

**Before the Utah Public Service Commission**

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<b>In the Matter of the Pending</b>	)	
<b>Application of Rocky Mountain Power</b>	)	
<b>for a Certificate of Convenience and</b>	)	<b>Docket No. 12-035-97</b>
<b>Necessity Authorizing Construction of</b>	)	
<b>the Sigurd-Red Butte No. 2 345 kV</b>	)	<b>DPU Exhibit 1.0</b>
<b>Transmission Line</b>	)	

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**FOR THE DIVISION OF PUBLIC UTILITIES  
DEPARTMENT OF COMMERCE  
STATE OF UTAH**

**Direct Testimony**

**of**

**Joni S. Zenger, PhD**

**December 21, 2012**

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**I. INTRODUCTION**

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

A. My name is Dr. Joni S. Zenger. I am employed by the Division of Public Utilities (Division) of the Utah Department of Commerce as a Technical Consultant. My business address is 160 East 300 South, Salt Lake City, Utah, 84111.

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

A. The Division.

**Q. Please describe your education and work experience.**

A. I completed my Doctorate degree in economics at the University of Utah in 2001. I have been working for the Division for approximately twelve years and have worked on various energy-related projects such as general rate cases, renewable energy, integrated resource planning, and electric transmission. I have testified before the Utah Public Service Commission (Commission) on numerous occasions for the Division, including two prior Certificate of Public Convenience and Necessity (CPCN) dockets requesting Commission approval for the construction of electric transmission lines.<sup>1</sup>

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

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<sup>1</sup>Docket No. 09-035-54, Mona to Oquirrh Transmission Line CPCN Application, March 30, 2010 and Docket No. 08-35-42, Populus to Terminal Transmission Line CPCN Application, August 1, 2008.

21 A. I will present the Division's findings and recommendation regarding Rocky  
22 Mountain Power's (the Company) Application for a CPCN authorizing  
23 construction of the proposed Sigurd-Red Butte No. 2 345 kV transmission line  
24 (SRB Line or Project). In doing so, I will also provide a brief description of the  
25 Project, the analysis that the Division went through to arrive at its findings and  
26 recommendation, and other background information that the Division believes is  
27 relevant to this case.

28

29 **Q. Please summarize the Division's recommendation regarding the pending**  
30 **SRB Line Application.**

31 A. The Division's analysis supports the finding of need and associated benefits in  
32 constructing the SRB Line. The SRB Line will serve the present and future  
33 public convenience and necessity. The Company's requirement to service its  
34 current and future network customers, coupled with its requirement to meet  
35 stringent reliability standards for the electric transmission grid, supports the  
36 construction of the Project. The Division finds that the Company's Application  
37 generally complies with the requirements of Utah Code § 54-4-25 and  
38 recommends that the Commission approve the Application.

39

## 40 **II. DISCUSSION AND FINDINGS**

41

42 **Q. Will you please describe the Company's Project that is the subject of the**

43        **proposed CPCN Application?**

44        A.        The proposed Project consists of a single circuit, alternating current (AC) 345 kV  
45        transmission line that runs approximately 170 miles between the existing Sigurd  
46        substation near Richfield, Utah, to the existing Red Butte substation near Central  
47        in Washington County, Utah.<sup>2</sup> The transmission line facilities will be built using  
48        primarily steel pole, H-frame structures with some lattice steel structures where  
49        the line changes directions or terminates. In addition, the Project requires  
50        construction of communication equipment, access roads, and new substation  
51        equipment to interconnect the Project with the existing Sigurd and Red Butte  
52        substations.<sup>3</sup>

53  
54        Approximately 112 miles of the Project (or about 66 percent) will be located on  
55        lands administered by the Bureau of Land Management (BLM) and the U.S.  
56        Forest Service (USFS). Another 4.7 miles (or 2.8 percent) are located on state  
57        land. The remaining 52.5 miles (or 31 percent) of the Project will be located on  
58        private land or within land easements.<sup>4</sup>

59  
60        Company witness Mr. Darrell T. Gerrard describes the environmental review  
61        process and the project timeline in his Direct Testimony and states that the Project

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<sup>2</sup> [http://www.blm.gov/ut/st/en/fo/cedar\\_city/planning/sigurd\\_to\\_red\\_butte.html](http://www.blm.gov/ut/st/en/fo/cedar_city/planning/sigurd_to_red_butte.html).

