

1 **Introduction and Purpose of Testimony**

2 **Q. Are you the same Samuel C. Hadaway who submitted direct testimony in this**
3 **proceeding on behalf of Rocky Mountain Power (“RMP or the Company”)?**

4 A. Yes.

5 **Q. What is the purpose of your rebuttal testimony?**

6 A. The purpose of my rebuttal testimony is to respond to the return on equity (“ROE”) recommendations offered by Utah Division of Public Utilities (“Division”) witness Mr. Charles E. Peterson, Utah Office of Consumer Services (“Office”) witness Mr. Daniel J. Lawton, and Federal Executive Agencies (“FEA”) witness Mr. Michael P. Gorman. Additionally, I will respond to the other witness's comments on the methodology I used in my direct testimony to estimate RMP's cost of equity (“COE”) and I will update my analysis for current market costs and conditions.

13 **Review of ROE Recommendations**

14 **Q. Please summarize your analysis and conclusions.**

15 A. Having reviewed the testimony of the other cost of capital witnesses, I continue to believe that my opinion that the Company’s cost of equity is 10.0 percent is reasonable and appropriate. Interest rates have increased since the Commission approved, as part of a settlement, the Company’s existing 9.8 percent ROE. Although interest rates have stabilized somewhat since the beginning of the year, expectations for higher rates as the Federal Reserve System (“Fed”) continues “tapering” its bond purchases indicates that the Company’s requested 10.0 percent ROE, as indicated by my initial risk premium analysis, is reasonable. The risk premium analyses of the other witnesses when corrected as necessary for

24 methodological flaws also support an ROE of 10.0 percent or higher. The lower
25 DCF results do not currently reflect the Fed's policy shift or the rising interest rates
26 that have resulted and are expected in the future. For this reason, more emphasis
27 should be placed on the risk premium estimates of ROE.

28 In addition, Division witness Mr. Peterson acknowledges that Questar Gas
29 is less risky than the Company, and it is common knowledge that Questar has
30 traditionally had a lower authorized ROE than the Company. The Commission
31 recently approved an ROE of 9.85 percent for Questar. This result is consistent with
32 my estimate and illustrates that the other witnesses' estimates are unreasonable.

33 It is illogical to suggest that the Company's authorized ROE should be
34 decreased when interest rates have increased and the Commission has recently
35 authorized a higher ROE for Questar.

36 **Q. What are the parties' ROE recommendations?**

37 A. The parties offer the following ROE recommendations:

38	RMP	10.00%
39	Division	9.25%
40	Office	9.20%
41	FEA	9.40%

42 **Q. Please summarize your updated analysis.**

43 A. In my updated analysis, the risk premium model indicates a COE range of 9.7
44 percent to 9.8 percent, based on current and projected single-A utility interest rates
45 (Exhibit RMP____(SCH-6R)). These updated estimates reflect the drop in long-term
46 interest rates that has occurred since the case was filed.¹ My updated DCF models

¹ In my direct testimony, the risk premium analysis supported a range of 9.9 percent to 10.1 percent (Exhibit RMP____(SCH-6)).

continue to show a low COE range of 9.3 percent to 9.5 percent (Exhibit RMP____(SCH-5R)), with the same midpoint as in my direct testimony at 9.4 percent (Exhibit RMP____(SCH-5)). As I explained in my direct testimony, however, I believe these DCF estimates understate RMP's cost of equity because the DCF models continue to provide lower COE estimates during a period when interest rates have increased.

Q. Please explain why you believe the DCF model results are negatively skewed.

A. My lower DCF results, as well as the DCF estimates provided by the other parties, are not consistent with the interest rate increases that have occurred since the Company's prior case in 2012, Docket No. 11-035-200 ("2012 Case"). Neither are the lower DCF results consistent with the Commission's more recent findings on ROE. As shown on page 1 of Exhibit RMP____(SCH-1R), the average yield on single-A utility bonds for the most recent three months (February-April 2014) was 4.48 percent. In the 2012 Case, the then-current three-month data I provided in my rebuttal testimony (March-May 2012) showed an average single-A yield of 4.36 percent. Additionally, interest rates declined further during the pendency of the 2012 Case. While the case was considered and finally decided in September 2012, the single-A interest rate averaged only about 4.0 percent. As shown in Table 2 below, long-term interest rates have increased by approximately 50 basis points since the 2012 Case was heard and decided.

Despite the increase in interest rates since the Fed announced its "tapering" of bond purchases in mid-2013, DCF estimates of COE have decreased. For example, my updated DCF analysis in the 2012 Case (Exhibit RMP____(SCH-7R))

70 provided a COE range of 9.6 percent to 10.2 percent. With interest rates higher
71 today relative to 2012, basic economic principles would say that at least some
72 increase in DCF estimates should have occurred. The large decreases in ROE
73 recommended by the other parties are not consistent with the interest rate increases
74 that have occurred and should not be the basis for reducing RMP's allowed ROE.

75 **Q. Has the Commission expressed its views on the application of technical models**
76 **to estimate the required rate of return?**

77 A. Yes. In its recent order in the Questar case, the Commission offered the following
78 caveats about determining the appropriate ROE in the regulatory process:

79 [W]e observe the determination of an appropriate return on equity for
80 a public utility is not an exact science. Instead, the determination of an
81 appropriate return on equity is a legislative function delegated to this
82 Commission, involving questions of judgment and discretion. (Questar
83 Gas Company, Docket No.13-057-05, Report and Order, February 21,
84 2014, page 29.)

85 In the Questar case, the Commission also rejected the Division's 9.45 percent and
86 the Office's 9.25 percent ROE recommendations as being "too low to support
87 properly Questar's operations." (Questar Order at 34.) The Commission
88 determined that the appropriate ROE for Questar was 9.85 percent and noted that
89 the average allowed gas-company ROE for the 4th Quarter of 2013 was 9.81
90 percent. (Questar Order at 34.)

