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June 5, 2009

***VIA ELECTRONIC FILING  
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Oregon Public Utility Commission  
5500 Capitol Street NE, Ste 215  
Salem, OR 97301-2551


Attn: Filing Center

**RE: UM-1368 – PacifiCorp’s Request for Proposal 2008R-1  
Reply Comments to the Oregon Independent Evaluator’s Closing Report**

Enclosed for filing by PacifiCorp d/b/a Pacific Power in the above referenced matter is the original and one copy of PacifiCorp’s Reply Comments to the Oregon Independent Evaluator’s Closing Report.

Please direct any informal inquiries to Joelle Steward, Regulatory Manager, at (503) 813-5542.

Sincerely,

  
Andrea L. Kelly  
Vice President, Regulation

Enclosures

cc: Service List in UM-1368

## CERTIFICATE OF SERVICE

I hereby certify that I served a true and correct copy of the foregoing document in Docket No. UM 1368 on the following named person(s) below by e-mail and first-class mail addressed to said person(s) at his or her last-known address(es) indicated below:

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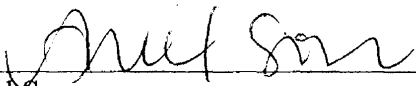
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DATED: June 5, 2009.

  
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Ariel Son  
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**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1368**

In the Matter of PacifiCorp’s Request for  
Approval of a 2008R-1 Solicitation  
Process for New Renewable Resources

**PACIFICORP’S REPLY COMMENTS**

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**I. INTRODUCTION**

In anticipation of the public meeting scheduled in this docket on June 16, 2009, PacifiCorp d/b/a Pacific Power (“PacifiCorp” or “Company”) respectfully provides the following reply comments to the Oregon independent evaluator’s (“IE”) closing report (“Report”) on the Company’s 2008R-1 renewable resource request for proposals (“2008R-1 RFP”).

**II. REPLY COMMENTS**

As an initial matter, PacifiCorp commends the IE on its thorough analysis and generally agrees with the findings and conclusions contained within the Report. PacifiCorp does, however, disagree with several of the assertions made in the report with respect to an alleged bias toward the selection of build-own-transfer (“BOT”) bids. The Company provides the following reply comments to those assertions in an effort to provide a more complete record.

**A. Predicted Wind Production**

Although the Report concurs with the selection of the 2008R-1 RFP final shortlist and recommends acknowledgment, the IE suggests that PacifiCorp should analyze issues that the IE believes could bias selection toward BOT bids. The first such issue is predicted wind production. Specifically, the Report states:

1 Studies by several of the leading wind power firms comparing predicted  
2 wind production to actual production have shown that *current methods* of  
3 estimating production typically overstate potential generation by between  
4 5 and 10 percent. The reasons for this underperformance include (a) lower  
5 than expected availabilities due to poorer than expected turbine  
6 performance, and limited maintenance capabilities, (b) variations in year-  
7 to-year wind performances, (c) errors in estimating aspects such as wake  
8 effects, and (d) the use of an average-probability performance standard.  
9 We have attached three articles relating to this issue as Attachment 5.

10 Report at p. 23 (emphasis added).

11 PacifiCorp believes this statement is a mischaracterization of the information  
12 contained in the articles cited by the IE<sup>1</sup>. Specifically, the articles do not, as claimed by  
13 the IE, evaluate *current methods* of estimating energy production. Rather, the articles  
14 focus on past estimates of wind projects (primarily located in Texas) that were placed in  
15 operation prior to 2007.<sup>2</sup> This distinction is significant when considering that all three  
16 articles clearly indicate that estimation methods employed by wind production  
17 consultants are continually evolving—and have evolved since the estimates were  
18 performed. Moreover, as evidenced by the following statements from the articles, the  
19 consulting industry has made adjustments to their past methods to reflect advances in  
20 contemporary methodologies:

21 [Grand Hassan, Inc. (“GH”)] has undertaken a rigorous evaluation of what  
22 elements of energy analysis may lead to a bias in the result. This has

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<sup>1</sup> The three articles referenced by the Report are as follows: (1) Clint Johnson, Andrew Tindal, Marc LeBlanc, AnnMarie Graves and Keir Harman of Grand Hassan America, Inc., Oral presentation at the 2008 AWEA Windpower Conference, Houston Texas: *Validation of GH North American Energy Predictions by Comparison to Actual Production* (June 2008) (“GH Article”); (2) Eric White, Dan Bernadett and Glen Benson of AWS Truewind, Oral presentation at the 2008 AWEA Windpower Conference, Houston Texas: *Understanding and Closing the Gap on Plant Underperformance* (June 2008) (“AWS Article”); and (3) Jesse Broehl, *A Critical Gap in the Knowledge Bank*, Windpower Monthly, January 2009 (“Windpower Monthly Article”).