<sup>3</sup> Id.

<sup>4</sup> Id.

62 is estimated to be in service by June 30, 2015.<sup>5</sup> As noted by Mr. Gerrard, the  
63 Project went through an extensive environmental and stakeholder review process,  
64 after which the BLM and coordinating agencies prepared a Draft Environmental  
65 Impact Statement (DEIS) that was published in the Federal Register for public  
66 comment on May 27, 2011. After holding public meetings and looking at several  
67 alternative routes that have been proposed, the BLM (designated as the lead  
68 federal agency) published a final EIS on October 5, 2012. The final EIS was  
69 distributed for further comment and for consistency review, upon which the BLM  
70 issued its Record of Decision (ROD) on December 7, 2012.<sup>6</sup> The ROD approves  
71 a 150 foot right-of-way across federal land and ensures that the Project complies  
72 with all applicable environmental laws and regulations.

73

74 **Q. What analysis did the Division conduct in this docket?**

75 A. The Division evaluated the Company's Application, including supporting  
76 testimony and exhibits and the data requests and responses exchanged in this  
77 proceeding to determine whether the information available to the Division and the  
78 evidence presented meet Utah's statutory requirements found in Utah Code  
79 Annotated § 54-4-25 (as interpreted in the *Mulcahy v. Public Service Commission*  
80 *of Utah* case). The Division understands that the statute and interpretation imply

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<sup>5</sup> Direct Testimony of Darrell T. Gerrard, September 2012, pp. 3-4.

<sup>6</sup>[https://docs.google.com/a/utah.gov/viewer?url=http://www.blm.gov/pgdata/etc/medialib/blm/ut/cedar\\_city\\_fo/planning/sigredbutterod.Par.39757.File.dat/BLM\\_SRB\\_ROD\\_2012.pdf](https://docs.google.com/a/utah.gov/viewer?url=http://www.blm.gov/pgdata/etc/medialib/blm/ut/cedar_city_fo/planning/sigredbutterod.Par.39757.File.dat/BLM_SRB_ROD_2012.pdf).

81 that the present or future public convenience and necessity does or will require the  
82 line to be constructed and that the line or project must be “reasonably necessary  
83 and not absolutely imperative to meet the necessity requirement.”<sup>7</sup> If the SRB  
84 Line enhances the needs of the public, and but for the line, the public would be  
85 handicapped or inconvenienced, then the public convenience and necessity  
86 requires that the CPCN be approved.<sup>8</sup>

87

88 The Division notes that it has not conducted an analysis of the prudence of the  
89 Project, but has limited its analysis in this docket to the standards for a CPCN  
90 described above. The Division’s support for the issuance of a CPCN in this  
91 docket should not be taken as a finding that the project was prudent. Rather,  
92 prudence issues should be addressed during a rate case or other appropriate filing.

93

94 ***Project Need***

95 **Q. What reasonable need did the Division find that justifies Commission action**  
96 **to grant this Application for a CPCN?**

97 A. The Division believes that the overarching and primary need for the proposed  
98 Project is based on the Company’s obligation as a regulated utility to continue to  
99 provide safe, reliable, and cost-effective electric transmission service to its

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<sup>7</sup> *Mulcahy v. Public Serv. Comm’n*, 101 Utah 245, 117 P.2d 298 (1941), pp. 8-9.

