

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Voluntary Request of Rocky Mountain Power for Approval of Resource Decision to Repower Wind Facilities	: : : : : :	Docket No. 17-035-39 DPU Exhibit 1.0 Direct Confidential
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DIRECT TESTIMONY

OF

DR. JONI S. ZENGER

UTAH DIVISION OF PUBLIC UTILITIES

September 20, 2017

**CONFIDENTIAL – SUBJECT TO UTAH PUBLIC SERVICE COMMISSION
RULES R746-1-602 AND 603**

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1 **Q. Please state your name, occupation, and business address.**

2 A. My name is Dr. Joni S. Zenger. I am a Technical Consultant for the Utah
3 Division of Public Utilities (Division). My business address is 160 East 300
4 South, Salt Lake City, Utah 84111.

5

6 **Q. On whose behalf are you testifying?**

7 A. The Division.

8

9 **Q. Please summarize your background for the record.**

10 A. I have been working for the Division for 17 years as a Technical Consultant.
11 During that time I have filed testimony and memoranda with the Utah Public
12 Service Commission (Commission) involving a variety of economic, regulatory
13 compliance, and policy topics. Most relevant to this docket, over the past eight
14 years, I have conducted analysis on various components of the Company's current
15 wind fleet as it was placed into service. I have a Ph.D. and M.S. in Economics,
16 both from the University of Utah.

17

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

19 A. I introduce the Division witnesses who conducted analysis and will provide
20 testimony in this case. Then I provide the Division's overall recommendation to
21 the Commission regarding Rocky Mountain Power's (Company) Application for

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22 Approval of a Resource Decision to Repower Wind Facilities (Application). In
23 doing so, I outline several factors that warrant significant consideration before any
24 public interest finding can be determined with respect to the Company's pending
25 Application.

26

27 **Q. What other witnesses will be testifying on behalf of the Division?**

28 A. The Division is sponsoring testimony from the following witnesses:

29 Mr. Daniel E. Peaco, with the firm Daymark Energy Advisors (Daymark),
30 provides the Division's response to the Direct Testimony of Company witness
31 Mr. Rick T. Link. Mr. Peaco's testimony focuses on concerns with the
32 Company's economic analysis, both in the Company's 20-year analysis and its
33 30-year analysis. In addition, Mr. Peaco points out significant risks to the
34 economics of the project that, when taken into consideration, not only result in
35 reduced customer benefits beyond what the Company has calculated, but may end
36 up costing ratepayers more in the long-run.

37 Mr. Dave Thomson addresses the Company's requested ratemaking
38 treatment of the costs and benefits of the wind repowering projects. Mr. Thomson
39 also testifies on the requirements necessary for the Company to qualify for the
40 production tax credit (PTC) benefits.

41 Mr. Charles E. Peterson testifies on the financial ability of the Company to
42 make the wind repowering investment and explains the short- and long-term
43 impacts of the decision to repower now. Mr. Peterson also addresses the

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44 Company's request for continued recovery on the original wind plant equipment,
45 focusing on the implications of recovering investment that is not "used and
46 useful" and intergenerational equity.

47

48 **Q. To the extent that your testimony or the testimony of the Division's other**
49 **witnesses does not address an issue, should that be interpreted as acceptance**
50 **or rejection of that issue?**

51 A. No.

52

53 **Q. Please summarize the Division's overall recommendation concerning the**
54 **Company's Application.**

55 A. The Division recommends rejecting the Application. The Company has not
56 sufficiently demonstrated that the wind repowering projects provide clear net
57 benefits to ratepayers. There are substantial risks involved with the wind
58 repowering that the Company has not adequately addressed, that could very well
59 yield net costs to customers. The Company is asking that all of the risks be borne
60 entirely by customers. The incentive for the Company to pursue the proposal is
61 clear - it will add hundreds of millions of dollars to its rate base upon which it has
62 the opportunity to earn a relatively predictable return. As the Division's
63 witnesses will point out, the Company has not adequately addressed the
64 significant risks associated with this project that can significantly change the
65 economics when incorporated into the cost/benefit analysis. At this time, the

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66 Division recommends the Commission deny the Company's repowering
67 Application as currently filed. The Division cannot recommend that the
68 Commission find it prudent or in the public interest.

