

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of)	
PacifiCorp for Approval of Power Purchase)	Docket No. 06-035-76
Agreement Between PacifiCorp and)	
Spanish Fork Wind Park 2, LLC)	
)	
In the Matter of the Petition of Wasatch)	
Wind, LLC for Approval of a Contract for)	Docket No. 06-035-42
the Sale of Capacity and Energy from)	
Their Proposed QF Facilities)	
)	

DIRECT TESTIMONY OF PAUL H. CLEMENTS

January 12, 2007

1 **Q. Please state your name, business address and position with PacifiCorp dba**
2 **Rocky Mountain Power.**

3 A. My name is Paul H. Clements. My business address is 201 S. Main, Suite 2300,
4 Salt Lake City, Utah 84111. I am an originator for PacifiCorp Energy,
5 responsible for qualifying facilities (“QF”) and retail special contracts.

6

7 **QUALIFICATIONS**

8 **Q. Please briefly describe your education and business experience.**

9 A. I have a B.S. in Business Management from Brigham Young University. I have
10 been employed with PacifiCorp for over two years as an originator/power
11 marketer responsible for negotiating retail special contracts and non-standard QF
12 contracts. I also worked in the merchant energy sector for nine years in pricing
13 and structuring, origination, and trading roles for Duke Energy and Illinova. I
14 currently have responsibility for QF contracts within Rocky Mountain Power’s
15 service territory.

16

17 **Q. Have you previously submitted testimony in these dockets?**

18 A. Yes. I submitted rebuttal testimony in Docket No. 06-034-42 on numerous
19 contract issues.

20

21 **TESTIMONY**

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

23 A. I will be representing PacifiCorp’s position regarding any potential adjustments to
24 the contract price in the Spanish Fork Wind Park 2, LLC (“Spanish Fork Wind
25 Park”) QF power purchase agreement to account for avoided line losses.

26

27 **Q. Can you summarize the issue?**

28 A. Yes. Parties filed testimony regarding the calculation of avoided line losses as
29 part of Docket No. 03-035-14. In the Public Service Commission of Utah
30 (“Commission”) Order dated April 19, 2006 (at pages 12-13) and the Commission
31 Order dated May 26, 2007 (at page 1), the Commission did not approve any
32 specific method for calculation of avoided line losses, citing insufficient evidence
33 on the record to prove ratepayer neutrality. This decision left the issue of avoided
34 line losses to be decided on a contract-by-contract basis. The Commission-
35 approved contract between Spanish Fork Wind Park and PacifiCorp has a clause
36 that allows for an adjustment to the price following a Commission ruling on the
37 issue of avoided line losses.

38

39 **Q. What is PacifiCorp’s position in regards to avoided line loss adjustments for
40 Spanish Fork Wind Park?**

41 A. PacifiCorp takes the position that no adjustment should be made to the contract
42 prices in the Spanish Fork Wind Park agreement to account for avoided line
43 losses.

44

45 **Q. Will you attempt to set forth a method for calculating avoided line losses for**
46 **all Utah wind QFs?**

47 A. No. My analysis is specific to the Spanish Fork Wind Park contract and is not
48 meant to be a proposal for a definitive methodology for calculating avoided line
49 losses for all QFs. This is consistent with the Commission's direction that
50 avoided line losses be determined on a contract-by-contract basis.

51

52 **Q. How did PacifiCorp determine that no adjustment for avoided line losses is**
53 **required for the Spanish Fork Wind Park contract?**

54 A. PacifiCorp began by reviewing the Commission Orders in Docket No. 03-035-
55 014. In those Orders, the Commission determined that a proxy method was to be
56 used for pricing for Utah wind QFs, and that the price for the proxy contract was
57 to be adjusted to reflect project specific differences. Avoided line losses fall into
58 this category of project-specific differences. Therefore, the price should be
59 adjusted to the extent that the QF project has a meaningful and quantifiable
60 difference in line losses when compared to the proxy contract. Through analysis
61 described later in my testimony, PacifiCorp determined that the Spanish Fork
62 Wind Park project does not have a meaningful and quantifiable difference in line
63 losses when compared to the proxy contract.

64

65 **Q. Should the Spanish Fork Wind Park project line losses be compared to any**
66 **other PacifiCorp resources besides the proxy contract?**

67 A. No. The Commission’s October 31, 2005 Order (at page 21) states “the most
68 recently executed RFP contract, prior to the QF’s request for indicative pricing,
69 will serve as the proxy against which project specific adjustments are made to
70 produce an indicative price for wind QFs in Utah.” The specific adjustments are
71 to be made against the proxy price and not against the “price” or characteristics of
72 other resources.

73
74 **Q. Should GRID be used to determine any adjustment to the price for avoided**
75 **line losses for Spanish Fork Wind Park?**

76 A. No. As previously stated, the Commission has approved a proxy contract pricing
77 method for Utah wind QFs, with adjustments made against the proxy price only.
78 The use of GRID to determine any adjustments would not be consistent in that it
79 compares the Spanish Fork Wind Park project to other PacifiCorp resources and
80 not solely to the proxy contract. Also, GRID does not measure line losses but
81 instead line losses are included in the load forecast that is used as an input to
82 GRID. Furthermore, adjustments using GRID outputs would not pass the
83 ratepayer indifference test, in that the underlying price for Spanish Fork Wind
84 Park was not based on GRID runs, so any adjustments for line losses should not
85 be as well. Since avoided line losses are essentially a pricing issue, the method
86 used to make any adjustments to the price should be referent to the method that
87 was used to determine the underlying price.

