

1 **Q. Please state your name, business address and position with PacifiCorp dba**
2 **Rocky Mountain Power.**

3 A. My name is John A. Cupparo. My business address is 825 N.E. Multnomah, Suite
4 1600, Portland, Oregon. My position is Vice President of Transmission for
5 PacifiCorp.

6 **Qualifications**

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

8 A. I have a Bachelor of Science degree in Computer Information Systems from
9 Colorado State University. My experience spans 24 years in the energy industry,
10 including oil and, gas and electric utilities. The majority of my experience has
11 been in information technology supporting natural gas pipelines, energy
12 commodity trading and end-to-end electric utility operations. I have been
13 employed at PacifiCorp since September 2000. Prior to assuming my current
14 position in August 2006, I was Chief Information Officer for PacifiCorp. My
15 responsibilities have covered supporting many aspects of utility operations
16 including; commercial and trading, outage management, customer service,
17 transmission scheduling and regulatory issues. I am responsible for all aspects of
18 PacifiCorp's main grid transmission investment strategy, customer service, main
19 grid planning, contract administration and tariff management. I am the co-chair of
20 the Northern Tier Transmission Group ("NTTG"), which coordinates
21 transmission planning, transmission expansion, and project reviews with sub-
22 regional and regional planning organizations within the Western Electricity
23 Coordinating Council ("WECC"). I am also an elected class one voting member

24 (transmission owner class) of the WECC Board of Directors. As a member of the
25 Board of Directors, I participate with other WECC members in overseeing
26 WECC's activities, including defining standards and policies to ensure reliability
27 of the western electric grid. I also hold a position on WECC's Transmission
28 Expansion Planning Policy Committee and the Reliability Coordination
29 Committee.

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

31 A. The purpose of my testimony is to provide the Commission with information on
32 the Ben Lomond to Terminal transmission line. The Ben Lomond to Terminal
33 transmission line is the first phase of the Energy Gateway transmission project
34 that the Company is seeking cost recovery for in this case. The Ben Lomond to
35 Terminal transmission line, and subsequent investments within the Company's
36 long term, comprehensive transmission expansion plan known as "Energy
37 Gateway," satisfy multiple objectives of efficiently operating a six-state
38 transmission system. The benefit to Utah and all Rocky Mountain Power
39 customers is initially to enhance reliability and improve transfer capability within
40 the existing system, followed by establishing incremental capacity, which is key
41 to unlocking rich generation resource areas. Specifically, my testimony will cover
42 the following issues:

- 43 • Provide an overview of the Company's transmission system;
- 44 • Outline the Company's transmission expansion plan known as Energy
45 Gateway and provide the details on the Populus to Terminal line segment as
46 part of this plan;

- 47 • Demonstrate that the Ben Lomond to Terminal transmission line, which is
48 Phase I of the Populus to Terminal transmission investment, is beneficial to
49 customers as part of the overall long-term transmission plan developed by the
50 Company and comports with Utah public policy; and
- 51 • Finally, describe how the Ben Lomond to Terminal transmission investment
52 helps satisfy a commitment the Company made as part of the Mid-American
53 Energy Holdings Company (“MEHC”) transaction.

54 Overview of PacifiCorp’s Transmission System

55 **Q. Please briefly describe PacifiCorp’s transmission system.**

56 A. PacifiCorp owns and operates approximately 15,800 miles of transmission lines
57 ranging from 46 kV to 500 kV across multiple western states. As of December 31,
58 2009, PacifiCorp’s current total Company net transmission plant in service is
59 equal to approximately \$2.1 billion. PacifiCorp is interconnected with more than
60 80 generation plants and 15 adjacent control areas at approximately 124 points of
61 interconnection. To provide electric service to its retail customers PacifiCorp
62 owns or has interest in generation resources directly interconnected to its
63 transmission system with a system peak capacity of approximately 12,131 MW.
64 This generation capacity includes a diverse mix of resources including coal,
65 hydro, wind power, natural gas simple cycle and combined cycle combustion
66 turbines, and geothermal.

67 **Q. Please describe the availability of existing transmission capacity on the**
68 **system.**

69 A. PacifiCorp existing transmission system, as well as the transmission grid across

70 the western region, is severely constrained, and numerous regional study groups
71 have identified the pressing need for investment in new transmission
72 infrastructure.

