

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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IN THE MATTER OF THE APPLICATION OF )	
ROCKY MOUNTAIN POWER FOR A )	
CERTIFICATE OF CONVENIENCE AND )	DOCKET No. 08-035-42
NECESSITY AUTHORIZING CONSTRUCTION )	
OF THE POPULUS-TO-TERMINAL 345 kV )	DPU EXHIBIT 1.0
TRANSMISSION LINE PROJECT )	

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PRE-FILED DIRECT TESTIMONY

JONI S. ZENGER, PHD

ON BEHALF OF THE

UTAH DIVISION OF PUBLIC UTILITIES

AUGUST 1, 2008

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**EXHIBITS**

Exhibit 1.1. List of Previous Cases That I Have Testified In

Exhibit 1.2. PacifiCorp's Transmission Topology as Modeled in the 2007 IRP Update

Exhibit 1.3. Western Electricity Coordinating Council Path C Rating

Exhibit 1.4. Energy Gateway Expansion Project Map

2

**I. INTRODUCTION**

3 **Q. Please state your name and occupation.**

4 A. My name is Dr. Joni S. Zenger. I am employed by the Division of Public Utilities  
5 (Division) of the Utah Department of Commerce as a Technical Consultant.

6 **Q. What is your business address?**

7 A. Heber M. Wells Office Building, 160 East 300 South, Salt Lake City, Utah,  
8 84114.

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

10 A. The Division.

11 **Q. Do you have any attachments that you are filing that accompany your**  
12 **testimony?**

13 A. Yes. Exhibit 1.1 lists the previous dockets and dates in which I have testified in  
14 Utah. Exhibit 1.2 is a transmission topology map, showing the transmission  
15 constraints along the path related to this transmission line. The Western  
16 Electricity Coordinating Council (WECC) Path C Rating is attached as Exhibit  
17 1.3. Exhibit 1.4 represents the Company's proposed Energy Gateway  
18 Transmission Expansion Project, and it illustrates the relationship of the Populus-

19 to-Terminal transmission segment to the project as a whole.

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

21 A. I completed my Doctorate degree in economics at the University of Utah in early  
22 2001. Prior to that, I earned my Bachelor's degree and Master's degree, also in  
23 economics from the University of Utah. I began working for the Division in the  
24 fall of 2000. In addition, I taught various economics and statistics courses for a  
25 ten-year period from 1996 through 2006, first at the University of Utah, and then  
26 at the University of Phoenix.

27 **Q. Have you previously testified before the Utah Public Service Commission  
28 (Commission)?**

29 A. Yes. I have testified on numerous occasions for the Division. As mentioned  
30 above, please see Exhibit 1.1 for a complete listing and dates.

31

32 **II. PURPOSE AND RECOMMENDATION**

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

34 A. My testimony addresses PacifiCorp's application for a certificate of public  
35 convenience and necessity for its proposed Populus-to-Terminal transmission  
36 line. The purpose of my testimony today is three-fold. First, I review the

37 statutory guidelines that govern this application. I provide an overview and  
38 present the Utah Supreme Court ruling that set the precedent in cases such as this.  
39 Second, I explain my approach to investigating this case and the pertinent issues  
40 that I examined. I present my analysis of the need for the transmission line.  
41 Third, I report my findings and make recommendations to the Commission based  
42 on my analysis of this case. Additionally, the Division recommends that the  
43 Company be required to report periodically on the status of the project and the  
44 results of relevant IRP analysis.

45 **Q. Can you summarize your conclusions and recommendations?**

46 A. Based on the Company's requirement to meet the future load growth in Utah and  
47 maintain the reliability of PacifiCorp's transmission system, the Division finds  
48 there is a legitimate need for this transmission line to be built. The construction  
49 of this transmission line meets the statutory Public Convenience and Necessity  
50 requirement, is in the public interest, and is in the interest of Utah ratepayers. The  
51 Division recommends that the Commission grant the application contingent upon  
52 the Company obtaining all of the necessary permits required to construct and  
53 complete the proposed Populus-to-Terminal transmission line.

54 **III. BACKGROUND**

55 **Q. Will you briefly explain the procedural history of this case?**

56 A. On April 25, 2008, the Company submitted to the Commission an application for  
57 a certificate of public convenience and necessity (CPCN or certificate)  
58 authorizing the construction of a 345 kilovolt (kV) transmission line, known as  
59 the Populus-to-Terminal transmission line (the transmission line), in Box Elder,  
60 Weber, Davis, and Salt Lake Counties. A separate application was filed with the  
61 Idaho Public Utilities Commission for the portion of the line within Idaho.<sup>1</sup> In  
62 support of this application, the Company explained that, due to significant retail  
63 load growth over the past decade and anticipated future load growth, the  
64 Company will be unable to continue to provide the transmission capacity  
65 necessary for the delivery of safe, efficient, and reliable electric service to its  
66 customers.<sup>2</sup>

67 Therefore, the purpose of the line is to add significant incremental transmission  
68 capacity between southeast Idaho and northern Utah in order to strengthen the  
69 interconnection to transmission systems feeding Idaho, Wyoming, and the  
70 Northwest in general. The transmission line also fulfills a commitment made by  
71 the Company to increase capacity by 300 MW from southeast Idaho to northern  
72 Utah in Docket No. 05-035-54 (known as “the Path C” upgrade).

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<sup>1</sup> Case No. PAC-E-08-03, April 17, 2008. See [www.puc.idaho.gov](http://www.puc.idaho.gov).

<sup>2</sup> Application of Rocky Mountain Power for a Certificate of Public Convenience and Necessity Authorizing Construction of the Populus-to-Terminal 345 kV Transmission Line Project, Docket No. 08-035-42, ¶ 3.

73 The Company's application was filed with supporting testimony of Mr. John  
74 Cupparo, Ms. Sharon Seppi, and Mr. Bruce Williams. On May 7, 2008, the  
75 Commission issued an Order establishing a Scheduling Conference for May 13,  
76 2008. After a widely attended Scheduling Conference, the Commission issued its  
77 Scheduling Order on May 20, 2008.

78 **Q. What was the significance of the Commission's Scheduling Order?**

79 A. Besides establishing the dates governing the scheduling of this docket, the  
80 Commission's Order clarified that the purpose of this proceeding is limited to the  
81 issue of whether the present or future public convenience and necessity does or  
82 will require the construction of the transmission line.

