

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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In the Matter of the Application of Milford Wind	)	
Corridor Phase I, LLC, and Milford Wind	)	Docket No. 08-2490-01
Corridor II, LLC, for Certificates of	)	
Convenience and Necessity for the Milford	)	DPU Exhibit No. 1.0
Phase I and Phase II Wind Power Projects	)	

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Pre-Filed Rebuttal Testimony

of

Joni S. Zenger, Ph.D.

On Behalf of the

Utah Division of Public Utilities

September 8, 2008

**REDACTED VERSION**



21 **II. PURPOSE AND RECOMMENDATION**

22 **Q. What is the purpose of your testimony that you are now filing?**

23 A. My testimony responds to the Application of Milford Wind Corridor Phase I, LLC, and  
24 Milford Wind Corridor II, LLC (Milford or Applicant) for a certificate of convenience  
25 and necessity (CCN) for the transmission facilities at Milford Phase I and Phase II Wind  
26 Power Projects. Specifically, my testimony addresses each of the questions outlined in  
27 the Utah Public Service Commission's (Commission) Order on Scope of Intervention and  
28 Hearing, dated August 26, 2008.<sup>1</sup> Therefore, I will discuss each of the six questions in  
29 my testimony and apply them to the convenience and necessity requirements in UCA §  
30 54-4-25, as well as the broader public interest standard.

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32 **Q. What is the Division's recommendation regarding the request for the CCN for the**  
33 **transmission line?**

34 A. The Division recommends that the Commission grant a certificate for the transmission  
35 facilities associated with the Milford I wind project with the same conditions outlined in  
36 the Division's March 28, 2008 Memo to the Commission.<sup>2</sup> These conditions require that  
37 Milford must:

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<sup>1</sup> Order on Scope of Intervention and Hearing, Docket No. 08-2490-01, August 26, 2008.

<sup>2</sup> Action Request Response Memo, Artie Powell, Docket No. 08-2490-01, March 28, 2008, pp. 1-2.

- 39 1. Demonstrate to the Commission that it has acquired all of the necessary permits to  
40 construct and complete the proposed transmission facilities;
- 41 2. Inform the Commission in writing of the final disposition of the power output  
42 from Milford II;
- 43 3. Inform the Commission in writing of changes in status with regard to the  
44 construction schedules and in-service dates for Milford I and/or Milford II;
- 45 4. Inform the Commission in writing of any expansions of Milford I and/or Milford  
46 II or of new projects requiring transmission located within the State of Utah; and,
- 47 5. Apply for additional certificates for any expansion of the transmission capacity  
48 from the Milford project area and for any new transmission associated with  
49 company wind projects in Utah.

50 **II. BACKGROUND AND OVERVIEW**

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52 **Q. Will you briefly review the procedural background surrounding this docket?**

53 A. Yes, the Commission's "Docket Index" of this case is three pages long, beginning in  
54 February, 2008, when the initial Milford Wind Application was filed, continuing to the  
55 Commission's August 26, 2008 Order, with parties' arguments and pleadings in between.  
56 What is relevant as far as my testimony addresses here, is that the Commission found that  
57 the plain reading of UCA § 54-2-1(14) includes only production, not transmission,

58 facilities within the definition of an “independent power production facility.”<sup>3</sup>  
59 (Independent power production facilities are excluded from Commission jurisdiction as a  
60 result of Utah Senate Bill 202 (2008).) The Commission, therefore, concluded that the  
61 Project’s proposed 90-mile transmission line is not excluded from Commission  
62 jurisdiction. Thus, Milford Wind Phase I and Phase II are required to obtain a certificate  
63 of convenience and necessity for construction of the transmission line associated with the  
64 wind projects. On August 26, 2008, the Commission issued an Order on Scope of  
65 Intervention and Hearing, determining the scope of interventions and issues to be heard at  
66 the September 29, 2008 hearing.<sup>4</sup>

67 **III. ISSUES AND SCOPE OF HEARING**

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69 **Q. Will you please respond to each of six issues identified in the Commission’s Order**  
70 **on the scope of the hearing in this docket?**

71 A. Yes. As previously mentioned, on August 26, 2008, the Commission issued an Order,  
72 limiting the scope of issues to be addressed at the hearing in this case. The first issue  
73 identified in the Commission’s Order states:

74 In light of the building of the generating plant, does the  
75 transmission line conflict with or adversely affect the  
76 operations of any existing certificated public utility in the  
77 state?