73 **Q. Please describe the regional transmission studies that have been conducted**
74 **related to the Energy Gateway and specifically the Ben Lomond to Terminal**
75 **section and what these studies have found.**

76 A. Over the past decade, numerous studies have documented the need for new
77 transmission in the Western United States. As early as 2002, the Department of
78 Energy National Transmission Grid Study identified the Wyoming-Idaho
79 interface as a major constrained interface, and found, that under optimal
80 conditions, the Wyoming-Northern Utah interface is congested during 50 percent
81 or more of the hours during the year.¹

82 In 2004, the Rocky Mountain Area Transmission Study reached similar
83 conclusions, the result of which was a recommended expansion of the 345 kV
84 transmission lines connecting the Bridger substation to points south and west as
85 critically needed improvements.² In addition, the Department of Energy's 2006
86 National Electric Transmission Congestion Study ("DOE Congestion Study")
87 identified several constrained transmission paths in the West as shown in Exhibit
88 RMP___(JAC-1), including lines used to deliver electricity from generation plants

¹ National Transmission Grid Study at pp 15, 18. A full copy of this report is available at
<http://www.pi.energy.gov/documents/TransmissionGrid.pdf>.

² RMATS at Chapter 3-2, which shows the Bridger expansion as a critical expansion area from Wyoming
to Northern Utah and Wyoming to Idaho. The full report is available at
<http://psc.state.wy.us/htdocs/subregional/Reports.htm>

89 in Wyoming to loads in Utah and Oregon.³ Specifically, the DOE Congestion
90 Study illustrated that the expansion of the Bridger West facility is critical for
91 relieving congestion from Wyoming to Northern Utah, and Wyoming to Idaho.⁴
92 Similarly, the Western Interconnection 2006 Congestion Assessment Study,
93 which was issued by the DOE Western Congestion Analysis Task Force,
94 identified areas of congestion in the Rocky Mountain states, and projected that
95 based on 2005 load and resource forecasts and a production model, many of the
96 paths associated with the various segments of the Energy Gateway Project were
97 forecasted to be heavily congested.⁵

98 Reports initiated by the Western Governors' Association ("WGA") also
99 show certain paths in PacifiCorp's service territory (such as the Populus to
100 Terminal segment) to be constrained.⁶ Lastly, the Department of Energy
101 sponsored a study through Idaho National Laboratories to assess the economic
102 impact of not building transmission. While the report focused on assessing
103 economic impact on the Pacific Northwest, it also provides discussion and support
104 for the "hub and spoke" design which is similar to the Energy Gateway model for
105 connecting resource areas to load. The report also describes the interconnected
106 nature of transmission as being geographically dispersed, yet interdependent.⁷

³ The National Electric Transmission Congestion Study (August 2006) at pp 31-35. The transmission constraints identified in this study were identified by reviewing recent transmission studies such as those conducted by WECC and SSG-WI. The full report is available at http://nietc.anl.gov/documents/docs/Congestion_Study_2006-9MB.pdf.

⁴ Such expansion is addressed by the Segment E portion of the Project.

⁵ A full copy of this study is available at http://www.oe.energy.gov/DocumentsandMedia/DOE_Congestion_Study_2006_Western_Analysis.pdf.

⁶ The full report is available at <http://www.westgov.org/wga/initiatives/cdeac/TransmissionReportfinal.pdf>.

⁷ The Cost of Not Building Transmission: Economic Impact of Proposed Transmission Line Projects for the Pacific Northwest Economic Region. Full report is available at

107 Existing NTTG sub-regional transmission planning studies, currently in
108 draft and conducted in accordance with the Federal Regulatory Energy
109 Commission's ("FERC") Order 890-A, show overall benefits to the region as a
110 result of PacifiCorp's proposed Energy Gateway. Further details and more recent
111 studies regarding the existing transmission system limits and operational
112 constraints in the Populus to Terminal line are discussed in Mr. Darrell T.
113 Gerrard's testimony.