83 **Q. What topics are not a part of this proceeding?**

84 A. The Commission clearly stated that the Utah Public Service Commission does not  
85 have jurisdiction over the location or siting of the line; therefore, no siting issues  
86 are to be addressed. Other issues that the Commission stated that are **not** to be  
87 addressed in this proceeding include concerns related to Utah local government  
88 entities' requirements for siting and cost issues, as well as prudence issues for  
89 ratemaking purposes. Prudence issues will be reserved for the appropriate time  
90 during a rate case or other appropriate filings. It should be noted that the Division  
91 has conducted its analysis under the standards for a certificate of public

92 convenience and necessity. The Division has not conducted an analysis of the  
93 prudence of this project. Therefore, our support for the issuance of a certificate  
94 in this docket should not be taken as a finding that the project was prudent.

95 **Q. Have there been any recent applications filed with the Commission for**  
96 **certificates to construct transmission projects that you reviewed for guidance**  
97 **as part of this case?**

98 A. I found that there has not been a request for a certificate to construct a  
99 transmission line for many years in this state. The last applications for a CPCN  
100 for a transmission line were Case No. 85-2011-01 and Case No. 85-999-08, both  
101 of which involved Utah Power & Light and Utah Association Municipal Power  
102 Systems in a dispute to build a transmission line in southern Utah. The  
103 Commission has received many applications for CPCNs for construction of other  
104 significant resources, but it has been decades since a transmission CPCN has been  
105 granted.

106 As I will discuss later in my testimony, the Populus-to-Terminal Line is only the  
107 first segment of a larger set of transmission projects being planned in the western  
108 interconnection.

109 **IV. CASES AND STATUTES**

110 **Q. What statute governs when a company needs to obtain a CPCN?**



111 A. The application process is addressed in UCA § 54-4-25, which states the  
112 following:

113 (1) Except as provided in Section 11-13-304, a gas corporation, electric  
114 corporation, telephone corporation, telegraph corporation, heat  
115 corporation, water corporation, or sewerage corporation may not establish,  
116 or begin construction or operation of a line, route, plant, or system or of  
117 any extension of a line, route, plant, or system, without having first  
118 obtained from the commission a certificate that present or future public  
119 convenience and necessity does or will require the construction.<sup>3</sup>

120

121 **Q. Have the courts given any guidance as to this statutory requirement?**

122 A. Yes. There are several court cases that provide guidance with respect to  
123 interpreting UCA § 54-4-25. The most relevant is *Mulcahy v. Public Service*  
124 *Commission of Utah* where the Utah Supreme Court discussed at length the  
125 question as to what constitutes the “public convenience and necessity”  
126 contemplated by this section. The following excerpts from *Mulcahy* are  
127 instructive (bold added):

128 The “convenience” and “necessity” required to support an  
129 application for a certificate of convenience and necessity  
130 are those of the **public**, not those of individuals.  
131 “Necessity” and “convenience” are not to be construed as  
132 synonymous. Convenience is much broader and more  
133 inclusive than necessity, but effect must be given to both.<sup>4</sup>

134 And in determining whether or not the convenience and  
135 necessity of the public is best subserved by the proposed

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<sup>3</sup> Utah Code Title 54 Public Utilities Statutes and Public Service Commission Rules. 2007 Edition, p. 40.

<sup>4</sup> *Mulcahy v. Public Serv. Comm’n*, 101 Utah 245, 117 P.2d 298 (1941), p. 8.

136 service, the **needs and welfare of the people of the**  
137 **territory or community affected are considered as a**  
138 **whole.**<sup>5</sup>

139 Necessity means **reasonably necessary** and not absolutely  
140 imperative. It does not mean “necessary” in the ordinary  
141 sense of the term. The convenience of the public must not  
142 be circumscribed by holding the term “necessity” to mean  
143 an essential requisite. **It means a public need without**  
144 **which the public, people generally of the community,**  
145 **would be inconvenienced or handicapped in the pursuit**  
146 **of business** or wholesome pleasure, or both.<sup>6</sup>

147 The statute implies that many factors need to be considered. However, the  
148 paramount consideration is the benefit and welfare of the public as a whole. The  
149 applicant must show that the existing service is not adequate and convenient and  
150 that the new service would eliminate this inadequacy and inconvenience. In other  
151 words, the Company must show that the public interest would be best served if  
152 the certificate were granted.

153

154 **V. INTEGRATED RESOURCE PLAN**

155 **Q. Are there any Commission Orders or prior cases that you also looked to as**  
156 **part of the framework for the rest of your testimony?**

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<sup>5</sup> Id at p .9.

<sup>6</sup> Id at p. 9.

157 A. Under Commission Rule R745-430-1 and under the Energy Resource  
158 Procurement Act, UCA § 54-17, the Company must file an Action Plan as part of  
159 the development of an Integrated Resource Plan (IRP). The Company's IRP is a  
160 long-term strategy to help ensure that the Company continues to provide reliable,  
161 least-cost service, taking into account risk and uncertainty. The IRP determines  
162 the most robust resource plan using modeling and given a broad set of  
163 assumptions. The Commission's IRP Order identifies standards and guidelines  
164 that the Company must adhere to in its utility planning process to meet current  
165 and future energy needs, and taking into consideration a variety of risk factors  
166 while using a 20-year planning horizon.”<sup>7</sup>

167 On May 30, 2007, PacifiCorp filed its 2007 IRP and the accompanying Action  
168 Plan with the Commission and other stakeholders.<sup>8</sup> This Commission did not  
169 acknowledge the Company's 2007 IRP. The Company is currently working on  
170 the case assumptions and modeling of its next IRP.

171 **Q. In order for the Company's IRP to be acknowledged by the Commission, the**  
172 **Company must comply with the Commission's Order on Standards and**  
173 **Guidelines. Will you please describe the IRP process in order to understand**  
174 **the relationship of this transmission line to the Company's IRP?**

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<sup>7</sup> Report and Order on Standards and Guidelines, Docket No. 90-2035-01, June 18, 1992, p. 41.

<sup>8</sup> PacifiCorp 2007 Integrated Resource Plan Update, June 11, 2007,  
<http://www.pacificorp.com/File/File82304.pdf>.

175 A. The Company needs authorization to build the transmission line in order to meet  
176 its long-term planning needs. The Company's IRP, as well as its ten-year  
177 business plan, are both premised on transmission being built to deliver renewable  
178 energy to Utah and throughout PacifiCorp's service territory. The assumptions  
179 used in the current IRP were based on an optimal preferred portfolio of resources  
180 that included the addition of significant transmission projects.<sup>9</sup> Most important,  
181 all portfolios included the 300 MW Path C upgrade (the transmission line) and  
182 assumed the line will be constructed and be available in 2010.