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<sup>3</sup> Order on Petition for Rehearing, Docket No. 08-2490-01, July 2, 2008, p. 3.

<sup>4</sup> See also UCA Section 54-2-1(7) (2008).

79 **Q. What does your analysis with respect to this issue find?**

80 A. In addition to the Division, there were three parties that intervened in this docket: the  
81 Committee of Consumer Services (CCS), the Utah Associated Municipal Power Systems  
82 (UAMPS), and PacifiCorp. UAMPS expressed concern that the use of the Intermountain  
83 Power Plant (IPP) site as an interconnection point would adversely or gravely affect its  
84 operations. However, the Division could not find any evidence to prove or support this  
85 claim.

86 In its Data Request 1.1 to UAMPS, the Division asked for “any studies, reports,  
87 documentation, or other evidence showing that Milford’s proposed transmission line  
88 conflicts with or adversely affects the operations of UAMPS or any of its members.”<sup>5</sup>  
89 UAMPS’ response restates several of the arguments raised in other documents in this  
90 docket, then concludes by stating that, “Based on the current record, it is unknown  
91 whether Milford’s Project will have any adverse effect on the power grid to which  
92 UAMPS members can connect to provide power to their consumers.”<sup>6</sup> At other points in  
93 its response, UAMPS says either that “it is unknown” whether adverse affects will occur  
94 or that the “current record is insufficient to make that determination.”<sup>7</sup>

95 The Division also reviewed responses to data requests DPU 1.12 MW as well as the  
96 System Impact Study, **[BEGIN CONFIDENTIAL]**

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<sup>5</sup> UAMPS’ Response to DPU Data Request 1.1.

<sup>6</sup> Id.

<sup>7</sup> Id.

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**8 [END CONFIDENTIAL]**

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In addition, the Division reviewed the Draft “Procedures for Interconnecting with

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Transmission Facilities of the Los Angeles Department of Water and Power (LADWP),”

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dated October 1, 2007. The document identifies the steps and procedures that an

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interconnecting party must follow and must comply with in order to connect to LADWP.

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The procedures require that the interconnection comply with the Western Electricity

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Coordinating Council (WECC) policies and procedures, as well as all WECC and NERC

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standards.<sup>9</sup>

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The Division also sent several data requests to PacifiCorp in order to determine if the

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transmission line or the interconnection point would adversely affect PacifiCorp’s

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operations. PacifiCorp replied (in response to DPU Data Requests 1.1-1.6), that the

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proposed transmission line will have no impact its operations, other than if the applicant’s

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proposed line crossed in the path of PacifiCorp’s line.<sup>10</sup> If this situation were to occur,

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where the applicant’s line crossed PacifiCorp’s line, the applicant will be required to pay

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for any costs, such as, if PacifiCorp had to move one of its transmission poles, install

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additional conductor equipment, re-direct the routing of one of its lines, etc.

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<sup>8</sup> Milford Valley Wind Project Interconnection at Intermountain, System Impact Study Final Report, Transmission Planning, February 24, 2007, prepared by Los Angeles Department of Water & Power (LADWP), p. 15.

<sup>9</sup> Draft “Procedures for Interconnecting with Transmission Facilities of the LADWP,” dated October 1, 2007, p. 7.

<sup>10</sup> Docket No. 08-2490-01, Rocky Mountain Power Response to DPU Data Request 1.4, July 30, 2008.

118 Finally, a contract has been entered into regarding the interconnection facilities at IPP  
119 (Exhibit 11 of Milford’s Application). The Commission’s Order on Scope states that,  
120 regarding consent showing, the Commission will take such representations as prime facie  
121 evidence, “and will not look behind such permits/consents to question the basis or  
122 underlying decision of the entities giving such permits/consents.”<sup>11</sup> Again, the Division  
123 determines that the evidence shows that the transmission line does not conflict with or  
124 adversely affect the operations of any existing certificated public utility in the state.