114 **Q. PacifiCorp requested that FERC grant a transmission construction incentive**
115 **to PacifiCorp in the form of a higher rate of return for the Gateway Project**
116 **than would have otherwise been authorized. Please explain FERC's response**
117 **and its relevance to this rate case.**

118 A. On July 3, 2008, the Company filed for incentive rates with FERC. FERC granted
119 the Company incentive rate treatment, which is analogous to a need
120 determination. Equally important, FERC's 4-0 decision stated:

121 [W]e find that PacifiCorp has adequately demonstrated that the Project
122 (with the exception of segment A) will ensure reliability and reduce
123 transmission congestion.... We find that segments B through H of the
124 Project would establish for the first time a backbone of 500 kV
125 transmission lines in PacifiCorp's Wyoming, Idaho and Utah regions. This
126 would provide a platform for integrating and coordinating future regional
127 and sub-regional electric transmission projects being considered in the
128 Pacific Northwest and the Intermountain West, connection existing and
129 potential generation to loads in an efficient manner, thus reducing the cost
130 of delivered power. Also, the Petition cites the 2006 DOE National
131 Electric Transmission Congestion Study and the 2004 Rocky Mountain
132 Area Transmission Study in stating that that proposed Project will reduce
133 congestion or maintain reliability in the Western Interconnection.
134 Additionally, the project would establish a direct link between
135 PacifiCorp's east and west control areas, providing numerous benefits

<http://www.pnwer.org/Portals/0/Presentations/2008%20summit/Cost%20of%20not%20building%20transmission.pdf>.

136 including increasing transfer capability, reducing the need for
137 curtailments, and reducing transmission congestion. (¶39)

138
139 PacifiCorp, Docket No. EL08-75-000, “Order On Petition For Declaratory
140 Order” (October 21, 2008); 125 F.E.R.C. ¶ 61,076 (2008).

141 As noted in Exhibit RMP___(JAC-2), Segment B is Populus to Terminal
142 and Segment C is Mona to Oquirrh. The full FERC order is provided in Exhibit
143 RMP___(JAC-3).

144 The Company sought incentive rates at FERC in recognition of the
145 reliability and congestion benefits the Energy Gateway Project would provide,
146 and because of the significant complexities associated with constructing new
147 transmission. The Company committed to compensating its retail customers by
148 crediting the transmission-related revenues, inclusive of any incentives granted by
149 the FERC, against its retail revenue requirement. FERC’s grant of an incentive
150 rate is to be added to the base return on equity as determined in a future
151 PacifiCorp section 205 filing pursuant to the Federal Power Act. Accordingly, the
152 incentive is not reflected in the Wyoming rate request or on the Company’s books
153 and records at this time.

154 **Q. Please describe any other documentation that points to the need for the**
155 **Energy Gateway project and specifically the Ben Lomond to Terminal**
156 **section.**

157 A. This Commission and the Idaho Public Utilities Commission issued orders
158 approving the Company’s requests for Certificates of Public Convenience and
159 Necessity in 2008, in Docket No. 08-035-42, Report and Order Granting
160 Certificate and Certificate of Public Need and Necessity September 4, 2008, and

161 in Case No. PAC-E-08-03, Order No. 30657, dated October 10, 2008,
162 respectively. In Utah, several parties concurred with the need for the transmission
163 lines including the Division of Public Utilities, as follows:

164 The Division states it has examined underlying information upon which a
165 need for these additional transmission facilities may be found and
166 concludes it supports RMP's decision to build the Transmission Line and
167 confirms RMP's planned integration and operation of the line with future
168 utility operations and activities. The Division agrees with RMP's
169 conclusions that there is a need for the Transmission Line and the
170 Company's future utility service will be more reliable and efficient with
171 the Transmission Line's addition.

172 In the Matter of the Application of Rocky Mountain Power for a Certificate of
173 Public Convenience and Necessity Authorizing Construction of the Populus to
174 Terminal 345 KV Transmission Line Project, Docket No. 08-035-42, Report and
175 Order Granting Certificate and Certificate of Public Need and Necessity,
176 September 4, 2008, page 3.

177 The Idaho Order stated:

178 Thus, Staff believes that the necessity of the Project should be viewed in
179 conjunction with energy resources that are constructed, under way or
180 planned. PacifiCorp elected to undergo a transmission upgrade as part of
181 its preferred resource portfolio of an additional 2,000 MWs of renewable
182 resources by 2013 in the Company's 2007 IRP. A significant portion of
183 these renewable resources will be located in Wyoming. Staff then listed
184 more than 500 MWs of renewable resources that are either under
185 construction or in the final stage of development. In response to a Staff
186 data request, PacifiCorp provided four alternatives that it rejected because
187 the Company did not believe that these would provide sufficient capacity
188 for the new resources. Staff agreed that the Project was necessary in order
189 for the Company to continue to provide reliable service from these new
190 resources to growing load centers.

