

**BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH**

**In the Matter of the Application of
Rocky Mountain Power for
Authority to Increase its Retail
Electric Utility Service Rates in
Utah and for Approval of its
Proposed Electric Service
Schedules and Electric Service
Regulations**

Docket No. 11-035-200

Direct Testimony and Exhibits of

Michael P. Gorman

on Cost of Capital Issues

On behalf of

The Federal Executive Agencies (FEA)

Project 9584
May 31, 2012



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Direct Testimony of Michael P. Gorman

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Direct Testimony of Michael P. Gorman

- 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.
- 4 Q WHAT IS YOUR OCCUPATION?
- 5 A I am a consultant in the field of public utility regulation and a Managing Principal of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.
- 7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
- 8 A This information is included in Appendix A to my testimony.
- 9 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
- 10 A I am appearing on behalf of the Federal Executive Agencies ("FEA"). The FEA
11 operates several facilities within Utah, specifically Hill Air Force Base, which receive

12 service from Rocky Mountain Power (“RMP” or “Company”). The rate increase
13 requested by RMP, if approved, would result in significant additional costs to the FEA.

14 **Q WHAT IS THE SUBJECT OF YOUR DIRECT TESTIMONY?**

15 A I will recommend a fair return on common equity, and overall rate of return for RMP.

16 **SUMMARY**

17 **Q PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS.**

18 A I recommend the Public Service Commission of Utah (the “Commission”) award RMP
19 a return on common equity of 9.25%, which is the midpoint of my recommended
20 range of 9.00% to 9.50%, and an overall rate of return of 7.35% (Exhibit FEA-1
21 (MPG-1)).

22 I also recommend adjustments to the Company’s proposed capital structure. I
23 propose to remove common equity supporting non-utility assets from the capital
24 structure used to develop the overall rate of return applied to RMP’s utility cost of
25 service. My capital structure removes the common equity supporting non-utility
26 investments for the five-quarter period ending March 31, 2013, used to develop the
27 ratemaking capital structure. In addition, I also reflected the new financing activities
28 described in the rebuttal testimony of Mr. Williams in RMP’s current Wyoming rate
29 case filing.¹

30 My recommended return on equity and proposed capital structure will provide
31 RMP with an opportunity to realize cash flow financial coverages and balance sheet
32 strength that conservatively support RMP’s current bond rating. Consequently, my

¹Wyoming Public Service Commission Docket No. 20000-405-ER-11, Rebuttal Testimony of Bruce N. Williams.

33 recommended return on equity represents fair compensation for RMP's investment
34 risk, and it will preserve the Company's financial integrity and credit standing.

35 I will also respond to RMP witness Dr. Samuel Hadaway's proposed return on
36 equity of 10.2%. For the reasons discussed below, Dr. Hadaway's recommended
37 return on equity is excessive and should be rejected.

38 **Q DOES YOUR RECOMMENDED RETURN ON EQUITY REFLECT RMP'S EXISTING**
39 **INVESTMENT RISK?**

40 A Yes. My recommended return on equity reflects fair compensation for RMP's existing
41 investment risk including its regulatory mechanism used to recover its cost of service
42 and financial position. These factors are reflected in RMP's existing bond rating and
43 other risk factors used to select a comparable risk proxy group. If the Commission
44 modified RMP's existing regulatory mechanisms to reduce RMP's investment risk,
45 then any related risk reduction should be considered in determining a fair
46 risk-adjusted return on equity for RMP.

47 **Q HOW DID YOU ESTIMATE RMP'S CURRENT MARKET COST OF EQUITY?**

48 A I performed analyses using three Discounted Cash Flow ("DCF") models, a Risk
49 Premium ("RP") study, and a Capital Asset Pricing Model ("CAPM"). These analyses
50 used a proxy group of publicly traded companies that have investment risk similar to
51 RMP. Based on these assessments, I estimate RMP's current market cost of equity
52 to be 9.25%.

53 Q HOW DOES YOUR RECOMMENDED RETURN ON EQUITY COMPARE TO RMP'S
54 LAST AUTHORIZED RETURN ON EQUITY?

55 A On September 13, 2011, the Commission issued its final order in RMP's rate case
56 (Docket No. 10-035-124) and approved a settlement, which included a return on
57 equity of 10.00%.

58 My recommended return on equity is lower in this case than the return on
59 equity included in the settlement to RMP's rate case from September 2011.
60 However, this lower return on equity is justified based on clear evidence that capital
61 market costs today are much lower than they were in 2011 when the rate settlement
62 process took place and when the rate settlement was ultimately approved.

63 Q DO YOU BELIEVE MARKET COSTS OF CAPITAL ARE LOWER TODAY THAN
64 THEY WERE IN RMP'S LAST RATE CASE?

65 A Yes. Market costs of capital declined since RMP's last rate case. This is illustrated
66 by a comparison of bond yields in this case and the last case, and is evident from
67 cost of capital estimates in this case versus the last case. In Table 1, I show the
68 change in utility bond yields.

<u>Description</u>	<u>Current Case¹</u>	<u>Docket No. 10-035-124</u>	<u>Yield Change</u>
"A" Rated Utility Bond Yields	4.40%	4.97%	0.57%
"Baa" Rated Utility Bond Yields	5.08%	5.39%	0.31%
13-Week Period Ending	05/04/2012	09/09/2011	

Source:
¹Exhibit FEA-14 (MPG-14), Page 1.

69 As shown in the table above, the current market cost of debt for “A” (by
70 Standard & Poor’s, “S&P”) and “Baa” (by Moody’s) rated utility bond yields has
71 decreased in this case relative to RMP’s last rate case. The current “A” rated utility
72 bond yield is 0.57 percentage points lower now than it was in RMP’s last rate case.
73 Also, the current “Baa” utility bond yield is 0.31 percentage points lower than during
74 RMP’s last rate case.

75 Utility bond yields have declined by approximately 50 basis points since
76 RMP’s last rate case. This decline in utility bond yields suggests that RMP’s cost of
77 capital is lower now than it was in its last rate case.

78 **Q IS THERE OTHER EVIDENCE OF THE DECLINE IN MARKET COST OF EQUITY**
79 **SINCE RMP’S LAST RATE CASE?**

80 A Yes. This is evident from RMP’s case itself. In RMP’s last rate case, Dr. Hadaway
81 proposed a return on equity of 10.5%² in his direct filing. In its current rate case,
82 RMP is proposing a return on equity of 10.2%. Hence, the Company has
83 acknowledged that the cost of capital has decreased by 30 basis points.

84 Similarly, in the last RMP rate case I recommended a return on equity of
85 9.80%.³ This return on equity is 55 basis points above my recommended return on
86 equity of 9.25% in this case.

²Docket No. 10-035-124, Direct Testimony of Dr. Hadaway at 2.

³Docket No. 10-035-124, Direct Testimony of Michael P. Gorman at 2.

87

RATE OF RETURN

88 Electric Utility Industry Market Outlook

89 **Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

90 A I begin my estimate of a fair return on equity for RMP by reviewing the market's
91 assessment of electric utility industry investment risk, credit standing and stock price
92 performance in general. I used this information to get a sense of the market's
93 perception of the risk characteristics of electric utility investments in general, which is
94 then used to produce a refined estimate of the market's return requirement for
95 assuming investment risk similar to RMP's utility operations.

96 Based on the assessments described below, I find the credit rating outlook of
97 the industry to be strong and supportive of the industry's financial integrity, and
98 electric utilities' stocks have exhibited strong price performance over the last several
99 years.

100 Based on this review of credit outlooks and stock price performance, I
101 conclude that the market has again embraced the electric utility industry as a
102 safe-haven investment, and views utility equity and debt investments as low-risk
103 securities.

104 **Q PLEASE DESCRIBE THE ELECTRIC UTILITIES' CREDIT RATING OUTLOOK.**

105 A Electric utilities' credit rating outlook has improved over the recent past and is now
106 stable. S&P recently provided an assessment of the credit rating of U.S. electric
107 utilities. S&P's commentary included the following:

108 **Solid Industry Fundamentals Support Stable Outlook**

109 The U.S. electric utility sector performed well through 2011, and found
110 it easier to access the capital markets than did most other corporate
111 issuers.

112 Investor appetite for electric utility debt remains healthy, and deals
113 have been oversubscribed. Credit fundamentals indicate that most, if
114 not all, electric utilities should continue to have ample access to
115 funding sources and credit. Some firms may issue common stock to
116 partially fund construction spending, which would help to support the
117 capital structure balance. In addition, many utilities are accessing
118 short-term credit markets through commercial paper programs at very
119 low rates.⁴

120 Similarly, Fitch states:

121 **Electric Utilities: Stable**

122 Fitch's Outlook for the electric utility sector in 2012 remains stable.
123 The sector benefits from low interest rates, modest inflationary
124 pressures, open capital markets, and low natural gas and power
125 prices. Fitch expects these conditions to persist into 2013.

126 The favorable funding environment helps to offset any stress that
127 would otherwise result during an extended period of high projected
128 capital investment. Capex is expected to remain elevated, increasing
129 5%–6% over 2011 levels.⁵

130 *Value Line* also continues to characterize utility stock investments as a safe haven:

131 **Conclusion**

132 With most of 2011 completed, it seems almost certain that electric
133 utility stocks will have outperformed the broader market averages
134 when the year is over. As of mid-December, the Value Line Utility
135 Average is up slightly, while the Value Line Geometric Average is down
136 about 14%. Electric utility stocks have long been viewed as a safe
137 haven in volatile markets, due in large part to their generous dividend
138 yields.⁶

139 The Edison Electric Institute ("EEI") also opined as follows:

140 There was little change during 2011 in the industry's long-term outlook.
141 Many regulated utilities are engaged in capital spending programs that
142 should, according to Wall Street analysts, help drive slow but steady
143 earnings growth over the next several years. New EPA regulations
144 may boost capex by 30% in the years ahead, relative to EEI's latest
145 capex survey estimates.⁷

⁴Standard & Poor's RatingsDirect on the Global Credit Portal: "Industry Economic And Ratings Outlook: Continued Ratings Stability Expected For U.S. Regulated Electric Utilities In 2012," January 25, 2012 at 4-5.

