

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Pending Application of
Rocky Mountain Power for a Certificate of
Public Convenience and Necessity
Authorizing Construction of the Mona –
Oquirrh 500/345 kV Transmission Line

Docket No. 09-035-54

**DIRECT TESTIMONY OF
DARRELL T. GERRARD**

November 2009

1 **BACKGROUND OF WITNESS**

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

3 A. My name is Darrell T. Gerrard. My business address is 925 NE Multnomah Blvd
4 Portland Oregon 97242. I am currently employed as Vice President –
5 Transmission System Planning for the Company. I have held my present position
6 since May 2007. The primary duties of my present position include management
7 and oversight of all Main Grid Transmission System Planning requirements for
8 both the Rocky Mountain Power and the Pacific Power, which are operating units
9 of PacifiCorp (collectively referred to as “the Company”).

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

11 A. I have a Bachelor of Science degree in Electrical Engineering from the University
12 of Utah. My experience spans more than 30 years in the electric utility business
13 and electric industry in general. I have experience and have been responsible for a
14 number of functional organizations at the Company including: Area Engineering,
15 Area Planning, Region Engineering, T&D Facilities Management, Transmission,
16 Substation and Distribution Engineering, System Protection and Control, T&D
17 Project Management and Delivery, Asset Management, Electronic
18 Communications, Hydro System Engineering, Transmission Grid Operations, and
19 most recently Transmission System Planning. Currently my responsibility is to
20 ensure that proper planning activities are performed as necessary for the
21 Company’s large transmission system. I am also responsible for the conceptual
22 design and ongoing electrical transmission system planning required to support
23 the Company’s Energy Gateway Program.

24 **PURPOSE AND SUMMARY OF TESTIMONY**

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

26 A. The purpose of my testimony is to describe the purpose and need for the Mona-
27 to-Oquirrh 500/345 kV Transmission Line (the “Transmission Project” or
28 “Project”) in support of the Company’s request for a Certificate of Public
29 Convenience and Necessity (“CPCN”).

30 **Q. Please summarize your testimony.**

31 A. In summary, the Transmission Project is needed to support both short and long
32 term energy demands and will strengthen the overall reliability of the existing
33 transmission system. Currently the existing transmission system of which the
34 Project will be a part has limited capability to deliver energy into the largest load
35 center in Utah, which is the Wasatch Front Area and adjoining areas (which
36 includes Salt Lake, Utah, Tooele, Davis, Weber, Cache, and Box Elder Counties).
37 PacifiCorp’s Network Customers utilize energy purchases in southern Utah to
38 serve loads in northern Utah and the existing capacity north of the Mona
39 substation is fully subscribed and constrained. Additional capacity is required to
40 meet PacifiCorp’s load service obligations to its Network Customers. By
41 constructing this Project, overall reliability of the transmission system will be
42 enhanced by adding incremental new transmission capacity northbound and
43 southbound between the Company’s power plants in Utah and other sources of
44 energy in the Four Corners Region and the Desert Southwest. Because the Project
45 increases the existing transmission capability from the Mona area to the Wasatch
46 Front and adjoining areas, the system will have improved capability to integrate

47 new resources in the southern Utah area and will provide improved connection to
48 markets in the Desert Southwest and Four Corners Region, and markets available
49 through interconnections at Mona. Utah is currently one of the fastest growing
50 states and projections indicate that it will continue to grow rapidly for decades.
51 Staying ahead of future demand is therefore critical. In addition to meeting our
52 customers' future energy requirements, this Project is key to maintaining the
53 Company's compliance with mandated North American Electric Reliability
54 Corporation ("NERC") and Western Electricity Coordinating Council ("WECC")
55 reliability and performance standards as necessary during normal system
56 operations and during certain transmission system and generation plant outage
57 conditions.