91 **Q. Are there other factors from the Questar case that show that RMP's allowed**
92 **ROE should not be reduced?**

93 A. Yes. First, and most important, the Division and Office recommendations in the
94 present case are even lower than the ones they offered, and were rejected as "too
95 low," in the Questar case. In Questar, the other parties and ultimately the

96 Commission also noted the many risk-reducing riders and trackers under which
97 Questar operates. As an example, in his final recommendation for Questar, Office
98 witness, Mr. Lawton, recommended a five basis point reduction to account for
99 Questar's infrastructure investment tracking mechanism. Moreover, Questar's
100 lower risk profile has helped support its higher bond ratings. In its most recent
101 rating reviews, Moody's raised Questar's issuer and unsecured credit rating from
102 A3 to A2, and raised PacifiCorp's issuer rating from Baa3 to A3, holding
103 PacifiCorp one notch below Questar. Additionally, Questar's allowed equity ratio
104 was at or above the level being requested by RMP in the present case. In this
105 context, it is not consistent for the other parties to offer lower ROE
106 recommendations for RMP.

107 **Q. Can you elaborate on the specific inconsistencies that you have found in the**
108 **Division's DCF analysis between this case and the Questar case?**

109 A. Yes. Given the Commission's findings in Questar and Questar's less risky profile
110 than RMP, one would have expected the Division's analytical results and its ROE
111 recommendation to have been higher for RMP than for Questar. The Division's
112 technical estimates and its ROE recommendation for RMP, however, are even
113 lower than the Division recommended, and had rejected by the Commission, in the
114 Questar case.

115 In the Questar case, Division witness, Wheelwright, relied on two DCF
116 models: one a single-stage model and the other a two-stage model. His final average
117 COE results were 9.71 percent from the single-stage model and 9.81 percent from
118 the two-stage model. In the present case, Mr. Peterson finds average DCF results

119 of only 9.13 percent from his six single-stage models and 8.79 percent from his five
 120 two-stage models. A comparison of these outcomes to Division witness
 121 Wheelwright's Questar estimates demonstrates the current problems with the DCF
 122 model and shows that the Division's current ROE recommendation for RMP is
 123 unreasonably low.

124 **Q. How do the other parties' ROEs compare to the rates of return recently**
 125 **allowed for other vertically-integrated electric utilities around the country?**

126 A. They are significantly lower. In Exhibit RMP____(SCH-2R), I provide the quarterly
 127 average ROE data through the 1st Quarter of 2014. Those data are summarized in
 128 Table 1 below:

Table 1

Authorized Equity Returns for Vertically-Integrated Electric Utilities*

	2010	2011	2012	2013	2014
1 st Quarter	10.59%	10.09%	10.30%	9.83%	9.86%
2 nd Quarter	10.18%	10.26%	9.95%	9.86%	
3 rd Quarter	10.32%	10.11%	9.90%	10.12%	
4 th Quarter	10.32%	10.39%	10.16%	9.95%	
Annual Average	10.38%	10.24%	10.10%	9.93%	9.86%
Number of Cases	(42)	(27)	(39)	(30)	(2)

Exhibit RMP____(SCH-2R)

129 These data show that the other parties' ROEs are far below the most recent average
 130 ROEs allowed for other integrated electric utilities like RMP. While allowed ROEs
 131 have generally declined over the past five years, the drop has been nothing like the
 132 extremely low estimates that the other parties are currently offering. The other
 133 parties' low ROE recommendations are generally based on mechanical applications
 134 of standard ROE estimation models. Those models are currently out of sync with

135 market realities, and they do not provide reliable support for the other parties’
136 recommendations for reducing RMP's allowed rate of return.

137 **Q. Why do you believe that the traditional models are out of sync with the current**
138 **cost of equity?**

139 A. Since 2008, the Fed has held interest rates at record low levels in an effort to
140 stimulate the economy. While the Fed has announced and begun efforts to “taper”
141 its accommodative monetary policies, the effects continue to restrain interest rates
142 and boost stock prices. The artificial supply and demand relationships created by
143 the government’s policies over the past five years will take time to rebalance and
144 for competitive equilibrium to return to the capital markets. The prolonged
145 government intervention has caused distortions that the COE estimation models
146 were never designed to address. The technical estimates offered by the other parties
147 simply cannot capture these effects, and the models therefore produce negatively
148 skewed COE estimates.

149 **Q. In your direct testimony, you provided data that illustrated interest rate trends**
150 **and the spreads between U.S. Treasury bond yields and yields on single-A**
151 **rated utility bonds. Have you updated that information?**

152 A. Yes. In Exhibit RMP____(SCH-1R), page 1, I have updated the government and
153 utility interest rates and the associated spread data. These data for the past two years
154 are summarized in Table 2 below.

Table 2			
Long-Term Interest Rate Trends			
Month	Single-A Utility Rate	30-Year Treasury Rate	Single-A Spread
May-12	4.20	2.93	1.27
Jun-12	4.08	2.70	1.38
Jul-12	3.93	2.59	1.34
Aug-12	4.00	2.77	1.23
Sep-12	4.02	2.88	1.14
Oct-12	3.91	2.90	1.01
Nov-12	3.84	2.80	1.04
Dec-12	4.00	2.88	1.12
Jan-13	4.15	3.08	1.07
Feb-13	4.18	3.17	1.01
Mar-13	4.20	3.16	1.04
Apr-13	4.00	2.93	1.07
May-13	4.17	3.11	1.06
Jun-13	4.53	3.40	1.13
Jul-13	4.68	3.61	1.07
Aug-13	4.73	3.76	0.97
Sep-13	4.80	3.79	1.01
Oct-13	4.70	3.68	1.02
Nov-13	4.77	3.80	0.97
Dec-13	4.81	3.89	0.92
Jan-14	4.63	3.77	0.86
Feb-14	4.53	3.66	0.87
Mar-14	4.51	3.62	0.89
Apr-14	4.41	3.52	0.89
3-Mo Avg	4.48	3.60	0.88
12-Mo Avg	4.61	3.63	0.97

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury rates)

Monthly averages are for the respective periods ending April 30, 2014.