88

89 **Q. How do you propose evaluating whether a project-specific adjustment for**
90 **line losses is required for Spanish Fork Wind Park?**

91 A. The methodology is fairly simple. To determine if an adjustment is necessary,
92 you calculate the distance between the delivery point of the proxy contract and the
93 load (demand) required to “absorb” the output of the proxy contract. Then, you
94 compare that distance to the distance between the delivery point of the Spanish
95 Fork Wind Park project and the load (demand) required to “absorb” the output of
96 that project. If the distances are not significantly different, no adjustment is
97 necessary. If the distances are significantly different, an adjustment may be
98 necessary.

99

100 **Q. Please provide an example of this calculation/analysis as it relates to the**
101 **proxy contract referent for pricing and the Spanish Fork Wind Park project.**

102 A. The proxy contract referent for pricing for Spanish Fork Wind Park is the 64.5
103 MW Wolverine Creek project located southeast of Idaho Falls, Idaho. The proxy
104 contract delivery point is located within PacifiCorp’s Goshen substation. The
105 delivery voltage at the point of delivery is 161 kV. The Goshen substation is a
106 345-161-115-69-46 kV substation that provides a source to the Bonneville Power
107 Administration, Idaho Power Company, and local PacifiCorp loads. PacifiCorp
108 area loads served by the Goshen substation (either through distribution or
109 transmission circuits) total approximately 300 MW. There is one 12.5 kV
110 distribution transformer rated at 22.4 MVA located in the Goshen substation.
111 Since the proxy contract has a nameplate of 64.5 MW, the entire output of the

112 proxy contract can easily be absorbed by the 300 MWs of PacifiCorp load served
113 from the Goshen substation, thus making the distance between the delivery point
114 and the load zero. The Spanish Fork Wind Park project is expected to
115 interconnect to a PacifiCorp-owned 46 kV radial line at a point 2.2 miles in
116 distance from the Spanish Fork substation. The Spanish Fork substation is a 345-
117 138-46 kV substation that serves as a source for PacifiCorp loads and the loads of
118 other utilities in the area. Total PacifiCorp load served by this substation is
119 approximately 200 MWs. There are no PacifiCorp distribution circuits
120 originating in the Spanish Fork substation. The nearest PacifiCorp distribution
121 circuits originate in the Mapleton and Santaquin substations, which are
122 approximately 5-10 miles in distance from the Spanish Fork substation. Those
123 two substations serve approximately 20-30 MW of PacifiCorp load. Therefore,
124 the 18.9 MW nameplate Spanish Fork Wind Park project output could likely be
125 absorbed by the load on the Spanish Fork substation, making the distance between
126 the delivery point and the load about 2.2 miles. It is important to note that, as of
127 this filing, PacifiCorp's merchant function has not yet seen a final interconnection
128 design and in fact has not been informed by Spanish Fork Wind Park as to the
129 status of their interconnection request.

130

131 **Q. Why do you propose using the load measured at the substation level as**
132 **opposed to attempting to trace the load all the way to the point of**
133 **consumption, such as a distribution circuit?**

134 A. A substation's primary purpose is to serve as a transfer station between a source,
135 such as a generator or other transmission line, and load. In an integrated
136 transmission system with built-in loops and redundancies for reliability, it is not
137 possible to isolate exactly which generator is the source for a specific load on a
138 lower voltage distribution circuit. A substation is a measurable and meaningful
139 level at which evaluations of loads and resources can be made.

140

141 **Q. Based on the results of the calculations/analysis described in previous**
142 **questions, should an adjustment be made to the pricing in the Spanish Fork**
143 **Wind Park contract to account for line losses?**

144 A. No. As the calculations clearly illustrate, the proxy contract delivery point is
145 located in a substation that serves approximately five times the amount of load as
146 the nameplate output of the proxy contract. Therefore, no losses are actually
147 incurred between the delivery point of the proxy contract and the absorption of
148 the output to serve load. Since no line losses occur, there are no line losses for
149 Spanish Fork Wind Park to "avoid" when compared to the proxy contract and
150 thus no adder, or credit, should be applied to the pricing. That leaves the question
151 as to whether a deduction should be made from the contract price to account for
152 additional line losses, if any, incurred by the Spanish Fork Wind Park project as
153 compared to the line losses incurred by the proxy project. Since the Spanish Fork
154 Wind Park project delivery point is located 2.2 miles further from a substation
155 that is large enough to absorb the output of the project than the proxy contract is,
156 an argument could be made that the project should receive a slightly lower price

157 to account for losses that occur over this 2.2 mile distance. However, PacifiCorp
158 does not believe the distance of 2.2 miles is significant enough in this situation to
159 be relevant and measurable and therefore does not propose a deduction be made
160 from the contract price to account for this difference.

161

162 **Q. Are there additional facts or analyses that support your conclusion?**

163 A. Yes. On July 14, 2006, PacifiCorp executed a 20 year QF power purchase
164 agreement with Pioneer Ridge, LLC, a 70 MW wind project located in Tooele,
165 Utah. Although the interconnection study is not yet final, it is expected that this
166 project will interconnect directly to PacifiCorp's Tooele substation. The Tooele
167 substation is part of a 138 kW transmission circuit which serves a load of more
168 than 100 MW in the Tooele, Utah area. As part of the Pioneer Ridge power
169 purchase agreement, the parties agreed that no adjustment to the proxy contract
170 pricing is necessary to account for avoided line losses since the distance from the
171 Pioneer Ridge delivery point to load sufficient to absorb the project output is the
172 same as the distance from the proxy contract delivery point to load sufficient to
173 absorb the proxy project output. That distance is essentially "zero" since both
174 projects' points of delivery are within substations of sufficient size load to absorb
175 the output of the projects.

176

177 **Q. Does this conclude your testimony?**

178 A. Yes.