⁵Fitch Ratings: "2012 Outlook: Utilities, Power, and Gas," December 5, 2011 at 10.

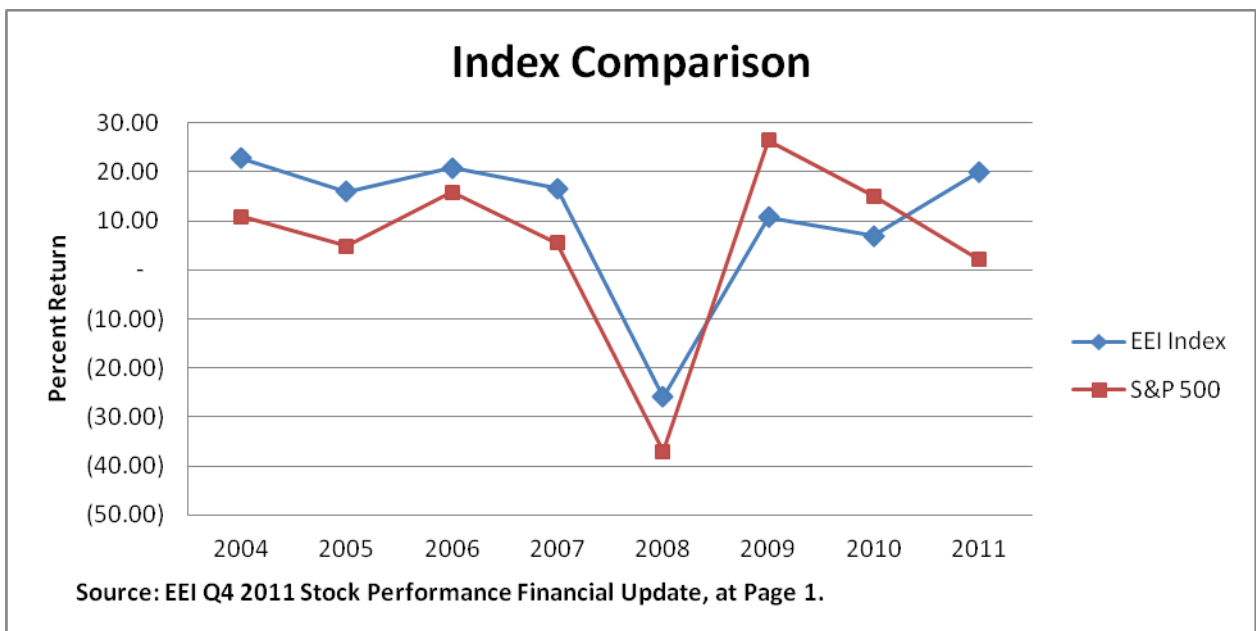
⁶*Value Line Investment Survey*, December 23, 2011 at 901.

⁷EEI Q4 2011 Stock Performance at 1.

146 Q PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE OVER
147 THE LAST SEVEN YEARS.

148 A As shown in Figure 1 below, the EEI has recorded electric utility stock price
149 performance compared to the market. The EEI data shows that its Electric Utility
150 Index has outperformed the market, with a few exceptions, triggered by the recent
151 state of the economic environment.

Figure 1



152 During 2009 and 2010, the EEI Index underperformed the market, which is not
153 unusual for stocks that are considered “safe havens” during periods of market
154 turbulence.

155 In 2011, the EEI Index outperformed the market. EEI states the following:

156 **Commentary**

157 The EEI Index produced a positive 20% return during 2011, its
158 strongest annual gain since 2006, outperforming the broad market
159 after two consecutive years of underperformance as stocks rebounded
160 from the lows reached during 2008 financial crisis.

161 * * *

162 The strength of the EEI Index in 2011 is no surprise, highlighting the
163 industry's traditional role as a defensive investment following its
164 reemphasis in recent years of core regulated businesses with slow but
165 predictable earnings growth and steady dividends. In fact, the
166 industry's average dividend yield exceeded 4% during the year,
167 leading that of all other U.S. business sectors.⁸

168 **RMP Investment Risk**

169 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK**
170 **OF RMP.**

171 **A** The market assessment of RMP's investment risk is best described by credit rating
172 analysts' reports. RMP's current senior secured bond ratings from S&P and Moody's
173 are "A" and "A2," respectively.⁹

174 Specifically, S&P states the following:

175 **Rationale**

176 The 'A-' corporate credit rating (CCR) on PacifiCorp reflects what
177 Standard & Poor's Ratings Services views as a significant financial
178 profile and is supported by PacifiCorp's modest use of leverage to
179 finance a large capital program and parent MidAmerican Energy
180 Holdings Co.'s (MEHC; BBB+/Stable) willingness to deploy equity into
181 PacifiCorp as needed to support the company's capital structure as it
182 expands its rate base. Since acquiring the company in 2006, MEHC
183 has provided \$1.06 billion in equity support for the utility's capital
184 needs.

185 PacifiCorp's excellent business profile benefits from the geographical,
186 market, and regulatory diversity provided by its six-state service
187 territory. PacifiCorp provides power to retail customers under the
188 name Rocky Mountain Power in Utah, Wyoming, and Idaho, and as
189 Pacific Power in Oregon, Washington, and California. Utah and
190 Oregon are the most important markets for the company, providing
191 around 42% and 24% of annual retail sales, respectively, as of year-
192 end 2010.¹⁰

⁸EEI Q4 2011 Stock Performance at 1 and 4-5.

⁹Hadaway Direct at 2.

¹⁰Standard & Poor's RatingsDirect on the Global Credit Portal: "PacifiCorp," October 3, 2011 at 2 and 3, provided by RMP in Mr. Williams' Exhibit RMP____(BNW-2).

193 Similarly, Moody's states:

194 **Summary Rating Rationale**

195 PacifiCorp's ratings are supported by the stability of the utility's
196 regulated cash flows, the geographically diverse and relatively
197 constructive regulatory environments in which it operates, the
198 diversification of its generation portfolio, and solid credit metrics.

199 * * *

200 Reasonably supportive regulatory environment

201 PacifiCorp's rating recognizes the rate-regulated nature of its electric
202 utilities which generate stable and predictable cash flows. PacifiCorp
203 operates in regulatory jurisdictions that Moody's considers as average
204 in terms of framework, consistency and predictability of decisions
205 along with an expectation of timely recovery of costs and investments.
206 This "average" assessment is in line with Moody's views of most U.S.
207 state jurisdictions compared to regulatory environments elsewhere in
208 the world.¹¹

209 Fitch states:

210 **Key Rating Drivers**

211 **Ratings Affirmed:** On Sept. 29, 2011, Fitch Ratings affirmed
212 PacifiCorp's (PPW) ratings with a Stable Rating Outlook. PPW's
213 ratings and outlook reflect the electric utility's solid credit-protection
214 measures, a diversified service territory, a generally balanced
215 regulatory environment, and relatively predictable operating earnings
216 and cash flow characteristics.

217 * * *

218 **Ring-Fence Provisions:** Structural protections insulate PPW in the
219 event of financial stress at intermediate holding company MidAmerican
220 Energy Holdings Co. (MEHC, IDR 'BBB+'/Outlook Stable) without
221 impeding the parent's ability to infuse capital into PPW.

222 **Regulation Key:** Timely recovery of large capital investment program
223 in rates is crucial to PPW's credit quality in Fitch's view. The ratings
224 assume recovery of capital and operating costs in rates will support
225 credit metrics consistent with the company's 'BBB' IDR and Stable
226 Outlook.

227 * * *

¹¹ Moody's Investors Service Credit Opinion: "PacifiCorp," May 9, 2011, provided by RMP in Attachment D.18a.

228 **Improved Risk Profile:** Since being acquired by MidAmerican Energy
229 Holdings Company (MEHC) in 2006, the utility's business risk has
230 been improved by the adoption of rate mechanisms designed to
231 reduce regulatory lag and facilitate timely recovery of fuel and
232 purchased power costs.¹²

233 **RMP's Proposed Capital Structure**

234 **Q WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE TO**
235 **DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC OPERATIONS IN**
236 **THIS PROCEEDING?**

237 **A** RMP's 2010 forecasted capital structure, as supported by RMP witness Mr. Bruce N.
238 Williams, is shown below in Table 2.

<u>Description</u>	<u>Percent of Total Capital</u>
Long-Term Debt	47.6%
Preferred Stock	0.3%
Common Equity	<u>52.1%</u>
Total Capital Structure	100.0%

Source: Williams Direct at 2.

239 RMP's proposed capital structure reflects common equity investments
240 supporting non-utility assets. Specifically, RMP's balance sheet reflects significant
241 investments in subsidiary companies and non-utility investments. It is not appropriate
242 to include the equity capital supporting these non-utility assets in a regulated utility's
243 capital structure. The cost associated with the capital supporting these non-regulated
244 investments is not related to the cost of providing utility service in Utah or RMP's

¹² FitchRatings Corporates: "PacifiCorp," November 16, 2011, provided by RMP in Attachment D.18b.

245 other utility jurisdictions. Hence, the Company's proposed capital structure should be
246 modified to remove the common equity supporting these non-utility investments.

247 **Q PLEASE DESCRIBE YOUR PROPOSED ADJUSTMENT TO RMP'S CAPITAL**
248 **STRUCTURE.**

249 A I propose to remove the common equity supporting non-utility investments from
250 RMP's proposed capital structure. Mr. Williams projected a capital structure
251 described at page 2 of his testimony. At page 13 of his testimony, Mr. Williams
252 described that he developed his proposed capital structure by averaging the five
253 quarters ending March 31, 2013. From that capital structure, I propose to remove
254 common equity investments recorded on PacifiCorp's FERC Form 1 balance sheet,
255 that are non-utility related. These non-utility investments include net non-utility
256 property and investments in subsidiary companies, and other investments. The
257 amount of these investments has been relatively stable through calendar year 2011,
258 and I assume that they will continue to be stable through the end of the test year.
259 Removing this amount of equity investments from the Company's proposed capital
260 structure, will reduce the amount of common equity to total capital ratio for the
261 ratemaking capital structure.