155 The data in Table 2 track the decline in long-term interest rates that occurred
156 through the end of 2012. Rates fluctuated at near record low levels through April
157 2013 (single-A utility yields at about 4 percent and Treasury bond yields at less
158 than 3 percent), but began increasing in May 2013, as rumors about less
159 accommodative monetary policy spread. By June 2013, when the Fed announced
160 its intention to “taper” its bond purchases, single-A utility and Treasury bond yields
161 had increased by about 50 basis points. Rates increased further through September

2013, and have since settled back to levels still 50 basis points higher than before the Fed’s “tapering” announcement occurred.

Q. What do interest rate forecasts show for the coming year?

A. Interest rates are expected to rise further. On page 2 of Exhibit RMP____(SCH-1R), I provide the forward Bloomberg curve for Treasury yields through December 31, 2015. These forecasts reflect the further increases in interest rates that are expected. The forecast data are summarized in Table 3 below.

Table 3
Interest Rate Forecast

	<u>Apr. 2014</u>	<u>Dec. 2014E</u>	<u>Dec. 2015E</u>
1-Yr. Treasuries	0.1%	0.5%	1.5%
10-Yr. Treasuries	2.7%	3.0%	3.3%
30-Yr. Treasuries	3.5%	3.6%	3.8%

Source: www.federalreserve.gov/releases/h15/data.htm (April rates) and Bloomberg Active Treasuries, April 28, 2014 (Forecasted rates).

During the coming year, longer-term Treasury rates are expected to rise by an additional 10 to 30 basis points relative to their average levels for April 2013. In this capital market environment, the other parties’ low recommendations are clearly inappropriate and should not be the basis for reducing RMP’s allowed ROE.

Rebuttal of Division Witness Charles E. Peterson

Q. What are your principal areas of disagreement with Mr. Peterson?

A. My primary disagreement with Mr. Peterson is his failure to acknowledge that interest rates are now higher than they were when the Company’s 9.8 percent ROE was set in 2012, and that the Commission’s more recent 9.85 percent for Questar shows that a higher, not a lower ROE should be set for RMP. While Mr. Peterson and I continue to disagree about some technical aspects of estimating COE, these

180 differences are not the principal cause for our different views of the appropriate
181 ROE.

182 As I discussed previously, a lower ROE is not appropriate during a period
183 when interest rates have increased and are expected to increase further. If a lower
184 ROE, like the ones recommended by Mr. Peterson (and the other parties) were
185 imposed on RMP, the likely result would be an ongoing substandard return while
186 the customer rates established by this case are in place. Such a result would not
187 properly support RMP's operations and would be entirely contrary to the sound
188 regulatory precedent in Utah. Under these circumstances, Mr. Peterson's
189 recommendation, based on his routine application of the various ROE estimation
190 models, should be rejected.

191 **Q. Does Mr. Peterson acknowledge that Questar has a lower risk profile than**
192 **RMP?**

193 A. Yes. In his direct testimony, at page 19, lines 376-378, Mr. Peterson states that
194 "[t]he Division acknowledges that PacifiCorp's business suggests a slightly riskier
195 investment profile than Questar's."

196 **Q. What are the technical aspects of Mr. Peterson's analysis with which you**
197 **disagree?**

198 A. Mr. Peterson and I continue to disagree about selecting a comparable group, about
199 DCF growth rates, about the CAPM model in general, and about his other ad hoc,
200 yet-to-be-validated risk premium models.

201 **Q. Why do you disagree with Mr. Peterson's comparable group discussion?**

202 A. I disagree with Mr. Peterson's discussion because it may provide an incorrect

203 implication that the comparable companies used in my (and Mr. Gorman's)
204 analyses might not provide an appropriate group.² Mr. Peterson's extended
205 discussion notwithstanding, in the present case, the comparable company issue has
206 no practical relevance because the rate of return estimates for the "included" and
207 "excluded" companies are not materially different. This result can be seen by
208 comparing the portions of our DCF estimates that are based on the same input
209 assumptions. For example, in DPU Exhibit 1.6 Dir. COC, in the next to last column,
210 Mr. Peterson provides his single-stage DCF estimates based on analysts' EPS
211 growth rates. The mean result for Mr. Peterson's 14-company group is 9.32 percent.
212 In my updated DCF Exhibit RMP____(SCH-5R), page 1, column 1, I provide the
213 same analysis for my 13-company comparable group. The average estimate for my
214 group is 9.3 percent.

215 Additional perspective can also be gained by comparing the COE estimates
216 for Mr. Peterson's "included" and "excluded" companies relative to my group. Mr.
217 Peterson excluded five companies that I included. The mean result for those
218 companies in my Exhibit RMP____(SCH-5R) is 9.63 percent.³ For the additional
219 six companies that Mr. Peterson included, his mean DCF estimate is 9.62 percent.
220 The net practical result from "including" or "excluding" the companies discussed
221 by Mr. Peterson, therefore, is effectively zero. The important issue is that a
222 comparable group must be reasonably representative of the subject company and

² Mr. Lawton also accepts all the companies in my 13-company group, but he applies broader selection criteria that result in a larger 23-company comparable company group.