183 In the 2007 IRP, the Company used proxy transmission additions to support new  
184 generation options in the model. The IRP assumed that transmission purchases  
185 would be phased in by 500 MW blocks for four transmission paths: Bridger East  
186 to Ben Lomond, Mona to Utah North, Wyoming to Bridger East, and Utah North  
187 to West Main. Exhibit 1.2 depicts the modeled transmission system topology that  
188 was used in the Company's IRP Update and long-term business plan.<sup>10</sup>

189 The 2007 IRP also identified 2,000 MW of renewable resources targeted by the  
190 end of 2013. Wind and other renewables are locationally constrained, so the  
191 Company must invest in additional transmission lines in order to deliver energy  
192 from the load centers to the customers. This transmission line is needed to deliver

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<sup>9</sup> PacifiCorp's 2007 IRP, Chapter 8 Action Plan, June 11, 2007, p. 231, (bold added). PacifiCorp 2007 Integrated Resource Plan Update, <http://www.pacificorp.com/File/File82304.pdf>.

<sup>10</sup>Id at p. 8.

193 new wind resources from Wyoming to Utah, including the following confirmed  
194 wind projects:

- 195 • High Plains I, Wyoming (99 MW)
- 196 • Rolling Hills, Wyoming (99 MW)
- 197 • Glenrock, Wyoming (99MW)
- 198 • Seven Mile Hill, Wyoming (99 MW)
- 199 • Seven Mile Hill II, Wyoming (19.5 MW)
- 200 • Glenrock III, Wyoming (39 MW)

201

202 The 2007 IRP Action Plan states the following specific actions the Company  
203 intends to perform:<sup>11</sup>

- 204 • The Company plans to accelerate its previous commitment to acquire  
205 1,400 MW of cost-effective renewable resources from 2015 to 2010 and  
206 increase this amount to 2,000 MW by 2013.
- 207 • The Company will seek to add transmission infrastructure and flexible  
208 generating resources, such as natural gas, to integrate new wind resources  
209 since it is expected that wind will comprise a large portion of the  
210 Company's accelerated and expanded renewable portfolio.
- 211 • The Company plans to expand its transmission system to allow the  
212 resources identified in the preferred portfolio to serve customers loads in a  
213 cost-effective and reliable manner.

214

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<sup>11</sup> Id, p.221 Chapter Highlights (summarized to some extent).

215 **Q. Has the Company's 2007 IRP included this transmission line, as well as other**  
216 **transmission projects, in its planning and risk modeling or in its long-term**  
217 **plan?**

218 A. Yes. Path C, as well as other relevant routes were included in the Company's  
219 long-range plan for resource options in the current IRP.<sup>12</sup> Exhibit 1.3 depicts  
220 Path C, as it first appeared in the Western Electricity Coordinating Council  
221 (WECC) path rating catalog.<sup>13</sup> The Path C Upgrade (which after years of  
222 economic and feasibility studies,) has now been identified and planned for  
223 construction as the Populus-to-Terminal transmission line. The current IRP does  
224 not include the projected 1,700 MW transmission capability that will be available  
225 with the completion of the other segments of the Energy Gateway project;  
226 however, it does include the 300 MW from the Path C upgrade.

227 **Q. It appears that the line in this case has been needed and planned for many**  
228 **years. Please comment.**

229 A. As early as 2002, the U.S. Department of Energy (DOE), in its National  
230 Transmission Grid Study identified several transmission constraints. Most  
231 notable was that the Wyoming-to-Northern Utah interface was congested 50

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12 PacifiCorp 2007 Integrated Resource Plan, May 30, 2007, pp. 113-114,  
<http://www.pacificorp.com/File/File74765.pdf>.

<sup>13</sup> Western Electricity Coordinating Council, 2003 Path Rating Catalog, Part VI, Item 1-50. [www.wecc.biz](http://www.wecc.biz).

232 percent or more of the hours during the year.<sup>14</sup> The 2004 Rocky Mountain Area  
233 Transmission Study (RMATS) found similar areas of congestion in the western  
234 interconnect. One recommendation from the RMATS report was a  
235 recommendation to build a new transmission corridor between Naughton and  
236 northern Utah and between Bridger and Midpoint.<sup>15</sup>

237 The DOE issued another report in 2006 identifying constrained transmission paths  
238 on the lines used to deliver electricity from generation plants in Wyoming to loads  
239 in Utah and Oregon and based on 2005 load forecasts. The DOE predicted that  
240 many of the associated paths would be heavily congested.<sup>16</sup> The Company has  
241 included an upgrade to this path in its long-term planning for several years.

242 **Q. With respect to the Company's 2007 IRP, does Utah have a renewable**  
243 **energy plan that the Company must adhere to, and if so, is it included in the**  
244 **Company's current IRP?**

245 A. Yes, although unlike the states of Oregon, Washington, and California, all of  
246 which have mandatory renewable portfolio standards (RPS), Utah has a less  
247 stringent renewable energy plan. During the past 2008 General Legislative  
248 Session, Senate Bill 202 was passed in Utah. This bill calls for at least 20 percent

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<sup>14</sup> U.S. Department of Energy, National Transmission Grid Study, pp. 15-188.

[www.pe.energy.gov/documents/Transmission\\_Grid.pdf](http://www.pe.energy.gov/documents/Transmission_Grid.pdf).

<sup>15</sup> Rocky Mountain Area Transmission Study, September 2004, p. IV.

<sup>16</sup> U.S. Department of Energy, Western Congestion Assessment Study, March 15, 2006,

[www.doe.energy.gov/Documents and Media/DOE Congestion Study 2006 Western Analysis.pdf](http://www.doe.energy.gov/Documents%20and%20Media/DOE_Congestion_Study_2006_Western_Analysis.pdf).

249 of electricity sales be from renewable energy by the year 2025 (where cost  
250 effective). The Company set a voluntary renewable target in Utah of 8.5 percent  
251 of electricity sales by the year 2016. The Company's IRP must take into account,  
252 in its portfolio planning, the specific guidelines, standards, and RPS in all of the  
253 states in its jurisdiction.

