

1 **Q. Please state your name, business address, and present position with**
2 **PacifiCorp dba Rocky Mountain Power (“the Company”).**

3 A. My name is Douglas N. Bennion. My business address is 1407 West North
4 Temple, Suite 270, Salt Lake City, Utah 84116. I am the Vice President of
5 Engineering Services and Capital Investment for Rocky Mountain Power.

6 **Qualifications**

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

8 A. I received a Bachelor of Science Degree in Electrical Engineering from the
9 University of Utah and I am a registered professional engineer in electrical
10 engineering in the state of Utah. In addition to formal education, I have attended
11 various educational, professional and electric industry seminars. I joined the
12 Company in 1978, and during those 34 years I have held various engineering
13 positions of increased responsibility, providing extensive experience working
14 across PacifiCorp’s service territory prior to assuming my current position.
15 Additionally, I have provided testimony on various matters before the Public
16 Service Commission of Utah, the Idaho Public Utilities Commission, and the
17 Wyoming Public Service Commission (“the Commission”).

18 **Q. Please describe your present duties.**

19 A. I am responsible for Rocky Mountain Power’s transmission and distribution
20 (“T&D”) network investment planning, which assists the Company in providing
21 safe, economic and reliable energy delivery to our customers. This includes
22 prioritizing investments to manage risk and planning future T&D investments to
23 meet customer energy needs, while maintaining industry reliability and operation

24 standards.

25 **Q. What is the purpose of your testimony in this proceeding?**

26 A. The purpose of my testimony is to explain and support the T&D capital
27 expenditures included in the Company's revenue requirement, with the exception
28 of the main grid transmission projects, which will be addressed by Mr. Darrell T.
29 Gerrard. Specifically, my testimony includes an explanation of the Company's
30 local transmission and distribution capital investment plan, plant additions to
31 support capacity increases, and justification for program funding to support
32 distribution reliability in Utah.

33 **Q. Please describe the major T&D investments that the Company is adding to**
34 **rate base in this case.**

35 A. Between June 30, 2011 (the conclusion of the base period in this filing), and
36 May 31, 2013 (the conclusion of the test period), the Company will place into
37 service approximately approximately \$182.0 million of Utah distribution
38 investment, \$206.2 million of local transmission investment, and approximately
39 \$571.9 million of main grid transmission and generation/municipal
40 interconnection investment.

41 Significant local transmission and Utah distribution investment projects
42 and their associated plant to be placed in service in this filing include the following:

- 43 • **City Creek Center: New 40 MW Development for PRI Phase II** (\$17.8
44 million of Utah distribution investment and \$4.5 million of local
45 transmission investment) - Property Reserve Inc. ("PRI") is developing the
46 City Creek Center, which is a development in downtown Salt Lake City,

47 Utah, that encompasses two-and-a-half city blocks. The developed area
48 also includes several building facilities that will remain unchanged, but are
49 required to be fed from the new power upgrades installed for the City
50 Creek Center. This project is projected to be completed by May 2012;

51 • **Nibley: New 138-12.5 kV Substation and Rebuild Seven Miles**
52 **Transmission** (\$7.3 million of Utah distribution investment and \$8.3
53 million of local transmission investment) - This project will build a new
54 138-12.5 kV, 40 MVA substation next to the existing Nibley substation in
55 Cache County, Utah with three 12.5 kV distribution feeders, rebuild a
56 seven mile section of 46 kV transmission line to 138 kV operation, and
57 add two 138 kV circuit breakers at the Green Canyon substation. This
58 project is projected to be completed by June 2012;

59 • **Southwest Wyoming to Silvercreek: New 138 kV Line and Substation**
60 **Phase I** (\$14.0 million of local transmission investment) - This project
61 will rebuild approximately 70 miles of 46 kV transmission line at 138 kV,
62 build a new 138-46 kV substation near Hennefer, Utah, convert the
63 Coalville substation to 138 kV, and convert the remaining 46 kV
64 substations along the route to 12.47 kV. Phase I of this project includes
65 rebuilding the 46 kV line to 138 kV from the Evanston, Wyoming area to
66 the Devils Slide, Utah area. Phase I of this project is projected to be
67 completed by August 2012;

