

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the matter of the Application of)
Rocky Mountain Power for a Certificate)
of Convenience and Necessity Authorizing)
Construction of the Populus-to-Terminal)
345 kV Transmission Line Project)

DIRECT TESTIMONY OF
JOHN CUPPARO

Docket No. 08-035-__

APRIL 2008

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

2 A. My name is John Cupparo. My business address is 825 NE Multnomah, Portland,
3 Oregon, 97232. My present position is Vice President of Transmission.

4 **Q. How long have you been in your present position?**

5 A. I have been in my present position since August, 2006. Before being appointed to
6 this position I was Chief Information Officer for PacifiCorp.

7 **Q. Please describe your education and business experience.**

8 A. I have a Bachelor Science degree in Computer Information Systems from
9 Colorado State University. My experience spans 23 years in the energy industry
10 including oil, gas and electric utilities. The majority of my experience has been in
11 information technology supporting natural gas pipelines, energy commodity
12 trading and end to end electric utility operations. I have been employed at
13 PacifiCorp since September, 2000. My job responsibilities have covered many
14 aspects of utility operations – commercial & trading, outage management,
15 customer service, transmission scheduling and regulatory issues. My experience
16 within PacifiCorp includes management of multi-function organizations, large
17 project delivery and resolving complex scheduling and contract scenarios.

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

19 A. The purpose of my testimony is to establish the purpose and need for the
20 Populus-to-Terminal 345 kV transmission line (the “Transmission Project” or
21 “Project”).

22 **Q. Would you please summarize your testimony in this proceeding?**

23 A. In summary, the Transmission Project is needed to support long term load growth

24 and strengthen the overall transmission system. By constructing this Project,
25 overall reliability of the transmission system will be enhanced by adding
26 incremental new capacity for northbound and southbound flows between SE
27 Idaho and Utah. In addition to load service requirements this Project will also
28 improve our ability to recover from certain system and plant outage conditions.
29 These conditions typically occur during winter/summer peaks and when
30 generation or transmission forced outage events occur in various sections of the
31 Company's eastern control area.

32 **Q. Please describe the Transmission Project.**

33 A. The major components of the project consist of a substation and the transmission
34 line. A new substation (referred to as the "Populus Substation") will be
35 constructed near the existing Jim Bridger 345 kV transmission line corridor in
36 southeast Idaho near the town of Downey. A new double-circuit 345 kV
37 transmission line will be constructed from the Populus Substation to the existing
38 345 kV Terminal Substation in Salt Lake City, Utah southwest of the Salt Lake
39 International Airport. A map showing the route of the Transmission Line is
40 attached as Exhibit A; minor adjustments to the route may occur during final
41 design. The transmission line will also tie into the existing Ben Lomond
42 Substation in Box Elder County, Utah. Initially, only a 345 kV substation yard
43 will be developed at the Populus Substation and the existing Jim Bridger-Borah,
44 Jim Bridger-Kinport, and Ben Lomond-Borah 345 kV lines will be looped in and
45 out of the Populus Substation. However, the Populus Substation will be
46 configured to facilitate the addition of planned future 345 kV and/or 500 kV

47 transmission lines. The Ben Lomond Substation and Terminal Substation will be
48 expanded to accommodate the new 345 kV transmission lines and termination
49 points.

50 **Q. What analysis or process did the Company base its determination that**
51 **additional transmission capacity was need?**

52 A. The Company utilizes an Integrated Resource Plan (“IRP”). this is a public
53 process used to develop a framework for the prudent future actions required to
54 ensure the Company continues to provide reliable and least cost electric service to
55 its customers, while striking an expected balance between cost and risk over the
56 planning horizon and taking into consideration environmental issues and the
57 energy policies of our states. As stated in Chapter 2 of the 2007 IRP,
58 “PacifiCorp’s IRP mandate is to assure, on a long-term basis, an adequate and
59 reliable electricity supply at a reasonable cost and in a manner ‘consistent with the
60 long-run public interest.’”