254 **Q. It appears that clean and renewable energy sources are a priority right now.  
255 Does this have an effect on the current case that you are reviewing?**

256 A. Yes. New transmission lines are necessary for bringing in electricity from often-  
257 remote locations, such as wind farms or geothermal facilities, where transmission  
258 either has not been built at all or it needs upgrading. Transmission is important at  
259 this time for the Company to achieve renewable energy targets. To put this in  
260 perspective, the Western Governors' Association launched its Clean and  
261 Diversified Energy Initiative (CDEI) in June, 2004. As part of the CDEI,  
262 Governor Huntsman signed a resolution establishing a task force to identify task  
263 ways to increase renewable energy, energy efficiency, and clean energy  
264 technologies within the context of the overall energy needs of the West. In the  
265 Western Governor's Policy statement, paragraph 4 states the following:

266 Western Governors find that a strong and resilient  
267 transmission and distribution grid is critical to electricity  
268 affordability and reliability. Grid expansion must also be  
269 undertaken in an environmentally responsible manner. We  
270 encourage regulators, policymakers, utilities, transmission  
271 operators and other stakeholders to consider the



272 recommendations identified within the CDEAC report in  
273 order to eliminate barriers to greater utilization of clean  
274 energy resources across the west.<sup>17</sup>

275

276 **Q. What is the CDEAC report referenced above?**

277 A. The initials “CDEAC” refer to the Clean and Diversified Energy Advisory  
278 Committee or task force that the Western Governors formed to identify  
279 technically and financially viable policy mechanisms to accomplish their goal of  
280 clean air. The CDEAC completed a transmission report which recommends and  
281 states that the West must improve the existing transmission system and expand  
282 the grid to deliver power from largely-remote resources to customers in load  
283 centers.<sup>18</sup> The CDEAC found that even with improvement in operation of  
284 existing transmission grids, new transmission will be needed to move new clean  
285 and diversified generation to markets. Finally, the CDEAC (in its  
286 Recommendation 12) urges regulatory commissions to acknowledge the public  
287 interest benefits of system-wide benefits and make public interest findings for  
288 cost-effective transmission projects that will enable states or the region to meet its  
289 energy goals.<sup>19</sup>

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<sup>17</sup> Western Governors’ Policy Statement, p. 4, [www.westgov.org](http://www.westgov.org).

<sup>18</sup> Report of the Transmission Task Force, May 2006, Western Governor’s Association Clean and Diversified Energy Initiative.

<sup>19</sup> Id. at p. 45.

290 **Q. It appears that Recommendation #12 is a strong argument from the Western**  
291 **Governors' task force that applies directly to this case? Would you please**  
292 **comment?**

293 A. Yes. Recommendation 12 implies that regulators should acknowledge and accept  
294 system-wide benefits from transmission expansion in making a public interest  
295 determination and as a factor for consideration of a certificate of public  
296 convenience and necessity for construction of transmission projects necessary to  
297 meet state energy goals and to ensure the efficient siting of new transmission and  
298 generation facilities.

299 **VI. NEEDS ANALYSIS**

300 **Q. Given the IRP, what other analysis or process did you use to determine the**  
301 **need and necessity for this transmission line to be built?**

302 A. I first looked at the Company's ability and willingness to finance this project.  
303 Then, I analyzed the current and projected network load growth, growth in peak  
304 demand, available alternatives, as well and the age of existing equipment and  
305 plant. I also reviewed mandatory reliability standards that the Company is  
306 required to meet, and commitments from prior Commission orders. Finally, I  
307 looked at the relationship of this transmission line to other planned transmission  
308 projects in the western interconnect.

309 With respect to the latter, the application filed by the Company in this proceeding  
310 is for a CPCN to construct the Populus-to-Terminal transmission line. However,  
311 it is important to take into consideration that this transmission line is an integral  
312 part of a larger project that includes approximately 1,700 miles of transmission  
313 lines throughout PacifiCorp's service area with an estimated project cost of \$4  
314 billion.

315 The project, named the Energy Gateway Transmission Expansion Project,  
316 includes Gateway West, Gateway South, and Gateway Central, all of which are  
317 intended to include new transmission lines, add to the existing main grid network,  
318 and new or upgraded substations. According to the Company, the Energy  
319 Gateway project was designed to meet the needs of PacifiCorp's network  
320 transmission customers by delivering network resources to loads, supporting retail  
321 load growth, and improving reliability--thus benefiting Rocky Mountain  
322 customers as a whole.

323 The Populus-to-Terminal transmission line constitutes the Segment B portion of  
324 Gateway Central (also described as Path C), and if approved and constructed as  
325 planned, is expected to interconnect with other regional projects, thus providing  
326 greater flexibility for the Company to access additional resources. Exhibit 1.4  
327 illustrates the currently planned project and expansion area and shows how the  
328 Populus-to-Terminal Line serves as the transport line to bring energy from

329 surrounding energy sources in the west, most notably wind energy from Wyoming  
330 and Idaho. The Exhibit shows that this line (Segment B) has been assigned  
331 “priority one” status, in that it is designed to meet base load service and  
332 reliability.<sup>20</sup>

333 **Q. Often a generation resource has been built first, and then the transmission**  
334 **facility was built and designed afterward to meet the needs of the generation**  
335 **resource? Why the change?**

336 A. That is traditionally how projects have been designed in the past. However,  
337 PacifiCorp has determined that, with the current uncertainty of the role of  
338 conventional coal resources, the time that it takes to permit and build a major  
339 transmission facility itself and the inability of many renewable resource  
340 developers to finance transmission investments, it was time to site transmission  
341 ahead of specific generation resources to best position the Company’s ability to  
342 meet forecasted load growth.<sup>21</sup> The Company stated that the transmission line for  
343 which a certificate is being requested in this docket will serve native load growth-  
344 -that is its primary purpose. Also, the hub and spoke design, as described in the

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<sup>20</sup> FERC Docket No. #EL-08-75-000 Petition for Declaratory Order of PacifiCorp to Confirm Incentive Rate Treatment for the Energy Gateway Transmission Expansion Project, July 3, 2008, Appendix A, Exhibit 1: Project Map.

<sup>21</sup> FERC Docket No. #EL-08-75-000 Petition for Declaratory Order of PacifiCorp to Confirm Incentive Rate Treatment for the Energy Gateway Transmission Expansion Project, July 3, 2008, p. 8.

