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May 21, 2013

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

Public Utility Commission of Oregon
550 Capitol Street NE, Suite 215
Salem, OR 97301-2551

Attn: Filing Center

Re: Docket UM 1610 – Errata Filing

On February 19, 2013, PacifiCorp d/b/a Pacific Power submitted Supplemental Direct Testimony of Bruce W. Griswold in docket UM 1610.

The Company has since identified an error in the exhibit numbering of this testimony and requests that the enclosed Replacement Supplemental Direct Testimony of Bruce W. Griswold be substituted for the originally-filed Supplemental Direct Testimony of Bruce W. Griswold.

Please contact Joelle Steward, Director of Pricing, Cost of Service and Regulatory Operations, at (503) 813-5542 for questions on this matter.

Sincerely,

A handwritten signature in black ink that reads "William R. Griffith" with a stylized flourish at the end.

William R. Griffith
Vice President, Regulation

Enclosures

Cc: Service List - UM 1610

**ERRATA – REPLACEMENT SUPPLEMENT DIRECT TESTIMONY OF BRUCE W.
GRISWOLD**

1 **Q. Please state your name, business address, and present position with**
2 **PacifiCorp (Company).**

3 A. My name is Bruce W. Griswold. My business address is 825 NE Multnomah
4 Street, Suite 600, Portland, Oregon 97232. I am employed by PacifiCorp as
5 Director of Short-Term Origination and Qualifying Facility (QF) Contracts.

6 **Q. Are you the same Bruce W. Griswold that submitted direct testimony in this**
7 **docket?**

8 A. Yes.

9 **Purpose and Overview of Testimony**

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

11 A. The purpose of my testimony is to respond to Issue 6E listed in Appendix A –
12 Issues List to Chief Administrative Law Judge Michael Grant’s December 21,
13 2012 Ruling.

14 **Q. Please summarize your testimony.**

15 A. The Company proposes to increase the guaranteed availability in its QF power
16 purchase agreements (PPAs) to 90 percent beginning in contract year three
17 through the remaining term of the PPA. The Company also proposes to reduce
18 allowed scheduled maintenance to 60 hours per wind turbine per year. Both are
19 within the limits set in recent PPAs that resulted from the Company’s renewable
20 request for proposals (RFP) as well as recent QF PPAs executed in other
21 jurisdictions.

1 Issue 6E. How should contracts address mechanical availability?

2 **Q. How do QF contracts enforce delivery obligations?**

3 A. In the Company's experience, there are two general approaches; (i) an output
4 guarantee that may or may not be coupled with a generation resource availability
5 guarantee, or (ii) a mechanical availability guarantee (MAG).

6 **Q. Please describe the output guarantee approach.**

7 A. Under an output guarantee, the seller could be required to pay the buyer for
8 replacement power if the QF's net output over a specified period fails to meet the
9 output guaranteed agreed to under the QF PPA. The output guarantee can be
10 calculated monthly, annually, or seasonally. If the seller fails to meet the output
11 guarantee over a one to two-year continuous period, the Company has the
12 contractual right to place the QF in default. If the QF does not cure the output
13 guarantee within a defined cure period then the Company may terminate the QF
14 PPA. Under Oregon standard QF PPAs, there is one additional requirement prior
15 to terminating a QF PPA for default. Under the standard contract, the QF PPA
16 cannot be terminated if the Company is within the resource sufficiency period as
17 defined by the Schedule 37 avoided cost prices pertaining to that QF PPA. The
18 QF is still responsible to pay liquidated damages for under-delivery as a result of
19 the nonperformance under the output guarantee.

20 **Q. When is the output guarantee approach used?**

21 A. An output guarantee provision in the QF PPA is currently used with all QF
22 resources except wind QFs and QFs delivering power on a non-firm basis.

1 **Q. Please describe the MAG guarantee approach.**

2 A. Under the MAG approach, the mechanical availability is tied to the availability of
3 the wind turbines in the specific project. The QF PPA under a MAG is required
4 to be mechanically available for a guaranteed percentage of the time, after
5 excluding hours lost to force majeure and an allowance for scheduled
6 maintenance hours. Because of the wind's intermittency, the percentage of time
7 the turbine is actually producing energy will be lower than the MAG.