³ As Mr. Peterson did in portions of his analysis, I excluded IDACORP's 6.6 percent estimate as an outlier in my single-stage, analysts' growth rate DCF analysis. The mean estimate for the remaining four companies is 9.63 percent.

223 not affected by selectivity bias that might skew the results. In this regard, the
224 comparable groups used by all witnesses in the present case appear reasonable, and
225 any potential confusion caused by Mr. Peterson's discussion of the issue should not
226 be a concern.

227 **Q. What are your responses to Mr. Peterson's DCF growth rate selections?**

228 A. Mr. Peterson provides a wide range of growth rate alternatives. He summarizes the
229 results in the upper half of his Exhibit DPU Exhibit 1.3 Dir. COC. The COE
230 estimate range from all of his single-stage DCF models is 8.63 percent, based on
231 forecast dividend growth rates, to 9.32 percent based on EPS growth rates only. Mr.
232 Peterson also provides the average result for his five two-stage growth DCF models
233 (8.79%). His two-stage growth estimates are generally lower than the single-stage
234 estimates because for the second stage growth rate, Mr. Peterson uses the currently
235 low long-term government agency estimates of GDP growth. Somewhat like his
236 group selection discussion, much of Mr. Peterson's discussion of DCF growth rates
237 misses the fundamental problem. In the current market environment, our technical
238 disagreements about dividend, earnings, or GDP growth, or the weighting that
239 might be applied to these growth rates, are largely irrelevant. The market cost of
240 equity is not lower today than it was in 2012, or during the past two years while
241 interest rates were forced by government intervention to historically low levels.
242 Until that intervention has ceased and reasonable equilibrium has returned between
243 debt and equity markets, DCF estimates of COE, regardless of the growth rate
244 inputs, will remain unreliable. In this context, Mr. Peterson's rote application of

245 DCF growth estimates and weighting schemes for those estimates is at best an
246 academic exercise.

247 **Q. What is your response to Mr. Peterson's CAPM and other risk premium**
248 **estimates?**

249 A. I disagree with Mr. Peterson's continuing use of the CAPM, his so-called Value
250 Line financial strength risk premium model, and his additional risk premium
251 estimates based on Value Line's and Professor Damodaran's expected market
252 returns and bond yield spreads. He reports and, to some extent, claims value for
253 8.65 percent and lower ROE estimates that the CAPM produces. Such results
254 should have been dismissed. Although Mr. Peterson does not directly include the
255 results in his recommended range, the even lower estimates from his "other" risk
256 premium models should also have been dismissed rather than used to suggest that
257 his DCF estimates might be "too high."⁴

258 **Q. Why are Mr. Peterson's CAPM and other risk premium estimates even lower**
259 **than most of his DCF estimates?**

260 A. As shown in Mr. Peterson's DPU Exhibit 1.11 Dir. COC, his CAPM estimates
261 range from 4.15 percent to 6.52 percent using a T-bill risk-free rate and from 6.71
262 percent to 8.65 percent using a 20-year Treasury bond risk-free rate. This range of
263 results should have indicated to Mr. Peterson that, under present market conditions,
264 the traditional applications of the CAPM are unreliable.

⁴ At page 30, lines 618-620, Mr. Peterson says that given the opportunity to earn 3.65 percent on a Treasury bond or 8.65 percent on a utility stock, an investor may well choose the utility stock as a reasonable expected return for the additional risk. On page 31, lines 634-635, Mr. Peterson says that his risk premium and CAPM estimates are "...suggestive that the DCF model results may be too high." These statements are indicative of Mr. Peterson's failure to recognize the implications of the higher interest rates that have occurred over the past year.

While Mr. Peterson uses only his highest CAPM result (8.65%) as the bottom of his recommended range, his lower results from the CAPM are caused by the disconnect between debt and equity market rates that has occurred. The government's intervention in the debt markets has produced artificially low interest rates and, in this environment, COE models that are affected by those rates cannot produce market-based estimates of the cost of equity. For the CAPM and most other risk premium models, the effect is direct, with low COE estimates tracking the low interest rates. As I have discussed, the effect in the DCF model is less direct, but nonetheless important, as dividend yields have been driven to historically low levels by the disruption of normal supply and demand for dividend income. These factors cause negatively skewed estimates from all of Mr. Peterson's CAPM models and most of his other risk premium models.

Q. Why does Mr. Peterson find an ROE as high as 10.08 percent in the last risk premium model shown on page 3 of DPU Exhibit 1.12 Dir. COC?

A. Mr. Peterson's additional risk premium approach is something of a tautology in the sense that the results from these models are essentially *defined* by the market risk premium he selects. This is so because, in these models, once a market rate of return is selected, the resulting ROE estimate depends only on the spread between the risk-free rate and the subject company's borrowing rate. In the first two versions of Mr. Peterson's risk premium model, the COE estimates are low because the selected rates of return for the overall stock market are only 8.15 percent (from Damodaran) and 8.5 percent (from Value Line). The third risk premium model produces a 10.08

percent COE estimate because in that model the market risk premium is a much higher rate based on the long-term (1926 to present) Ibbotson/Morningstar data.

The definitional nature of Mr. Peterson's models can be seen in the calculations in Table 4 below:

Table 4
Peterson Risk Premium Model Calculations

Source	COE Estimate	Risk Premium	Difference
Value Line	8.62%	5.50%	3.12%
Damodaran	8.27%	5.15%	3.12%
Ibbotson/Morningstar	10.08%	6.96%	3.12%

Mr. Peterson's risk premium model is like a CAPM format with inputs defining the "difference" term. In this format, the adjustment for risk is moved to the "difference" term much like the beta coefficient adjusts the market risk premium for risk in the CAPM. In effect, once Mr. Peterson selects a market risk premium, the estimated ROE from his model is defined to be 3.12 percent above that risk premium. Since there is no way to validate the difference term's value, the additional model would seem to add little to the process of estimating ROE.