<sup>2</sup> For example, the GH Article specifically points out that GH focused particularly on wind performance in 2007; a year reported in another article provided by the IE as being the worst wind speed year in 15 years. See Windpower Monthly Article at p. 61. GH focused on 2007 because the number of wind farms in its database in any given year for years prior to 2007 is somewhat limited. See GH Article at p.3.

1 involved a very detailed assessment of the 10 minute SCADA data from  
2 where a range of North American and other wind farms. *This process has*  
3 *identified areas where there is potential for bias to be introduced, and*  
4 *where appropriate, amendments have been made to assumptions and*  
5 *methodologies.*

6 Clint Johnson, Andrew Tindal, Marc LeBlanc, AnnMarie Graves and Keir Harman of  
7 Grand Hassan America, Inc., Oral presentation at the 2008 AWEA Windpower  
8 Conference, Houston Texas: *Validation of GH North American Energy Predictions by*  
9 *Comparison to Actual Production* (June 2008) (“GH Article”) at p. 3. (emphasis added)

10 Most seem to agree the gap being seen today is partly a vestige of less  
11 refined approaches to measurement and prediction years ago compared to  
12 what is *de rigueur* today. ‘[a] little bit of where we’re at is not as bleak as  
13 it looks. Most of us have been making changes as we go, trying to  
14 improve our methods’ . . . ‘[t]he bulk of the projects we’re evaluating were  
15 designed in 2000 and that’s not how we design them today.’

16 Jesse Brochl, *A Critical Gap in the Knowledge Bank*, Windpower Monthly,  
17 January 2009 (“Windpower Monthly Article”) at p. 61. (emphasis added)

18 In short, the Report’s claim that current methods of estimating production  
19 typically overstate potential generation is unfounded, since no data was provided using  
20 the most recent methods of estimating production.

21 **B. Assignment of Wind Underperformance Risk**

22 The Report goes on to note that the risk of wind underperformance in power  
23 purchase agreements (“PPA”) is assigned to the bidder “because they are only paid for  
24 their output.” Report at p. 23. Conversely, the Report states that such underperformance  
25 for wind BOTs “is assigned to the ratepayers, since they will pay the same capital and  
26 O&M costs regardless of output.” *Id.* Presumably, this perceived difference is the IE’s  
27 basis for the alleged bias towards BOTs. The IE’s assumption that operation and  
28 maintenance (“O&M”) and capital costs would flow-through directly to customers  
29 underscores an inherent misunderstanding with respect to basic utility rate making  
30 principles.

1           Although PacifiCorp would have the opportunity to seek recovery of costs  
2 incurred to procure a wind BOT; the Company has no guarantee of such recovery, and its  
3 shareholders ultimately bear the risk of its decisions. In seeking recovery, PacifiCorp is  
4 subject to a highly scrutinized and fully litigated proceeding, whereby parties have the  
5 right to question underlying assumptions, including performance estimates.

6           A misunderstanding of the rate making process is further underscored by the  
7 Report's failure to acknowledge that wind energy estimates impact the Company via net  
8 power costs, regardless of whether a PPA or BOT is selected. For example, a flawed  
9 PPA energy estimate could inappropriately harm the Company, since it is the Company  
10 that also bears the risk of underperformance. If the actual generation is less than  
11 represented by the bidder, the planned use of transmission is de-optimized and the  
12 Company bears the risk of balancing the shortfall with other higher-cost generation or  
13 market purchases. This demonstrates that the risk associated with a PPA does not solely  
14 reside with the entity that owns the PPA asset. This asymmetry currently exists,  
15 notwithstanding the established regulatory principle of cost recovery for prudently  
16 incurred PPA costs. Moreover, such risk asymmetry highlights the potential need for  
17 stronger production or liquidated damage guarantees for PPAs, in order to achieve an  
18 appropriate risk/reward balance in the cost recovery process. This need is necessitated  
19 because, in the case of a PPA, the Company is effectively required to guarantee PPA  
20 output; something that PPA counterparties have steadfastly refused to do.

21           Likewise, an over-estimate of production for a BOT could also harm the  
22 Company via net power costs because the value of the zero cost energy is assigned to  
23 customers, leaving the Company to bear underperformance risk. The Commission has

1 previously discussed the distinction between wind estimates for prudence review versus  
2 wind estimates used during the rate setting process:

3           Although the estimated capacity factor at the time of project approval is  
4           dispositive for purposes of prudency review, it is not dispositive for  
5           purposes of forecasting resource availability for ratemaking purposes.

6 *Re PacifiCorp Renewable Adjustment Clause*, Docket UE 200, Order No. 05-548 at p. 21.

7           Ultimately, the Company believes that any comments regarding ratemaking  
8           treatment are premature and should be addressed within the appropriate ratemaking  
9           process. In that setting, parties have an opportunity to complete the record pursuant to  
10          established ratemaking principles; not based on the IE’s perception of how rates are set  
11          and risks are allocated.