191 In the Matter of the Application of Rocky Mountain Power for a Certificate of
192 Public Convenience and Necessity Authorizing Construction of the Populus-to-
193 Terminal 345 KV Transmission Line Project, Case No. PAC-E-08-03, Order No.
194 30657, dated October 10, 2008, pages 3 and 4.

195 **Q. Did MEHC make any transmission facilities commitments when it acquired**
196 **PacifiCorp?**

197 A. Yes. At the time of the acquisition of the Company by MEHC, many parties
198 wanted to see the Company make transmission infrastructure investments to
199 support the future demands and growth of its customers. As a result, the Company
200 made specific commitments and developed plans for a significant capital
201 expansion program across the system. One of the first components of the plan is a
202 new double-circuit 345 kV transmission line from the Populus substation near
203 Downey, Idaho to the Terminal substation in Salt Lake City, Utah. This line will
204 be placed in service in two phases. The first phase from the Ben Lomond
205 substation (near Ogden, Utah) to the Terminal substation will be in service by
206 June 2010, and the second phase from the Populus substation to the Ben Lomond
207 substation will be in service by December 31, 2010.

208 In addition, the Company committed to improve capacity on a constrained
209 path in Utah known as Path C. Specifically, MEHC agreed to increase transfer
210 capacity on Path C by 300 MW. Populus to Terminal improves the capacity on
211 Path C and has a planned increase in transfer capacity of 1,400 MW when
212 combined with other segments of Energy Gateway. As such, the Populus to
213 Terminal transmission segment will significantly improve a point of constraint on
214 the system that currently affects numerous transmission customers, strengthen
215 reliability and enables the Company to achieve the planned transfer capability
216 rating of subsequent Energy Gateway segments.

217 **Overview of Energy Gateway Transmission Expansion**

218 **Q. Please generally describe Energy Gateway.**

219 A. Energy Gateway is a comprehensive transmission plan that includes a series of
220 immediate action items that focus on long-term needs. Energy Gateway will
221 enhance reliability, reduce transmission system constraints and improve the flow
222 of electricity to Rocky Mountain Power's customers. The Energy Gateway plan is
223 comprised of eight interrelated and interdependent transmission segments as
224 outlined in Exhibit No. RMP____(JAC-2). The eight line segments within Energy
225 Gateway have been grouped and labeled as Gateway Central, Gateway West,
226 Gateway South and the Westside. Energy Gateway, when fully implemented, will
227 be spread among six states, numerous communities and counties, and significant
228 areas of federally-administered lands and will add approximately 2,000 miles of
229 new transmission lines to PacifiCorp's transmission system. Due to the
230 interconnected nature of PacifiCorp's transmission network, investments may be
231 required at other facilities in order to maximize the effectiveness and efficiency of
232 the network. For Energy Gateway, the eight identified transmission segments
233 provide specific capabilities, but also support other transmission segments to
234 enhance the full potential of Energy Gateway.

235 **Q. Please describe Gateway Central relative to the overall Energy Gateway**
236 **plan?**

237 A. Gateway Central is comprised of two transmission segments (Populus to Terminal
238 and Mona to Oquirrh) that establish the necessary electrical interconnection
239 between Gateway West and Gateway South. The Gateway West and Gateway
240 South line segments, when complete, will be the first 500kV lines to be installed

241 in Wyoming, southeast Idaho and Utah. Gateway Central will provide an essential
242 reliability backbone allowing Gateway West and Gateway South to operate at a
243 higher reliability and at an overall higher capacity than would otherwise be
244 possible without the Gateway Central interconnection. This investment will not
245 only add incremental transmission capacity, but will also strengthen PacifiCorp's
246 overall system while supporting future generation resource development to
247 benefit all Rocky Mountain Power customers.