58 **GENERAL DESCRIPTION OF PROJECT**

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

60 A. The Project is a component of the Company's long range transmission master
61 plan, specifically for Utah, and consists of an approximately three-mile long
62 single-circuit 500/345 kV transmission line from the existing Mona Substation to
63 a proposed future 500/345/138 kV Mona Annex Substation near the community
64 of Mona in Juab County, Utah. From that point, the Project would continue
65 northwards about 62 miles to a proposed future 500/345/138kV Limber
66 Substation to be located in Tooele County, Utah. Two double-circuit 345kV lines
67 are proposed from the Limber Substation: one line would extend approximately
68 35 miles to the existing Oquirrh Substation, located at 5799 West Old Bingham
69 Highway, West Jordan and the second line would extend approximately the same

70 distance to the existing Terminal Substation located at 500 South 5600 West in
71 Salt Lake City. To accommodate the new transmission line, upgrades and
72 modifications of the existing Mona and Oquirrh substations will also be
73 necessary. The Company plans to construct the Mona Annex Substation
74 approximately three miles south of the existing Mona Substation. It will
75 interconnect with the Project at a later date. The Limber Substation will also be
76 constructed at a later date when the transmission line between the Limber
77 Substation and the Mona Substation is energized from 345 kV to 500 kV. At
78 approximately the same time the Limber Substation is constructed, a new 345 kV
79 transmission line will be built from the Limber Substation to the Terminal
80 Substation in Salt Lake City.

81 BACKGROUND

82 **Q. What is your general understanding of the standard for the Commission’s**
83 **decision in this case?**

84 A. I am not an attorney but have relied on legal counsel for this response. In the
85 most recent docket of this type in Utah (the Populus-Terminal docket—Docket
86 No. 08-035-42), Dr. Zenger of the Division provided a general legal history of the
87 statute under which this case is filed (Utah Code Ann. § 54-4-25) and a reference
88 to a case from the 1940’s that adopted the proper standard that should be followed
89 in applying the statute. (See Direct Testimony of Dr. Joni Zenger, Docket No. 08-
90 035-42, at pages 6-8). The case that Dr. Zenger noted, *Mulcahy v. Public Service*
91 *Commission*, 117 P.2d 298 (Utah 1941), stated:

92 The “convenience” and “necessity” required to support an application for
93 a certificate **are those of the public**, not those of individuals. . . .

94 “Necessity” and “convenience” are not to be construed as synonymous.
95 Convenience is much broader and more inclusive than necessity, but effect
96 must be given to both. **Necessity means reasonably necessary** and not
97 absolutely imperative. . . . It does not mean "necessary" in the ordinary
98 sense of the term. The convenience of the public must not be
99 circumscribed by holding the term "necessity" to mean an essential
100 requisite.

101 . . .
102

103 [I]n determining whether or not the convenience and necessity of the
104 public will be best subserved by the proposed service, the needs and
105 welfare of the people **of the territory or community affected should be**
106 **considered as a whole.** (117 P.2d at 300, 301; emphasis added)
107

108 **Q. Did the Commission provide any further guidance in the Populus-Terminal**
109 **Docket?**

110 A. Yes. In the Scheduling Order issued in May 2008 that granted a certificate of
111 public convenience and necessity for the Populus – Terminal transmission line
112 project, the Commission was clear that siting of a transmission line is not an issue
113 in this type of docket:

114 The Commission desires to clarify the purpose of this proceeding. This
115 proceeding is not about the location or siting of the Transmission Line if it
116 is built. The Commission does not have jurisdiction over the siting of
117 transmission lines. **This proceeding is to determine if present or future**
118 **public convenience and necessity does or will require construction of a**
119 **transmission line.** (Scheduling Order at page 1; emphasis added).
120

121 In its final order in that docket, the Commission reaffirmed that “the Commission
122 does not have jurisdiction over the siting of transmission lines generally nor of
123 this particular facility. . . . Our proceedings are to determine if present or future
124 public convenience and necessity does, or will, require construction of a
125 transmission line.” (Report and Order Granting Certificate and Certificate of
126 Public Need and Necessity, Docket No. 08-035-42, September 4, 2008, at page 2).

127 It is also my understanding that granting of a certificate does not constitute
128 determination of prudence by the Commission.

129 **Q. Recognizing that siting is not an issue here, it may nonetheless be helpful as**
130 **general background for the Commission to be aware of the proposed route**
131 **for the Transmission Project. What is the current proposed route for the**
132 **transmission portion of the Project?**

133 A. A map showing the Company's proposed route of the Transmission Project is
134 attached as Exhibit **RMP (DTG 1.1)**, which, of course, is subject to adjustment
135 based on the outcome of the Final EIS and the Record of Decision, which is being
136 led by the Bureau of Land Management ("BLM") for those portions of the Project
137 on federally-administered land. Some siting and route adjustments may occur as
138 part of the Company's ongoing permitting efforts with local governments in
139 response to public or agency concerns. Further, as with any project of this nature,
140 it is also subject to minor route adjustments that may occur during final
141 engineering and design and working directly with landowners. The existing
142 Mona and Oquirrh Substations will be upgraded to accommodate the new
143 transmission lines and termination points.