345 Company's testimony, makes transmission a priority project in facilitating other  
346 energy resources.<sup>22</sup>

347 Regarding this topic, the Report of the Transmission Task Force for the Western  
348 Governors' Association (WGA) made a similar recommendation:

349 **Recommendation 13: Transmission in Advance of Clean and**  
350 **Diversified Generation.** Urge Governors, state regulators, state  
351 legislatures, and FERC to expand transmission in advance of  
352 generation to enable the modular development of location-  
353 constrained, clean and diversified areas to meet cost effective RPS,  
354 IRP, and state goals.<sup>23</sup>

355 The Division believes that building transmission to facilitate the delivery of  
356 power to and from a variety of generation load centers, including clean and  
357 renewable energy sources, is consistent with the state's energy policies; for  
358 example, as defined in Senate Bill 202, and is in the public interest

359 **VII. FINANCIAL VIABILITY**

360 **Q. In its Application, PacifiCorp states that the Company is financially stable**  
361 **and has the capability to finance the transmission line project. Will you**  
362 **please respond?**

---

<sup>22</sup> Id.

<sup>23</sup> Western Governors' Association Clean and Diversified Energy, Transmission Task Force Report, May 2006, p. 46.

363 A. Yes. In Mr. Bruce William’s Direct Testimony in this docket, he states that  
364 PacifiCorp senior secured debt is currently rated A3 by Moody’s Investors  
365 Service and A- by Standard and Poor’s—both investment grade ratings. The  
366 Division reviewed the Company’s November 28, 2007 Compliance Filing in  
367 Docket No. 05-035-54 and verified this information to be true. Most recently, the  
368 Company’s witness in its July 2008 Rate Case filing, Dr. Samuel C. Hadaway,  
369 stated that the ratings were still A3 and A- respectively.<sup>24</sup> Based on the  
370 Division’s review, we conclude that the Company should have access to capital  
371 markets in order to borrow funds necessary to finance the construction of the  
372 project.

373 **Q. PacifiCorp states that it “has received cash equity contributions from its**  
374 **parent company in the past, and if necessary, may again in the future.”<sup>25</sup>**  
375 **How does the Company’s relationship to its parent company facilitate its**  
376 **ability to make this large of an investment?**

377 A. MidAmerican Energy Holding Company (MEHC) has shown itself to be a long-  
378 term investor in capital intensive energy businesses. MEHC is associated with  
379 Berkshire Hathaway (rated AAA), facilitating PacifiCorp’s access to capital and  
380 reducing long-term debt financing costs. In the July 2008 General Rate Case

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<sup>24</sup> Docket No. 08-035-38, Direct Testimony of Samuel C. Hadaway, July 2008, p. 3, lines 58-59.

<sup>25</sup> Direct Testimony of Bruce Williams, Docket No. 08-035-42, April 2008, p. 2, lines 34-36.

381 filing, Mr. Richard Walje, President of Rocky Mountain Power, states the  
382 following:

383           The Company has greatly benefited from its ownership by MEHC,  
384           which has invested a total of \$615 million in cash contributions  
385           while not receiving any dividends from PacifiCorp since the  
386           acquisition on March 21, 2006.<sup>26</sup>

387 MEHC, as part of its acquisition of PacifiCorp, committed to upgrade the Path C  
388 transmission infrastructure by 300 MW at the cost of approximately \$78  
389 million.<sup>27</sup> The Path C upgrade (as originally described) increased transmission  
390 capacity by 300 MW from southeast Idaho to northern Utah. When the other  
391 segments of the Energy Gateway Transmission Project have been completed, this  
392 transmission line will increase capacity by 1,400 MW. The exact route and  
393 definition of Path C may have varied since the initial planning, but the Populus-  
394 to-Terminal project constitutes a large segment of the Path C upgrade. The  
395 planned transmission upgrade is included in the Company's current IRP and is  
396 also necessary for PacifiCorp to be in compliance with the Commission's Order  
397 supporting the acquisition of PacifiCorp by MEHC.<sup>28</sup>

398 This proceeding does not in any way address the prudence of costs, cost recovery  
399 in rates, or cost allocation. Nevertheless, absent any major shocks in the

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<sup>26</sup> Docket No. 08-035-38, Direct Testimony of A. Richard Walje, July 2008, p. 12, lines 251-253.

<sup>27</sup> Docket No. 05-035-54, Commitment #34.

<sup>28</sup> Commission Order approving Stipulation, Docket No. 05-035-54, issued January 27, 2006 and amended March 15, 2006.

400 economy, the Division finds that PacifiCorp can obtain the financing for this  
401 project at reasonable debt financing costs.

402 **A. MEHC MERGER COMMITMENTS**

403 **Q. The Company states that its second justification for the construction of this**  
404 **transmission line is to meet the MEHC merger commitments that were put**  
405 **in place in Docket No. 05-035-54 in March, 2006. Will you please comment?**

406 A. Yes. I previously mentioned two of the commitments by PacifiCorp and  
407 MEHC—the Path C upgrade and investment in transmission to facilitate  
408 renewable resources. In Commitment #34, MEHC committed its resources and  
409 leadership to assist PacifiCorp states in the development of transmission projects  
410 upon which the states could agree. The Path C Upgrade, the construction project  
411 being proposed in this application was identified as one of the most necessary.  
412 The Company agreed to upgrade the Path C capacity by 300 MW at an  
413 approximate cost of \$78 million. The application for the CPCN to build this  
414 upgrade is necessary in order for the Company to fulfill this commitment.

415 **Q. What benefits did MEHC and the Company identify would come from the**  
416 **upgrade of this line?**

417 A. In Response to DPU Data Request 1.14, the Company listed the following:

418 • Enhance the reliability of the only high use commercial path between



- 419 Idaho and Utah.
- 420 • Provide for increased transfer capability between the east and west control  
421 areas.
- 422 • Facilitate the delivery of power from wind projects in Wyoming and  
423 Idaho.
- 424 • Provide PacifiCorp with greater flexibility and the opportunity to consider  
425 additional options regarding planned generation capacity additions
- 426

427 **Q. Do you agree?**

428 A. As previously described, Path C was in need of an upgrade, and the MEHC  
429 commitment to invest in the Company's transmission system is in the public  
430 interest and will benefit ratepayers as a result of the objectives listed above. This  
431 particular transmission line will facilitate the ability of the Company to access  
432 clean energy sources as well facilitate the Company's commitment to meet its  
433 voluntary renewable target of 8.5 percent of electricity sales by the year 2016.<sup>29</sup>  
434 The Division finds that the needs and welfare of Utah's citizens, as well as  
435 surrounding Rocky Mountain Power customers, will best be served by the  
436 approval of this line and the benefits envisioned by the merger commitment.