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126 **Q. Has the owner of the facility where the interconnection is to occur evaluated the**  
127 **impact of the proposed transmission line?**

128 A. The Intermountain Power Agency (IPA) Board of Directors and Coordinating  
129 Committee, (in its approval of the Generator Interconnection Agreement Between IPA  
130 and Milford Wind Corridor Phase I), evaluated the impact of the proposed  
131 interconnection of the transmission line on the safety and reliability of the transmission  
132 systems and determined that the transmission facility met the initial engineering and  
133 safety requirements.<sup>12</sup>

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<sup>11</sup> Order on Scope of Intervention and Hearing, Docket No. 08-2490-01, August 26, 2008, p.2.

<sup>12</sup> See Resolutions of IPA’s Board of Directors and Coordinating Committee, March 31, 2008, Exhibit 11 filed on May 13, 2008 as Exhibit 11 to the Application of Milford Wind Corridor Phase I, LLC, and Milford Wind Corridor II, LLC, for Certificates of Convenience and Necessity for the Milford Phase I and Phase II Wind Power Projects.



135 **Q. Given all of the above, what is your finding with regard to any adverse conflicts or**  
136 **adverse impact from the Milford’s transmission line?**

137 A. Milford filed its application in this docket on February 21, 2008, and UAMPS filed for  
138 intervention on March 20. The Division believes that with more than four months to  
139 undertake discovery and otherwise develop affirmative evidence of harm to its interests,  
140 that UAMPS could and should have provided such evidence (assuming such evidence  
141 exists) to the parties in order to allow for a complete evaluation. In the absence of such  
142 evidence, we cannot recommend an order denying the certificate on the grounds of  
143 conflict of adverse effect. In several instances in both data request responses and in  
144 pleadings, UAMPS suggests that negative effects “could” or “may” occur, and seems to  
145 place the burden of proof on Milford to show that negative effects will not or cannot  
146 occur. However, this is asking Milford to prove a negative. Milford Wind states in its  
147 Application and in compliance with UCA Section 54-4-25(4)(B) that its proposed line,  
148 plant, and facilities of Milford I and II will not conflict with or adversely affect the  
149 operations of any existing certificated fixed public utility that supplies electric power or  
150 service to the public in the state.<sup>13</sup> The Division finds there is no available evidence to  
151 indicate otherwise.

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<sup>13</sup> Application of Milford Wind Corridor Phase I, LLC, and Milford Wind Corridor II, LLC, for Certificates of Convenience and Necessity for the Milford Phase I and Phase II Wind Power Projects, February 20, 2008, p. 9, ¶ 24.

153 **Q. The second question from the Commission’s Order asks, “Does the transmission**  
154 **line constitute an extension into the certificated territory of the certificated public**  
155 **utility in the state?”**

156 A. Milford states and represents that “Milford I and Milford II facilities will not constitute  
157 an impermissible extension into the territory certificated to the existing public utility.”<sup>14</sup>  
158 The proposed potential routes for the transmission line are all planned on being  
159 exclusively within the service territory of Rocky Mountain Power. However, the  
160 Company states (in response to Data Request 1.1) that “A direct interconnection to the  
161 IPP system and Los Angeles Department of Water & Power (LADWP) balancing area  
162 will have no impact on PacifiCorp's operations.” Similarly, in response to DPU Data  
163 Request 1.2, it states that “The applicant will serve no retail load. A transmission line used  
164 for wholesale power delivery does not effect territory certification. The Company will need  
165 to serve the wind farm load during periods when the project is not generating but consuming  
166 energy from the transmission system as a load.” The Division has not found any evidence  
167 to refute Milford’s statement.<sup>15</sup> However, the Applicant has filed statements of possible  
168 expansion to its project, and in its Form S-1 as filed with the Securities and Exchange  
169 Commission on July 31, 2008, cites Milford Phases III, IV, and V, as early expansion  
170 projects consisting of 200 megawatts each.<sup>16</sup>

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<sup>14</sup> Form S-1 as filed by First Wind, LLC with the Securities and Exchange Commission on July 31, 2008.