144 **Q. What is the projected cost of the project?**

145 A. The projected cost is approximately \$450 million.

146 **STATUS OF ENVIRONMENTAL APPROVAL**

147 **Q. What is the current status of the Environmental Impact Statement and**
148 **approval?**

149 A. The Draft Environmental Impact Statement for the Mona to Oquirrh Transmission
150 Corridor Project and Draft Pony Express Resource Management Plan Amendment
151 was published on May 15, 2009. The BLM, in cooperation with the third party
152 contractor and the Company (as appropriate), have responded to comments
153 submitted during the public comment period, which ended on August 12, 2009.
154 The BLM is now preparing a Final Environmental Impact Statement, which has a
155 target publication date of early January 2010. The Company anticipates that the
156 BLM will issue its Record of Decision by April 2010. We will, of course, inform
157 the Commission and parties when environmental approval has been granted and
158 of any changes to the Company's proposals that may result from that approval
159 process.

160 **THE PROJECT DECISION—IRP AND LOAD FORECAST STUDY**

161 **Q. What analysis or process was the basis for the Company's determination that**
162 **additional transmission capacity was needed?**

163 A. The Company utilizes an Integrated Resource Plan ("IRP"). This is a resource
164 portfolio and risk analysis framework used to specify prudent future actions
165 required to ensure the Company continues to provide reliable and least-cost
166 electric service to its customers, while striking a balance between cost and risk
167 over the planning horizon and taking into consideration environmental issues and
168 the energy policies of our states. As stated in Chapter 2 of the 2008 IRP filed with
169 the Commission on May 28, 2009, its purpose is to fulfill "the Company's
170 commitment to develop a long-term resource plan that considers cost, risk,
171 uncertainty, and the long-run public interest. It was developed through a

172 collaborative public process with involvement from regulatory staff, advocacy
173 groups, and other interested parties.” (2008 IRP, **Exhibit RMP (DTG-2)**, at page
174 17)¹ Resource portfolio modeling conducted for the Company’s recent IRPs has
175 shown that additional transmission capacity is required to support future resource
176 needs.

177 **Q. Is the Mona-Oquirrh Project included in the Company’s latest IRP?**

178 A. Yes. The 2008 IRP includes the Project as part of the modeled transmission
179 topology for the purpose of selecting the Company’s preferred portfolio of future
180 supply-side and demand-side resources. The 2008 IRP describes what the
181 Company calls the “Energy Gateway Transmission Expansion.” (2008 IRP, at
182 pages 60-66, Exhibit DTG-2). The Energy Gateway is designed to use “a ‘hub
183 and spoke’ concept to most efficiently integrate transmission lines and collection
184 points with resources and loads centers aimed at serving the Company’s
185 customers while keeping in sight Regional and Sub Regional needs.” (2008 IRP,
186 at page 61, Exhibit DTG-2). As the 2008 IRP notes, the Mona-Oquirrh link has
187 been an integral part of the Energy Gateway plan for several years: “The Energy
188 Gateway project takes into account the existing 2006 transaction commitments
189 which include transmission facilities from southern Idaho to northern Utah (Path
190 C) [Populus-Terminal], **Mona to Oquirrh** and Walla Walla to McNary.” (2008
191 IRP, at pages 64-65, Exhibit DTG-2; emphasis added). The IRP also notes the
192 extreme importance of a strengthened transmission grid to meet the reliability
193 requirements of the Federal Energy Regulatory Commission (“FERC”) and
194 NERC, all of which are designed to “withstand sudden disturbances or

¹The 2008 IRP is available at <http://www.pacificorp.com/Navigation/Navigation/23807.html>.

195 unanticipated loss of system elements. Increasing transmission capacity often
196 requires redundant facilities to meet NERC reliability criteria.” (2008 IRP, at
197 page 62, Exhibit DTG-2). The Project is critical to these overall goals.