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<sup>29</sup> See Renewable Action Plan, filed with PacifiCorp's 2007 IRP, May 30, 2007.  
<http://www.pacifiCorp.com/File/File74767.pdf>.

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**B. NETWORK LOAD OBLIGATION**

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**Q. The Company states that it faces increasing and unacceptable risk of not meeting the necessary load service, and the primary need and necessity of the transmission line is the Company's necessity or requirement to meet its load obligation. Have you found evidence regarding the Company's load growth and projected load needs?**

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A. Yes. I reviewed testimony and exhibits filed in the December 2007 and July 2008 PacifiCorp General Rate Cases, as well as looked at current population estimates and other economic factors. One of the key drivers of load growth is population growth. The 2008 population estimates (released this month) by the Governor's Office of Planning and Budget, Demographics and Economic Analysis (DEA) show that Utah gained 82,400 new residents since July 2007, putting the state's total population at 2,781,954. Moreover, the DEA data forecasts that Utah's population is expected to grow to 3.5 million residents by the year 2017 and to 4.3 million by the year 2030.<sup>30</sup>

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As previously described, the transmission line will travel through Salt Lake, Box Elder, Davis, and Weber Counties.

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<sup>30</sup> [www.governor.utah.gov/dea](http://www.governor.utah.gov/dea).

456           The graphic below shows that not only is Utah's population growing, but the  
457           counties through which the line will run are also growing.

458

459   **Q.    What other information did you find supporting the growth in Utah's**  
460   **population?**

461   A.    In a recent presentation to the Utah League of Cities and Towns, Dr. Michael E.  
462   Christensen, Director of the Office of Legislative Research, reported that Utah's  
463   population is projected to increase by approximately 587,000 this decade and  
464   653,000 next decade.<sup>31</sup> Dr. Christensen's claims that, other than the decade of  
465   the 1980s, Utah's population has continually climbed each decade from the 1960s  
466   to the current data and projecting forward in to 2010. Where load growth is

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<sup>31</sup> Dr. Michael E. Christenson, Office of Legislative Research and General Counsel. "Demographic Trends In Utah Affecting Public Policy Decision-Makers," presented to the Utah League of Cities and Towns, April 10, 2008.

467 concerned, this suggests that there will be increasing demand for electricity from  
468 consumers, as demand tends to coincide with population growth.

469 **Q. What other data did you find about load growth?**

470 A. In the 2007 General Rate Case, PacifiCorp witness Mr. G. Michael Rife stated  
471 that “from 2002 through 2006 the energy growth in Utah averaged 3.2 percent per  
472 year, and the summer peak average growth rate was 3.4 percent.”<sup>32</sup> In the July  
473 2008 General Rate Case, PacifiCorp witness Mr. Gregory N. Duvall reported that  
474 there has been a system-wide increase in load of 0.8 million megawatt hours or  
475 1.4 percent since the 2007 case.<sup>33</sup> PacifiCorp witness Mr. Peter Eelkema states  
476 that the average annual growth rate in energy sales for Utah from 1996 to 2007  
477 was 3.0 percent as compared to 2.5 percent for the Rocky Mountain Power region  
478 as a whole, and peak demand in Utah has increased by 4.23 percent, compared to  
479 2.58 percent for the jurisdictional peak.<sup>34</sup> This information has not been verified  
480 by the Division as of this date.

481 Residential and industrial growth are driving load growth in Utah. The WECC  
482 incremental load forecast, provided in Response to DPU Data Request 1.14, states  
483 that Utah needs more than 1,800 MW of load between 2009 and 2017 to meet this  
484 growth.

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<sup>32</sup> Direct Testimony of G. Michael Rife, Docket No. 07-035-93, page 14, lines 315-318.

<sup>33</sup> Direct Testimony of Gregory N. Duvall, Docket No. 08-035-38, p. 4, lines 78-80.

<sup>34</sup> Direct Testimony of Peter Eelkema, Docket No. 08-035-38, p. 5, lines 96-98, (not weather normalized).

485 **Q. What is the most current information that you have stating the need for this**  
486 **line to meet the Company's network load obligation?**

487 A. The Company's 2007 IRP shows the total net control area forecasts of loads  
488 increasing at an average rate of 2.4 percent annually from 2007 to 2016.<sup>35</sup> The  
489 2007 IRP estimates that there will be system-wide load growth of 2.5 percent  
490 from 2007 to 2016 and a Utah average annual rate of about 3 percent. The IRP  
491 forecasts average annual loads increases averaging rate 4.5 percent.<sup>36</sup>

492 In the July 2008 General Rate Case, PacifiCorp witness Mr. Douglas E. Bennion  
493 testifies that the Company has seen significant peak load along the Wasatch Front  
494 at an annual rate of 5.1 percent. Moreover, the Company specifically notes  
495 increased commercial and industrial growth requests for service in Box Elder  
496 County (where the line runs through) and expects to see continued growth in the  
497 next two to three years.<sup>37</sup>

498 In the Company's Preliminary June 2008 Long-Term Load Forecast, presented at  
499 the June 26, 2008 IRP meeting, the Company used actual historical usage data  
500 from Company records dating from 1998 through 2007. The Company also used  
501 annual economic data from Global Insight (30 years of forecast). The June 2008