69

70 **Q. Please explain how the Division reached its recommendation.**

71 A. Using the filed testimony and the Company's responses to the Division's and
72 other parties' data requests, the Division scrutinized the Company's Application,
73 work papers, and discovery. Inasmuch as the Company asked the Commission to
74 consider the proposed wind repowering projects as "resource decisions," under
75 Utah Code Ann. Section 54-17-402,¹ the Division reviewed the language in the
76 statute and applied it as the basis and standard for the Division's analysis in this
77 case.

78

79 **Q. Please provide more details on Utah's standard for resource decisions.**

80 A. I understand Utah Code Ann. Section 54-17-402 affords the Company an
81 opportunity to seek preapproval of a resource decision, subject to certain public
82 interest requirements that the Commission must consider. In part, this statute
83 states:

84 (1) . . . before implementing a resource decision, an energy utility
85 may request that the commission approve all or part of a resource
86 decision in accordance with this part.
87

¹ Application, p. 8, Item 17.

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88 To be clear, the Company already committed significant resources toward
89 implementing its resource decision when it purchased wind turbine generators
90 through sole source contracts with General Electric International, Inc. (GE) and
91 Vestas American Wind Technology (Vestas) in December 2016.² The Company
92 has been planning for this project for over a year.³ Months before any mention of
93 the projects to regulators or IRP working group participants, and even longer
94 before filing its preapproval application, the utility executed sole source contracts
95 for a significant portion of these projects. The effect of the statutory language
96 requiring application “before implementing [the] resource decision” on the
97 appropriateness of this proceeding in light of the Company’s significant work and
98 contracts before the filing is beyond the scope of my testimony. Nevertheless, the
99 preliminary work and contracts are relevant to the Division’s testimony.

100

101 Receiving the Application and information regarding this proposal at this stage in
102 the process raises the question of whether the Company has already committed to
103 completing the repower regardless of the outcome of this Application. The statute
104 does not contemplate approval of a resource decision that has *already been*
105 *committed to*. Permitting resource decision preapproval is reasonable when the
106 process involves collaboration in planning, where other parties’ input might help

² Company Response to DPU 1.3.1 and 1.3.4 dated August 10, 2017 and August 13, 2017, respectively.

³ Company Response to DPU 1.6, July 26, 2017. The Company states that it began talks with the wind turbine generator suppliers in May of 2016.

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107 identify the best resource decision for customers, as prudent risks are mitigated
108 *before* a decision has been made.

109

110 Company witness, Ms. Crane stresses the importance of allowing “the
111 Commission and stakeholders an opportunity to review and provide *meaningful*
112 *input* into the wind repowering decision “*before contracts are executed,*”⁴ and
113 “*before* the Company makes this significant investment,”⁵ especially on a project
114 that requires this “*magnitude of investment and scope.*”⁶

115

116 In comparison, where the Company makes independent resource decisions, the
117 prudence is typically evaluated at the time the Company has placed the resource
118 in service and seeks recovery. The preapproval process is a risk mitigation tool
119 for the utility to use when it effectively invites other participants into the planning
120 process. When a utility proceeds with such projects on its own, it undertakes the
121 risk that it has made an imprudent decision. In this case, the utility appears to be
122 inviting others into the process after significant decisions have already been made,
123 seeking absolution for risk it has already incurred. To the extent that the Company
124 has already committed to pursuing the Application regardless of the outcome, the
125 project seems ill-suited to the statutory preapproval process.

⁴ Direct Testimony of Cindy A. Crane, June 30, 2017, p.10, lines 215-216.

⁵ Id. at line 218.

⁶ Id. at line 213.