<sup>8</sup> *Id.*

100 network load customers.<sup>9</sup> The Company claims that the SRB Line (also known as  
101 Segment G of the Energy Gateway Project) is needed to improve the overall  
102 reliability of the Company's existing transmission system and to meet both short-  
103 and long- term customer demands for energy.<sup>10</sup>

104  
105 The SRB Line will travel through Beaver, Iron, Millard, Sevier, and Washington  
106 counties in the southwest portion of the state. Although the southwest areas of the  
107 state suffered from the recession, overall growth in these counties continues and is  
108 forecasted to continue, although, at a sluggish rate.<sup>11</sup> Pointedly, in the 2010 U.S.  
109 Census, Washington County surpassed Salt Lake County in year-over-year  
110 percentage population growth (1.8 percent as compared to 1.2 percent).<sup>12</sup> With  
111 respect to demand, the 2012 total peak load was the highest ever recorded for the  
112 Washington County area.<sup>13</sup> With the Company's requirement to meet peak  
113 demand and service the future load in southwest Utah and the state as a whole, the  
114 Division believes that the SRB Line is needed. The Company is obligated to not  
115 only serve its retail customers, but also its transmission business or wholesale

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<sup>9</sup> Network load includes retail customers, wholesale customers, and contractual load obligations. See FERC Orders 888 and 889. See OATT Section 28.2 – PacifiCorp's responsibilities, which include the requirement to "plan, construct, operate, and maintain the system in accordance with good utility practice.

<sup>10</sup> Direct Testimony of Darrell T. Gerrard - Errata, September 2012, p. 2, lines 29-31.

<sup>11</sup> The Sigurd to Red Butte in-service date was delayed by one year primarily because of the moderating load growth caused by the recent recession. PacifiCorp's 2013 IRP, Draft Transmission Planning and Investment document, October 29, 2012.

<sup>12</sup> April 2, 2010: U.S. Census Bureau.

<sup>13</sup> 2012 Southwest Utah Post-Peak Report, September 2012, OCS Confidential Attachment 1.1 (1), November 8, 2012.

116 customers, and its contract obligations to other network customers that request  
117 service through its Open Access Transmission Tariff (OATT).<sup>14</sup> Beginning with  
118 the PacifiCorp 2011 Integrated Resource Plan (IRP), the Company recognized the  
119 need for the SRB Line to support its current and future IRPs.<sup>15</sup>

120  
121 In addition to load service, the Division reviewed the characteristics of the  
122 existing transmission infrastructure and the mandatory reliability requirements  
123 that require this Project to be built.<sup>16</sup> The Project is needed because the existing  
124 transmission system is inadequate. The Company's transmission system must be  
125 designed to meet strict Western Electric Coordinating Council (WECC) reliability  
126 criteria and mandatory North American Electric Reliability Corporation (NERC)  
127 bulk electric standards that contain penalty provisions if not met. The Division  
128 reviewed the Company's annual reliability assessment report of NERC TPL  
129 standards, which strongly indicates that the Company's transmission system in  
130 southwest Utah is insufficient to continue to meet NERC standard TPL-002. This

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<sup>14</sup> The Division independently reviewed demographic data and current and projected electric demand (particularly in southwest Utah) to verify that the Line is needed to meet the Company's network load obligations. (See: 2011 IRP Update, March 2012; 2012 Economic Report to the Governor, November 29, 2012 [http://www.governor.utah.gov/DEA/ERG/ERG2012/2012\\_ERG\\_11\\_20\\_2012.pdf](http://www.governor.utah.gov/DEA/ERG/ERG2012/2012_ERG_11_20_2012.pdf); U.S. Census Bureau, April 2, 2010; OCS Data Request 1.7, November 8, 2012; and the 2012 Southwest Utah Post-Peak Report, September 2012).

<sup>15</sup> PacifiCorp's 2011 IRP, March 31, 2011, p. 285, "The capacity of the southwest Utah transmission system, including the existing Sigurd to Three Peaks to Red Butte 345 kV transmission line, is fully utilized and cannot currently provide adequate service under all operating conditions. Loads in southwestern Utah are forecasted to surpass the capabilities of the existing transmission system. Without the project, peak load in southwestern Utah cannot be reliably served during transmission line outages or major equipment contingencies."