<sup>15</sup> The Intermountain Generating Units 1 and 2 (IPP 1 and 2) are located in the midst of PacifiCorp’s Utah System. However, the transmission line for Milford Wind is not an extension into PacifiCorp’s serving territory.

<sup>16</sup>Form S-1 of First Wind Holdings Inc. as filed with the Securities and Exchange Commission on July 31, 2008.

171 The Division recommends that the Commission require Milford Wind to report any  
172 changes or expansions to Milford Phase I and Milford Phase II in order to monitor  
173 whether the project continues to pose no interference into other transmission facilities.

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175 **Q. Has the Applicant obtained all required consents and permits for the construction of**  
176 **the facility?**

177 A. The Milford wind project requires federal, state, local, and private permits or consents,  
178 totaling 24 permits or approvals by the governing bodies. Milford represents in Exhibit 8  
179 of its Application, which was updated on July 23, 2008, that three of the required permits  
180 have been completed, two require no specific approval, 17 permits have been filed and  
181 are anticipated to be approved in October, and two additional permits are expected to be  
182 issued in November or by the commencement of operations. UCA 54-4-25 (4) (a)  
183 requires the following:

184 (i) Each applicant for a certificate shall file in the office of the  
185 commission evidence as required by the commission to show  
186 that the applicant has received or is in the process of obtaining  
187 the required consent, franchise, or permit of the proper county,  
188 city, municipal, or other public authority.

189 The Division finds that Milford has or is in the process of obtaining all of the necessary  
190 consents, permits, or franchises for the operation and use of both Milford Phase I and  
191 Phase II. However, the Division recommends that Milford Wind be required to report to  
192 the Commission as each pending permit or application has been obtained, and if for any  
193 reason a permit is denied. In addition, after all of the necessary permits have been

194 successfully issued or obtained, Milford Wind should be required to file a completion  
195 report with the Commission.

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197 **Q. In light of building a generating facility that does not need a certificate, is there a**  
198 **reasonable need for the transmission line to get the output of the plant to its**  
199 **contracted market?**

200 A. The proposed wind farm will be located in Beaver and Millard Counties. Exhibit 2 of  
201 Milford's Application illustrates the layout of the wind turbines for the project. The  
202 power from the turbines will be carried to an onsite substation, where the power from the  
203 turbines will be stepped up to a 345 kV transmission line. The Bureau of Land  
204 Management is evaluating two possible routes for the transmission line, both entering the  
205 IPP substation. Regardless of the route selection, the wind farm cannot successively  
206 market its product (electricity) unless some transmission line is built to interconnect the  
207 power production facility to the IPP substation. By connecting at the IPP substation, the  
208 transmission from Phase I will flow to the present DC line, where the power will be sold  
209 to the Southern California Public Power Authority (SCPPA). This solution appears to be  
210 satisfactory to the contracting parties and, as discussed previously, does not appear to  
211 present problems for other utilities.

212 Milford Wind Phase I, Milford Wind Phase II, and Milford Wind Corridor – all  
213 participants in the overall Milford project-- are corporations registered in Utah and  
214 planning to operate in Utah. They will employ workers in Utah and pay taxes in Utah.

215 Without the transmission line at issue, they will be unable to bring their product to  
216 market. Milford has established a legitimate need for the transmission line as required in  
217 UCA 54-4-25 (1) to get the output of the plant to its contracted market. The transmission  
218 line is obviously necessary and will provide renewable power once constructed.

219 Therefore, the Division finds the construction of the transmission line is needed and is  
220 reasonable in order to deliver the wind energy from Milford I and Milford II to its  
221 contracted market.