61 **Q. How does this Transmission Project meet those IRP requirements ?**

62 A. The Project is designed to meet load growth and enhance grid reliability. Based
63 on the Company’s 2007 Integrated Resource Plan (“IRP”) forecasts, PacifiCorp’s
64 network load obligation, is expected to grow during the next ten years at an
65 annual average rate of 3 percent. In addition, planning reserves as required to
66 maintain reliability obligations will increase. The existing transmission capacity
67 from southeastern Idaho into Utah is fully utilized and no additional capacity can
68 be made available without the addition of new transmission lines. The primary
69 purpose of this Project is to add significant incremental transmission capacity

70 between Southeast Idaho and Northern Utah and further to facilitate a stronger
71 interconnection to systems feeding Idaho, Wyoming and the Northwest in general.
72 The Company determined that the best means of making a significant incremental
73 increase in transmission capacity necessary to continue to reliably and
74 economically serve these growing electrical loads would be to construct a new
75 double circuit transmission line connecting the southeast Idaho transmission
76 system to the Utah load center in the Wasatch Front. The addition of these new
77 345 kV circuits will not only provide access to existing and future generating
78 resources, but will enhance the reliability of the existing system. I believe the
79 recognized need for such improved transmission capability was what led
80 MidAmerican Energy Holdings Company and other parties to agree upon the
81 commitment to increase the transmission capacity from Idaho to Utah by June
82 2010. This commitment was made as part of the acquisition of PacifiCorp in
83 2006.

84 **Q. Were alternatives to the Project considered?**

85 A. Yes, two other alternatives were considered, but rejected. The first alternative
86 was to not build the line. This option was rejected since it did not provide any
87 new incremental transmission capacity and precluded the ability of new resources
88 to be delivered into Utah from Wyoming, Idaho, or the Northwest in general.
89 New incremental transmission capacity is needed for both load service and for
90 contingencies. Another alternative considered was to rebuild some of the existing
91 138 kV lines interconnecting Utah and Southeast Idaho. This alternative provided
92 only a small incremental increase of 300 MWs in transmission capacity across the

93 currently constrained path between Southeast Idaho and Utah. In addition to the
94 marginal increase in transmission capacity this alternative had serious
95 constructability issues as it required key segments of the path to be removed from
96 service for extended periods as existing facilities were upgraded. This placed
97 significant exposure to the overall transmission system serving the area and
98 exposure to Rocky Mountain Power customers during construction. As this
99 alternative did not meet the long-range resource plans for the 10 and 20-year
100 periods, but had only small increases in over all transmission capacity and
101 unacceptable reliability exposures during construction it was determined that this
102 option was insufficient to meet long -term customer needs.

103 **Q. Please describe further why the Project was selected?**

104 A. The Project was selected based on several factors:

- 105 • The Project will add significant incremental transmission capacity
106 (planned rating 1,400 MWs) across the current constrained transmission
107 path
- 108 • The Project will allow import of up to 1,400 MWs of forecast renewable
109 resources capacity from Wyoming and Southern Idaho. This new
110 capacity is required based on long-term planning horizons of 10 years or
111 more.
- 112 • The Project will use some existing corridors that were acquired just for
113 this purpose and optimizes use of limited and scarce transmission corridor
114 lands.
- 115 • The Project can be constructed with existing facilities remaining in

116 service without increased reliability exposure to the current system.
117 • Currently line and station maintenance windows are limited. When
118 completed, this Project will improve our ability to perform required
119 maintenance without significant derate of the system, and it will reduce
120 outage risks when portions of transmission facilities are removed from
121 service for maintenance.

122 As I have indicated, flows across Path C, which is the existing transmission path
123 that the Populus-to-Terminal line will supplement, is a heavily used path within
124 Rocky Mountain Power's system and the WECC. The Project satisfies not only
125 the load growth requirement, but strengthens the system for Rocky Mountain
126 Power customers generally.