8 **Q. Why does the Company use the MAG approach for wind QFs?**

9 A. In general, the Company's preference is to have an output guarantee that
10 guarantees a fixed megawatt hour over a percentage of time instead of a MAG
11 guarantee which guarantees that the wind projects will be mechanically available
12 for a fixed percentage of time rather than actual megawatt hours. However, in the
13 Company's experience, wind powered generation QFs are unwilling or unable to
14 provide an output guarantee and will only provide a MAG. As a result, the
15 Company currently utilizes the MAG approach for wind QFs. If a wind QF was
16 willing to provide an output guarantee then the Company would be willing to
17 consider an output guarantee approach instead of a MAG approach.

18 **Q. Is there an industry standard MAG for wind projects?**

19 A. No. At present, there is no industry standard MAG and there is no industry
20 standard formula to calculate MAG. However, the North American Electric
21 Reliability Corporation (NERC) currently has a voluntary reporting program, the
22 Generating Availability Data System (GADS), in place and it is widely
23 anticipated that NERC will require owners of wind projects to report outage data

1 in the future¹. As such, it may be possible in the future to use a standardized
2 NERC outage formula to determine the MAG.

3 **Q. Does the Company recommend increasing the MAG in its standard QF**
4 **contracts?**

5 A. Yes, the Company has found that the MAG threshold or the guaranteed
6 availability as stated in its standard PPA is too low. The Company's guaranteed
7 availability in its standard PPA is defined as:

8 Guaranteed Availability. Seller guarantees that the annual Availability of
9 the Facility (the "**Guaranteed Availability**") for (i) the first Contract
10 Year shall be no less than 0.80, and (ii) for the second Contract Year shall
11 be no less than 0.85. Beginning with the third Contract Year and for each
12 Contract Year thereafter, the Guaranteed Availability for each Contract
13 Year shall be 0.875, with such annual Availability to be calculated for
14 purposes of this Section 4.3.1 for each Contract Year.

15 The Company recommends that for new wind QF contracts, the Guaranteed
16 Availability be increased to 0.90 for Contract Year 3 and all remaining Contract
17 Years of the term of the PPA. For existing QF wind projects that are renewing a
18 PPA or have previously had a PPA with another utility, the Guaranteed
19 Availability should be set at 0.90 in Contract Year 1 for each year of the term of
20 the PPA. The change is consistent with the most recent Guaranteed Availability
21 levels (consistent with the definition of a MAG for QFs) used in the Company's
22 renewable request for proposals and, in the Company's experience, wind QFs
23 have consistently demonstrated an ability to meet these levels of Guaranteed
24 Availability after excluding hours lost to force majeure and scheduled
25 maintenance.

¹ NERC, GADS Wind Turbine Generation – Data Reporting Instructions, Version 1.1.0, effective January 2011.

1 **Q. Does the Company intend to use this same level of guaranteed availability for**
2 **its non-standard QF contracts?**

3 A. Yes, the Company intends to apply the same MAG threshold or the guaranteed
4 availability as described above to any Schedule 38 non-standard QF PPA.

5 **Q. Are there other recommendations the Company proposes that affect the**
6 **MAG calculation for its QF contracts?**

7 A. Yes, the Company's current definition for availability in Section 1.2 of the
8 standard QF PPA allows 240 hours per year per wind turbine for scheduled wind
9 turbine maintenance. The Company proposes to reduce the allowed scheduled
10 maintenance hours for individual turbines to 60 hours per year per turbine which
11 is consistent with its recent renewable RFP PPAs and QF PPAs in other
12 jurisdictions. The Company's most recent experience when evaluating the
13 availability of its QF PPAs is that a Guaranteed Availability of 0.90 beginning in
14 Contract Year 3 and turbine maintenance hours of 60 or less per year is
15 reasonable.

16 **Q. Does this conclude your supplemental direct testimony?**

17 A. Yes.

Docket No. UM-1610
Exhibit PAC/203
Witness: Bruce W. Griswold

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

PACIFICORP

Supplemental Direct Testimony of Bruce W. Griswold

May 2013

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14 Contract Year 3 and turbine maintenance hours of 60 or less per year is
15 reasonable.

16 **Q. Does this conclude your supplemental direct testimony?**

17 A. Yes.

CERTIFICATE OF SERVICE

I certify that I served a true and correct copy of PacifiCorp's Errata Filing in the Investigation into Qualifying Facility Contracting and Pricing on the parties listed below via electronic mail and/or US mail in compliance with OAR 860-001-0180.

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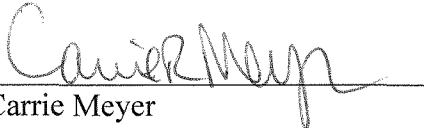
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Dated this 21st day of May 2013.


Carrie Meyer
Supervisor, Regulatory Operations