262 **Q WHY IS IT REASONABLE TO ASSUME THAT THE NON-REGULATED**
263 **INVESTMENTS ARE SUPPORTED WITH ONLY COMMON EQUITY CAPITAL?**

264 A It is not reasonable to assume that utility debt is being used to fund investments in
265 non-utility assets. PacifiCorp has both secured and unsecured utility bond debt
266 issuances recorded on its balance sheet and included in the development of its test
267 year capital structure. It would increase the investment risk on these debt securities if

268 PacifiCorp was not dedicating these debt securities to its low-risk utility operations. If
269 it was issuing utility debt to invest in non-regulated properties, that would likely
270 increase its investment risk exposure and increase its cost of debt. I do not believe
271 PacifiCorp has undertaken this, and I do not believe it would be appropriate for it to
272 do so.

273 **Q HOW DID YOU ADJUST THE LONG-TERM DEBT BALANCE AND THE**
274 **EMBEDDED COST OF DEBT?**

275 A In his rebuttal testimony in RMP's Wyoming rate case filing, Mr. Williams described
276 several new financing activities that were not reflected in his direct testimony in this
277 regulatory proceeding. Therefore, including the new \$100 million debt issuance used
278 to refinance some of the outstanding pollution control bonds increases the long-term
279 debt balance and reduces the embedded cost of debt from 5.41% down to 5.36%.¹³

280 **Q WHAT IS YOUR PROPOSED CAPITAL STRUCTURE IN THIS PROCEEDING?**

281 A My proposed capital structure is shown below in Table 3.

<u>Description</u>	<u>Percent of Total Capital</u>
Long-Term Debt	48.7%
Preferred Stock	0.3%
Common Equity	<u>51.0%</u>
Total Capital Structure	100.0%

Source: Exhibit FEA-1 (MPG-1).

¹³Wyoming Public Service Commission Docket No. 20000-405-ER-11, Exhibit RMP____
(BNW-1R).

282 Q WHY IS YOUR PROPOSED CAPITAL STRUCTURE GENERALLY CONSISTENT
283 WITH RMP'S TARGET CAPITAL STRUCTURE FOR UTILITY OPERATIONS?

284 A Mr. Williams has stated a capital structure target for utility operations of 50%/50%
285 debt/equity. The capital structure outlined in Table 3 approximates this targeted utility
286 capitalization mix.

287 Q WILL YOUR PROPOSED CAPITAL STRUCTURE SUPPORT RMP'S FINANCIAL
288 INTEGRITY AND CREDIT RATING?

289 A Yes. As I will discuss later in my testimony, my proposed capital structure is
290 consistent with RMP's current credit rating and will support RMP's financial integrity.

291 **RETURN ON EQUITY**

292 Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON
293 EQUITY."

294 A A utility's cost of common equity is the return investors require on an investment in
295 the utility. Investors expect to achieve their return requirement from receiving
296 dividends and stock price appreciation.

297 Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED
298 UTILITY'S COST OF COMMON EQUITY.

299 A In general, determining a fair cost of common equity for a regulated utility has been
300 framed by two hallmark decisions of the U.S. Supreme Court: *Bluefield Water Works*
301 *& Improvement Co. v. Public Serv. Commission of West Virginia*, 262 U.S. 679 (1923)
302 and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

303 These decisions identify the general standards to be considered in
304 establishing the cost of common equity for a public utility. Those general standards
305 provide that the authorized return should: (1) be sufficient to maintain financial
306 integrity; (2) attract capital under reasonable terms; and (3) be commensurate with
307 returns investors could earn by investing in other enterprises of comparable risk.

308 **Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST**
309 **OF COMMON EQUITY FOR RMP.**

310 A I have used several models based on financial theory to estimate RMP's cost of
311 common equity. These models are: (1) a constant growth Discounted Cash Flow
312 ("DCF") model using analyst growth data; (2) a sustainable growth DCF model; (3) a
313 multi-stage growth DCF model; (4) a risk premium ("RP") model; and (5) a Capital
314 Asset Pricing Model ("CAPM"). I have applied these models to a group of publicly
315 traded utilities that I have determined share investment risk similar to RMP's.

316 **Q HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT**
317 **RISK TO RMP TO ESTIMATE ITS CURRENT MARKET COST OF EQUITY?**

318 A I relied on the same utility proxy group used by RMP witness Dr. Hadaway to
319 estimate RMP's return on equity.

320 **Q HOW DOES THE PROXY GROUP INVESTMENT RISK COMPARE TO RMP'S**
321 **INVESTMENT RISK?**

322 A The proxy group is shown on Exhibit FEA-2 (MPG-2). This proxy group has an
323 average senior secured credit rating from S&P of "A-," which is a notch lower than
324 S&P's senior secured credit rating for RMP. The proxy group's senior secured credit

325 rating from Moody's is "A2," which is identical to RMP's senior secured credit rating
326 from Moody's of "A2." The proxy group has comparable investment risk to RMP.

327 The proxy group has an average common equity ratio of 46.3% (including
328 short-term debt) from *AUS Utility Reports* ("AUS") and 48.8% (excluding short-term
329 debt) from *Value Line* in 2011. The proxy group's common equity ratio is slightly
330 lower but comparable to my proposed common equity ratio of 51.0% excluding
331 short-term debt.

332 I also compared RMP's business risk to the business risk of the proxy group
333 based on S&P's ranking methodology. RMP has an S&P business risk profile of
334 "Excellent," which is identical to the S&P business risk profile of the proxy group. The
335 S&P business risk profile score indicates that RMP's business risk is comparable to
336 that of the proxy group.¹⁴

337 Based on these proxy group selection criteria, I believe that my proxy group
338 reasonably approximates the investment risk of RMP, and can be used to estimate a
339 fair return on equity for RMP.

340 **Discounted Cash Flow Model**

341 **Q PLEASE DESCRIBE THE DCF MODEL.**

342 A The DCF model posits that a stock price is valued by summing the present value of
343 expected future cash flows discounted at the investor's required rate of return or cost
344 of capital. This model is expressed mathematically as follows:

¹⁴S&P ranks the business risk of a utility company as part of its corporate credit rating review. S&P considers total investment risk in assigning bond ratings to issuers, including utility companies. In analyzing total investment risk, S&P considers both the business risk and the financial risk of a corporate entity, including a utility company. S&P's business risk profile score is based on a six-notch credit rating starting with "Vulnerable" (highest risk) to "Excellent" (lowest risk). The business risk of most utility companies falls within the lowest risk category, "Excellent," or the category one notch lower (more risk), "Strong." Standard & Poor's: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

345
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty}$$
 where (Equation 1)
346

347 P_0 = Current stock price
348 D = Dividends in periods 1 - ∞
349 K = Investor's required return

350 This model can be rearranged in order to estimate the discount rate or
351 investor-required return, "K." If it is reasonable to assume that earnings and
352 dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

353
$$K = D_1/P_0 + G$$
 (Equation 2)
354 K = Investor's required return
355 D_1 = Dividend in first year
356 P_0 = Current stock price
357 G = Expected constant dividend growth rate

358 Equation 2 is referred to as the annual "constant growth" DCF model.

359 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

360 A As shown in Equation 2 above, the DCF model requires a current stock price,
361 expected dividend, and expected growth rate in dividends.

362 **Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH**
363 **DCF MODEL?**

364 A I relied on the average of the weekly high and low stock prices of the utilities in the
365 proxy group over a 13-week period ended May 4, 2012. An average stock price is
366 less susceptible to market price variations than a spot price. Therefore, an average
367 stock price is less susceptible to aberrant market price movements, which may not be
368 reflective of the stock's long-term value.

369 A 13-week average stock price reflects a period that is still short enough to
370 contain data that reasonably reflect current market expectations, but the period is not
371 so short as to be susceptible to market price variations that may not reflect the stock's

372 long-term value. In my judgment, a 13-week average stock price is a reasonable
373 balance between the need to reflect current market expectations and the need to
374 capture sufficient data to smooth out aberrant market movements.

375 **Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?**

376 A I used the most recently paid quarterly dividend, as reported in *The Value Line*
377 *Investment Survey*.¹⁵ This dividend was annualized (multiplied by 4) and adjusted for
378 next year's growth to produce the D_1 factor for use in Equation 2 above.

379 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**
380 **GROWTH DCF MODEL?**

381 A There are several methods that can be used to estimate the expected growth in
382 dividends. However, regardless of the method, for purposes of determining the
383 market-required return on common equity, one must attempt to estimate investors'
384 consensus about what the dividend or earnings growth rate will be, and not what an
385 individual investor or analyst may use to make individual investment decisions.

386 As predictors of future returns, security analysts' growth estimates have been
387 shown to be more accurate than growth rates derived from historical data.¹⁶ That is,
388 assuming the market generally makes rational investment decisions, analysts' growth
389 projections are more likely to influence observable stock prices than growth rates
390 derived only from historical data.

391 For my constant growth DCF analysis, I have relied on a consensus, or mean,
392 of professional security analysts' earnings growth estimates as a proxy for investor
393 consensus dividend growth rate expectations. I used the average of analysts' growth

¹⁵*The Value Line Investment Survey*, February 24, March 23, and May 4, 2012.

¹⁶See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

394 rate estimates from three sources: Zacks, SNL Financial, and Reuters. All such
395 projections were available on May 7, 2012, and all were reported online.