127 **Q. How will the Transmission Project benefit Rocky Mountain Power**
128 **customers?**

129 A. The Transmission Project will provide an efficient and reliable supply of
130 transmission capacity to meet existing and future electrical loads by June 2010.
131 Without the new capacity, PacifiCorp would have to rely on the existing
132 transmission interconnections to the Desert Southwest, Central Utah, Four
133 Corners, and Eastern Wyoming. These transmission paths are currently fully
134 utilized and do not provide any meaningful transmission capacity required for
135 future projected load. Without the increased transmission capacity provided by
136 the Project, PacifiCorp would be faced with an increased and unacceptable risk of
137 not being able to meet its load service obligations during all periods. The Project
138 will enhance the Company's ability to provide reliable and efficient service to all

139 customers. Further, in order to provide low-cost energy, the Company must have
140 the ability to acquire power from numerous generation sources in order to
141 negotiate the most competitive pricing. By adding transmission capacity we
142 expand our ability and options to obtain additional generation sources at
143 competitive pricing. Currently there is only one 345 kV line from Idaho to the
144 Wasatch Front in Utah. The Transmission Project will result in a stronger
145 interconnection with Idaho Power Company and the existing Wyoming-to-Idaho
146 transmission system, as well as providing better transmission system access to the
147 Northwest Power Pool and electrical generation reserves. The Transmission
148 Project, especially when complemented with the other proposed Energy Gateway
149 projects, will also facilitate the development of renewable and other generation
150 sources in Idaho and Wyoming by providing transmission capacity from proven
151 areas of resource development to load centers. Generally, the addition of the
152 Transmission Project will be an important piece in strengthening the Western
153 grid's transmission infrastructure, which I believe is necessary, based upon our
154 customers long-term load growth projections, and the contingencies and
155 restrictions we are beginning to see on the network during outage conditions. The
156 Project is widely regarded as necessary, as indicated in the Rocky Mountain Area
157 Transmission Study (RMATS) report dated September 2004 Executive Summary
158 Pages III, IV and V, and Chapter 3 pages 3-1 to 3-5. Also, reports initiated by the
159 Western Governor's Association showed Path C as a constraint that needs to be
160 addressed.

161 **Q. Will the Transmission Project provide increased reliability for the**
162 **Company’s wholesale transmission customers?**

163 A. Yes. Besides PacifiCorp, Utah Associated Municipal Power Systems
164 (“UAMPS”), relies on Utah-based generation to support loads in Idaho. Increased
165 capacity in the northbound direction provides better reliability for long-term load
166 service in Idaho. Without increased northbound transmission capacity, both
167 PacifiCorp and UAMPS would be required to find alternative resource suppliers
168 for Idaho loads, potentially increasing their purchased power costs. In addition,
169 the current Path C is utilized by other transmission customers as a means to move
170 short-term and non-firm energy into and from the northwest. Increasing capacity
171 across this path will significantly improve a point of constraint on the system that
172 currently affects numerous transmission customers.

173 **Q. Will the Transmission Project provide other benefits to the Company’s**
174 **transmission system?**

175 A. Yes. As has been seen in the West as well as other parts of the country, the
176 transmission grid can be affected in its entirety by what happens on an individual
177 transmission line. For example; the transmission path between Idaho and Utah is
178 comprised of several individual transmission lines or line segments. A single
179 outage on any of the individual lines due to storm, fire, or other external human
180 interference can and does cause significant reductions in transmission capacity.
181 This reduction occurs on a portion of the system between Idaho and Utah that is
182 already constrained at times with all elements in service, and can cause adverse
183 impacts on other portions of the Company’s transmission serving Idaho and Utah.

184 Additionally, these lines improve our ability to send energy from the northwest to
185 the southwest and from the southwest to the northwest depending on economic
186 conditions. Limitations on our ability to move energy across these lines can
187 impact costs to serve our customers and can reduce potential revenue credits from
188 third-party wheeling purchases. Strengthening this path with the new
189 transmission line will benefit all customers due to these factors.

190 **Q. Are there other benefits you see from this Project?**

191 A. Yes. While this Project provides the next necessary increment of transmission
192 capacity it also supports and complements other future transmission investments
193 that are currently proposed by PacifiCorp and other utilities in the region. This
194 Project positions PacifiCorp to be strongly interconnected to other regional
195 projects currently being planned and provides options for access to additional
196 resources.

197 **Q. Is the Company seeking a determination of rate treatment for the cost of the**
198 **Transmission Project at this time?**

199 A. No. Cost recovery is not being sought through this filing but will be made
200 through a future general rate case.

201 **Q. Does this conclude your direct testimony?**

202 A. Yes.

EXHIBIT A

TRANSMSSION LINE CORRIDOR ROUTE MAP