Q. On pages 33-42, Mr. Peterson restates his criticisms of your ROE recommendations. What is your general response to Mr. Peterson's comments?

A. I obviously disagree with most of what Mr. Peterson says. While it is true that, for all the reasons explained above, I have stopped supporting the CAPM, I have done so because on any comparative basis that model does not produce reasonable estimates of the cost of equity. I have also explained why DCF estimates are currently low and why I currently place more weight on basic bond yield plus risk premium results. Mr. Peterson continues to be mistaken about my giving 100 percent weight to a GDP growth rate DCF analysis in prior cases. I have

307 consistently provided three versions of the DCF model with growth rates based on
308 both forecasted GDP growth and analysts' growth rate projections. With respect to
309 risk premium analysis, my use of regulatory allowed rates of return is a widely
310 accepted approach. Investors closely follow these data and are fully aware that
311 some of the returns are based on settlements and other factors negotiated in the
312 regulatory process. However, the averages of all the allowed returns are as good an
313 indicator of what investors may expect as exists. Mr. Peterson's references to other,
314 perhaps more difficult to understand approaches, do not improve his COE
315 estimates, and his criticisms of my approaches are misplaced.

316 **Rebuttal of Office Witness Daniel J. Lawton**

317 **Q. What is the basis for Mr. Lawton's 9.2 percent ROE recommendation?**

318 A. At page 8, lines 190-191, Mr. Lawton explains that he employs the DCF model to
319 estimate the cost of equity. At page 9, lines 195-198, Mr. Lawton further states that
320 he uses CAPM and risk premium methods as checks of reasonableness. In Exhibit
321 OCS _ 1.7D and at page 26, lines 695-696, Mr. Lawton shows and explains that his
322 constant growth DCF model produces a range of 8.96 percent to 9.17 percent. In
323 Exhibit OCS _ 1.8D and at page 27, lines 734-735, Mr. Lawton shows and explains
324 that his two-stage growth DCF model produces a range of 9.10 percent to 9.14
325 percent. In Exhibit OCS _ 19.D and at page 29, lines 781-782, Mr. Lawton shows
326 and explains that his bond yield plus risk premium analysis produces a range of
327 9.75 percent to 10.01 percent. In Exhibit OCS _ 1.10D and at page 31, lines 829-
328 830, Mr. Lawton shows and explains that his CAPM and empirical ECAPM
329 analyses produce a range of 9.02 percent to 9.59 percent. On page 32, in Table 5,

330 Mr. Lawton summarizes his DCF, CAPM, and risk premium estimates. From these
331 results, Mr. Lawton produces an average of about 9.2 percent for his DCF and
332 CAPM/ECAPM models and an average of 9.5 percent when his higher risk
333 premium model midpoint is included in the average. Mr. Lawton ultimately adjusts
334 the range downward by 20 basis points to account for his finding that RPM's debt
335 ratio is slightly lower than the average debt ratio for his comparable group. He then
336 selects 9.2 percent as his final ROE recommendation.

337 **Q. What is your general assessment of Mr. Lawton's analysis and**
338 **recommendation?**

339 A. Similar to Mr. Peterson, Mr. Lawton's ROE recommendation is well below RMP's
340 cost of equity. At 9.2 percent, Mr. Lawton's recommendation is about 70 basis
341 below the 1st Quarter 2014 average allowed return for other integrated-electric
342 utilities ($9.9\% - 9.2\% = 0.70\%$). Although Mr. Lawton provides an extensive
343 discussion of recent economic events, he presents his technical model results
344 without adjustment to account for the higher level of interest rates that now exists.
345 The net effect of Mr. Lawton's analysis and discussion would be to reduce RMP's
346 allowed ROE significantly even though interest rates have increased and are
347 expected to increase further over the coming year. In this context, the technical
348 aspects of Mr. Lawton's analysis and our disagreements about that analysis become
349 less important. The larger issue is that interest rates have increased, that average
350 allowed rates of return in other jurisdictions and the most recent allowed ROE from
351 this Commission are much higher than Mr. Lawton recommends for RMP. As
352 discussed previously, Mr. Lawton's recommendation in the Questar case was 9.25

353 percent and was rejected by the Commission as “too low.” His even lower
354 recommendation in the present case should be similarly rejected.

355 **Q. How is Mr. Lawton's DCF analysis structured?**

356 A. Mr. Lawton presents both constant growth and two-stage growth DCF results. For
357 both models, he employs a 23-company proxy group that includes all 13 of the
358 companies from my group plus 10 additional ones that meet his slightly less
359 restrictive selection criteria. In his Exhibit OCS _ 1.7, Mr. Lawton shows that the
360 estimated COEs from his and my respective comparable groups are not materially
361 different. Although Mr. Lawton provides various growth rate alternatives, for his
362 constant growth DCF range, he ultimately relies on average analysts' EPS growth
363 rate forecasts.

364 **Q. Do you generally agree with the technical aspects of Mr. Lawton's DCF**
365 **analyses?**

366 A. Yes. Although our analysts' growth rate DCF model results are slightly different,
367 due mostly to timing differences for our data, those differences are not a material
368 factor in the differences in our ROE recommendations. The same is true for Mr.
369 Lawton's two-stage growth DCF model.

370 **Q. How are Mr. Lawton's bond yield plus risk premium studies structured?**

371 A. Mr. Lawton's risk premium studies are exactly the same as mine except that he uses
372 30-year Treasury bond yields and triple-B corporate bond yields in his analyses
373 rather than the utility bond yields I use in my analysis. Mr. Lawton also does not
374 include forecasted interest rates in his analysis. Not surprisingly, Mr. Lawton's 9.88

375 percent midpoint risk premium estimate is very similar to the 9.7 percent to 9.8
376 percent updated risk premium estimates I provide in Exhibit RMP____(SCH-6R).