68 • **Skypark: Build New 138-12.5 kV Substation** (\$8.1 million of Utah
69 distribution investment) - This project will build a new 138-12.5 kV, 40

70 MVA substation in the North Salt Lake/Woods Cross, Utah area with four
71 12.5 kV distribution feeders, convert a five mile section of 46 kV line to
72 138 kV operation, build a 0.7 mile transmission line, add three 138 kV
73 circuit breakers at the Parrish substation, add a 46 kV circuit breaker at the
74 North Salt Lake substation, and make modifications to some of the 46 kV
75 lines. This project is projected to be completed by May 2012;

76 • **Fort Douglas: New 138-12.5 kV Substation and Transmission** (\$7.1
77 million of Utah distribution investment) - This project will construct a new
78 138-12.5 kV, 40 MVA, LTC substation in Salt Lake City, Utah with four
79 new 12.5 kV feeders, convert the 46 kV Emigration Tap-Hogle
80 transmission line to 138 kV operation, add a 138 kV bay position and
81 circuit breaker at the McClelland substation, and remove the Hogle
82 substation. This project is projected to be completed by May 2013.

83 The capital investments mentioned above, as well as all of the other T&D capital
84 projects that are included in the revenue requirement, are detailed in Company
85 witness Mr. Steven R. McDougal's Exhibit RMP___ (SRM-3).

86 **Q. What benefits will Utah customers derive from the T&D capital projects**
87 **included in this case?**

88 A. The Company's capital investments in T&D have the common customer benefit
89 of increasing system capacity to accommodate customer load requirements and
90 growth, and improving service quality and reliability. Transmission facilities are
91 considered part of the Company's integrated network, and provide benefits to all
92 customers in the Company's six-state retail service territory, including Utah.

93 Therefore, as the Company completes the transmission projects included in this
94 filing, customers will continue to receive adequate and reliable service.
95 Additionally, distribution capital investments result in a direct benefit to Utah
96 customers, whether it is to connect new customers, reinforce, repair or upgrade
97 the existing system, or to meet mandated compliance requirements.

98 **System Reinforcement and Replacement**

99 **Q. Please describe the system reinforcement and replacement portion of the**
100 **capital investment plan.**

101 A. System reinforcement is investment made by the Company on behalf of customers
102 to serve load growth. This case includes approximately \$37.8 million of system
103 reinforcement at distribution level voltages in Utah and approximately \$44.8
104 million of system reinforcement investment on the Company's local transmission
105 system. In general, upgrading or replacing substation transformers and distribution
106 feeders is initiated when thermal loading is projected to reach 100 to 105 percent
107 of thermal rating or when voltage delivery at the customer metering point is
108 projected to fall outside of the American National Standards Institute ("ANSI")
109 planning criteria. When customers connect to the Company's electrical system,
110 there is a possibility that customer load additions/connections will cause thermal
111 overloads or voltage levels to be outside of the ANSI range. In the case of thermal
112 overload, additional electrical infrastructure will be required to address these issues.

113 Utah's load growth rate slowed in 2010-2011 from previous years due to
114 the current economic conditions; but irrespective of the slower growth rates,
115 growth is still occurring across our system. Rocky Mountain Power had about

116 18,500 new connections in Utah from January 2010 through December 2011 and
117 projects to have about 10,000 new connections in Utah from January 2012 through
118 May 2013. System reinforcement projects remain necessary to support these new
119 customers.