198

199 A critical part of each year’s IRP is the Action Plan. The “2008 IRP Action Plan”
200 consists of 15 action items, one of which is to “Permit and construct a 500 kV line
201 between Mona and Oquirrh.” (2008 IRP, Table 9.2, at pages 255-59; the Mona-
202 Oquirrh project is identified on page 258, Exhibit DTG-2).

203 **Q. Has the Mona-Oquirrh Project been included in previous IRP resource**
204 **analysis?**

205 A. Yes. This project, along with increased transmission transfer capacity to the
206 Desert Southwest, was evaluated for cost-effectiveness from a system benefits
207 perspective as part of the 2007 IRP filed with the Commission in May 2007. This
208 analysis helped support the decision to include the Mona-Oquirrh Project as part
209 of the Company’s preferred portfolio.

210 **Q. What other long-range planning tools were used to justify the Project?**

211 A. In addition to the IRP, for several years the Company’s long range planning has
212 identified the need to add facility improvements in specific locations. The
213 “Wasatch Front Spatial Load Forecast” conducted in 2004 (attached hereto as
214 Exhibit **RMP (DTG-3)**), is a relevant example of the Company’s long range
215 planning studies that analyze load growth throughout northern Utah. Spatial load
216 forecasting uses GIS to merge Company distribution system data with land use
217 and development data some of which has been provided from communities and

218 agencies. The model uses data such as current land use, transportation
219 infrastructure, mountain slopes, and urban centers to forecast the extent, location,
220 and the timeline of community development. Every land use is related to a
221 predefined profile of load on the distribution system. Key to the land use model is
222 reproducing the current land use in the area and evaluating where future
223 development may occur (drawn in part from information regarding projects such
224 as the Mountain View Corridor and development projects on the West Bench,
225 including those undertaken by Kennecott Land and other land developers). The
226 model then translates the land use into a system load forecast, identifying where
227 new load additions are to be expected. This analysis of the community's projected
228 growth helps target where infrastructure investments should be directed. Many
229 communities and agencies cooperated directly with the Company in providing the
230 planning data and information required to complete such a comprehensive long
231 range plan. A list of data sources and contacts used in study development is listed
232 in Appendix A of the study.

233

234 The study concluded that “the highest-growth areas include Southwest Salt Lake
235 City, the western side of the cities of West Jordan and South Jordan, and
236 continued development along the Interstate 15 corridor along the west side of the
237 cities of Midvale, Sandy, and Draper.” (Section 3.1, at pages 20 and 21, Exhibit
238 DTG-3) Consequently, it was predicted that “nearly 46 new (lower voltage)
239 substations” would be required longer term (10 years) to manage the new
240 demands on the distribution system. The target areas for expected locations of

241 these substations through year 2023 are shown in Appendix H of the study.
242 Furthermore, the report concluded that beyond 15 years, Kennecott Land's
243 planned developments combined with the likely siting of a major transportation
244 corridor will lead to the largest and most rapid development in the Salt Lake
245 Valley near the vicinity of the Oquirrh substation. As a result of this analysis, the
246 Company identified the immediate need to plan for and to provide additional
247 transmission system capacity to the area interconnected to the Oquirrh Substation
248 to meet the projected electrical demand.

249 **Q. How does this Project meet the requirements of the IRP and the 2004 Study**
250 **in light of the current recession?**

251 A. It is no secret that the Company, like everyone else in the United States (and the
252 world), is being affected by the current recession. The 2008 IRP has recognized
253 that, at least in the near term, load growth will not be as vibrant as had been
254 forecast in the 2007 IRP, an issue I discuss further below.

255
256 For many years, Utah has been a high-growth state. The Company is unaware of
257 any data or other projections that suggest that this will change in any substantial
258 way (particularly given Utah's natural population growth, which I discuss in
259 detail below). When the recession ends, Utah will continue to be attractive to
260 business and industrial growth and electricity will be essential to meet Utah's
261 above-average population growth.

