understate the capacity contribution
4 of renewable resources in their IRPs. Development and review of an IRP is a
5 highly visible public process with opportunities for participation and input by
6 interested parties. In addition, the IRP is reviewed and either acknowledged or
7 not by the Commission in an open process. The Company has no incentive to
8 manipulate that process, particularly in a way that will undermine future resource
9 decisions.

10 **Q. Based on your review of the Parties’ opening testimony, do you recommend**
11 **any change to the solar capacity adder?**

12 A. No. The issue before the Commission is whether, after adjusting the capacity
13 contribution from 100 percent to 13.6 percent, a solar QF should get paid for
14 capacity based on a target dollar amount, or if it should get paid for capacity only
15 for the hours it generates during on-peak hours. The Commission should not
16 abandon its long-standing method for calculating the value of capacity, as
17 confirmed in Order No. 14-058, and should not adopt additional changes to the
18 standard renewable avoided cost rates. For non-standard avoided cost rates, the
19 Company continues to advocate replacing the proxy method with a differential
20 revenue requirement that accounts for the unique characteristics of specific QF
21 projects.

⁴ Obsidian/200, Brown/10

- 1 Q. Does this conclude your response testimony?
- 2 A. Yes.