120 Another category of capital investment essential to maintaining and/or
121 improving reliable service is replacing aging assets. The revenue requirement in
122 this case includes approximately \$34.3 million in Utah distribution replacements
123 and approximately \$59.2 million of Company transmission replacements. Due to
124 normal aging processes, some assets are nearing the point of replacement, which
125 may be preceded by increased failures and higher maintenance costs. Examples of
126 assets subject to replacement include substation equipment, transmission lines,
127 distribution lines, poles and cross-arms, switchgear, and underground cable. As
128 Rocky Mountain Power's system ages and demand increases, additional stress is
129 placed on the Company's assets.

130 **System Compliance**

131 **Q. Please describe the system compliance portion of the capital investment plan.**

132 A. T&D compliance investments are those required by city, state or federal
133 regulations. Customers may also request and fund projects in the compliance
134 portion of the capital investment plan. Rocky Mountain Power plans to spend
135 approximately \$16.7 million in Utah distribution system compliance work and
136 approximately \$74.2 million in Company transmission system compliance work.
137 Significant compliance driven projects include the following:

- 138 • Environmental work – (approximately \$3.7 million in Utah distribution

139 work and approximately \$5.3 million in Company transmission work).

140 ○ Environmental programs to mitigate bird and raptor mortality;

141 ○ Spill prevention, control and counter measure (“SPCC”) projects to

142 mitigate environmental contamination;

143 • Overhead relocations or overhead to underground conversions for road

144 construction, public works projects, or customer requests (approximately

145 \$7.0 million in Utah distribution work and approximately \$8.9 million in

146 Company transmission system work); and

147 • Federal Communications Commission (“FCC”) wideband mobile radio

148 conversion to narrow band operation by 2013 (approximately \$16.2 million

149 in Utah, and approximately \$49.4 million total Company); and

150 • North American Electric Reliability Corporation (“NERC”) facility rating

151 projects for analysis, assessment and remediation of transmission lines to

152 ensure actual field conditions meet published Bulk Electric System (“BES”)

153 line rating standards (approximately \$40.7 million in Company

154 transmission system work).

155 **New Connects**

156 **Q. Please describe the new connection portion of the capital investment plan.**

157 A. New customer connections and their approximate budgeted amounts include the

158 following:

New Connection Category	Utah Distribution Connections	Company Transmission Connections
Residential	\$25.0 million	-
Commercial	\$48.4 million	\$4.6 million
Industrial	\$5.6 million	\$5.5 million
Irrigation	\$1.6 million	-
Other utilities	\$0.9 million	-
Street lighting	\$1.1 million	-

159 Residential and commercial customers typically account for the majority of the
160 new connection costs. The residential market (new housing starts) and commercial
161 sector remain low when compared to historic highs in 2007. The industrial sector
162 has dropped off from historic highs as well but is beginning to improve. Although
163 overall new connects have slowed, a single large customer load can put pressure
164 on the distribution and transmission investments of the Company.

165 A challenge for the Company in making new large customer connections is
166 the sheer magnitude of the projects. For example, depending on the size of the new
167 load and its proximity to existing transmission system facilities, adding just one
168 substantial new commercial or industrial customer may exceed the operating
169 limitations of the Company's local area transmission system or substation capacity.
170 Extensive planning, engineering and construction of transmission lines, substations,
171 switching stations and other facilities will still be necessary.

172 **Q. Please explain how load growth on the T&D system has been modified by the**
173 **reduction in new connects.**

174 A. Each year the Company completes an analysis of its system performance to
175 understand the impacts load growth has had on the transmission and distribution
176 system. Utah experienced a drop in the number of new residential, commercial and

177 industrial connections in 2010 and 2011; however, data shows that substation
178 transformer and distribution feeder loading continues to increase in various
179 locations. Thus, when equipment thermal ratings are being approached, projects
180 are initiated. Continued investment in system reinforcement is necessary to serve
181 load growth caused by new and existing customers.