262

263 Utah has not been as hard hit by the recession as other states and the country as a

264 whole. The seasonally adjusted national unemployment rate for September 2009,
265 according the Bureau of Labor Statistics (“BLS”), was 10.2 percent.² The BLS
266 reported that Utah’s unemployment rate for the same period was 6.2 percent,³ the
267 fourth lowest unemployment rate of the fifty states.⁴

268
269 Of course, the long-range planning represented by the IRP requires the Company
270 to look far beyond the current recession to assure that the electricity needs of Utah
271 are met on a much longer time line. Thus, while demand has been affected by the
272 recession and the 2008 IRP has slightly scaled-back its estimate of future load
273 demand, the Company’s network load obligation in Utah is still expected to grow
274 during the next ten years at an average annual growth rate at about 2.6 percent.
275 (2008 IRP, at page 73, Exhibit DTG-2) The Company must assure that, not only
276 are there adequate supplies of electricity to meet ongoing customer demands for
277 energy, but also that the transmission system has the capacity and reliability to
278 deliver this increased demand for electricity to customers. At the same time,
279 adequate transmission capability is essential for the Company to maintain its
280 obligations to provide reliable and safe electricity to its customers. Network
281 Customers depend upon market purchases in southern Utah for import to load
282 centers north of the Mona substation. Without increased capacity as proposed by
283 the project, PacifiCorp will not be able to meet customer needs.

284 **UTAH POPULATION GROWTH**

² http://data.bls.gov/PDQ/servlet/SurveyOutputServlet?data_tool=latest_numbers&series_id=LNS14000000.

³ <http://www.bls.gov/eag/eag.ut.htm>.

⁴ <http://www.bls.gov/web/laumstrk.htm>.

285 **Q. Are the growth estimates in the 2008 IRP consistent with other data sources?**

286 A. Yes. I reviewed Dr. Zenger's testimony in the Populus-to-Terminal docket. As
287 Dr. Zenger indicated in her testimony there are less than 3 million Utah residents
288 right now; however, estimates from the Governor's Office of Planning and
289 Budget showed significant ongoing growth in Utah: to well over 4 million
290 residents by 2030. (Dr. Zenger's Direct Testimony, Docket No. 08-035-42, at
291 page 24).

292
293 The data used by Dr. Zenger has been updated by data from a new state study of
294 Utah's economy, the 2009 Economic Report to the Governor ("2009 Report").⁵
295 While some numbers have changed from earlier reports, they are slight and the
296 same fundamental conclusions reached by Dr. Zenger still hold for Utah
297 population growth. I have attached a portion of the "Demographics" section of
298 the Report as **Exhibit RMP (DTG-4)**.

299
300 Population growth is a combination of two factors: (1) natural growth (births
301 minus deaths) and (2) net migration (the number of people moving into the state
302 minus people moving out of the state). In both factors, growth in Utah is vibrant.
303 Utah has one of the highest fertility rates in the country (the fertility rate in the
304 United States is 2.06, while the rate in Utah is 2.47). (See page 45, Figure 30, and
305 Table 16 of Exhibit DTG-4). At the same time,

306 "Utah's life expectancy has been consistently higher than the national
307 average. Life expectancy in Utah rose from 77.7 years in 1990 to 78.6
308 years in 2000. Nationally, life expectancy rose from 75.4 years in 1990 to

⁵ The 2009 Report is available online at <http://www.governor.utah.gov/dea/ERG/2009ERG.pdf>.

309 77.0 years in 2000.” (Exhibit DTG-4, at page 45).
310
311 In combination, a high birth rate and a higher than average life expectancy
312 produces a strong rate of natural growth. In terms of net migration, Utah has
313 consistently experienced positive net in-migration for nearly two decades (and
314 with the economic problems experienced by California and Nevada one can
315 reasonably expect this to continue). The year 2008 “marked the 18th consecutive
316 year with net in-migration” to Utah. (Exhibit DTG-4, at page 45, and Table 14).
317 The combination of these factors, and a stronger than average economy, produces
318 strong and continued population growth. In the last decade of the twentieth
319 century, Utah added about 510,000 new residents. (Figure 31, Exhibit 1.4).
320 Through 2008, Utah has added 534,000 more residents since 2000, and the
321 population is projected to be 2.9 million in 2010.

322
323 In summary, the 2009 Report projects strong population growth for Utah: “The
324 State’s population is projected to be 2.9 million in 2010, 3.6 million in 2020, 4.4
325 million in 2030, 5.2 million in 2040, 6.0 million in 2050, and 6.8 million in
326 2060.” (Excerpts of the 2009 Report, **Exhibit RMP Exhibit (DTG-5)**).