248 As described earlier in my testimony, the Populus to Terminal
249 transmission segment is comprised of two smaller sections, which in total extend
250 135 miles from the new Populus substation near Downey, Idaho, south to the
251 existing Terminal substation near the Salt Lake International Airport west of Salt
252 Lake City, Utah. The Populus to Terminal transmission line is a key element of
253 the Energy Gateway's Gateway Central segment. Populus to Terminal is
254 designated as "Segment B" within Gateway Central in the Exhibit RMP__(JAC-
255 2).

256 **Q. How will the Ben Lomond to Terminal transmission line, benefit Rocky**
257 **Mountain Power's customers?**

258 A. Ben Lomond to Terminal transmission line and subsequent investments within
259 Energy Gateway satisfy multiple objectives of efficiently operating a six-state
260 transmission system in the long term. The benefit to Utah and all Rocky Mountain
261 Power customers initially is to enhance reliability and improve transfer capability
262 within the existing system. In the future it will also provide benefits by
263 establishing incremental capacity to deliver the resources within the Company's

264 2008 integrated resource plan (“IRP”) and meet long term resource development
265 objectives. Reliability is fundamental to effectively and efficiently managing the
266 Company’s six-state transmission system. As a federally-regulated transmission
267 provider, the Company must comply with reliability standards mandated by
268 FERC through NERC and WECC. By meeting these standards the Company
269 continues to maintain a stable and reliable system during a variety operating
270 conditions which minimizes potential outages to all customers and financial
271 impacts of having to deliver higher cost resources if required. At a minimum, Ben
272 Lomond to Terminal addresses reliability for all Rocky Mountain Power
273 customers. Beyond reliability, when coupled with the Populus to Ben Lomond
274 phase, the two sections increase transfer capability from north to south and south
275 to north across the Company’s transmission system. By doing so, the Company
276 addresses a key constraint (Path C), meets an MEHC transaction commitment and
277 improves the Company’s ability to import and export lower cost resources
278 depending on seasonal needs and operating conditions.

279 Ben Lomond to Terminal also establishes incremental capacity to provide
280 long term benefits to Rocky Mountain Power customers and specifically Utah
281 customers. Over the next 10 years from 2009-2018, Utah load has a forecasted
282 average annual growth rate of 2.5 percent according to the 2008 Integrated
283 Resource Plan placing more demand on an already constrained system.
284 Additionally, the 2010 Economic Report to the Governor shows a growing
285 population combined with average life expectancy and birth rates higher than the
286 national average. The State’s population is projected to be 2.9 million in 2010 and

287 3.7 million in 2020. This increase in population will result in additional
288 residential, municipal, and industrial electrical demands to accommodate the
289 increased population's needs the Company must assure that, not only are there
290 adequate supplies of electricity to meet ongoing customer demands for energy,
291 but also that the transmission system has the capacity and reliability to deliver this
292 increased demand for electricity to customers. At the same time, adequate
293 transmission capability is essential for the Company to maintain its obligations to
294 provide reliable and safe electricity to its customers.

295 **Q. What is the capital investment of the Ben Lomond to Terminal line included**
296 **in the revenue requirement of this case?**

297 A. This case includes approximately \$268 million for the transmission line from Ben
298 Lomond to Terminal section (Phase 1) of the Populus to Terminal transmission
299 segment B of Energy Gateway. Mr. Steven R. McDougal's testimony describes
300 the revenue requirement calculations associated with the inclusion of this
301 transmission investment. Mr. Gerrard's testimony describes, in more detail, what
302 makes up the \$268 million.

303 **Ben Lomond to Terminal Transmission Investment**

304 **Q. Please describe the Ben Lomond to Terminal transmission segment in more**
305 **detail.**

306 A. Exhibit RMP____(JAC-4) is a map of the Populus to Terminal transmission line
307 segment. Ben Lomond to Terminal is the southern section and is highlighted in
308 red on the map. Populus to Ben Lomond is highlighted in yellow, green and blue
309 on the map. Phase I from Ben Lomond to Terminal will be the first section of

310 Populus to Terminal line to be completed, and will be operational by June 30,
311 2010. Phase II from Populus to Ben Lomond will be complete and in-service by
312 December 31, 2010. The Ben Lomond to Terminal section is included in this case
313 and the Populus to Ben Lomond section will be included in a subsequent case.