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223 **Q. The next issue addresses whether the applicant has reasonable expertise to build**  
224 **and operate the facility, whether the applicant has a reasonable opportunity to**  
225 **finance the facility, and if there exists a sufficient contractual relationship to provide**  
226 **financing for the project? What information did the Division find in its analysis in**  
227 **this area?**

228 A. In its Application, Milford Wind states that the transmission facilities pertaining to this  
229 project will be developed, constructed, owned and operated by Milford Wind, through its  
230 subsidiaries Milford I and Milford II. Milford Wind is wholly owned by UPC Wind  
231 Partners, LLC (UPC Wind).<sup>17</sup> In addition, Milford Wind, in response to UAMPS' Data  
232 Request 1.26, states that Milford Wind relies on the experience of First Wind in

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<sup>17</sup> Application of Milford Wind Corridor Phase I, LLC, and Milford Wind Corridor II, LLC, for Certificates of Convenience and Necessity for the Milford Phase I and Phase II Wind Power Projects, February 20, 2008, p. 2. The Division notes that UPC Wind changed its name to First Wind on May 1, 2008. On the company's web site, the press release announcing the name change states: "The name change will not have any impact on the company's organizational structure or day-to-day operations." See [www.firstwind.com](http://www.firstwind.com).

233 designing, constructing, operating, or financing transmission and/or interconnecting  
234 power lines.

235 Milford states in its Application that the parent company UPC Wind (or First Wind) has  
236 raised in excess of \$600 million in limited resource project financing and tax equity to  
237 construct 92 megawatts of wind projects in the United States.<sup>18</sup> First Wind has entered  
238 into, and the Division has examined, a long-term power purchase agreement (PPA) with  
239 the SCPPA to supply power to the cities of Los Angeles, Burbank and Pasadena for a 203  
240 megawatt wind energy project in Utah, expected to be under construction in 2008.

241 The PPA includes a provision for pre-payment to First Wind for power to be delivered in  
242 the future. This project, and its associated transmission, are thus on a more-secure  
243 financial footing than most wind projects (where payment occurs after power is  
244 delivered). First Wind also states that it is in the process of developing land and facilities  
245 to build an additional 800 megawatts of capacity to be delivered into southern California  
246 and other markets. The Division has not reviewed any PPAs relating to future project  
247 phases, but accepts that there is a sufficient contractual relationship in place to finance  
248 the transmission line.

249 As far as reasonable expertise to build the project is concerned, the Division finds that  
250 First Wind is a relatively new company, formed in 2002, with three wind projects in  
251 operations to date, but several projects in its planning portfolio as of June 30, 2008. The  
252 projects completed are those listed in Milford's Application: a 30 megawatt wind project

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<sup>18</sup> Application of Milford Wind Corridor Phase I, LLC, and Milford Wind Corridor II, LLC, for Certificates of Convenience and Necessity for the Milford Phase I and Phase II Wind Power Projects, February 20, 2008, p. 2, ¶ 2.

253 in Hawaii, a 42 megawatt project in Maine, and a 20 megawatt project in New York. The  
254 company has projects planned in the northeast, the west, and Hawaii, with a total  
255 anticipated capacity of 5,564 MW.

256 First Wind could be described as a start-up or development company. Its operating  
257 history is characterized by substantial operating losses. In order to continue in business,  
258 the company has required, and will continue to require, substantial outside capital  
259 infusions, either in the form of additional debt or equity. In its S-1 Filing, the company  
260 concedes that failure to obtain continued capital infusions will put the overall company's  
261 ability to continue operating as a serious concern.<sup>19</sup> However, the transmission line at  
262 issue here has been pre-paid per the conditions of the SCPPA power purchase agreement.

263 Given the narrow scope of this investigation, the Division concludes that the company  
264 seems to have adequate expertise, appears to have a contractual arrangement to sell  
265 power, and up to this point has been able to successfully finance its projects.

266 **Q. What does the Division's find regarding whether the Applicant can and will**  
267 **properly maintain the transmission line in a safe and reliable manner?**

268 A. The Division, in its analysis of this case, found several sources that suggest that Milford  
269 Wind will properly and safely maintain the transmission line. For example, UAMPS

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<sup>19</sup> Form S-1 as filed by First Wind, LLC with the Securities and Exchange Commission on July 31, 2008, p. F-8. "To date, the Company has a successful track record of obtaining the capital necessary to execute its development plan through a combination of capital contributions, borrowings and proceeds from tax equity financings." "If the Company is unable to raise additional capital or generate sufficient operating cash flow, it may be required to delay development and construction of its wind energy projects, reduce the scope of its projects, or abandon or sell some or all of its development projects, all of which would adversely affect the Company's business, financial position and results of operations."