327
328 This increase in population will result in additional residential, municipal, and
329 industrial electrical demands to accommodate the increased population’s needs.
330 Despite conservation efforts by the Company and the public, it is clear that
331 additional transmission capacity is necessary for the Company to meet the load
332 growth over the foreseeable future. These are predictions and are, of course,

333 subject to some error. But even if these predictions are not precisely correct (and
334 there is no reason to believe they are off by much), Utah will continue to
335 experience high population growth and thus high demand for electricity.

336 **CURRENT TRANSMISSION SITUATION IN UTAH**

337 **Q. Please describe the current transmission situation for bringing power onto**
338 **the Wasatch Front and adjoining areas from the south and how the Mona-**
339 **Oquirrh Project fits into that situation.**

340 A. Currently, a majority of the electricity serving the northern Utah area is generated
341 at Company facilities in Carbon, Juab, and Emery counties and is delivered on
342 existing transmission lines that enter the Wasatch Front and adjoining areas from
343 the south. These southern Utah generating facilities include the Carbon, Hunter,
344 Huntington, and Currant Creek power plants. The Company's transmission
345 system that provides electrical service to this area from southern Utah presently
346 consists of two 345kV lines from the Huntington and Castle Dale (Emery
347 Substation) areas to the Spanish Fork and Camp Williams substations, four 345kV
348 lines from the Mona area to the Camp Williams Substation, and two smaller
349 138kV lines from the Helper area (Carbon Substation) to the Spanish Fork
350 Substation. These transmission lines along with other interconnected lines are also
351 used to import power into Utah from Nevada, the Four Corners Region, and from
352 other energy providers connected to the Mona Substation. It is necessary to then
353 move this energy north to the large growing load centers in the Wasatch Front and
354 surrounding areas.

355

356 Similarly, PacifiCorp's municipal and other network customers rely on generation
357 located south or connected to Mona to serve their loads and expect to rely on
358 increased capacity of existing facilities to serve their load growth needs north of
359 Mona.

360

361 As northern Utah's electrical usage continues to grow, existing transmission lines
362 do not have sufficient capacity to serve this projected energy demand and ensure
363 an adequate and reliable electric supply to northern Utah. These conditions further
364 validate the conclusions of the 'Wasatch Front Spatial Load Forecast' conducted
365 in 2004 and described above. In addition to the 2004 Spatial Load Forecast
366 transmission studies and analysis show the capacity of the transmission system
367 from Mona north to the Salt Lake City area is fully subscribed by users requiring
368 firm transmission service and the system is operating at or near its full capability.
369 The studies show future electrical demand on the system will exceed the
370 capability of existing lines in the area during peak periods. The Company must
371 prudently plan in advance of this event.

372

373 **Q. Are there other further justifications driving the need to execute and**
374 **complete this project in addition to those mentioned above?**

375 A. Yes. The Company must meet all NERC and WECC transmission system
376 reliability standards and performance criteria. These criteria require the Company
377 to have a forward looking plan to reliably serve current and anticipated future
378 loads under normal conditions and during system contingencies where portions of

379 the transmission system are out of service, planned or otherwise.

380

381 This Project provides new incremental transmission capacity (planned up to 1,500
382 MW) that is required long-term to serve growing electrical system demands. The
383 Project also provides needed system reliability allowing the Company to meet its
384 current and future load service requirements and to help meet reliability criteria.
385 Transmission system reliability benefits are fully gained by locating this Project
386 away from existing lines and utilizing a separate corridor thereby reducing the
387 risk of multiple line outages.

388 **ALTERNATIVES AND RATIONALE FOR THE PROJECT**

389

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

391 A. Long term alternatives to constructing a new transmission line are limited;
392 however, they have been given serious consideration by the Company during the
393 IRP process, but none was found that met the purpose and need and long term
394 requirements of the Project, which are primarily driven by future energy resource
395 locations, including: (1) electric load and demand-side management and energy
396 conservation, (2) new generation facilities within the Salt Lake City area, (3)
397 adding additional capacity to existing transmission lines and alternative
398 transmission technologies. As a result of the resource portfolio modeling
399 conducted for the 2007 IRP, the Company concluded that additional transmission
400 transfer capability in Utah was cost-effective relative to supply-side and demand-
401 side resource alternatives.