377 **Q. Do Mr. Lawton's risk premium estimates provide a reasonable basis for**
378 **assessing the fair rate of return to be allowed for RMP?**

379 A. Yes. I believe that they do. Although Mr. Lawton attempts to downplay these
380 results, it is clear that Mr. Lawton's risk premium data reflect the increase that has
381 occurred in interest rates. Conversely, his DCF model results, which he attempts to
382 emphasize, do not reflect the higher interest rate conditions that now exist.

383 **Q. Do Mr. Lawton's CAPM and ECAPM estimates suffer from the same issues**
384 **you discussed previously in your rebuttal of Mr. Peterson?**

385 A. To some extent, they do. However, Mr. Lawton does not attempt to introduce the
386 extremely low short-term risk-free rate results that Mr. Peterson shows. In fact, had
387 Mr. Lawton included currently forecast Treasury bond rates as his risk-free rate, his
388 ECAPM results would have been approximately the same as the 9.8 percent risk
389 premium results he obtained from that analysis. Other than Mr. Lawton's efforts to
390 rely more heavily on his DCF outcomes, much of his analysis can be viewed as
391 supporting the Company's presently allowed 9.8 percent ROE.

392 **Rebuttal of FEA Witness Gorman**

393 **Q. Did you find inconsistencies in Mr. Gorman's testimony?**

394 A. Yes, Mr. Gorman's testimony has several inconsistencies that may need to be
395 corrected. For example, on page 9 of his testimony, Mr. Gorman shows RMP's
396 proposed capital structure and states that he accepts it in this case. The capital
397 structure on page 9 shows preferred stock with a weight of 0.02 percent. The
398 preferred stock weight in Exhibit FEA____(MPG-1) is 0.01 percent. On page 37, line

399 737, Mr. Gorman refers to a market risk premium range of “6.9% to 5.7%.” The
400 market risk premium of 6.9 percent appears to be a typo. Throughout Exhibits
401 FEA__(MPG-5) and FEA__(MPG-6), Mr. Gorman has several column headings
402 referring to 2012. After checking the source data for these exhibits, it appears that
403 the correct reference should be to 2013.

404 **Q. What is the basis for Mr. Gorman’s 9.4 percent ROE recommendation?**

405 A. Mr. Gorman bases his recommendation on three versions of the DCF model (two
406 constant growth models and one multi-stage growth model), a risk premium
407 analysis, and the CAPM. Mr. Gorman concludes that the reasonable ROE range is
408 9.0 percent (DCF) to 9.8 percent (risk premium). His CAPM result is 9.65 percent.
409 Mr. Gorman’s recommended ROE of 9.4 percent is the midpoint of his estimated
410 range of 9.0 percent to 9.8 percent.

411 **Q. What is your technical assessment of Mr. Gorman’s ROE testimony and**
412 **recommendation?**

413 A. Mr. Gorman’s recommendation is understated because, in his analysis, he applies
414 inconsistent and incorrect approaches to reach his final ROE recommendation.
415 Several specific factors detract from Mr. Gorman’s analysis. In his multi-stage
416 DCF analysis, Mr. Gorman’s result is low because his long-term GDP growth rate
417 in that model is significantly understated. Mr. Gorman’s risk premium analysis is
418 also flawed because he rejects the well-documented, inverse relationship between
419 equity risk premiums and interest rates levels. Equity risk premiums increase when
420 interest rates are low and decrease when interest rates are higher. When adjustments

421 are made to correct these areas, Mr. Gorman's results support an ROE of over
422 10 percent.

423 **Q. What are your principal areas of disagreement with Mr. Gorman?**

424 A. Mr. Gorman's analysis is negatively skewed by his assumptions and his application
425 of the models. While Mr. Gorman applies a non-constant growth DCF model
426 similar to mine and agrees that GDP growth is an appropriate input for that model,
427 for his long-term growth rate, he relies on relatively short-term GDP growth rate
428 forecasts that are dominated by recent historically low inflation. Mr. Gorman's
429 GDP growth forecast contains inflation estimates that are almost a full percentage
430 point below longer-term historical averages. This approach is inconsistent with the
431 long-term growth rate assumption required in the DCF model.

432 In his risk premium analysis, Mr. Gorman selects risk premiums that are not
433 consistent with recent risk premium data because he fails to include the well-
434 documented inverse relationship between risk premiums and interest rates, *i.e.*, the
435 tendency for risk premiums to widen when interest rates are low and narrow when
436 interest rates are high. This omission causes Mr. Gorman's risk premium estimates
437 to be significantly understated.

438 **Q. Please elaborate on your specific disagreements with Mr. Gorman's multi-**
439 **stage DCF analyses.**

440 A. Mr. Gorman uses analysts' growth forecasts in the first five years of his multi-stage
441 analysis and then a GDP growth forecast for years 11 and later. In the intermediate
442 years, six through 10, he interpolates between the first and third stages.
443 Mr. Gorman's estimate of future GDP growth is far too low. His forecasts for five-

444 and 10-year periods are from the Blue Chip Financial Forecasts. The current Blue
445 Chip consensus is low because it is dominated by recent, virtually zero growth in
446 the economy, and it is based on assumed long-term inflation rates of only about
447 2.0 percent.

448 As shown in my updated GDP forecast (Exhibit RMP____(SCH-4R)), these
449 inflation rates are lower than four out of six 10-year periods in the last 60 years.
450 The nominal 4.7 percent growth rate that Mr. Gorman uses is itself lower than
451 nominal GDP growth in most of the 10-year periods (other than the most recent
452 periods, which include GDP growth rates of -1.0 percent and 0.1 percent for 2008
453 and 2009, respectively). Mr. Gorman's use of recently depressed, short-term data
454 for his long-term DCF growth rate creates an unrealistically low estimate of ROE.