<sup>16</sup> Direct Testimony of Darrell T. Gerrard, Exhibit DTG-4, September 2012.



131 situation necessitates the construction of the SRB Line.<sup>17</sup> The transmission  
132 facilities existing today cannot provide adequate and reliable service under all  
133 expected operating conditions and expected future customer demands. The  
134 Division found it unsettling that the Company was meeting the current NERC  
135 standards only by means of a supply agreement capable of providing backup  
136 service during N-1 conditions (when one line is out of service). The agreement,  
137 between NV Energy and UAMPS, was such that NV Energy supplied back-up  
138 generation and associated transmission service to UAMPS during outages on the  
139 existing Sigurd to Red Butte transmission line.<sup>18</sup> This contract was recently  
140 terminated, necessitating the SRB Line even more urgently.<sup>19</sup>

141

142 ***Project Benefits***

143 **Q. In addition to the load service and reliability benefits mentioned above, are**  
144 **there other public welfare benefits that would accrue if the SRB Line is**  
145 **built?**

146 A. Yes. The SRB Line will provide an installed capacity of 600 megawatts.<sup>20</sup> As  
147 part of the Company's Gateway Transmission Expansion Plan, the SRB Line is  
148 designed to ensure that sufficient capacity will be available to meet the electrical  
149 power needs of the Company's new and existing customers in all six states it

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<sup>17</sup> Confidential Attachment OCS 1.2, November 8, 2012.

<sup>18</sup> OCS 2.4, November 28, 2012.

<sup>19</sup> Id.

<sup>20</sup> Attachment DPU 1.15, November 8, 2012.

150 serves. The SRB Line will also increase capacity and reliability for customers of  
151 the various municipal and rural electric systems in Utah, served by Utah  
152 Associated Municipal Power Systems (UAMPS) and Deseret Generation and  
153 Transmission (DG&T), both network customers of the Company. The SRB Line  
154 provides a critical path to meet load obligations and maintain transmission  
155 capacity on the TOT2C path for contracted point-to-point service. The TOT2C  
156 path runs from southwestern Utah to southern Nevada.<sup>21</sup>

157  
158 The bulk electric system will be more reliable as a whole, and there will be an  
159 increased transfer capacity from 400 MW to 600 MW in the north to south  
160 direction once the SRB Line is completed.<sup>22</sup> In light of stiffer NERC penalties  
161 and more stringent WECC standards, the Division notes the importance of  
162 looking at the bulk electric system as a whole and how the SRB Line will enhance  
163 the existing transmission infrastructure by providing additional transfer  
164 capabilities, improved security, and reliability, backup in the event of an  
165 unexpected outage, reduced congestion on the grid, and the flexibility to use  
166 future generation and interconnected transmission facilities.

167  
168 In the federal review process, other public benefits are identified such as  
169 economic development opportunities in southwest Utah, the promotion of off-

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<sup>21</sup> Id.

<sup>22</sup> Attachment DPU 1.15, November 8, 2012.

170 system sales and purchases, access to renewable generation sources, and the  
171 creation of approximately 255 jobs.<sup>23</sup>

172

173 The SRB Line benefits the public in the long-term as it appears to represent the  
174 lowest cost and least risk alternative to serving network customers. As part of its  
175 long-term planning process, the Company looked at various alternatives to  
176 building the Project during the IRP process, including not building the SRB Line,  
177 using demand side management and energy conservation to reduce usage,  
178 constructing new generating facilities in southern Utah, and using alternative  
179 transmission technologies.<sup>24</sup> Evaluating the results of these analyses, the  
180 Company concluded that additional transmission capability in southwestern Utah  
181 is the least cost option. The Division finds that none of the above alternatives  
182 would achieve the long-range, system-wide needs of meeting load growth and  
183 providing system reliability.