396 Each consensus growth rate projection is based on a survey of security
397 analysts. The consensus estimate is a simple arithmetic average, or mean, of
398 surveyed analysts' earnings growth forecasts. A simple average of the growth
399 forecasts gives equal weight to all surveyed analysts' projections. It is problematic as
400 to whether any particular analyst's forecast is more representative of general market
401 expectations. Therefore, a simple average, or arithmetic mean, of analyst forecasts is
402 a good proxy for market consensus expectations.

403 **Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH**
404 **DCF MODEL?**

405 A The growth rates I used in my DCF analysis are shown in Exhibit FEA-3 (MPG-3).
406 The average growth rate for my proxy group is 5.03%.

407 **Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

408 A As shown in Exhibit FEA-4 (MPG-4), the average and median constant growth DCF
409 returns for my proxy group are 9.32% and 9.38%, respectively.

410 Even though the average and median results are relatively close, there are
411 wide variations in the results of the proxy group estimates. I believe some of the
412 estimates seem to be unreasonably low. Therefore, I conclude that the group median
413 represents a more reasonable assessment of the central tendency of all the
414 estimates within the proxy group. As such, I believe my constant growth DCF model,
415 using analysts' growth rate estimates, supports a return on equity of 9.38%.

416 **Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT**
417 **GROWTH DCF ANALYSIS?**

418 A Yes. The three- to five-year growth rates are in line with the long-term sustainable
419 growth rate. Therefore, I believe my constant growth DCF analysis using analysts'
420 three- to five-year growth rates reflects reasonable growth outlooks and the DCF
421 results are also reasonable. Nevertheless, I consider other DCF methodologies in
422 order to enhance the information available to accurately estimate RMP's current
423 market return on common equity.

424 **Sustainable Growth DCF**

425 **Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM**
426 **GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.**

427 A A sustainable growth rate is based on the percentage of the utility's earnings that is
428 retained and reinvested in utility plant and equipment. These reinvested earnings
429 increase the earnings base (rate base). Earnings grow when plant funded by
430 reinvested earnings is put into service, and the utility is allowed to earn its authorized
431 return on such additional rate base investment.

432 The internal growth methodology is tied to the percentage of earnings retained
433 in the company and not paid out as dividends. The earnings retention ratio is 1 minus
434 the dividend payout ratio. As the payout ratio declines, the earnings retention ratio
435 increases. An increased earnings retention ratio will fuel stronger growth because
436 the business funds more investments with retained earnings. The payout ratios of the
437 proxy group are shown on my Exhibit FEA-5 (MPG-5). These dividend payout ratios
438 and earnings retention ratios then can be used to develop a sustainable long-term
439 earnings retention growth rate. A sustainable long-term retention ratio will help gauge

440 whether analysts' current three- to five-year growth rate projections can be sustained
441 over an indefinite period of time.

442 The data used to estimate the long-term sustainable growth rate is based on
443 the Company's current market to book ratio and on *Value Line's* three- to five-year
444 projections of earnings, dividends, earned returns on book equity, and stock
445 issuances.

446 As shown in Exhibit FEA-6 (MPG-6), page 1, the average sustainable growth
447 rate for the proxy group using this internal growth rate model is 4.90%.

448 **Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM**
449 **GROWTH RATES?**

450 A A DCF estimate based on these sustainable growth rates is developed in Exhibit
451 FEA-7 (MPG-7). As shown there, a sustainable growth DCF analysis produces proxy
452 group average and median DCF results of 9.18% and 8.91%, respectively.
453 Considering the central tendency of my proxy group, I will rely on the median DCF
454 result. Therefore, I believe my constant growth DCF analysis using a sustainable
455 growth rate produces a return on equity estimate of 8.91% for RMP in this case.

456 **Multi-Stage Growth DCF Model**

457 **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

458 A Yes. My first constant growth DCF is based on consensus analysts' growth rate
459 projections, so it is a reasonable reflection of rational investment expectations over
460 the next three to five years. The limitation on the constant growth DCF model is that
461 it cannot reflect a rational expectation that a period of high/low short-term growth can
462 be followed by a change in growth to a rate that is more reflective of long-term

463 sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect
464 this outlook of changing growth expectations.

465 **Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

466 A The multi-stage growth DCF model reflects the possibility of non-constant growth for
467 a company over time. The multi-stage growth DCF model reflects three growth
468 periods: (1) a short-term growth period, which consists of the first five years; (2) a
469 transition period, which consists of the next five years (6 through 10); and (3) a
470 long-term growth period, starting in year 11 through perpetuity.

471 For the short-term growth period, I relied on the consensus analysts' growth
472 projections described above in relationship to my constant growth DCF model. For
473 the transition period, the growth rates were reduced or increased by an equal factor,
474 which reflects the difference between the analysts' growth rates and the GDP growth
475 rate. For the long-term growth period, I assumed each company's growth would
476 converge to the maximum sustainable growth rate for a utility company as proxied by
477 the consensus analysts' projected growth for the U.S. GDP of 5.0%.

478 **Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE**
479 **MAXIMUM SUSTAINABLE GROWTH RATE FOR A UTILITY?**

480 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
481 overall economy. Utilities' earnings/dividend growth is created by increased utility
482 investment or rate base. Such investment, in turn, is driven by service area economic
483 growth and demand for utility service. In other words, utilities invest in plant to meet
484 sales demand growth, and sales growth, in turn, is tied to economic growth in their
485 service areas. The Energy Information Administration ("EIA") has observed that utility

486 sales growth is less than U.S. GDP growth, as shown in Exhibit FEA-8 (MPG-8).
487 Utility sales growth has lagged behind GDP growth for more than a decade. As a
488 result, nominal GDP growth is a very conservative, albeit overstated, proxy for electric
489 utility sales growth, rate base growth, and earnings growth. Therefore, GDP growth is
490 a conservative proxy for the highest sustainable long-term growth rate of a utility.

491 **Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**
492 **LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT**
493 **A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

494 A Yes. This concept is supported in both published analyst literature and academic
495 work. Specifically, in a textbook entitled "Fundamentals of Financial Management,"
496 published by Eugene Brigham and Joel F. Houston, the authors state as follows:

497 The constant growth model is most appropriate for mature companies with a
498 stable history of growth and stable future expectations. Expected growth rates vary
499 somewhat among companies, but dividends for mature firms are often expected to
500 grow in the future at about the same rate as nominal gross domestic product (real
501 GDP plus inflation).¹⁷

502 **Q HOW DID YOU DETERMINE THE CONSENSUS REASONABLE, SUSTAINABLE**
503 **LONG-TERM GROWTH RATE?**

504 A I relied on the consensus analysts' projections of long-term GDP growth. *The Blue*
505 *Chip Economic Indicators* publishes consensus economists' GDP growth projections

¹⁷"Fundamentals of Financial Management," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

506 twice a year. Based on its latest issue, the consensus economists' published GDP
507 growth rate outlook is 5.1% to 4.8% over the next ten years.¹⁸

508 Therefore, I propose to use the consensus economists' projected 10-year
509 average GDP consensus growth rate of 5.0% (4.95% rounded to 5.0%), as published
510 by *Blue Chip Economic Indicators*, as an estimate of long-term sustainable growth.
511 *Blue Chip Economic Indicators'* projections provide real GDP growth projections of
512 2.9% and 2.5%, and GDP inflation of 2.1% and 2.2%¹⁹ over the five-year and 10-year
513 projection periods, respectively. This consensus GDP growth forecast represents the
514 most likely views of market participants because it is based on published consensus
515 economist projections.

516 **Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**
517 **GROWTH?**

518 A Yes. The U.S. EIA in its Annual Energy Outlook projects the real GDP out until 2035.
519 In its 2011 Annual Report, the EIA projects real GDP through 2035 to be in the range
520 of 2.1% to 3.2%, with a midpoint or reference case of 2.7%.²⁰

521 Also, the Congressional Budget Office ("CBO") makes long-term economic
522 projections. The CBO is projecting real GDP growth of 3.8% to 2.5% during the next
523 five and 10 years, respectively, with GDP price inflation of 1.7% to 2.0%.²¹ The
524 CBO's real GDP projections are higher than the consensus but its GDP inflation is
525 lower than the consensus economists.

526 The real GDP and nominal GDP growth projections made by the U.S. EIA and
527 those made by the CBO support the use of the consensus analyst five-year and 10-

¹⁸*Blue Chip Economic Indicators*, March 10, 2012 at 15.

¹⁹GDP growth is the product of real and inflation GDP growth.

²⁰DOE/EIA Annual Energy Outlook 2011 With Projections to 2035, April 2011.

²¹*Blue Chip Economic Indicators*, March 10, 2012 at 15.

528 year projected GDP growth outlooks as a reasonable market assessment of
529 long-term prospective GDP growth.

530 **Q WHAT STOCK PRICE, DIVIDEND AND GROWTH RATES DID YOU USE IN YOUR**
531 **MULTI-STAGE GROWTH DCF ANALYSIS?**

532 A I relied on the same 13-week stock price and the most recent quarterly dividend
533 payment data discussed above. For stage one growth, I used the consensus
534 analysts' growth rate projections discussed above in my constant growth DCF model.
535 The transition period begins in year six and ends in year ten. For the long-term
536 sustainable growth rate starting in year 11, I used 5.0%, the average of the
537 consensus economists' five-year and 10-year projected nominal GDP growth rates.

538 **Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?**

539 A As shown in Exhibit FEA-9 (MPG-9), the average and median DCF returns on equity
540 for my proxy group are 9.31% and 9.50%, respectively. Again, for consistency I
541 would rely on the median DCF return estimate.

542 **Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

543 A The results from my DCF analyses are summarized in Table 4 below:

<u>Description</u>	<u>Median Estimates</u>
Constant Growth DCF Model (Analysts' Growth)	9.38%
Constant Growth DCF Model (Sustainable Growth)	8.91%
Multi-Stage Growth DCF Model	9.50%

544 I am placing less emphasis on the results of my sustainable growth DCF
545 result, because the growth rates implied in that model are lower than the consensus
546 analysts' three- to five-year projected growth rates, and the implied growth in my
547 multi-growth DCF, both of which I believe are reasonable estimates of long-term
548 sustainable growth. Based on this assessment, I believe a fair point estimate based
549 on my DCF studies for RMP is 9.45%, which is the approximate average of my
550 constant growth analysts, 9.38%, and multi-growth DCF, 9.50%.

