

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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	)	<b>DOCKET NO. 09-035-23</b>
	)	<b>Exhibit No. DPU 14.0 SR</b>
<b>In the Matter of the Application of Rocky</b>	)	
<b>Mountain Power for Authority to</b>	)	
<b>Increase Its Retail Electric Service Rates</b>	)	
<b>in Utah and for Approval of Its Proposed</b>	)	<b>Surrebuttal Testimony and</b>
<b>Electric Service Schedules and Electric</b>	)	<b>Exhibits</b>
<b>Service Regulations</b>	)	<b>Charles E. Peterson</b>
	)	
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**FOR THE DIVISION OF PUBLIC UTILITIES  
DEPARTMENT OF COMMERCE  
STATE OF UTAH**

**Surrebuttal Testimony of**

**Charles E. Peterson**

**November 30, 2009**

1 **Q. Please state your name and occupation?**

2 A. My name is Charles E. Peterson. I am employed by the Utah Division of Public  
3 Utilities (“Division” or “DPU”) as a Technical Consultant.

4  
5 **Q. Did you previously submit Direct Testimony regarding adjustments to rate base  
6 for two Wyoming wind projects in this proceeding?**

7 A. Yes. I submitted Direct Testimony on October 8, 2009.

8  
9 **Q. What is the purpose of your testimony?**

10 A. I am responding to Mr. McDougall’s rebuttal testimony regarding my revenue  
11 adjustment for Company B revenues. I am also responding to Mr. Lasich’s rebuttal  
12 testimony regarding my direct testimony.

13

14 **Q. What is your response to Mr. McDougall’s rebuttal testimony?**

15 A. Mr. McDougall suggests that the Company is willing to accept my adjustment if the  
16 revenue is applied only for the last six months of the test year. This raises an issue  
17 regarding what data the test year should include: whether it should reflect, as nearly  
18 as possible, what is expected to happen during the test year (e.g. Mr. McDougall’s  
19 adjustment for Company B revenue), or whether it should reflect what is thought to  
20 most likely occur in the rate-effective period. I do not intend to try to resolve this  
21 question here. However, given that there can be arguments either way, the Division  
22 elects to accept Mr. McDougall’s adjustment in this docket.

23 **Q. Mr. Lasich contends that your analysis is flawed because of your position that**  
24 **larger wind projects should display economies of scale compared to similarly**  
25 **situated smaller projects. Do you have any comments on that assertion?**

26 A. I did not contend that these economies of scale necessarily always would manifest  
27 themselves, but I indicated that this was the expectation. If you have a project and  
28 divide it up into different phases, as the Company seems to have done, and you put  
29 the costs of much of the basic infrastructure, such as roads, transmission lines,  
30 substations, on the first phase then it is likely that the first phase will have a higher  
31 per unit cost than the subsequent phases. This is what I understand to be the essence  
32 of Mr. Lasich's argument: those subsequent phases of the projects under  
33 consideration had lower per unit costs because fewer cost items were accounted to  
34 them.

35

36 **Q. What other points does Mr. Lasich raise?**

37 A. As an additional point, Mr. Lasich states that “[b]ecause each project is the result of  
38 distinct resource acquisition decisions taken at different points in time, it is intuitive  
39 to expect that there would be variances for other reasons...”<sup>1</sup> He also suggested that  
40 my direct testimony was like comparing the costs of combined cycle combustion  
41 turbines (CCCT) with simple cycle combustion turbines (SCCT).<sup>2</sup> Finally he makes  
42 some comments regarding Dr. Joni Zenger's direct testimony and my direct  
43 testimony.

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<sup>1</sup> Confidential Rebuttal Testimony of A. Robert Lasich, lines 470-472.

<sup>2</sup> Ibid. lines 483-493.

44

45 **Q. Do you have replies to these additional comments of Mr. Lasich?**

46 A. Yes. Confidential DPU Exhibit 14.1SR sets forth the dates that approvals for these  
47 projects were submitted and the dates of the project's completion. While the request  
48 for additional, and smaller, phases of the projects (i.e. McFadden Ridge I and Seven  
49 Mile Hill II, and Glenrock III) tended to be a year or so after the first phase, the  
50 completion dates were all similar, implying that construction was going on  
51 concurrently. While I have evidence that the turbines were acquired at separate times,  
52 which I adjusted for, it seems likely that much of the other costs were incurred  
53 concurrently. Except for the procurement of turbines, it appears that the other costs  
54 would be generally similar for the adjacent projects.

55

56 With respect to the CCCT/SCCT comparison, a more accurate comparison would  
57 have been to suppose you install a plant with five CCCTs and then build another plant  
58 with one CCCT; with all of the CCCTs being the same make, model and size. The  
59 general expectation would be that the cost per CCCT would be higher for the second  
60 plant with one CCCT.

61

62 **Q. After reading Mr. Lasich's rebuttal testimony, do you still believe that the**  
63 **economies of scale argument should still hold for the Rolling Hills and High**  
64 **Plains projects?**

65 A. I believe that Mr. Lasich has raised a valid point with respect to these particular  
66 projects. It appears that I erred in not viewing these five “projects” as phases of three  
67 projects. Indeed this is highlighted further if I expand the projects to include Glenrock  
68 I and Seven Mile Hill I phases, that were not part of the original analysis. Viewing  
69 these “projects” as phases of three projects leads to the conclusion that as three  
70 projects they have similar per unit costs. Confidential DPU Exhibit 14.2SR shows  
71 that the “Total Glenrock” and the “Total High Plain” costs are nearly identical. While  
72 the “Total Seven Mile Hill” project is somewhat lower than the other two, it is not so  
73 much so as to make believe there is a material difference, especially given the  
74 different location for Seven Mile Hill.<sup>3</sup>

75

76 **Q. Based upon Mr. Lasich’s rebuttal testimony and this additional analysis, what is**  
77 **the status of the adjustment you recommended in your Direct Testimony**  
78 **regarding these wind projects?**

79 A. I am withdrawing the adjustments on these wind farms.

80

81 **Q. Do you have any other comments regarding these wind projects?**

82 A. Yes. DPU Exhibit 14.3SR is a page from the U.S. Department of Energy’s “2008  
83 Wind Technologies Market Report” dated July 2009. At the top of page 35 of this  
84 report is a bar chart showing the average and range of per unit costs of wind projects  
85 built in different regions of the United States in 2007 and 2008. Of note is that the

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<sup>3</sup> Glenrock I and Seven Mile Hill I had nearly the same turbine-only costs as Rolling Hills. Therefore, as I did in my Direct Testimony for Rolling Hills, I adjusted the turbine-only cost for Glenrock I and Seven Mile Hill I to put them on a comparable basis with the other project phases.

86 highest cost for a wind project built in the Mountain region is about \$2,100 per kW;  
87 the average is about \$1,750. New England had the most expensive project. While not  
88 compelling evidence, it is curious that the PacifiCorp Wyoming wind projects cost  
89 about [REDACTED] than the highest project shown for the Mountain region.  
90 This suggests an area for future research.

91

92 **Q. If an adjustment were made to bring the PacifiCorp projects to the \$2,100/kW**  
93 **cost, what would that be?**

94 A. It would amount to a rate base adjustment of about [REDACTED].<sup>4</sup>

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96 **Q. Are you advocating making this adjustment?**

97 A. No. Further research would be necessary to ascertain the validity of such an  
98 adjustment.

99

100 **Q. Does that conclude your testimony?**

101 A. Yes.

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<sup>4</sup> 482 MW (project size) x 1000 (to convert to kW) x [REDACTED]