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126

127 **Q. Did the Division consider any other Utah standard for review in its**
128 **evaluation of the Company's Application?**

129 A. Yes, in addition to providing an opportunity for the Company to seek a resource
130 revision review, Utah Code Ann. Section 54-17-402 requires the Commission to
131 determine whether the decision is in the public interest, by taking into
132 consideration the following factors:

- 133 ○ Whether the decision will most likely result in the acquisition, production,
134 and delivery of utility services at the lowest reasonable cost to the retail
135 customers of the utility
- 136 ○ Long-term and short-term impacts
- 137 ○ Risk
- 138 ○ Reliability
- 139 ○ Financial impacts on the utility
- 140 ○ Other factors determined by the Commission to be relevant

141

142 Each Division witness has incorporated these elements in his or her respective
143 testimony. In my testimony today, I focus on "other factors" that are relevant to
144 this Application.

145

146 **Q. Has the Company previously purchased sole source wind turbine generation**
147 **equipment?**

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148 A. Yes. The last time the Company purchased sole source contracts with wind
149 turbine generator suppliers it experienced significant problems that resulted in a
150 suboptimal solution for ratepayers. Past experience suggests numerous factors can
151 significantly alter a wind project's viability and impose unanticipated costs and
152 risks. In 2007, the Company purchased bulk wind turbine generators through sole
153 source contracts in hopes of incorporating the wind turbine generators into wind
154 projects prior to the expiration of the federal PTCs.⁷ As is the case in this
155 Application, there was not a currently acknowledged Integrated Resource Plan
156 (IRP) in place showing that the resource selection was needed. In fact, the
157 Commission explicitly did *not* acknowledge the Company's 2007 IRP nor the
158 Action Plan that the Company used in its analysis justifying the project.⁸
159
160 In connection with Docket No. 09-035-23, the Division discovered problems that
161 the Company encountered because the Company made several large purchases of
162 the same make and model ([REDACTED]) wind turbine generators.⁹ The wind
163 turbine generators purchased in bulk were not optimized for each specific project
164 site. The Division determined that certain types of wind turbine generator models

⁷ Docket No. 09-035-23, Application, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Utility Service Schedules and Electric Service Regulations, June 23, 2009.

⁸Docket No. 07-2035-01, In the Matter of the PacifiCorp 2006 Integrated Resource Plan, Report and Order, February 6, 2008, p. 43.

⁹ Docket No. 09-035-23, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Utility Service Schedules and Electric Service Regulations, Pre-filed Direct Testimony of Joni S. Zenger, Ph.D., October 8, 2009, p. 23, lines 486-489.

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165 operate more efficiently under certain wind conditions than other turbines and can
166 minimize costs per megawatt hour of projected output.

167

168 The Company had originally planned to place the [REDACTED] wind turbines
169 at a wind farm location it was [REDACTED]

170 [REDACTED]

171 [REDACTED]

172 [REDACTED]¹⁰ [REDACTED]

173 [REDACTED]

174 [REDACTED]

175 [REDACTED]

176 [REDACTED]

177 [REDACTED]

178 [REDACTED]¹¹ It is worth noting that, at that time, the Oregon
179 Public Service Commission disallowed the Rolling Hills project's costs in rates.¹²

180

¹⁰Docket No. 09-035-23, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Utility Service Schedules and Electric Service Regulations, Company's Confidential Response to DPU #23.3-2. April 17, 2009.

¹¹ Docket No. 09-035-23, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Utility Service Schedules and Electric Service Regulations, Company's Confidential Response to DPU #23.18. April 17, 2009.

¹² Oregon Public Utility Commission, Order No. 08-548, November 14, 2008, p. 2.

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181 These are examples of the risks and problems that the Company has encountered
182 in the past on similar projects. Further complicating matters in the example I just
183 provided was an issue [REDACTED]

184 [REDACTED]
185 [REDACTED]

186 [REDACTED]

187 [REDACTED]¹³

188 At the time my testimony was being finalized, the Company had just recently
189 responded to the Division's inquiries about owned and leased sites. Although the
190 Division has not had ample time to fully review the Company's response at the
191 time of filing Direct, it appears the leases either will expire after the expected
192 useful life of the repowered equipment or have provisions allowing the lease to be
193 extended. The Division will further review the lease agreements to see if the
194 Company owns, has rights to, or has otherwise extended land leases an additional
195 10 years at each of the sites it is proposing to repower.