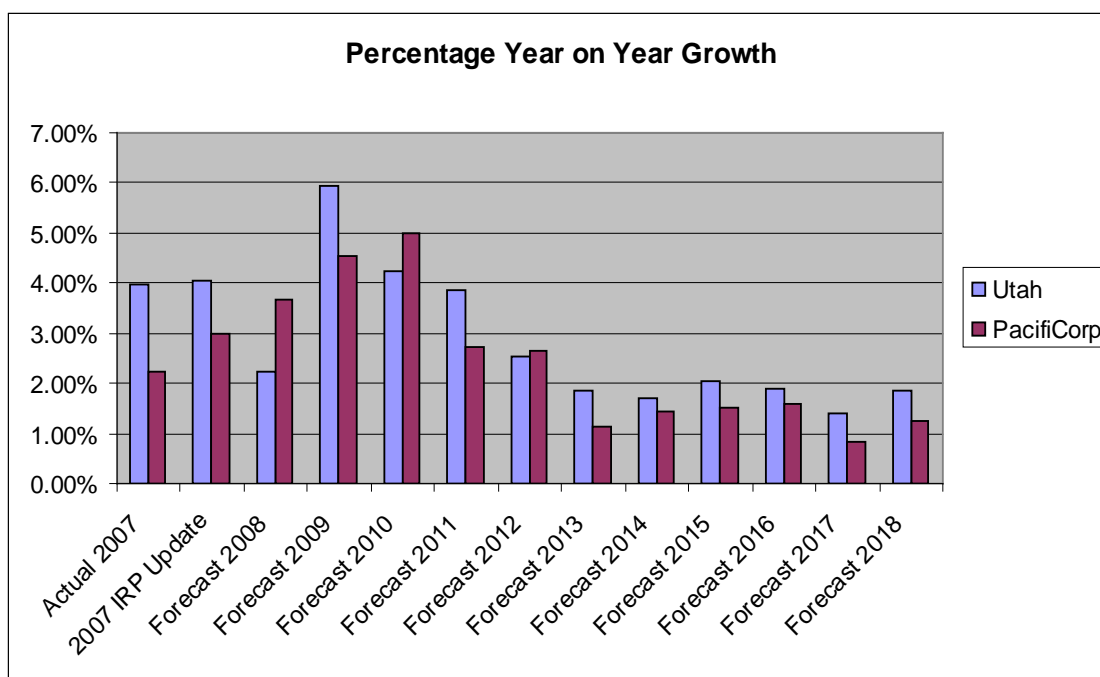
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<sup>35</sup> PacifiCorp 2007 Integrated Resource Plan, May 30, 2007, p. 3,  
<http://www.pacificorp.com/File/File74765.pdf>.

<sup>36</sup> Id.

<sup>37</sup> Direct Testimony of Douglas N. Bennion, Docket No. 08-035-38, July 2008, p. 5, lines 115-120.

502 forecast summary showed that the percentage year-over-year growth of retail  
503 electric sales in Utah increases by 2.24 percent from the actual 2007 results. The  
504 ten-year average of the percentage year on year growth of retail electric sales  
505 volume shows an average of 2.77 percent increase over the next ten years and a  
506 2.1 percent increase over the same period for the Rocky Mountain Power region  
507 in total. The chart below illustrates the Company's preliminary 2008 load  
508 forecast findings:<sup>38</sup>



509

510 The Division has not yet had the opportunity to verify these results or the  
511 underlying assumptions, but the data suggest that load will continue to grow as it

<sup>38</sup> PacifiCorp's Preliminary June 2008 Long Term Load Forecast.  
<http://www.pacificorp.com/Article/Article23848.html>, not yet posted as this is the Preliminary Report..

512 has over the past ten years and the Company will need to meet its network load  
513 obligation. The Division will analyze the load forecast and load growth  
514 projections in its audit of the 2008 General Rate Case.

515

516 **C. ALTERNATIVES**

517 **Q. Will you please discuss alternatives that were considered in this case?**

518 A. Yes. One alternative that the Company presented in Mr. Cupparo's Testimony,  
519 would be not to build the line. The Company looked at this option, but found that  
520 it would not meet the need for new incremental transmission capacity, and it  
521 precluded the ability of new energy resources to be delivered into Utah from  
522 Wyoming, Idaho, and the Northwest.

523 The Division contemplated this alternative. To serve the expected continued  
524 growth in electricity consumption and peak demand, especially along the Wasatch  
525 Front, additional electricity would need to be generated or imported into Utah by  
526 existing transmission facilities. The load would have to be met by curtailing or  
527 interrupting other customers. The goal to bring wind generation from Wyoming  
528 to Utah would not be feasible, and the entire Energy Gateway Project would have  
529 to be re-routed or canceled, since this line was a priority path for the project.

530 The Division finds this alternative to be unacceptable. It would not meet future  
531 load growth needs, would not address the Integrated Resource Plan and Business  
532 Plan of the Company, or the commitments made by PacifiCorp and MEHC as part  
533 of the acquisition. In addition, this alternative would not facilitate the state's  
534 energy goals to bring clean and diversified energy to the state.

535

536 **Q. The Company mentioned a second alternative--to rebuild some of the**  
537 **existing 138 kV lines interconnecting Utah and southeast Idaho.<sup>39</sup> Does the**  
538 **Division's analysis show this to be an acceptable alternative?**

539 A. The Division does not believe this is the best solution or alternative in this case.  
540 Although the Company could improve some of the existing structure, this option  
541 would result in a small incremental increase of 300 MW in transmission capacity.  
542 There are three 138 kV lines and one 345 kV lines that run from northern Utah to  
543 Idaho. The Division discovered through Data Request 1.14 that some portions of  
544 the current 138 kV transmission system from Salt Lake northward into southeast  
545 Idaho are very old, with some of the lines constructed prior to World War I.<sup>40</sup> If  
546 the load is too high, especially during summer peaking months, others might  
547 possibly experience outages.

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<sup>39</sup> Direct Testimony of John Cupparo, Docket No. 08-035-442, pp. 4-5.

<sup>40</sup> See Response to DPU Data Request 1.14.



548 An individual transmission line can affect the entire transmission grid. Therefore,  
549 a single outage on any of the individual lines can cause significant reductions in  
550 transmission capacity on the grid itself. The Company explained that in order to  
551 beef up the system, key segments of the path would have to be removed from  
552 service while another line is being upgraded. The Company did not want to  
553 expose itself to this type of risk and unacceptable reliability exposures during the  
554 construction. The Company also stated that construction of this nature would take  
555 longer and interfere with the Company's overall transmission expansion projects.

556 The Division agrees with the Company and also finds that the incremental  
557 capacity gained by upgrading some of the 138 kV lines would not provide  
558 adequate transmission capacity for the expected load growth and plans to bring  
559 renewable energy to Utah. Incrementally increasing the lines would not reliably  
560 allow enough transmission capacity for larger flows of power to come in and out  
561 of Utah from the north and from the southeast.

562 An example of future needs includes increasing service requests to commercial  
563 development in Box Elder, bringing wind energy to Utah from Wyoming,  
564 increasing load growth to service the demands of the Wasatch Front and making  
565 the current transmission topology more reliable. This clearly shows that trying to  
566 upgrade the 138 kV lines and associated transmission plant, will not serve the  
567 future public convenience and necessity, but may even be a detriment to the

568 present convenience and necessity.