270 asked Milford Wind, in Data Request 1.5, to produce documents demonstrating that the  
271 Milford I interconnecting power line meets the North American Reliability Corporation  
272 (NERC) mandatory reliability standards. Milford submitted documents showing that the  
273 project met the pre-construction standards for reliability and safety of the interconnecting  
274 power line for Phase I. However, the NERC standards are not applicable until the line  
275 has actually been constructed. Therefore, the Division could not document the  
276 operational safety standards of the project or that the pre-construction safety standards of  
277 Phase II have been met. However, the Division accepts that all safety standards have  
278 been met to date. Therefore, we would expect that as the project is constructed, the  
279 safety and operational standards would continue to be met. In Response to DPU Data  
280 Request 1.10, Milford explains that the line is designed in accordance with national  
281 standards for transmission design, National Electric Safety Code (NESC), and American  
282 Society of Civil Engineering (ASCE) manuals on transmission structures. Milford also  
283 states that the transmission line for this wind project has been designed to be relatively  
284 maintenance free, but will patrol the line semi-annually or as needed to identify any  
285 maintenance concerns or repairs needed on the line.<sup>20</sup>

286 Nonetheless, the Division recognizes the enforcement authority exercised by the Federal  
287 Energy Regulatory Commission (FERC) and notes that reliability standards are no longer  
288 voluntary, but mandatory, under the electric reliability organization assumed by NERC.  
289 Although we expect Milford to properly maintain the transmission line, the Division

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<sup>20</sup> Response of Milford Wind to DPU's Data Request 1.10 MW.



290 determines that the federal authorities will serve as a backstop to ensure that safety and  
291 reliability are maintained on this line.

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#### IV. OTHER CONSIDERATIONS

294 **Q. Are there any other recommendations that you are making to the Commission**  
295 **regarding this transmission line that you have not yet addressed above?**

296 A. Yes. One is that Milford must make a supplemental filing for Phase III or any other  
297 expansions to the wind project that effect the transmission line. The second  
298 recommendation is that there be a rulemaking proceeding or a clarification of the statute  
299 to address cases such as this one.

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301 **Q. Please expand on your recommendation regarding rulemaking stemming from this**  
302 **proceeding.**

303 A. The Division recommends that the Commission instigate a rulemaking proceeding, or in  
304 the alternative clarify the statute for cases such as this one. The issues of production and  
305 transmission by an independent power production facility, such as Milford Wind,  
306 seemingly were not considered when UCA Section 54-4-25 was initially drafted.  
307 Section 54-4-25 does not clearly fit this case (where Milford Wind is an independent  
308 power production facility). However, a certificate for the construction of the  
309 transmission line to connect Milford Wind power to its contracted market is required.

310 This case was useful in that the Commission limited of the scope of issues for  
311 intervention and hearing. However, for future cases a clarification of the statute would be  
312 most helpful. Such clarification should be directed to some of the legal questions that  
313 were at issue in earlier stages of this case. For instance, while the Commission decided  
314 that the line in question (connecting Milford's power production facilities with the IPP  
315 substation) was indeed a transmission facility, it left unclear when a line connecting such  
316 facilities should be considered transmission. Thus, it may be useful to define whether  
317 there is a threshold distance or carrying capacity beyond which a power line should be  
318 considered to be transmission.

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320 **V. THE DIVISION'S POLICY RECOMMENDATIONS AND CONCLUSION**

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322 **Q. Based on the scope of the issues to be heard in this docket and based on the**  
323 **Division's analysis and investigation of the matters, what is the Division's**  
324 **recommendation in this docket?**

325 A. The Division recommends that the Commission grant a certificate for the transmission  
326 facilities associated with the Milford I and Milford II wind project, with the  
327 recommendation that Milford obtain all of the required consents and permits, notify the  
328 Commission of the status of acquiring these permits, and that Milford comply with the

329 other conditions previously outlined in the Division's March 28, 2008 Memo to the  
330 Commission.<sup>21</sup>

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332 **Q. Does this complete your testimony?**

333 A. Yes it does.

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<sup>21</sup> Action Request Response Memo, Artie Powell, Docket No. 08-2490-01, March 28, 2008, pp. 1-2.