## **BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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In the Matter of the Application	
of PacifiCorp for Approval	
of an IRP Based Avoided Cost	
Methodology for QF Projects	
Larger than 1 MW	

Docket No. 03-035-14

## SUPPLEMENTAL REBUTTAL TESTIMONY OF GREGORY N. DUVALL TO THE DIRECT TESTIMONY OF RICHARD COLLINS

September 2005

Q. Are you the same Gregory N. Duvall that filed direct and rebuttal testimony
 in this case?

3 A. Yes.

4 Q. What is the purpose of your testimony?

5 A. I address some of the issues raised by Dr. Richard Collins on behalf of Wasatch
6 Wind in his direct testimony.

## 7 Q. Would you please summarize your rebuttal testimony?

- A. I will show that Dr. Collins' criticism of the DRR is unfounded. I will also show
  that choosing between the DRR and Proxy methods on the basis of simplicity of
  the method is not appropriate since the two methods produce significantly
  different results. In fact, it is the simplifying assumptions contained in the Proxy
  that lead to the inaccuracy of the Proxy method.
- 13 The DRR method is superior to the proxy method

14 Q. Rich Collins in his testimony states the Company's proposal fails on three
15 counts. Do you agree with his comment?

- A. No. He states: first that the DRR method is not entirely consistent with the IRP
  model; second that the Company's results do not support the conclusions drawn
  from the IRP; and third that the DRR method does not meet the principle of
  parsimony known as Ockham's Razor because it is overly complex and is difficult
  to both run and interpret. All three of the statements are incorrect.
- 21 Q. Is the DRR method consistent with the Company's 2004 IRP report?
- A. Yes, the DRR method is, unlike the proxy method, consistent with the Company's
- 23 IRP report. Dr. Collins tends to imply that the methodology that most closely ties
  - Page 1 Supplemental Rebuttal Testimony of Gregory N. Duvall to the Direct Testimony of Richard Collins

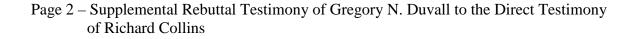
24 to the IRP study is the method that should be utilized. Although consistency with 25 the Company's IRP is important, what is more important is how well the method estimates the Company's avoided costs. The proxy method assumes that the 26 27 proxy resource (the next deferrable IRP resource) will be the lowest cost resource 28 in all hours. This is a simplifying assumption that is not true. The proxy resource 29 will be used only during hours when it is economical to do so. During other 30 hours, the proxy resource would be backed down or would be shut off and the 31 Company's other lower cost resources would be used to supply energy. The IRP 32 and the DRR both account for these operational realities, while the Proxy method 33 does not. Thus, it is the proxy method that is not consistent with the IRP.

## 34 Q. Does the DRR method make this same simplifying assumption?

A. No. The DRR method is based upon two GRID production costs runs. Thus, GRID determines in which hours the IRP resource should be operated and in which hours the IRP resource should not be operated. Avoided costs calculated using the DRR method correctly value QF power in all time periods. In addition, unlike the proxy method, which assumes that all avoided energy will come from the IRP resource, the DRR method's GRID run determines which resources or combination of resources will be displaced by the QF resource.

42 Q. Dr. Collins's second issue with the DRR method is that the Company's
43 results do not support the conclusions drawn from the IRP report. Please
44 comment.

45 A. This is an overly broad conclusion that seems to be based on Dr. Collin's belief
46 that if the DRR method does not result in the acquisition of 1400 MW of wind



47 resources as described in the IRP, then it does not support the conclusions drawn 48 from the IRP. This claim could be made of any QF methodology. Acquiring 49 wind resources through the Public Utilities Regulatory Policy Act (PURPA) is 50 only one way to meet the IRP action plan and it is unknown how much wind 51 resource will be acquired by QFs using the avoided cost prices that result from 52 this proceeding. Other means, however, are available to Utah wind developers to 53 sell the output of their projects to the Company. For example, the Company 54 recently conducted a renewable Request for Proposal (RFP) as described in the 55 rebuttal testimony of Mr. Griswold.

Q. The principle of parsimony known as Ockham's Razor would suggest that if
two or more models or methods yield essentially the same results, the less
complex of the methods is preferable<sup>1</sup>. Do the DRR and Proxy method
produce the same results?

A. No, not across a range of QF operating criteria as discussed above. The results
are equal only in the unlikely circumstance where the QF has the same operating
characteristics as the IRP resource. Under all other circumstances, the Proxy
method will tend to overstate avoided costs since it does not account for the
impact of how the QF will interact with the existing power system. This renders
the principle of parsimony inapplicable when deciding between the DRR and the
Proxy method.

- 67 Q. Does this conclude your rebuttal testimony?
- 68 A. Yes.

<sup>&</sup>lt;sup>1</sup> Direct Testimony of Artie Powell, Page 5, line 79.

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