314 **Q. What factors does the Company consider before building new transmission?**

315 A. The Company considers several factors before building new transmission
316 facilities including the following:

- 317 • Current and future forecasts for demand and energy required from existing
318 and new resources to new and existing loads. These considerations are
319 addressed in the Company's 2008 IRP including demand side and energy
320 conservation programs;
- 321 • Alternatives including building local generation near load and/or energy
322 market purchases;
- 323 • The Company's use of existing land rights and existing right-of-way
324 corridors;
- 325 • Upgrades to increase operability, and reliability from existing transmission
326 lines and substations; and
- 327 • Maximizing the capacity and capabilities of existing facilities.

328 Because prudent transmission investments are typically large scale to
329 maximize efficiencies and gain economies of scale, the benefits are realized over
330 the long term. More details related to these general considerations, and
331 specifically to Ben Lomond to Terminal, are provided in Mr. Gerrard's direct
332 testimony.

333 **Q. Is PacifiCorp's transmission expansion plan a component of integrated**
334 **resource planning?**

335 A. Yes. As part of MEHC's acquisition of PacifiCorp, the Company performed a
336 review of the integrated resource planning process. From that review, the
337 Company determined there was a need for a long-term transmission investment
338 strategy to support the long-term resource needs of customers. Historically, IRPs
339 were relatively silent on transmission investments assuming transmission would
340 follow generation investments. Given the long-term needs of customers, existing
341 transmission system constraints, the time required to build new transmission lines
342 and the challenges associated with designing, permitting and constructing
343 transmission lines, transmission is now a key element of the Company's
344 Integrated Resource Plan ("IRP"), as evidenced by the inclusion of Energy
345 Gateway in PacifiCorp's 2008 IRP. The Company's 2008 IRP, filed in May 2009,
346 identified the need for investment in major new transmission facilities to meet the
347 forecast loads of PacifiCorp's customers.

348 **Q. Once the decision is made to invest in new transmission, what is the process**
349 **for getting it built?**

350 A. Once the decision is made to invest in new transmission, capacity sizing of the
351 transmission line is taken into consideration to balance current and future needs.
352 Constructing long, linear facilities such as a transmission line is an extensive
353 process. Siting, permitting and constructing new transmission can take up to
354 seven years and potentially involves acquiring new rights-of-way and permits

355 from local, state and federal agencies. There are also a series of design and
356 routing considerations to minimize the environmental, visual and human impacts.

357 **Q. What land rights and permits were acquired for Ben Lomond to Terminal?**

358 A. The Company holds all of the necessary land rights, either in easements or fee
359 ownership, between the Ben Lomond substation and the Terminal substation. The
360 Company acquired this corridor nearly three decades ago in preparation for an
361 additional high voltage transmission line. As a result, the Company secured
362 additional rights only in areas where deficiencies in the corridor width were
363 identified. The U.S. Army Corps of Engineers required permits for construction
364 within jurisdictional wetlands, the Federal Aviation Administration required
365 aviation permits for construction of Ben Lomond to Terminal near Salt Lake
366 International Airport, and railroad and roadway crossings permits are required as
367 part of construction activities. A total of 14 railway and canal crossing permits
368 were obtained for construction and operation of the line.

369 **Q. What permits were required by local governmental authorities for the
370 construction of Ben Lomond to Terminal?**

371 A. The Company holds a franchise agreement with each municipality and county
372 within the route that grants the necessary rights for the construction of the Ben
373 Lomond to Terminal transmission line. In addition, the Company secured
374 conditional use permits from all cities and counties, based on each community's
375 requirements. This Commission and the Idaho Public Utilities Commission issued
376 Certificates of Public Convenience and Necessity in 2008, as described previously
377 in my testimony.