551 **Risk Premium Model**

552 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

553 A This model is based on the principle that investors require a higher return to assume
554 greater risk. Common equity investments have greater risk than bonds because
555 bonds have more security of payment in bankruptcy proceedings than common equity
556 and the coupon payments on bonds represent contractual obligations. In contrast,
557 companies are not required to pay dividends or guarantee returns on common equity
558 investments. Therefore, common equity securities are considered to be more risky
559 than bond securities.

560 This risk premium model is based on two estimates of an equity risk premium.
561 First, I estimated the difference between the required return on utility common equity
562 investments and U.S. Treasury bonds. The difference between the required return on
563 common equity and the Treasury bond yield is the risk premium. I estimated the risk
564 premium on an annual basis for each year over the period 1986 through 2011. The
565 common equity required returns were based on regulatory commission-authorized
566 returns for electric utility companies. Authorized returns are typically based on expert
567 witnesses' estimates of the contemporary investor-required return.

568 The second equity risk premium estimate is based on the difference between
569 regulatory commission-authorized returns on common equity and contemporary
570 “A” rated utility bond yields. I selected the period 1986 through 2011 because public
571 utility stocks consistently traded at a premium to book value during that period. This
572 is illustrated in Exhibit FEA-10 (MPG-10), which shows that the market to book ratio
573 since 1986 for the electric utility industry was consistently above 1.0. Over this
574 period, regulatory authorized returns were sufficient to support market prices that at
575 least exceeded book value. This is an indication that regulatory authorized returns on
576 common equity supported a utility’s ability to issue additional common stock without
577 diluting existing shares. It further demonstrates that utilities were able to access
578 equity markets without a detrimental impact on current shareholders.

579 Based on this analysis, as shown in Exhibit FEA-11 (MPG-11), the average
580 indicated equity risk premium over U.S. Treasury bond yields has been 5.23%. Of
581 the 26 observations, 20 indicated risk premiums fall in the range of 4.41% to 6.13%.
582 Since the risk premium can vary depending upon market conditions and changing
583 investor risk perceptions, I believe using an estimated range of risk premiums
584 provides the best method to measure the current return on common equity using this
585 methodology.

586 As shown in Exhibit FEA-12 (MPG-12), the average indicated equity risk
587 premium over contemporary Moody’s utility bond yields was 3.81% over the period
588 1986 through 2011. The indicated equity risk premium estimates based on this
589 analysis primarily fall in the range of 3.03% to 4.62% over this time period.

590 Q DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE
591 BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO DRAW
592 ACCURATE RESULTS CONCERNING CONTEMPORARY MARKET
593 CONDITIONS?

594 A No. Contemporary market conditions can change dramatically during the period that
595 rates determined in this proceeding will be in effect. A relatively long period of time
596 where stock valuations reflect premiums to book value is an indication that the
597 authorized returns on equity and the corresponding equity risk premiums were
598 supportive of investors' return expectations and provided utilities access to the equity
599 markets under reasonable terms and conditions. Further, this time period is long
600 enough to smooth abnormal market movement that might distort equity risk
601 premiums. While market conditions and risk premiums do vary over time, this
602 historical time period is a reasonable period to estimate contemporary risk premiums.

603 The time period I use in this risk premium study is a generally accepted period
604 to develop a risk premium study using "expectational" data. Conversely, studies have
605 recommended that use of "actual achieved return data" should be based on very long
606 historical time periods. The studies find that achieved returns over short time periods
607 may not reflect investors' expected returns due to unexpected and abnormal stock
608 price performance. However, these short-term abnormal actual returns would be
609 smoothed over time and the achieved actual returns over long time periods would
610 approximate investors' expected returns. Therefore, it is reasonable to assume that
611 averages of annual achieved returns over long time periods will generally converge
612 on the investors' expected returns.

613 My risk premium study is based on expectational data, not actual returns, and,
614 thus, need not encompass very long time periods.

615 **Q** **BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED TO**
616 **ESTIMATE RMP'S COST OF EQUITY IN THIS PROCEEDING?**

617 **A** The equity risk premium should reflect the relative market perception of risk in the
618 utility industry today. I have gauged investor perceptions in utility risk today in Exhibit
619 FEA-13 (MPG-13). On that exhibit, I show the yield spread between utility bonds and
620 Treasury bonds over the last 32 years. As shown in this exhibit, the 2008 utility bond
621 yield spreads over Treasury bonds for "A" rated and "Baa" rated utility bonds are
622 2.25% and 2.97%, respectively. The utility bond yield spreads over Treasury bonds
623 for "A" and "Baa" rated utility bonds for 2009 are 1.97% and 2.99%, respectively. In
624 2010, these spreads declined to 1.21% and 1.71%, respectively. In 2011, they
625 declined further to 1.13% and 1.65%, respectively. These utility bond yield spreads
626 over Treasury bond yields are now lower than the 32-year average spreads of 1.58%
627 and 1.98%, respectively.

628 A current 13-week average "A" rated utility bond yield of 4.40%, when
629 compared to the current Treasury bond yield of 3.18% as shown in Exhibit FEA-14
630 (MPG-14), page 1 of 3, implies a yield spread of around 1.22%. This current utility
631 bond yield spread is lower than the 32-year average spread for "A" utility bonds of
632 1.58%. The current spread for the "Baa" utility yields of 1.90 is also lower than the
633 32-year average spread of 1.98%.

634 These utility bond yield spreads are clear evidence that the market considers
635 the utility industry to be a relatively low risk investment and demonstrates that utilities
636 continue to have strong access to capital.

637 Q HOW DID YOU ESTIMATE RMP'S COST OF COMMON EQUITY WITH THIS RISK
638 PREMIUM MODEL?

639 A I added a projected long-term Treasury bond yield to my estimated equity risk
640 premium over Treasury yields. The 13-week average 30-year Treasury bond yield,
641 ending May 4, 2012 was 3.18%, as shown in Exhibit FEA-14 (MPG-14), page 1 of 3.
642 *Blue Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 3.90%,
643 and a 10-year Treasury bond yield to be 2.90%.²² Using the projected 30-year bond
644 yield of 3.90%, and a Treasury bond risk premium of 4.41% to 6.13%, as developed
645 above, produces an estimated common equity return in the range of 8.31% (3.90% +
646 4.41%) to 10.03% (3.90% + 6.13%). I recommend an equity risk premium of 9.46%,
647 rounded to 9.50%. This estimate is based on giving two-thirds weight to my high-end
648 risk premium estimate of 10.03%, and one-third weight to my low-end risk premium
649 estimate of 8.31%. I believe this weighting is appropriate given the unusually large
650 yield spreads between Treasury bond and "Baa" utility bond yields.

651 I next added my equity risk premium over utility bond yields to a current
652 13-week average yield on "A" rated utility bonds for the period ending May 4, 2012 of
653 4.40%. Adding the utility equity risk premium of 3.03% to 4.62%, as developed
654 above, to an "A" rated bond yield of 4.40%, produces a cost of equity in the range of
655 7.43% (4.40% + 3.03%) to 9.02% (4.40% + 4.62%). Again, recognizing the unusually
656 low Treasury yield and wide Treasury to utility bond yield spreads, I recommend two-
657 thirds weight to the high-end risk premium, and one-third weight to the low-end risk
658 premium. This produces a risk premium return of 8.49%,²³ rounded to 8.50%.

659 My risk premium analyses produce a return estimate in the range of 8.50% to
660 9.50%, with a midpoint estimate of approximately 9.00%.

²²*Blue Chip Financial Forecasts*, May 1, 2012 at 2.

²³ $1/3 \times 7.43\% + 2/3 \times 9.02\% = 8.49\%$.

661 **Capital Asset Pricing Model (“CAPM”)**

662 **Q PLEASE DESCRIBE THE CAPM.**

663 A The CAPM method of analysis is based upon the theory that the market-required rate
664 of return for a security is equal to the risk-free rate, plus a risk premium associated
665 with the specific security. This relationship between risk and return can be expressed
666 mathematically as follows:

667
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

668 R_i = Required return for stock i

669 R_f = Risk-free rate

670 R_m = Expected return for the market portfolio

671 B_i = Beta - Measure of the risk for stock

672 The stock-specific risk term in the above equation is beta. Beta represents
673 the investment risk that cannot be diversified away when the security is held in a
674 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks
675 can be eliminated by balancing the portfolio with securities that react in the opposite
676 direction to firm-specific risk factors (e.g., business cycle, competition, product mix,
677 and production limitations).

678 The risks that cannot be eliminated when held in a diversified portfolio are
679 non-diversifiable risks. Non-diversifiable risks are related to the market in general
680 and are referred to as systematic risks. Risks that can be eliminated by diversification
681 are regarded as non-systematic risks. In a broad sense, systematic risks are market
682 risks, and non-systematic risks are business risks. The CAPM theory suggests that
683 the market will not compensate investors for assuming risks that can be diversified
684 away. Therefore, the only risk that investors will be compensated for are systematic
685 or non-diversifiable risks. The beta is a measure of the systematic or
686 non-diversifiable risks.

687 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

688 A The CAPM requires an estimate of the market risk-free rate, the company's beta, and
689 the market risk premium.

690 **Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

691 A As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
692 yield is 3.90%.²⁴ The current 30-year Treasury bond yield is 3.20%. I used *Blue Chip*
693 *Financial Forecasts'* projected 30-year Treasury bond yield of 3.90% for my CAPM
694 analysis.