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

- 403 A. The Project was selected based on several factors:
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- Approximately 75 to 80 percent of all of the electricity use in Utah, referred to as the Wasatch Front load, is within a 10-county area of northern Utah. The Project will add significant long term incremental transmission capacity by acquiring a planned rating of up to 1,500 MWs to the system.
 - The Project will allow increased import of new generation resources or market purchases of energy from Mona and the Desert Southwest, the Four Corners Region, and markets available through interconnections at Mona to be delivered to northern Utah.
 - Mona has been and will continue to be a hub through which electricity is imported from the Company's southern intertie lines including serving as an important interconnection point with Deseret Generation and Transmission's Bonanza Plant and the Intermountain Power Agency's Intermountain Power Plant.
 - Strengthening the electrical path between Mona and the Wasatch Front allows utilities greater opportunity to take advantage of economical power transfers, sales, and purchases into and through Utah.
 - Currently transmission line and station maintenance windows are limited because the system is fully utilized. When completed, this Project will improve our ability to perform required maintenance without significant operational impacts to the system, and it will reduce outage risks when portions of existing transmission facilities are removed from service for

426 maintenance.

427 • The Project provides an opportunity for developing southwest
428 municipalities to incorporate both short- and long-term infrastructure
429 needs into their planning process.

430 • The Project is necessary for the Company to maintain its contract
431 obligations to continue to provide reliable firm transmission service.

432 • As stated previously, reliability benefits are provided by utilizing a
433 different corridor than the existing Mona – Camp Williams corridor in the
434 event of unscheduled or planned outages. The Project satisfies not only
435 the long term load growth requirement but improves the reliability of the
436 system for the Company’s customers generally.

437 **Q. How will the Transmission Project benefit the Company’s customers?**

438 A. The Transmission Project will provide an efficient and reliable supply of
439 electricity to meet existing and future electrical loads by 2013. Without the new
440 capacity, the Company would have to rely on the existing transmission
441 interconnections to the Desert Southwest, Central Utah, Four Corners, and
442 Eastern Wyoming. These transmission paths are currently fully utilized and do
443 not provide any meaningful transmission capacity required for future projected
444 load. Without the increased transmission capacity provided by the Project, the
445 Company would be faced with an increased and unacceptable risk of not being
446 able to meet its load service obligations during all periods. The Project will
447 enhance the Company’s ability to provide reliable and efficient service to all
448 customers. Further, in order to provide low-cost energy, the Company must have

449 the ability to acquire power from numerous generation sources in order to
450 negotiate the most competitive pricing. By adding transmission capacity we
451 expand our ability and options to obtain additional generation sources at
452 competitive pricing. The Project will result in a stronger interconnection with
453 other parts of the system providing better transmission system access to the other
454 sources of generation. The Project, especially when complemented with other
455 planned projects, will greatly strengthen the Company's transmission capacity and
456 flexibility. Generally, the addition of the Project will be an important piece in
457 strengthening the Western grid's transmission infrastructure, which I believe is
458 necessary, based upon our customers near-term and long-term load growth
459 projections, and the contingencies and restrictions we are beginning to see on the
460 network during outage conditions. The Project is widely regarded as a necessary
461 interconnection point to support the long-term transmission expansion described
462 in the Rocky Mountain Area Transmission Study (RMATS) report dated
463 September 2004. Given the voluminous nature of the RMATS study, its
464 Executive Summary is attached as **Exhibit RMP (DTG-6)**.

OTHER BENEFITS

- 466 **Q. Will the Transmission Project provide increased reliability for the**
467 **Company's wholesale transmission customers?**
- 468 A. Yes. Utah Associated Municipal Power Systems ("UAMPS"), Utah Municipal
469 Power Association ("UMPA"), and Desert Generation & Transmission
470 ("DG&T") rely on Utah-based generation to support loads throughout the state.
471 Increased capacity in the northbound direction provides required reliability for

472 long-term load service in northern Utah. Without increased northbound
473 transmission capacity, the Company, UAMPS, and other entities such as UMPA
474 and DG&T, would be required to find alternative resource energy supply to serve
475 load growth, potentially increasing their power costs. Increasing capacity across
476 this path will significantly improve a point of constraint on the system that
477 currently affects several transmission customers.