455 **Q. Why do you disagree with Mr. Gorman's risk premium analysis?**

456 A. Mr. Gorman's risk premium analysis fails to include the well-documented tendency
457 for risk premiums to expand when interest rates are low. When his analysis is
458 modified to properly reflect wider risk premiums when interest rates are lower,
459 Mr. Gorman's risk premium analysis indicates a much higher ROE.

460 **Q. Why are Mr. Gorman's ROE results so low in his risk premium analysis?**

461 A. Mr. Gorman's risk premium data are presented in Exhibit MPG-11 and
462 Exhibit MPG-12. He discusses the analysis on pages 26-33 of his testimony. The
463 analysis consists of two parts. In one approach, Mr. Gorman adds government bond
464 equity risk premiums of 4.41 percent to 6.31 percent to a projected Treasury bond
465 yield of 4.5 percent. This produces an ROE result of 10.24 percent using a
466 30 percent weight for the lower end of the range and a 70 percent weight for the

467 upper end. In Mr. Gorman's second approach, he adds a utility bond risk premium
468 of 3.03 percent to 4.89 percent to the recent "Baa" utility bond yield of
469 5.03 percent. This produces an ROE result of 9.36 percent using the same
470 30 percent/70 percent weighting scheme as discussed above. From these two
471 results, Mr. Gorman concludes that an ROE of 9.8 percent is appropriate (midpoint
472 of 9.36 percent and 10.24 percent).

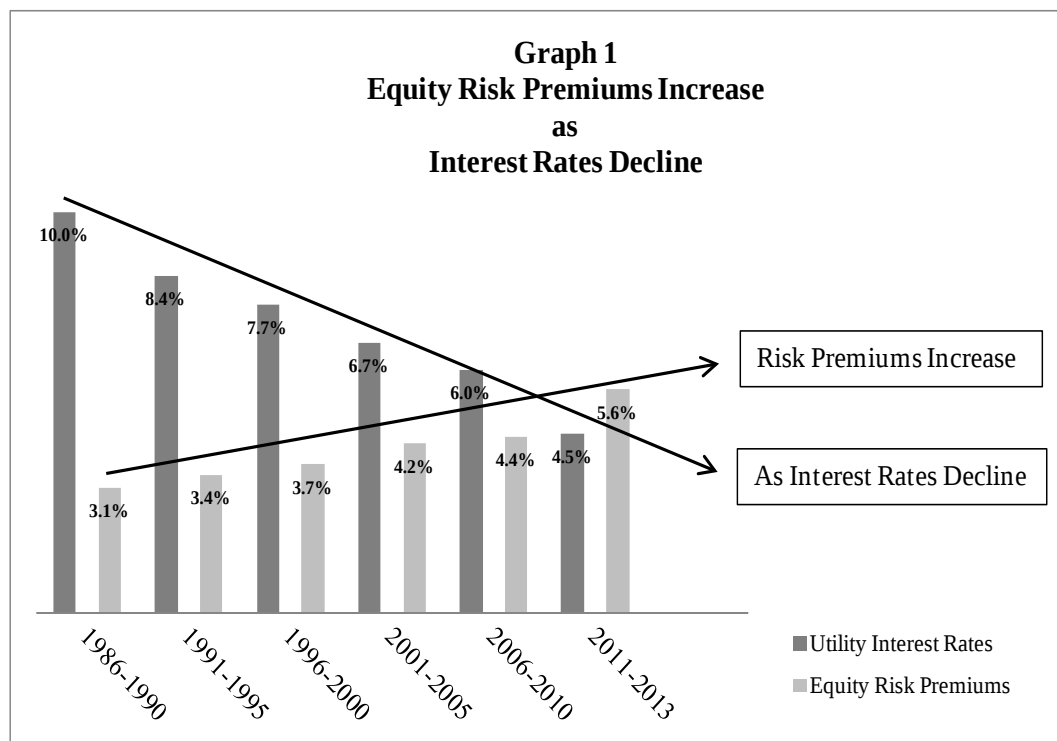
473 **Q. In the risk premium analysis described in your direct testimony, you used a**
474 **standard regression analysis to account for the inverse relationship between**
475 **risk and interest rates. What do Mr. Gorman's risk premium data indicate**
476 **when this approach is used?**

477 A. In Exhibit RMP____(SCH-3R), pages 2 and 4, I have applied the standard regression
478 analysis to calculate "interest rate adjustment" factors for Mr. Gorman's two risk
479 premium studies. This approach properly takes into account the inverse relationship
480 between equity risk premiums and interest rates. With this adjustment,
481 Mr. Gorman's Treasury bond risk premium analysis indicates an ROE of
482 10.50 percent, as shown in pages 1-2 of Exhibit RMP____(SCH-3R). For his utility
483 bond risk premium analysis, the indicated ROE is 10.01 percent as shown on pages
484 3-4 of Exhibit RMP____(SCH-3R). These results confirm that Mr. Gorman's risk
485 premium data support an ROE of over 10.0 percent.

486 **Q. In your direct testimony, you showed that the inverse relationship between**
487 **equity risk premiums and interest rates can be seen without using a regression**

analysis approach. Does that analysis apply to your rebuttal of Mr. Gorman's risk premium analysis as well?

A. Yes. While statistical analysis is often used to substantiate certain economic and financial relationships, for the equity risk premium issue the relationship is so basic that simple observation of the data for various time periods makes the inverse relationship clear. In Graph 1 below, average utility bond yields and average equity risk premiums are presented for each non-overlapping five-year period between 1986 and 2010 and for 2011 through 2013 from the portion of my equity risk premium data that Mr. Gorman used.