695 **Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE**
696 **OF THE RISK-FREE RATE?**

697 A Treasury securities are backed by the full faith and credit of the United States
698 government, so long-term Treasury bonds are considered to have negligible credit
699 risk. Also, long-term Treasury bonds have an investment horizon similar to that of
700 common stock. As a result, investor-anticipated long-run inflation expectations are
701 reflected in both common-stock required returns and long-term bond yields.
702 Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)
703 included in a long-term bond yield is a reasonable estimate of the nominal risk-free
704 rate included in common stock returns.

705 Treasury bond yields, however, do include risk premiums related to
706 unanticipated future inflation and interest rates. A Treasury bond yield is not a
707 risk-free rate. Risk premiums related to unanticipated inflation and interest rates are
708 systematic or market risks. Consequently, for companies with betas less than 1.0,

²⁴*Blue Chip Financial Forecasts*, May 1, 2012 at 2.

709 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
710 can produce an overstated estimate of the CAPM return.

711 **Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

712 A As shown in Exhibit FEA-15 (MPG-15), the proxy group average *Value Line* beta
713 estimate is 0.72.

714 **Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

715 A I derived two market risk premium estimates, a forward-looking estimate and one
716 based on a long-term historical average.

717 The forward-looking estimate was derived by estimating the expected return
718 on the market (as represented by the S&P 500) and subtracting the risk-free rate from
719 this estimate. I estimated the expected return on the S&P 500 by adding an expected
720 inflation rate to the long-term historical arithmetic average real return on the market.
721 The real return on the market represents the achieved return above the rate of
722 inflation.

723 Morningstar's *Stocks, Bonds, Bills and Inflation 2012 Classic Yearbook*
724 publication estimates the historical arithmetic average real market return over the
725 period 1926 to 2011 as 8.6%.²⁵ A current consensus analysts' inflation projection, as
726 measured by the Consumer Price Index, is 2.4%.²⁶ Using these estimates, the
727 expected market return is 11.21%.²⁷ The market risk premium then is the difference
728 between the 11.21% expected market return, and my 3.90% risk-free rate estimate,
729 or 7.30%.

²⁵Morningstar, Inc. Ibbotson *SBB* 2012 *Classic Yearbook* at 84.

²⁶*Blue Chip Financial Forecasts*, May 1, 2012 at 2.

²⁷ $\{ [(1 + 0.086) * (1 + 0.024)] - 1 \} * 100$.

730 The historical estimate of the market risk premium was also estimated by
731 Morningstar in *Stocks, Bonds, Bills and Inflation 2012 Classic Yearbook*. Over the
732 period 1926 through 2011, Morningstar's study estimated that the arithmetic average
733 of the achieved total return on the S&P 500 was 11.8%,²⁸ and the total return on
734 long-term Treasury bonds was 6.1%.²⁹ The indicated market risk premium is 5.7%
735 (11.8% - 6.1% = 5.7%).

736 **Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO**
737 **THAT ESTIMATED BY MORNINGSTAR?**

738 **A**Morningstar's analysis indicates that a market risk premium falls somewhere in the
739 range of 5.9% to 6.6%. My market risk premium falls in the range of 5.7% to 7.3%.
740 My average market risk premium of 6.5% is at the high end of Morningstar's range.

741 Morningstar estimates a forward-looking market risk premium based on actual
742 achieved data from the historical period of 1926 through 2011. Using this data,
743 Morningstar estimates a market risk premium derived from the total return on large
744 company stocks (S&P 500), less the income return on Treasury bonds. The total
745 return includes capital appreciation, dividend or coupon reinvestment returns, and
746 annual yields received from coupons and/or dividend payments. The income return,
747 in contrast, only reflects the income return received from dividend payments or
748 coupon yields. Morningstar argues that the income return is the only true risk-free
749 rate associated with Treasury bonds and is the best approximation of a truly risk-free
750 rate. I disagree with this assessment from Morningstar, because it does not reflect a
751 true investment option available to the marketplace and therefore does not produce a
752 legitimate estimate of the expected premium of investing in the stock market versus

²⁸Morningstar, Inc. Ibbotson *SBB* 2012 *Classic Yearbook* at 83.

²⁹*Id.*

753 that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the
754 reasonableness of my market risk premium estimates.

755 Morningstar's range is based on several methodologies. First, Morningstar
756 estimates a market risk premium of 6.6% based on the difference between the total
757 market return on common stocks (S&P 500) less the income return on Treasury bond
758 investments. Second, Morningstar found that if the New York Stock Exchange (the
759 "NYSE") was used as the market index rather than the S&P 500, that the market risk
760 premium would be 6.4% and not 6.6%. Third, if only the two deciles of the largest
761 companies included in the NYSE were considered, the market risk premium would be
762 5.9%.³⁰

763 Finally, Morningstar found that the 6.6% market risk premium based on the
764 S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios
765 relative to earnings and dividend growth during the period 1980 through 2001.
766 Morningstar believes this abnormal P/E expansion is not sustainable. Therefore,
767 Morningstar adjusted this market risk premium estimate to normalize the growth in the
768 P/E ratio to be more in line with the growth in dividends and earnings. Based on this
769 alternative methodology, Morningstar published a long-horizon supply-side market
770 risk premium of 6.1%.³¹

771 **Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

772 A As shown in Exhibit FEA-16 (MPG-16), based on Morningstar's high-end market risk
773 premium of 6.6%, a risk-free rate of 3.9%, and a beta of 0.72, my CAPM analysis
774 produces a return of 8.65% (rounded to 8.70%).

³⁰Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. Morningstar, Inc. *Ibbotson SBBI 2012 Valuation Yearbook* at 54.

³¹*Id.* at 66.

775 **Return on Equity Summary**

776 **Q** **BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
777 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**
778 **YOU RECOMMEND FOR RMP?**

779 **A** Based on my analyses, I estimate RMP's current market cost of equity to be 9.25%.

<u>Description</u>	<u>Results</u>
DCF	9.45%
Risk Premium	9.00%
CAPM	8.70%

780 My recommended return on common equity of 9.25% is approximately at the
781 midpoint of my recommended range of 9.00% to 9.50%. The high-end of my range is
782 based on my DCF studies, and the low-end is based on my risk premium estimate. I
783 am placing less weight on the results of CAPM studies reflecting today's very low
784 Treasury bond yields. My concern is whether these low Treasury bond yields will be
785 sustained over time, or will eventually return to more normal levels than those
786 experienced over the last few years.

787 **Financial Integrity**

788 **Q** **WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN**
789 **INVESTMENT GRADE BOND RATING FOR RMP?**

790 **A** Yes. I have reached this conclusion by comparing the key credit rating financial
791 ratios for RMP, at my proposed return on equity and capital structure, to S&P's
792 benchmark financial ratios using S&P's new credit metric ranges.

793 **Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**
794 **METRIC METHODOLOGY.**

795 A S&P publishes a matrix of financial ratios that correspond to its assessment of the
796 business risk of the utility company and related bond rating. On May 27, 2009, S&P
797 expanded its matrix criteria³² by including additional business and financial risk
798 categories. Based on S&P's most recent credit matrix, the business risk profile
799 categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable."
800 Most electric utilities have a business risk profile of "Excellent" or "Strong." The
801 financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant,"
802 "Aggressive," and "Highly Leveraged." Most of the electric utilities have a financial
803 risk profile of "Aggressive." RMP has an "Excellent" business risk profile and a
804 "Significant" financial risk profile.

805 **Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN**
806 **ITS CREDIT RATING REVIEW.**

807 A S&P evaluates a utility's credit rating based on an assessment of its financial and
808 business risks. A combination of financial and business risks equates to the overall
809 assessment of RMP's total credit risk exposure. S&P publishes a matrix of financial
810 ratios that defines the level of financial risk as a function of the level of business risk.

811 S&P publishes ranges for three primary financial ratios that it uses as
812 guidance in its credit review for utility companies. The three primary financial ratio
813 benchmarks it relies on in its credit rating process include: (1) Total Debt to Total
814 Capital; (2) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization
815 ("EBITDA"); and (3) Funds From Operations ("FFO") to Total Debt.

³²S&P updated its original 2007 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics.

816 **Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE**
817 **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

818 A I calculated each of S&P's financial ratios based on RMP's cost of service for its Utah
819 jurisdictional electric operations. While S&P would normally look at total consolidated
820 PacifiCorp financial ratios in its credit review process, my investigation in this
821 proceeding is not the same as S&P's. I am attempting to judge the reasonableness
822 of my proposed cost of capital for rate-setting in RMP's Utah regulated utility
823 operations. Hence, I am attempting to determine whether my proposed rate of return
824 will in turn support cash flow metrics, balance sheet strength, and earnings that will
825 support an investment grade bond rating and RMP's financial integrity.

826 **Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT ("OBSD")?**

827 A Yes. As shown in Exhibit FEA-17 (MPG-17), I estimated off-balance sheet debt
828 equivalents of \$275.8 million attributed to RMP's operating leases and purchased
829 power agreements ("PPA") as available online from Standard & Poor's RatingsDirect.
830 S&P includes other off-balance sheet debt adjustments which I did not include in my
831 analysis. S&P's inclusion of intermediate hybrids,³³ post-retirement benefits, and
832 accrued interest not reported on the Company's debt and asset retirement
833 obligations, were not included in my analysis. Each of these factors are either
834 reflected in PacifiCorp's cost of service, or I could not find evidence that they relate to
835 regulated utility operations. As such, I did not include them in the metrics to judge the
836 reasonableness of my rate of return for retail operations in Utah in this proceeding.

³³This was included but not in the OBS calculation. Refer to Exhibit FEA-17 (MPG-17), where the 50% of Preferred was included as debt-like instruments,

837 **Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR**
838 **RMP.**

839 A The S&P financial metric calculations for RMP at a 9.25% return are developed on
840 Exhibit FEA-17 (MPG-17), page 1 of 4.

841 RMP's adjusted total debt ratio is 50%. This is at the high end of S&P's
842 "Significant" range of 45% to 50%, and at the low end of the "Aggressive" utility
843 guideline range of 50% to 60%. This total debt ratio will support an investment grade
844 bond rating.