378 **Q. Please describe the approach the Company used to secure appropriate**
379 **resources to construct the new transmission.**

380 A. The Company initiated a competitive bidding process to receive blind sealed bids
381 for the project work scope to be delivered on a turnkey, fixed price, guaranteed
382 completion date basis using an engineer, procure and construct form of
383 contracting. The competitive bidding process began in October 2007 and provided
384 two separate blind-sealed bidding opportunities. All bid responses were due for
385 submittal in May 2008 and again in July 2008 after additional information was
386 provided to bidders allowing a refinement of previously submitted design
387 solutions, terms and conditions including price. Three qualified bids were
388 received and evaluated resulting from the May 2008 proposal submissions.
389 During the evaluation period one of the bidders withdrew from the bidding
390 process. The Company received two competing proposals in July 2008 with
391 qualified prices of \$609m and \$528m respectively. After extensive evaluations of
392 bidder proposals and review of exceptions to work scope and base terms and
393 conditions from each bid proposal, the Company ultimately awarded the contract
394 at a value of \$580,564,000 during October 2008. The scope of the bidding process
395 included the Populus to Terminal segment, which includes the sections outlined in
396 Exhibit RMP___(JAC-2). More details related to the selection process and project
397 scope are provided in Mr. Gerrard's direct testimony.

398 **Q. Why did the Company use the engineer, procure and construct approach?**

399 A. The engineer, procure and construct solicitation is a common form of contracting
400 for large construction projects like the Populus to Terminal transmission segment

401 and is regarded in the industry as a prudent approach for cost control and
402 managing design, procurement and construction risks. This approach provides
403 certainty relative to schedule and cost outcomes for the benefit of customers and
404 caps potential cost escalations where possible upon the occurrence of defined
405 risks. It also ensures more timely delivery to support system needs and
406 transmission reliability.

407 **Q. Please explain what you mean concerning capping costs upon the occurrence**
408 **of identified risks.**

409 A. The fixed price engineer, procure and construct approach has minimal provisions
410 for cost and schedule variances. Where cost and schedule variances were not
411 included in the fixed price for certain contingent aspects of the work scope, these
412 items were identified as risk items and a contingent capped price and schedule
413 allowance was agreed to prior to contract execution should any of these risk items
414 materialize. Contingent risk items were limited to defined occurrences such as
415 weather delays, environmental impacts and sub-surface ground conditions.

416 **Q. Please describe specific steps taken to assure the construction schedule was**
417 **maintained on-time and costs were kept within budget.**

418 A. There are several controls in place to ensure work activities are controlled within
419 the construction schedule. The primary contractor provides an updated
420 construction schedule in 'native format' to the Company for detailed analysis on a
421 monthly basis which allows the company project management office to review
422 logic and assumptions embedded in the construction schedule. Schedule
423 components such as critical paths, dependencies, duration between milestones,

424 float and other elements of the construction schedule are reviewed and analyzed
425 for further refinement with the primary contractor. Any changes to the
426 construction schedule must be mutually agreed upon between the project
427 management office and the primary contractor.

428 Weekly face-to-face meetings are also held between the project
429 management office and the primary contractor for updates of deliverables or
430 discussion/resolution of any issues that may impact the construction schedule.
431 Action items are recorded and resolved in order to maintain the construction
432 schedule.

433 In addition to managing the construction schedule with the primary
434 contractor, the project management office has to manage a schedule of related
435 tasks that impact the delivery of the primary contractor scope of work such as
436 outage schedules, internal related construction activities and other functions.

437 Costs are managed through a series of processes which includes pre-
438 authorization from PacifiCorp management before work begins on any phase of
439 the construction schedule, pre-approval of any change orders which includes an
440 internal review of scope and costs and a detailed review by the project
441 management office of invoices before they are submitted for payment.

442 Cost reporting is managed through a series of reports which include the
443 approved budget by functional line item, approved changes in work by line item,
444 forecast by line item and project risks with mitigation plans. Actual project-to-
445 date costs are tracked utilizing several dimensions that include subordinate work
446 orders under the project, location specific incurred costs and detailed transaction

447 level reporting. All project costs are processed at a detailed level through the
448 company enterprise accounting system (SAP).

449 **Q. Please describe if there have been any updates to the cost estimate for the**
450 **Populus – Terminal Project.**

451 A. Yes. At the time of the April 2008 CPCN testimony, total project cost was
452 estimated at approximately \$750 million for the transmission line and substations.
453 The April testimony also pointed out the Company was working through a
454 competitive bid process and right-of-way acquisition and there was potential of
455 upward pressure on the estimate.

456 The project estimate was derived from internal cost estimates based on
457 historical experience building similar transmission facilities. However the internal
458 estimates did not have full advantage of contractor, material and right-of-way
459 costs comparable with marketplace reality during the 2007/2008 timeframe. The
460 Company had not undertaken any significant transmission expansion since the
461 early 1990's, and this was the first high-voltage transmission project involving a
462 significant length of miles along with substation construction.