These data show that equity risk premiums have consistently increased as interest rates have declined. This result is a simple reflection of the fact that required rates of return in the stock market are not entirely dependent on changes in interest rates. Because utilities must compete with other types of equity investments for

501 capital, the ROE for utilities does not change by as much as the observed changes
502 in interest rates. For Mr. Gorman to use the unadjusted simple average of long-term
503 equity risk premiums with current interest rates is simply wrong. Such an approach
504 will consistently understate the required ROE.

505 **Q. Mr. Gorman criticizes your GDP growth forecast because it is higher than his**
506 **Blue Chip forecast, which contains much lower projected inflation rates. How**
507 **do you respond to Mr. Gorman's criticisms?**

508 A. As acknowledged by Mr. Gorman, his Blue Chip forecasts are for only the next
509 five- and 10-year periods, and those forecasts indicate an inflation rate of only
510 2.1 percent. My GDP growth rate estimate is based on a much longer time period,
511 which is consistent with the DCF model's requirements and with what investors
512 can reasonably expect once economic conditions become more stable. While my
513 forecast includes the near-term, low inflation rates that dominate Mr. Gorman's
514 five- and 10-year periods, I also include longer-term data that cover other economic
515 conditions, which can reasonably be expected to occur over the very long-run DCF
516 model horizon. Although I use data dating back to 1953 from the St. Louis Federal
517 Reserve Bank database, my forecast is not a simple average or extrapolation of the
518 historical data. Like most econometric forecasts, my approach uses the long-run
519 historical relationships to project what investors may reasonably expect for the
520 long-run future.

521 However, to account for recent data having a greater influence on current
522 expectations, I applied a weighted averaging process that gives about five times as
523 much weight to the most recent 10 years as compared to the earliest 10 years.

524 Giving more weight to the more recent, low inflation years also lowers the overall
525 forecast. For example, my updated forecast is for a future growth rate of
526 5.5 percent, while the overall long-run average of the data is a growth rate of
527 6.6 percent. In this context, Mr. Gorman's criticism of my longer-term GDP growth
528 forecast is unwarranted.

529 **Q. Mr. Gorman criticizes your risk premium analysis because you used projected**
530 **rates in part of that analysis. How do you respond?**

531 A. Mr. Gorman's criticisms are misplaced. His risk premium analysis is very similar
532 to mine in the sense that we both rely on current and projected interest rates. We
533 both recognize that interest rates are forecast to increase in the coming years and
534 that this near unanimous viewpoint should be reflected in the ROE analysis in this
535 case.

536 **Q. Can you cite ROE recommendations made by Mr. Gorman in another recent**
537 **case to prove your point that his recommendation is not credible in this case?**

538 A. Yes, in a recent Entergy Arkansas case (Docket 13-028-U), Mr. Gorman filed
539 testimony on August 2, 2013 recommending an ROE of 9.40 percent. In his risk
540 premium analysis, he relied on a projected Treasury bond rate of 4.00 percent and
541 a current triple-B utility interest rate of 4.87 percent. As mentioned earlier, in this
542 case, the corresponding rates used by Mr. Gorman are 4.50 percent and
543 5.03 percent. In other words, in Mr. Gorman's analysis, interest rates have
544 increased 16 to 50 basis points ($5.03\% - 4.87\% = 16$ basis points and $4.50\% - 4.00\%$
545 $= 50$ basis points), yet his ROE recommendation has stayed the same at 9.4 percent.

546 This result indicates that Mr. Gorman's recommendation in this case is not
547 reasonable and should be rejected.

548 **Updated ROE Analysis**

549 **Q. Have you updated your ROE analysis to take into account recent data and the**
550 **current conditions in the capital markets?**

551 A. Yes. As discussed previously, I have updated my ROE analysis for current market
552 conditions using the same methodologies that I employed in my previous analysis.

553 **Q. What are the results of your updated DCF analyses?**

554 A. My updated DCF results are shown in Exhibit RMP____(SCH-5R). As I discussed
555 previously, the results for this updated analysis are no higher than the DCF
556 estimates I provided in my Direct Testimony (Exhibit RMP____(SCH-5). Given the
557 increase in interest rates that has occurred since last April, such low DCF results do
558 not meet the basic test of reasonableness. For this reason, I recommend that more
559 weight should be given to the risk premium analysis, which provides, although still
560 low, an ROE estimate that at least in part reflects the higher interest rates that now
561 exist.

562 **Q. What are the results of your updated bond yield plus risk premium analysis?**

563 A. My updated risk premium analysis is presented in Exhibit RMP____(SCH-6R). My
564 updated risk premium models indicate a COE range of 9.7 percent to 9.8 percent.
565 This result is based on the average single-A utility interest rate for the three months
566 ended April 2014 and on the Bloomberg Forward Curve projected rate for
567 December 31, 2015. The projected rates reflect the Fed's more recent policy
568 position and, therefore, are more reasonable estimates of the cost of equity than the
569 DCF results.

570 **Q. What do you conclude from your updated ROE analyses?**

571 A. My updated analysis confirms that the recommendations of the other parties, as
572 discussed herein, are unreasonably low. Furthermore, lower DCF results do not
573 accurately reflect the Fed's policy shift or the rising interest rates that have resulted.
574 For this reason, I believe more emphasis should be placed on the current risk
575 premium results, based on more recent interest rate data that do reflect the policy
576 shift. Given the higher interest rates that now exist, an ROE of 10.0 percent, as
577 indicated by my initial risk premium analysis, is appropriate and reasonable.

578 **Q. Does this conclude your rebuttal testimony?**

579 A. Yes.