845 As shown on Exhibit FEA-17 (MPG-17), page 1 of 4, column 1, based on an
846 equity return of 9.25%, RMP will be provided an opportunity to produce a debt to
847 EBITDA ratio of 3.3x. This is at the low end of S&P's "Significant" guideline range of
848 3.0x to 4.0x.³⁴ This ratio also supports an investment grade credit rating.

849 Finally, RMP's retail operations FFO to total debt coverage at a 9.25% equity
850 return would be 22%, which is at the low end of the "Significant" metric guideline
851 range of 20% to 30%. The FFO/total debt ratio will support an investment grade bond
852 rating.

853 At my recommended return on equity of 9.25% and proposed capital structure,
854 RMP's financial credit metrics are supportive of its current "A" utility bond rating.

³⁴Standard & Poor's RatingsDirect: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

RESPONSE TO RMP WITNESS DR. SAMUEL HADAWAY

855
856 **Q WHAT RETURN ON COMMON EQUITY IS RMP PROPOSING FOR THIS**
857 **PROCEEDING?**

858 A RMP is proposing to set rates based on a return on equity of 10.20%. RMP's return
859 on equity proposal is based on the analysis and judgment of Dr. Samuel Hadaway.
860 Dr. Hadaway's results are summarized at page 31 of his direct testimony.

861 **Q DO DR. HADAWAY'S METHODOLOGIES SUPPORT HIS 10.20% RETURN ON**
862 **EQUITY FOR HIS PROXY GROUP?**

863 A No. As discussed in detail below, Dr. Hadaway's own analyses would support a
864 return on equity in the range of 9.0% to 10.0% if it is adjusted to reflect current market
865 data and his models are properly applied. These adjustments to Dr. Hadaway's
866 return on equity estimates support my recommended return on equity.

867 **Q PLEASE DESCRIBE THE METHODOLOGY USED BY DR. HADAWAY TO**
868 **SUPPORT HIS RETURN ON COMMON EQUITY RECOMMENDATION.**

869 A Dr. Hadaway develops his return on common equity recommendation using three
870 versions of the DCF model, and two utility risk premium analyses. I have summarized
871 Dr. Hadaway's results in Table 6 under column 1. Under column 2, I show the results
872 of Dr. Hadaway's analyses adjusted for updated data and more reasonable
873 application of the models.

874 As shown in Table 6, using consensus economists' projection of GDP growth
875 rather than Dr. Hadaway's inflated GDP growth estimates, his own DCF analyses
876 would support a return on equity for RMP in the range of 9.2% to 10.0%. Proper
877 adjustments to Dr. Hadaway's utility risk premium estimates to reflect the unadjusted

878 equity risk premium would reduce this estimate from 9.6% to 9.0%. Therefore,
879 Dr. Hadaway's return on equity estimate with reasonable adjustments will produce a
880 return on equity for RMP in the range of 9.0% to 10.0%. However, a majority of the
881 adjusted results fall in the range of 9.6% to 9.2%.

TABLE 6		
<u>Summary of Dr. Hadaway's ROE Estimate</u>		
Description	Hadaway Results¹	Adjusted Hadaway Results²
	(1)	(2)
<u>DCF Analysis</u>		
Constant Growth (Analysts' Growth)	9.6% - 10.0%	9.6% - 10.0%
Constant Growth (GDP Growth)	10.1% - 10.2%	9.3% - 9.4%
Multi-Stage Growth Model	<u>9.9% - 10.0%</u>	<u>9.2% - 9.3%</u>
Indicated DCF Range	9.6% - 10.2%	9.2% - 10.0%
<u>Risk Premium Analysis</u>		
Forecasted Utility Debt + Equity Risk Premium	9.7%	Reject
Current Utility Debt + Equity Risk Premium	<u>9.6%</u>	<u>9.0%</u>
Risk Premium Estimate	9.6%	9.0%
Recommended ROE	10.2%	
Adjusted ROE Range		9.0% - 10.0%
Sources:		
¹ Hadaway Direct at 31.		
² Exhibit FEA-18 (MPG-18).		

882 **Q PLEASE DESCRIBE DR. HADAWAY'S CONSTANT GROWTH DCF ANALYSIS.**

883 A Dr. Hadaway's adjusted constant growth DCF analysis is shown on his Exhibit RMP
884 ____ (SCH-4). As shown on that exhibit, Dr. Hadaway's constant growth DCF analysis
885 is based on a recent stock price, an annualized dividend and an average of three
886 growth rates: (1) *Value Line*; (2) Zacks; and (3) Thomson.

887 **Q ARE DR. HADAWAY'S DCF ESTIMATES RELIABLE?**

888 A No. His GDP growth rate used in his constant growth and multi-stage growth models
889 is based on an inflated GDP growth rate of 5.8%. This GDP growth is excessive and
890 not reflective of current market expectations.

891 **Q HOW DID DR. HADAWAY DEVELOP HIS GDP GROWTH RATE?**

892 A He states that the GDP growth rate is based on the achieved GDP growth over the
893 last 10, 20, 30, 40, 50, and 60-year periods. Dr. Hadaway's projected GDP growth
894 rate is unreasonable. Historical GDP growth over the last 20 and 40-year periods
895 was strongly influenced by the actual inflation rate experienced over that time period.

896 **Q WHY IS DR. HADAWAY'S DCF ESTIMATE EXCESSIVE IN COMPARISON TO**
897 **THAT OF PUBLISHED MARKET ANALYSTS?**

898 A The consensus economists' projected GDP growth rate is much lower than the GDP
899 growth rate used by Dr. Hadaway in his DCF analysis. A comparison of
900 Dr. Hadaway's GDP growth rate and consensus economists' projected GDP growth
901 over the next five and 10 years is shown in Table 7. As shown in this table,
902 Dr. Hadaway's GDP rate of 5.8% reflects real GDP of 2.7% and an inflation adjusted
903 GDP of 3.0%. However, consensus economists' projections of nominal GDP include
904 GDP inflation projections over the next five and 10 years of 2.1% and 2.2%,
905 respectively.³⁵

906 As is clearly evident in Table 7, Dr. Hadaway's historical GDP growth reflects
907 historical inflation, which is much higher than, and not representative of, consensus
908 market expected forward-looking inflation.

³⁵*Blue Chip Economic Indicators*, March 10, 2012 at 15.

<u>Description</u>	<u>GDP Inflation</u>	<u>Real GDP</u>	<u>Nominal GDP</u>
Dr. Hadaway	3.0%	2.7%	5.8%
Consensus Five-Year Projection	2.1%	2.9%	5.1%
Consensus 10-Year Projection	2.2%	2.5%	4.8%

Source: *Blue Chip Economic Indicators*, March 10, 2012 at 15.

909 As such, Dr. Hadaway's 5.8% nominal GDP growth rate is not reflective of consensus
910 market expectations and should be rejected. Indeed, Dr. Hadaway's 5.8% GDP
911 growth rate outlook is inconsistent with the consensus of economists' independent
912 projections of future long-term GDP growth, and also inconsistent with projections
913 made by the U.S. Energy Information Administration, and Congressional Budget
914 Office as referenced in my testimony above where I describe the parameters used in
915 my own multi-stage growth DCF analyses. Those agencies also project real GDP in
916 line with what Dr. Hadaway and his consensus projections include, however their
917 outlook for future inflation is much lower than Dr. Hadaway, and much more
918 consistent with the consensus independent economists' projections discussed in
919 Table 7 above. For all these reasons, Dr. Hadaway's GDP growth outlook rate
920 projections are simply out of line and out of touch with the consensus market
921 outlooks.

922 Q HOW WOULD DR. HADAWAY'S DCF ANALYSES CHANGE IF CURRENT
923 MARKET-BASED GDP GROWTH RATE PROJECTIONS ARE INCLUDED IN HIS
924 ANALYSIS RATHER THAN HIS EXCESSIVE GDP GROWTH RATE?

925 A As shown in Exhibit FEA-18 (MPG-18), I updated Dr. Hadaway's DCF analyses using
926 more recent market data and a GDP growth rate of 5.0%. This GDP growth rate is
927 the consensus economists' five- and 10-year projected growth rate of the GDP as
928 published in the *Blue Chip Economic Indicators*. As shown in Exhibit FEA-18
929 (MPG-18), using this consensus economists' projected GDP growth rate, reduces
930 Dr. Hadaway's long-term GDP growth DCF result from 10.2% to 9.4% and his
931 multi-stage DCF from 10.0% to 9.3%.

932 Q PLEASE SUMMARIZE YOUR ADJUSTMENTS TO DR. HADAWAY'S DCF
933 STUDIES.

934 A Using a more reasonable GDP growth rate reduces the average DCF result produced
935 by Dr. Hadaway's studies from 10.0% down to 9.5%. Dr. Hadaway's original
936 estimates and these updated and adjusted results are shown below in Table 8.

<u>Description</u>	<u>Range Average</u>	
	<u>Hadaway DCF</u>	<u>Adjusted DCF</u>
Constant Growth (Analysts' Growth)	9.8%	9.8%
Constant Growth (GDP Growth)	10.2%	9.4%
Multi-Stage Growth Model	<u>10.0%</u>	<u>9.3%</u>
Average	10.0%	9.5%

937 As shown above in Table 8, using a consensus economists' GDP forecast, rather
938 than the GDP forecast derived by Dr. Hadaway, would support a return on equity no
939 higher than 9.5%.

940 **Q PLEASE DESCRIBE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSIS.**

941 A Dr. Hadaway's utility bond yield versus authorized return on common equity risk
942 premium is shown in Exhibit RMP ____ (SCH-5). As shown in this exhibit,
943 Dr. Hadaway estimated an annual equity risk premium by subtracting Moody's
944 average bond yield from the electric utility regulatory commission authorized return on
945 common equity over the period 1980 through 2011. Based on this analysis,
946 Dr. Hadaway estimates an average indicated equity risk premium over current utility
947 bond yields of 3.33%.