196
197 Past practice suggests that the Company may not have thoroughly planned and
198 considered contingencies in its proposed wind repowering

199

¹³ Docket No. 09-035-23, In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Utility Service Schedules and Electric Service Regulations, Company's Confidential Response to DPU #23.3-2, April 17, 2009.

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200 **Q. Earlier in your testimony you mentioned that there were other factors that**
201 **the Commission may choose to consider under the Commission’s public**
202 **interest standard. Please state the other factors you deem relevant here and**
203 **provide supporting testimony for your reasoning.**

204 **A.** There are three significant factors relevant to the Commission’s public interest
205 determination in this Application.

206

207 (1) The Company’s 2017 IRP analysis shows that there is a lack of an operational
208 need for the wind repowering resources (or any other major generating resource)
209 in the front 10 years of the Company’s IRP planning horizon. According to the
210 Company’s 2017 IRP filing, the next major need for a natural gas generating
211 resource is not needed until around the 2028-2029 timeframe.¹⁴ Though the 2017
212 IRP has not yet been fully adjudicated,¹⁵ it does show that load growth is down,
213 and the Company is successfully implementing DSM and energy efficiency
214 projects.¹⁶ This is reasonably consistent with the Company’s 2015 IRP, which
215 was acknowledged by the Commission.¹⁷ The 2015 IRP shows the first major new
216 generation resource coming online in 2028.¹⁸ The Division is still reviewing the
217 2017 IRP and the precise way in which the repowering projects were treated in
218 the modeling that purports to select the projects. However, it appears the primary

¹⁴Docket No. 17-035-16, PacifiCorp’s 2017 Integrated Resource Plan, April 4, 2017, pp. 1-2.

¹⁵Id.

¹⁶Id.

¹⁷ Docket No. 15-035-04, Report and Order, September 16, 2016.

¹⁸ Docket No. 15-035-04, PacifiCorp’s 2015 IRP, Vol I, p. 196.

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219 driver of these projects is potential economic opportunity, not resource need as
220 traditionally understood.

221

222 (2) The Company does not have a Commission-approved IRP or Action Plan
223 identifying the wind repowering resources. These facts alone suggest the
224 economic decision to repower wind facilities for a potential economic opportunity
225 is not an ordinary resource acquisition. In light of this, making a speculative
226 investment for economic reasons in the absence of a truly required generation
227 resource is risky.

228

229 (3) Mr. Peaco will discuss in this testimony the wide variations in net benefit
230 calculations that the Company has provided, as well as methodology problems that
231 he has discovered with respect to the Company's extrapolation out to the year 2050.
232 These problems cast further doubt on the benefit estimates and the wisdom of
233 proceeding.

234

235 **Q. Will you please summarize the key points of your testimony here?**

236 A. Yes. The Company's application should be denied because the projects have not
237 been demonstrated to be in the public interest as set out in Utah Code Ann.
238 Section 54-17-402. I have identified three relevant factors that need to be
239 considered in making a public interest determination in this Application. Each of
240 the Division's witnesses will elaborate on these factors and various risks and

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241 concerns. The proposed repowering represents a significant ratepayer risk that has
242 not been demonstrably outweighed by a high probability of significant savings
243 when compared to the no-action option. Without significant risk mitigation
244 assurances the Division recommends rejection of the Application.

245

246 **Q. Please summarize the Division's recommendation to the Commission**
247 **regarding the Company's Application.**

248 A. The Company has not sufficiently demonstrated that the wind repowering projects
249 provide clear net risk-adjusted benefits to ratepayers. The Division recommends
250 the Commission deny the Company's Application as currently filed.

251

252 **Q. Does this conclude your Testimony?**

253 A. Yes.