12           **C.     Asset Life**

13          The Report also asserts that PacifiCorp’s assumptions regarding wind project  
14          asset life (25 years) may be “optimistic,” thereby biasing selection toward BOT bids.  
15          Report at 24. In support of this assertion, the IE points to the fact that only one PPA  
16          bidder in the 2008R-1 RFP offered a contract term greater than 20 years, “suggesting that  
17          20 years is what the market believes to be the asset life of these turbines.” *Id.* The  
18          Report also cites to reports from the Department of Energy (“DOE”) and the Global  
19          Wind Energy Council, which according to the IE, “suggest that 20 years may actually be  
20          closer to the asset life of wind turbines.” *Id.*

21          PacifiCorp disagrees with the Report’s assertion regarding asset life. A single  
22          data point in a single RFP provides insufficient justification to assert what the market  
23          believes to be the asset life of turbines. Rather, it is just as likely that bidders propose 20-  
24          year PPAs at prices set to recover 100 percent of project costs during the term; leaving



1 the asset owner to benefit from the remaining residual value. Indeed, one of the largest  
2 wind developers in the market (PPM Energy) has provided their perspective<sup>3</sup>, clearly  
3 stating that there are financial benefits associated with residual value beyond a 20-year  
4 PPA.

5 As noted above, the IE cites a DOE report<sup>4</sup> to support its assertion that “20 years  
6 may actually be closer to the asset life of turbines.” In relevant part, the DOE states:

7 Because wind turbines typically have a service life of **at least 20 years**  
8 and transmission lines can last more than 50 years, investments in  
9 achieving 20% wind power by 2030 could continue to supply clean energy  
10 through at least 2050.

11 U.S. Department of Energy, *20% Wind Energy by 2030: Increasing Wind Energy’s*  
12 *Contribution to U.S. Electricity Supply* at p. 16 (July 2008) (emphasis added)

13 In reality, the DOE report indicates that the typical life of a turbine is *at least 20*  
14 years, not as implied by the IE, that the typical life *is* 20 years. Moreover, PacifiCorp  
15 agrees with the DOE that wind projects are a collection of assets consisting of various  
16 asset lives. For example, as noted above, transmission, substation and other wind project  
17 infrastructure are generally regarded as having lives in excess of 30 years.

18 The Company believes that 25 years is a valid asset life for wind projects and has  
19 documented the same in its most recent depreciation rate study, which was approved by  
20 the Oregon Public Utility Commission. *See Re PacifiCorp Petition to File Preliminary*  
21 *Depreciation Study*, Docket UM 1329, Order No. 08-427. No party to any of the  
22 Company’s ratemaking proceedings has suggested a shorter life.

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<sup>3</sup> See “PPM Energy Roundtable,” viewable at  
[http://www.scottishpower.com/uploads/PPMRoundtableShow\(1\).pdf](http://www.scottishpower.com/uploads/PPMRoundtableShow(1).pdf) at p. 31.

<sup>4</sup> U.S. Department of Energy, *20% Wind Energy by 2030: Increasing Wind Energy’s Contribution to U.S. Electricity Supply* at p. 16 (July 2008).

1 Notwithstanding PacifiCorp's objections to certain aspects of the Report stated  
2 herein, the Company has committed that, at the time it makes its ultimate procurement  
3 decision, it will conduct an analysis that quantifies the risks related to capacity factor and  
4 asset life and shows how those risks were reflected in their final decision. PacifiCorp  
5 will present this analysis when it comes to the Commission for rate recovery.

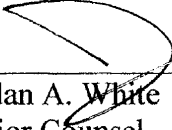
### 6 III. CONCLUSION

7 While the Company agrees with the IE that a prudent wind estimate is necessary,  
8 it disagrees with the IE's assertion that contemporary wind estimates are inherently  
9 biased. Specifically PacifiCorp does not agree that contemporary wind estimates, for  
10 regulatory or any other reason, provide a bias in favor of BOT bids. The Report does  
11 highlight the importance of demanding wind estimates based on contemporary methods  
12 from all bidders and, in particular, may lead to the need to further examine the current  
13 ratemaking risk asymmetry associated with PPAs. Because of these realities, the  
14 Company has taken proactive steps to require that all bidders (PPA, BOT or otherwise)  
15 supply valid production forecasts.

16 Finally, the Company does not agree with the IE's assertion that 25 years is an  
17 optimistic life for wind resources. The Company has studied this subject in its most  
18 recent depreciation study and has arrived at 25 years based on a prudent assessment. No  
19 party has challenged this assessment and the IE fails to present any evidence to the  
20 contrary.

21 PacifiCorp appreciates the opportunity to supplement the record by providing  
22 these reply comments and looks forward to working with the Commission and its Staff to  
23 accomplish a successful 2008R-1 RFP.

DATED: June 5, 2009.



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