

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of :
PacifiCorp for Approval of an IRP-based : **Docket No. 03-035-14**
Avoided Cost Methodology for QF :
Projects Larger than Three Megawatts :
:

SUPPLEMENTAL TESTIMONY OF

RICHARD COLLINS
ON BEHALF OF
WASATCH WIND, LLC
OCTOBER 7, 2005

1 **Q. ARE YOU THE SAME RICHARD COLLINS THAT FILED DIRECT,**
2 **REBUTTAL AND SURREBUTTAL TESTIMONY IN THIS DOCKET ON**
3 **BEHALF OF THE COMMITTEE OF CONSUMER SERVICES?**

4 A. Yes I am.

5 **Q. WHAT IS THE PURPOSE OF THIS SUPPLEMENTAL TESTIMONY?**

6 A. The purpose of this testimony is to respond to Christine Watson-Mikell's public witness
7 testimony filed on September 27, 2005, and to respond to the public testimony submitted
8 on behalf of Mountain West Consulting, LLC.

9 **Q. PLEASE SUMMARIZE YOUR TESTIMONY?**

10 A. Wasatch Wind has reviewed Ms. Watson-Mikell's testimony, including her exhibit
11 marked Public Witness 1, and we support the analysis and urge the Commission to
12 consider her evidence when deciding the Schedule 38 avoided cost methodology. With
13 regard to Mountain West Consulting's testimony and the attendant Exhibit entitled, "Utah
14 Proposed Capacity Payment Method for Wind", by Michael Milligan, consultant to
15 NREL, Wasatch Wind agrees with NREL's conclusion that the Effective Load Carrying
16 Capability ("ELCC") an appropriate method to determine the capacity value of wind
17 projects but that the Company's application of this technique underestimates the value
18 that wind resources provide in terms of contributions to capacity. A wind facility that
19 operates at a 35% capacity factor in on-peak hours should receive a 35% capacity
20 payment.

21 **Q. WHAT IS THE PURPOSE OF MS. WATSON-MIKELL'S EXHIBIT?**

1 A. Ms. Watson-Mikell modified the Company-build option model submitted by Wasatch
2 Wind and supported by the other parties in this case. The model shows the levelized cost
3 of energy to build a Company-owned wind energy resource. It shows the necessary price
4 that the Company and its consumers would incur to develop the wind resource. Ms.
5 Watson-Mikell's analysis is germane to this proceeding. It provides the model's outcome
6 for seven specific wind resources which could be developed. It provides real life
7 examples of possible Company-build options. She uses data from the Company's own
8 IRP as well as updated and realistic information on costs and capacity factors. She
9 examines the direct investment costs for generation, the associated transmission and the
10 capacity factor associated with each project. This testimony provides evidence of
11 realistic numbers and enforces Wasatch Wind's testimony that the use of this model
12 requires consistency when choosing the assumed quantification of the critical inputs to
13 the model. They must represent the same potential project; the Commission can not mix
14 and match assumptions if it wishes to endorse a logically consistent methodology.

15 **Q. WHAT DATA DOES MS. WATSON-MIKELL USE?**

16 A. Ms. Watson-Mikell uses a variety of real field data and data from the Company's own
17 IRP to make her calculations. This can be compared to other witnesses assumed inputs
18 that yield different results. It should be noted that in most every case, the data and
19 assumptions are consistent with a given project and are adjusted for known results in the
20 field.

21 **Q. ARE THE INPUTS VALID? ARE HER ASSUMPTIONS REALISTIC?**

1 A. Yes, they are. The Commission should review the credentials of Ms. Watson-Mikell, this
2 is no ordinary public witness, The Commission should take note of the witness's
3 background; she was the State of Utah's lead person on evaluation of Utah wind
4 resources during her tenure at the Utah State Energy Office, she is eminently qualified to
5 give testimony on potential wind resources within the State of Utah. I can think of no
6 other public witness in this state that has more knowledge or expertise in this particular
7 area.

8 **Q. ARE THERE ANY INCONSISTENCIES IN HER TESTIMONY?**

9 A. The only inconsistency that might exist is the Evanston wind project analysis that
10 includes eastern Wyoming transmission costs. There appears to be an inconsistency
11 between her assumed capacity factor for Spanish Fork and the testimony of Tracy
12 Livingston. These can be corrected and her analysis is illustrative of the potential
13 resources that might be available to the Company. However, the Commission should
14 realize that many of these resources have been secured by other parties and do not
15 represent a legitimate Company-build option.

16 **Q. WHY ARE MS. WATSON-MIKELL'S CALCULATIONS HIGHER THAN THE**
17 **COMMITTEE/DIVISION/COMPANY PROVIDED NUMBERS?**

18 A. First is the assumed capacity factor. The other parties have adopted overly optimistic
19 capacity factors that are not born out by the evidence presented in this case. The
20 evidence on record is that the Company's current wind resources have capacity factors of
21 29.8% and 31%. The 29.8% is the capacity factor of the Company's two wind project
22 that is referenced in the 2004 IRP. The 31% is the Idaho project capacity factor that was

1 submitted to Wasatch Wind in a late-filed data response. Given that the best sites are
2 developed first, we would expect that new wind development would have lower capacity
3 factors. Ms. Watson-Mikell's testimony supports this contention and should be taken
4 into account when the Commission makes its decisions on the critical inputs to the
5 Company-build option model.

6 **Q. DO YOU BELIEVE THAT MS WATSON-MIKELL'S CALCULATIONS ARE**
7 **TOO HIGH AND THAT THE COMMISSION SHOULD QUESTION WHETHER**
8 **INVESTMENT IN WIND RESOURCES IS APPROPRIATE GIVEN THE**
9 **HIGHER ASSUMED COSTS?**

10 A. Her calculations are realistic and represent the avoided cost necessary to recover the cost
11 of these particular projects. If the Company has evidence that has access to better
12 projects with lower costs and higher capacity factors then those cost and capacity factors
13 should be used. But the burden on proof is on the Company. With regards to questioning
14 the higher than assumed costs for wind than was in the IRP, the Commission should
15 compare these slightly higher costs with the costs of alternative options that the Company
16 is considering. The \$/MWH for a gas-fired plant is extraordinarily high given today's
17 gas prices. A slightly higher avoided cost for wind should not deter the Commission
18 from making adjustments that they deem to be realistic.

19 **Q: ARE THERE OTHER WIND RESOURCES IN THE COUNTRY THAT MAY BE**
20 **CHEAPER?**

21 A: Yes there maybe such resources available in select parts of the country, but unless
22 PacifiCorp has access to them or can acquire their output they are irrelevant.

1 **Q. DO YOU ANY COMMENTS ON MOUNTAIN WEST CONSULTING**
2 **SUBMITTAL OF MICHAEL MILLIGAN'S RESEARCH.**

3 A. A. Yes. Mr. Milligan of the National Renewable Energy Laboratory endorses
4 the Effective Load Carrying Capability (ELCC) approach used by PacifiCorp for
5 determining the capacity credit for wind; however; he disagrees with how
6 PacifiCorp applied the technical in its study. The Company should use more than
7 one month's data to determine the value of a wind resource in providing capacity
8 to the system. In this regard the Company's calculations are suspect and should
9 not be relied upon to determine the appropriated capacity contribution. The
10 Commission should order the Company to revise its study to include several
11 months. In addition, the Commission should order the Company to analyze wind
12 projects that have consistent diurnal wind properties. A wind project that achieves
13 a 30% capacity factor in high load hours should receive a 30% capacity payment.

14 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?**

15 A. Yes, it does.