478 **Q. Will the Transmission Project provide other benefits to the Company's**
479 **transmission system?**

480 A. Yes. As has been seen in the West as well as other parts of the country, the
481 transmission grid can be affected in its entirety by what happens on an individual
482 transmission line. For example, the transmission path between southern and
483 northern Utah is comprised of several individual transmission lines or line
484 segments. A single outage on any of the individual lines due to storm, fire, or
485 other external human interference can and does cause significant reductions in
486 transmission capacity and can negatively impact our ability to serve customers.
487 The Project will allow the Company to continue to meet native load service
488 obligations and continue to meet contractual obligations to third parties.
489 Strengthening this path with the new transmission line will benefit all customers
490 due to these factors.

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

492 A. Yes. While this Project provides the next necessary increment of transmission
493 capacity it also supports and complements other future transmission investments
494 that are currently proposed by the Company and other utilities in the region. This

495 Project positions the Company to be strongly interconnected to other regional
496 projects currently being planned and provides options for access to additional
497 resources.

498 **Q. Please explain why a CPCN is necessary now for a project that is not**
499 **scheduled for completion until 2013.**

500 Because of the economics of building transmission lines, additional transmission
501 facilities typically come in large blocks rather than small increments. The
502 Company is an essential service provider and as such develops its long-range
503 plans to meet customer service requirements. As part of this process, the
504 Company plans segments of transmission projects, such as the Mona to Oquirrh
505 Project, in 1,500 MW increments because large infrastructure additions like the
506 Project require long lead times in order to meet anticipated energy demands.
507 These large additions are complex and require long range project planning to
508 incorporate siting, permitting, the NEPA process, design, material ordering, and
509 logistics, and because of the physical length of the Project, also require multiple
510 years for construction. Scheduling and planning infrastructure projects in this
511 manner helps reduce overall project costs and thus costs to our customers. There
512 are construction restrictions that will affect the Project, including environmental
513 constraints, high elevations, and difficult terrain that will require as much time as
514 possible to construct the Project so that it is completed in 2013.

515 **STATUS OF PERMITS FROM LOCAL GOVERNMENT ENTITIES**

516 **Q. What is the current status with regard to obtaining the necessary permits**
517 **from local government entities?**

518 A. The Company has filed conditional use permit applications with the cities of
519 South Jordan and West Jordan, and from Utah County. In Tooele County, it is
520 first necessary to seek an amendment to the county ordinances and then a
521 conditional use permit. The Company has made a formal request that Tooele
522 County amend its ordinances. Once that process is completed, the Company will
523 then seek a conditional use permit. Based on the current routing plan, these are
524 the only local approvals the Company must obtain. Should a routing change as
525 the result of the environmental approval process require any additional local
526 permits, the Company will immediately seek such approval. As to the permits
527 described above, the Company will keep the Commission informed of their status.

528 **RATE TREATMENT AND PRUDENCE REVIEW**

529 **Q. Is the Company seeking a prudence finding or a determination of rate**
530 **treatment for the cost of the Transmission Project at this time?**

531 A. No, not at this time. A request for cost recovery will be made in a future general
532 rate case or major plant addition filing. The appropriate prudence review will be
533 made in that proceeding.

534 **CONCLUSION AND RECOMMENDATION**

535 **Q. What do you recommend?**

536 A. I recommend that the Commission find and conclude that the Project is needed in
537 order for the Company to provide efficient and reliable service to its customers in
538 northern Utah and that the Project is in the public interest. Based on those
539 findings and conclusions, I recommend that the Commission grant the Company a
540 CPCN for the project.

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

542 **A. Yes.**

EXHIBITS TO DIRECT TESTIMONY OF DARRELL T. GERRARD

EXHIBIT DTG-1: Transmission Line Corridor Route Map

EXHIBIT DTG-2: Excerpts from the 2008 IRP (Volume 1)

EXHIBIT DTG-3: Wasatch Front Spacial Load Forecast (May 6, 2004)

**EXHIBIT DTG-4: 2009 Economic Report to the Governor (Excerpts from
“Demographics” Section)**

EXHIBIT DTG-5: 2009 Economic Report to the Governor (Excerpts Summary)

**EXHIBIT DTG-6: Rocky Mountain Area Transmission Study (RMATS) (Executive
Summary)**