569 **Q. It appears that system reliability was one of your concerns in looking at**  
570 **available alternatives. Is that correct?**

571 A. Yes, very much so. The Division submitted several data requests to the Company  
572 about reliability and congestion on the transmission grid. The Company in turn  
573 provided to the Division a report that validated the congestion that currently exists  
574 on Path C. The Division cannot testify to the entire congestion on Path C, as the  
575 Company only provided a partial response to this data request, stating “it was too  
576 voluminous and complicated.” However, the Company’s Response to DPU Data  
577 Request 1.14 (b) includes curtailment data between May 2007 and April 2008.

578 **Q. What are your findings regarding the first two alternatives proposed with**  
579 **respect to meeting the public interest standard?**

580 A. The first two alternatives do not meet the public interest standard and do not  
581 address the present and future public convenience and necessity requirement.  
582 Given the current transmission topology, neither alternative is feasible.

583 **Q. Were there any other alternatives that the Division looked at in lieu of**  
584 **constructing the transmission line?**

585 A. A plausible alternative that the Division considered is demand side management  
586 and energy efficiency measures. Efficient use of energy and demand-side

587 measures would reduce usage and are important measures to reduce energy  
588 consumption. However, even with efficiency measures, the existing transmission  
589 system is severely constrained, as I described above. The transmission line would  
590 still need to be built to meet growing energy needs, including clean renewable  
591 markets. The Division finds that none of the above alternatives would achieve the  
592 long-range, system-wide needs, such as meeting load growth, system reliability,  
593 flexibility, congestion relief, and the delivery of power from renewable resources.

594 In the event that the Commission decides to not grant this application, the  
595 Company would not be able to meet its previously planned renewable energy  
596 resource additions or its network load obligation. Transmission projects can take  
597 up to five years to plan, permit, design, and construct. Since many potential and  
598 confirmed renewable resources are located far from population centers where the  
599 power must be delivered, the Company would not have time to find alternatives to  
600 the current plan, design, and construction layout. Therefore, additional  
601 transmission capacity must be built to deliver clean and renewable energy.  
602 Therefore, with respect to the Company meeting its IRP mandate, there is a  
603 legitimate need for this transmission line to be constructed.<sup>41</sup>

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<sup>41</sup> PacifiCorp's 2007 Integrated Resource Plan, June 11, 2007 Plan, pp. 113-114.  
<http://www.pacificorp.com/File/File82304.pdf>.

605           **VIII. THE DIVISION’S FINDINGS AND RECOMMENDATIONS**

606   **Q.    Will you please summarize the Division’s analysis and findings?**

607   **A.**    The Division studied and reviewed the statutory requirements applicable to this  
608           case. We then applied them to the variety of factors demonstrating the public  
609           interest requirement and the “convenience and necessity” requirement both for the  
610           future and the current time period. The Division makes the following findings in  
611           this case:

- 612           •       The Company will be able to finance the transmission line either from its  
613                   own funds or through external capital sources. The estimated project costs  
614                   are in the range of \$700-\$800 million.
  
- 615           •       The Company has secured franchise agreements permitting construction  
616                   within public thoroughfares and has applied, or is in the process of  
617                   applying, with local governmental entities for conditional-use permits and  
618                   similar land use authorizations. To date, the Division is aware of two  
619                   outstanding permits, but the Company is in the process of working to  
620                   obtain them. These include Elwood City and Willard City.
  
- 621           •       The transmission line will not conflict with or adversely affect the  
622                   operations of any existing certificated fixed public utility providing retail

623 electric service to the public.

624 • The transmission line does not constitute an extension into the certificated  
625 service territory of any existing public electric utilities. To date there have  
626 been three parties that have intervened in this case: Western Resource  
627 Advocates (WRA), the Committee of Consumer Services and Willard  
628 City.

629 The Division finds this line is needed and complies with the “convenience and  
630 necessity” requirement based on the following reasons:

- 631 • The public welfare as a whole will be inconvenienced if no action is taken.
- 632 • The Company must meet its load growth obligation and forecasts show  
633 that both load and peak demand will continue to grow, especially along  
634 the Wasatch front and in commercial developments in Box Elder County.  
635 Population continues to grow, and this line is needed to serve the  
636 incremental capacity of transmission.
- 637 • This line will enhance PacifiCorp’s ability to bring in clean energy sources  
638 from Wyoming and Idaho, both projected and confirmed to support the  
639 Governor’s clean air initiatives.
- 640 • Utah needs this line in order to bring in clean energy sources from

641 Wyoming and Idaho, both projected and confirmed, and to support the  
642 Governor's clean air initiatives.

643 • The Company is exposed to unacceptable risk of outages, not meeting  
644 reliability standards, and the possibility of monetary sanctions but for this  
645 line.

646 • Ratepayers will benefit by having reliable service due to the increased  
647 transfer capability and flexibility provided by the line. The Division finds  
648 that the other considered alternatives were inferior to this line being  
649 constructed.

650 • The Company is willing to invest in this line and the entire energy  
651 Gateway project, and this line is the critical component that provides the  
652 link for the Gateway Energy Transmission Expansion Project in order for  
653 the project to realize the full benefits.

654 **IX. CONCLUSION**

655 **Q. What is the Division's recommendation in this case?**

656 A. The Division recommends issuance of the certificate contingent upon the  
657 Company acquiring all necessary permits. If the Commission grants the  
658 certificate, the Division further recommends that the Company file within ten

659 days of the Commission's order a report detailing all necessary permits indicating  
660 which ones are yet to be obtained and a time line of the expected acquisition for  
661 each outstanding permit. If after a reasonable time all necessary permits have not  
662 been acquired, the Division recommends that the Company be ordered to appear  
663 before the Commission explaining in detail any delays in obtaining the permits.  
664 Based on the Company's explanations of any delays, intervening parties may  
665 request additional information from the Company and the opportunity to file  
666 additional evidence in this case. The Division suggests 90 days after the  
667 Commission's order is a reasonable amount of time.

668 **Q. Does the Division have any additional recommendations or proposals that**  
669 **pertain to this case?**

670 A. There are two proposals that we recommend. The Division recommends that the  
671 Company be required to file quarterly updates with the Commission comparing  
672 the progress of the project to milestones, including both construction and  
673 budgetary milestones. The first report can act as a proposed report format, which  
674 parties can comment on.

675 Finally, in anticipation of future prudence review, the Division recommends that  
676 the Company be required to include the Populous-to-Terminal project in its  
677 current IRP for analysis and submit a separate report detailing the results to the  
678 Commission prior to any request for cost recovery. Preferably, the report would

679 be submitted concurrently with the report on the current IRP.

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

681 **A. Yes.**