182 **Q. Please explain how Rocky Mountain Power determines the amount and**
183 **timing of T&D capital investments.**

184 A. The Company begins with mandated/compliance requirements, customer service
185 requests, system reinforcement projects to serve load growth, asset replacements
186 and functional upgrades to prepare budgets for T&D investments. Through the
187 planning process, a preliminary project scope is identified and initial project
188 estimates are created to approximate project costs. Once the project budget is
189 approved, the Company initiates a process to complete detailed planning, detailed
190 design engineering, and detailed project scheduling, resulting in a more refined
191 cost estimate and projected in-service date. When a project moves to the delivery
192 (construction) phase, the Company uses internal business controls to measure and
193 monitor the progress to ensure projects are delivered within scope and budget. The
194 Company uses these activities to provide quality at the lowest long-term cost
195 required to meet the needs of its customers.

196 **Reliability**

197 **Q. Please describe the reliability portion of the capital investment plan.**

198 A. The Company's reliability investment program is designed to reduce the number
199 and impact of power interruptions to its customers. The Company continually

200 challenges approaches and processes in its efforts to be more efficient at deploying
201 resources to improve electric service reliability in an effective manner.

202 • The Company committed to improve its controllable distribution statewide
203 system average interruption frequency index (“SAIDI”) by 29 percent to a
204 target of no more than 50.8 minutes and to improve its controllable
205 distribution statewide system average interruption frequency index
206 (“SAIFI”) by 27 percent to a target of no more than 0.383 events over a
207 three-year nine-month period ending December 31, 2011. Both targets were
208 successfully delivered prior to the December 31, 2011 commitment, with a
209 controllable SAIDI of 50.79 minutes and a controllable SAIFI of 0.337
210 events.

211 • The Company was prepared to extend its service standards program
212 (“program”), which ended on December 31, 2011; however, the Utah
213 Public Service Commission initiated Utah PSC Rulemaking Docket No.
214 11-999-05 to develop new reliability service standards for electric public
215 utilities on April 19, 2011. The Company is actively participating in the
216 workgroup created for the rulemaking docket to develop the new service
217 standards. Meanwhile, the Company filed to extend the program beyond
218 2011 while the new rules for the service standards are being developed.
219 The Commission has acknowledged this extension.

220 • The Company plans to support Utah’s statewide reliability performance
221 standards with reliability processes in place, including the worst
222 performing feeders program. The Company continues to execute area

223 improvement teams composed of local personnel throughout the state and
224 continues to improve and develop reliability tools to identify areas with
225 reliability issues.

226 The Company is confident that with the completion of planned transmission and
227 distribution reliability investments, Utah's service reliability will continue to meet
228 the performance standards committed to, and to maintain overall electric service
229 reliability for its customers.

230 **Q. Please summarize your testimony.**

231 A. The T&D capital expenditures included in this case are essential in meeting
232 Rocky Mountain Power customers' needs and maintaining system reliability
233 standards. In particular, the proposed T&D capital expenditures are required in
234 order to:

- 235 • Serve new customers (industrial, commercial and residential) that require
236 an extension of the Company's existing infrastructure.
- 237 • Serve existing customers through system reinforcement (expansion or
238 increase in capacity) of existing infrastructure.
- 239 • Serve general load growth to maintain acceptable reliability and service.
- 240 • Comply with orders issued by regulatory, state or local governmental
241 entities.

242 The Company's transmission and generation projects are part of an
243 integrated, system-wide, high voltage system that provides the foundation to
244 move resources throughout the western United States, thus providing service and
245 reliability benefits to Utah customers. Additionally, these investments contribute

246 to meeting the performance standards program that the Company has committed
247 to through 2013.

248 **Q. Are the T&D capital investments included in this case in the public interest**
249 **and do you recommend that the Commission include them in the Company's**
250 **rate base?**

251 A. Yes. The T&D capital investments included in this case are in the public interest
252 for the reasons that I mentioned earlier in my testimony, including serving the
253 public with safe, adequate and reliable service. For these reasons, I recommend
254 that the Commission approve these investments for inclusion in the Company's
255 rate base.

256 **Q. Does this complete your direct testimony?**

257 A. Yes.