184

185 In addition to the IRP process, the Company completes an “Energy Gateway  
186 Financial Analysis” every year, whereby it re-examines its Energy Gateway  
187 Project and individual segments of Energy Gateway to look at alternatives and to

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<sup>23</sup> [http://www.blm.gov/ut/st/en/fo/cedar\\_city/planning/sigurd\\_to\\_red\\_butte.html](http://www.blm.gov/ut/st/en/fo/cedar_city/planning/sigurd_to_red_butte.html).

<sup>24</sup> See DPU 1.6, DPU 1.9, DPU 1.19, PacifiCorp’s 2011 IRP and 2011 IRP Update, March 31, 2011 and March 31, 2012, respectively.

188 calculate net power cost savings.<sup>25</sup> The total cost of the Project is expected to be  
189 approximately \$380 million.<sup>26</sup> In its most recent financial analysis, the Company  
190 estimates that there will be net power cost savings for customers as a result of the  
191 building the SRB Line.<sup>27</sup>

192

193 **Q. In light of the above analysis and discussion, what does the Division**  
194 **recommend with respect to the Project and the pending CPCN Application?**

195 A. The Division recommends the Commission approve the CPCN Application so the  
196 Company can proceed to build the SRB Line. The Company has already obtained  
197 its required federal permits and all local government and conditional use permits.  
198 The Company is financially capable of supplying, and is willing to supply, the  
199 capital to construct the SRB Line. The remaining obstacle for the Company is to  
200 obtain Commission approval to construct the SRB Line in the state of Utah.

201

## 202 **II. CONCLUSION AND SUMMARY**

203

204 **Q. Please summarize the Division's analysis and findings.**

205 A. The Division studied and reviewed the statutory requirements applicable to this  
206 case. The Division then applied them to the variety of factors demonstrating the

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<sup>25</sup> Confidential Attachment DPU 1.19 (a) and 1.19 (b), November 8, 2012 and Confidential Attachment DPU 4.1 and 4.2, November 28, 2012.

<sup>26</sup> DPU 1.4, November 8, 2012 and OCS 1.4, November 8, 2012.

<sup>27</sup> Confidential DPU 1.12, November 8, 2012.

207 public interest requirement and the “convenience and necessity” requirement both  
208 for the future and the current time period. The Division makes the following  
209 findings in this case:

210

211 • The Division finds that the Company’s Application generally complies with the  
212 requirements of Utah Code § 54-4-25 and recommends that the Commission  
213 approve the Application.

214

215 • The public welfare as a whole will be inconvenienced if no action is taken.

216

217 • The Company’s requirement to service its current and future network customers,  
218 coupled with its requirement to meet stringent reliability standards for the electric  
219 transmission grid, necessitates the construction of the Project.

220

221 • The Company is required to meet stringent WECC and NERC reliability  
222 standards for the electric transmission grid, and these standards necessitate the  
223 construction of the Project. The Company is exposed to unacceptable risk of  
224 outages, not meeting reliability standards, and the possibility of monetary  
225 sanctions but for this line.

226

227 • Ratepayers will benefit by having reliable service due to the increased transfer

228 capability and flexibility provided by the line.

229

230 • The SRB Line benefits the public in the long-term as it appears to represent the  
231 lowest cost and least risk alternative to serve network customers. The Division  
232 finds that the other considered alternatives were inferior to this line being  
233 constructed.

234

235 • The SRB Line is an integral segment of the overall Energy Gateway project. The  
236 Company is willing to invest in this segment of the Energy Gateway project, and  
237 it will continue to pursue the Energy Gateway strategy, which will result in even  
238 more benefits as the other segments are completed over time.

239

240 **Q. What is the Division's recommendation and conclusion?**

241 A. The Division concludes that the SRB Line will serve the present and future public  
242 convenience and necessity. The Division recommends the Commission approve  
243 the Company's CPCN Application.

244

245 **Q. Does that conclude your prepared testimony?**

246 A. Yes.