463 The project was approved September 2008 after extensive evaluations of
464 bidder proposals and updating internal costs for a total project cost estimate of
465 \$930.5 million. Since that time, the project management office is on track to
466 deliver the project for less than the approved project estimate.

467 The majority of the variance in cost between the estimate provided in
468 April 2008, the approved project in September 2008 and the current December
469 2009 forecast lies in the difference for the primary contractor. The competitive

470 bid process along with management approved changes in work results in a
 471 forecasted primary contractor value of \$610 million. The difference between the
 472 April 2008 estimate and the December 2009 forecast for primary contractor is
 473 approximately \$197.5 million. The December 2009 forecast is based on actual
 474 project to date costs plus forecast to complete. The forecast could change
 475 depending on the outcome of several items, but it is the best estimate at this time.
 476 A table summarizing all of the major categories between the April 2008 estimate
 477 and the December 2009 forecast is shown below:

Populus - Terminal 345 kV Line Project				
Comparison of April 2008 Estimate vs. September 2008 Approval vs. December 2009 Forecast				
	Project Estimate	Project Budget		Current Forecast
Category	Apr-08	(Signed ER)	Sep-08	Dec-09
Primary Contractor	\$ 412,542,621	\$	580,564,000	\$ 610,030,583
Microwave	\$ 7,792,595	\$	6,166,311	\$ 5,375,929
External consulting, internal labor, land acquisition & owner supplied material	\$ 182,035,195	\$	187,431,630	\$ 155,102,767
Allowance for funds used during construction (AFUDC) & Capital Surcharge	\$ 59,629,000	\$	110,563,079	\$ 95,800,000
Sub Total	\$ 661,999,411	\$	884,725,020	\$ 866,309,279
Contingency	\$ 82,790,589	\$	45,786,342	\$ 6,188,831
Total	\$ 744,790,000	\$	930,511,362	\$ 872,498,110

478 **Conclusion**

479 **Q. Please summarize your conclusions.**

480 A. New transmission is essential to meet load growth, enhance transmission system
481 reliability and provide capacity to integrate resources to the long-term benefit of
482 customers. Ben Lomond to Terminal is the first step to increase transmission
483 capacity from southeastern Idaho into Utah and to further facilitate a stronger
484 interconnection to systems in Idaho, Wyoming and the Pacific Northwest. This
485 investment and subsequent investments in Energy Gateway are prudent, cost
486 effective and beneficial to customers.

487 **Q. Is the inclusion of Ben Lomond to Terminal in Utah rates in the public**
488 **interest?**

489 A. Yes. The Ben Lomond to Terminal transmission line and subsequent investments
490 within Energy Gateway satisfy multiple objectives of efficiently operating a six-
491 state transmission system, and therefore are in the public interest. The benefit to
492 Utah initially is to enhance reliability and improve transfer capability within the
493 existing system. In the future it will also provide benefits by establishing
494 incremental capacity to deliver generation resources for the benefit of all Rocky
495 Mountain Power customers and ultimately the Western interconnect. Numerous
496 studies, FERC's findings in granting incentive rates, and Idaho and this
497 Commission's issuance of CPCNs confirm these benefits and the overall need for
498 Gateway and this segment of the project.

499 In addition, new federal standards that mandate increased transmission
500 system reliability along with PacifiCorp's recent operational experience show that
501 investing in PacifiCorp's transmission system is required to ensure the Company

502 has the capability to provide reliable transmission service under expected
503 operating conditions, and that the Company maintains the transmission system
504 capacity necessary to deliver network load service and contractual point-to-point
505 commitments. Finally, additional transmission capacity provides the Company
506 added flexibility in the location and use of generating reserves and flexibility to
507 perform routine maintenance on transmission lines with minimal risk.

508 In regard to costs, the costs incurred in the Ben Lomond to Terminal
509 segment of the Populous to Terminal transmission line are reasonable. They are
510 the result of a competitively-bid contract. The project was built in accordance
511 with the contract in a timely manner and will go into service by June 30, 2010. It
512 will be immediately used and useful and will provide the benefits described above
513 to Utah customers.

514 **Q. Does this conclude your testimony?**

515 A. Yes.