948 Dr. Hadaway then adjusts this average equity risk premium using a regression
949 analysis based on an expectation that there is an ongoing inverse relationship
950 between interest rates and equity risk premiums. Based on this regression analysis,
951 Dr. Hadaway increases his equity risk premium from 3.33%, up to 5.08% and 5.18%
952 relative to projected and current "A" bond yield of 4.62% and 4.37%, respectively. He
953 then adds these inflated equity risk premiums to the projected and current "A" rated
954 utility bond yield of 4.62% and 4.37% to produce a return on equity of 9.70% and
955 9.55%, respectively.

956 **Q ARE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSES REASONABLE?**

957 A No. Dr. Hadaway develops a forward-looking risk premium model, relying on
958 forecasted interest rates and volatile utility spreads, which are highly uncertain and
959 produce inaccurate results. Further, Dr. Hadaway's proposal to adjust the actual

960 equity risk premium of 3.33% to reflect the inverse relationship between interest rates
961 and utility risk premiums to 5.08% and 5.18% is unreasonable. This adjustment is
962 inappropriate and not consistent with academic literature that finds that this
963 relationship should change with risk changes and not simply changes to interest
964 rates.

965 **Q DO YOU HAVE ANY COMMENTS CONCERNING DR. HADAWAY'S**
966 **FORECASTED UTILITY BOND YIELD OF 4.62%?**

967 A Yes. Dr. Hadaway develops his forecasted utility bond yield based on the 3-month
968 historical spread of A-rated utility bond yields and 30-year Treasury yields of 1.32%
969 added to his projected long-term Treasury yield of 3.3%. This approach is
970 unreasonable because Dr. Hadaway relies on projected interest rates with historical
971 yield spreads. The accuracy of his interest rate projections are highly problematic,
972 and he provides no support for his assumption that yield spreads will stay flat if
973 Treasury yields increase. This yield spread relationship is volatile and uncertain as
974 are interest rate projections. Indeed, while interest rates have been projected to
975 increase over the last several years, those increased interest rate projections have
976 turned out to be wrong.

977 **Q WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST**
978 **RATES IS HIGHLY PROBLEMATIC?**

979 A Over the last several years, observable current interest rates have been a more
980 accurate predictor of future interest rates than economists' consensus projections.
981 Exhibit FEA-19 (MPG-19) illustrates this point. On this exhibit, under Columns 1 and
982 2, I show the actual market yield at the time a projection is made for Treasury bond

983 yields two years in the future. In Column 1, I show the actual Treasury yield and, in
984 Column 2, I show the projected yield two years out.

985 As shown in Columns 1 and 2, over the last several years Treasury yields
986 were projected to increase relative to the actual Treasury yields at the time of the
987 projection. In Column 4, I show what the Treasury yield actually turned out to be two
988 years after the forecast. Under Column 5, I show the actual yield change at the time
989 of the projections relative to the projected yield change.

990 As shown in this exhibit, over the last several years, economists consistently
991 have been projecting that interest rates will increase. However, as demonstrated
992 under Column 5, those yield projections have turned out to be overstated in virtually
993 every case. Indeed, actual Treasury yields have decreased or remained flat over the
994 last five years, rather than increase as the economists' projections indicated. As
995 such, current observable interest rates are just as likely to predict future interest rates
996 as are economists' projections.

997 **Q WHY IS DR. HADAWAY'S USE OF A SIMPLE INVERSE RELATIONSHIP**
998 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS NOT**
999 **REASONABLE?**

1000 **A** Dr. Hadaway's belief that there is a simplistic inverse relationship between equity risk
1001 premiums and interest rates is not supported by academic research. While academic
1002 studies have shown that, in the past, there has been an inverse relationship between
1003 these variables, researchers have found that the relationship changes over time and

1004 is influenced by changes in perception of the risk of bond investments relative to
1005 equity investments, and not simply changes to interest rates.³⁶

1006 In the 1980s, equity risk premiums were inversely related to interest rates, but
1007 that was likely attributable to the interest rate volatility that existed at that time.
1008 Interest rate volatility currently is much lower than it was in the 1980s.³⁷ As such,
1009 when interest rates were more volatile, the relative perception of bond investment risk
1010 increased relative to the investment risk of equities. This changing investment risk
1011 perception caused changes in equity risk premiums.

1012 In today's marketplace, interest rate variability is not as extreme as it was
1013 during the 1980s. Nevertheless, changes in the perceived risk of bond investments
1014 relative to equity investments still drive changes in equity premiums. However, a
1015 relative investment risk differential cannot be measured simply by observing nominal
1016 interest rates. Changes in nominal interest rates are highly influenced by changes to
1017 inflation outlooks, which also change equity return expectations. As such, the
1018 relevant factor needed to explain changes in equity risk premiums is the relative
1019 changes to the risk of equity versus debt securities investments, not simply changes
1020 to interest rates.

1021 Importantly, Dr. Hadaway's analysis simply ignores investment risk
1022 differentials. He bases his adjustment to the equity risk premium exclusively on
1023 changes in nominal interest rates. This is a flawed methodology that does not
1024 produce accurate or reliable risk premium estimates. His results should be rejected
1025 by the Commission.

³⁶"The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

³⁷Morningstar SBBI, 2009 Yearbook at 95-96.

1026 Using Dr. Hadaway's projected equity risk premium adjusted for an inverse
1027 relationship of 5.08%, relative to the current observable "A" rated utility bond yield of
1028 4.40%, would indicate a return on equity of 9.48%. This return estimate largely
1029 supports my recommended return on equity for RMP. Alternatively, modifying his
1030 equity risk premiums to consider yield spreads, rather than simply the inverse
1031 relationship between equity risk premiums and interest rates, would also reduce the
1032 level of equity risk premium estimated by Dr. Hadaway. Simply observing the highest
1033 equity risk premiums authorized over the last five years would indicate an average
1034 equity risk premium of 4.57%. (This is based on the last five years, excluding 2008,
1035 which had an abnormally low equity risk premium.) Relying on an equity risk
1036 premium of 4.40%, relative to current observable utility bond yields of 4.57%, or
1037 Dr. Hadaway's projected "A" rated utility bond yield of 4.62%, would indicate a return
1038 on common equity for RMP in the range of 8.97% to 9.02%, or 9.0%.

1039 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

1040 **A Yes, it does.**

Qualifications of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a Managing Principal with
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK
8 EXPERIENCE.**

9 A In 1983 I received a Bachelors of Science Degree in Electrical Engineering from
10 Southern Illinois University, and in 1986, I received a Masters Degree in Business
11 Administration with a concentration in Finance from the University of Illinois at
12 Springfield. I have also completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce
14 Commission ("ICC"). In this position, I performed a variety of analyses for both formal
15 and informal investigations before the ICC, including: marginal cost of energy, central
16 dispatch, avoided cost of energy, annual system production costs, and working
17 capital. In October of 1986, I was promoted to the position of Senior Analyst. In this
18 position, I assumed the additional responsibilities of technical leader on projects, and
19 my areas of responsibility were expanded to include utility financial modeling and
20 financial analyses.

21 In 1987, I was promoted to Director of the Financial Analysis Department. In
22 this position, I was responsible for all financial analyses conducted by the staff.
23 Among other things, I conducted analyses and sponsored testimony before the ICC
24 on rate of return, financial integrity, financial modeling and related issues. I also
25 supervised the development of all Staff analyses and testimony on these same
26 issues. In addition, I supervised the Staff's review and recommendations to the
27 Commission concerning utility plans to issue debt and equity securities.

28 In August of 1989, I accepted a position with Merrill-Lynch as a financial
29 consultant. After receiving all required securities licenses, I worked with individual
30 investors and small businesses in evaluating and selecting investments suitable to
31 their requirements.

32 In September of 1990, I accepted a position with Drazen-Brubaker &
33 Associates, Inc. In April 1995, the firm of Brubaker & Associates, Inc. ("BAI") was
34 formed. It includes most of the former DBA principals and Staff. Since 1990, I have
35 performed various analyses and sponsored testimony on cost of capital, cost/benefits
36 of utility mergers and acquisitions, utility reorganizations, level of operating expenses
37 and rate base, cost of service studies, and analyses relating industrial jobs and
38 economic development. I also participated in a study used to revise the financial
39 policy for the municipal utility in Kansas City, Kansas.

40 At BAI, I also have extensive experience working with large energy users to
41 distribute and critically evaluate responses to requests for proposals ("RFPs") for
42 electric, steam, and gas energy supply from competitive energy suppliers. These
43 analyses include the evaluation of gas supply and delivery charges, cogeneration
44 and/or combined cycle unit feasibility studies, and the evaluation of third-party
45 asset/supply management agreements. I have also analyzed commodity pricing

46 indices and forward pricing methods for third party supply agreements, and have also
47 conducted regional electric market price forecasts.

48 In addition to our main office in St. Louis, the firm also has branch offices in
49 Phoenix, Arizona and Corpus Christi, Texas.

50 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

51 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of
52 service and other issues before the Federal Energy Regulatory Commission and
53 numerous state regulatory commissions including: Arkansas, Arizona, California,
54 Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas,
55 Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North
56 Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont,
57 Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the provincial
58 regulatory boards in Alberta and Nova Scotia, Canada. I have also sponsored
59 testimony before the Board of Public Utilities in Kansas City, Kansas; presented rate
60 setting position reports to the regulatory board of the municipal utility in Austin, Texas,
61 and Salt River Project, Arizona, on behalf of industrial customers; and negotiated rate
62 disputes for industrial customers of the Municipal Electric Authority of Georgia in the
63 LaGrange, Georgia district.

64 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
65 **ORGANIZATIONS TO WHICH YOU BELONG.**

66 A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA
67 Institute. The CFA charter was awarded after successfully completing three
68 examinations which covered the subject areas of financial accounting, economics,

69 fixed income and equity valuation and professional and ethical conduct. I am a
70 member of the CFA Institute's Financial Analyst Society.

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