

**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) **Docket No. 13-035-184**
Utah and for Approval of Its)
Proposed Electric Service)
Schedules and Electric Service)
Regulations.)
_____)

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

The Federal Executive Agencies

April 17, 2014



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Docket No. 13-035-184

STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS)

SS

Affidavit of Michael P. Gorman

Michael P. Gorman, being first duly sworn, on his oath states:

1. My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Federal Executive Agencies in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my direct testimony and exhibits which were prepared in written form for introduction into evidence in the Public Service Commission of Utah, Docket No. 13-035-184.

3. I hereby swear and affirm that the testimony and exhibits are true and correct and that they show the matters and things that they purport to show.

Michael P. Gorman

Subscribed and sworn to before me this 15th day of April, 2014.

Notary Public

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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,
3 Suite 140, 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
6 of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
8 EXPERIENCE.

9 A This information is included in Appendix A to my testimony.

10 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 A I am appearing on behalf of the Federal Executive Agencies (“FEA”). The FEA
12 represents numerous federal customers within the area serviced by Rocky
13 Mountain Power (“RMP” or “Company”). These entities include, but are not
14 limited to, military installations, post offices and federal buildings. Mainly, Hill
15 Air Force Base represents a significant customer to the Company.

16 **Q WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

17 A My testimony will address the Company’s overall rate of return including return
18 on equity, embedded debt cost and capital structure.

19 **SUMMARY**

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

21 A I recommend the Public Service Commission of Utah (the “Commission” or
22 “PSCU”) award RMP a return on common equity of 9.40%.

23 My recommended return on equity of 9.40% would result in an overall
24 cost of capital of 7.74% as developed on my Exhibit FEA___(MPG-1).

25 My recommended return on equity and the Company’s proposed capital
26 structure will provide RMP with an opportunity to realize cash flow financial
27 coverages and balance sheet strength that conservatively support RMP’s
28 current investment grade bond rating. Consequently, my recommended return
29 on equity represents fair compensation for RMP’s investment risk, and it will
30 preserve the Company’s financial integrity and credit standing.

31 I will also respond to RMP witness Dr. Samuel Hadaway's proposed
32 return on equity of 10.0%. For the reasons discussed below, Dr. Hadaway's
33 recommended return on equity is excessive and should be rejected.

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

35 A I performed three versions of the Discounted Cash Flow ("DCF") model, Risk
36 Premium ("RP") study, and Capital Asset Pricing Model ("CAPM") to a proxy
37 group of publicly traded companies that have investment risk similar to RMP.
38 Based on these assessments, I estimate RMP's current market cost of equity to
39 be 9.40%.

40 **Electric Utility Industry Market Outlook**

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

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

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

52 Further, the electric utility industry is funding large capital expenditure
53 programs, which is creating significant demands for external capital. Credit
54 rating agencies and market participants have embraced the utilities' need for
55 significant amounts of external capital by meeting the capital market demands
56 of electric utilities at near historical low capital market costs. All of this supports
57 my belief that RMP should have sufficient access to capital to support its capital
58 program, and relatively moderate capital costs are currently available and
59 expected to be available for the next several years.

60 Based on this review of credit outlooks and stock price performance, I
61 conclude that the market continues to embrace the electric utility industry as a
62 safe-haven investment, and views utility equity and debt investments as low-
63 risk securities.

64 **Q PLEASE DESCRIBE ELECTRIC UTILITIES' CREDIT RATING OUTLOOK.**

65 A Electric utilities' credit ratings have improved over the recent past and the credit
66 outlook is Stable to Improving. Standard & Poor's ("S&P") recently published a
67 report titled "U.S. Regulated Utilities Look Forward To Stability In 2014." In that
68 report, S&P noted the following:

69 **Effect on ratings**

70 Although the median investor-owned regulated utility corporate
71 credit rating remains at 'BBB+', credit quality actually improved as
72 many companies entered the low 'A' rating category and the
73 already limited number of speculative-grade utilities continued to
74 diminish. Last year, we raised the ratings on 42 utility holding
75 companies and operating subsidiaries.

76 * * *

77 **Industry Ratings Outlook**

78 The prospective rating movement for U.S. regulated utilities, as
79 measured by outlooks and CreditWatch listings, is limited, with 6%
80 of companies having positive outlooks or positive CreditWatch
81 listings and 5% carrying negative outlooks. (It is important to note
82 that outlooks and CreditWatch placements do not predict rating
83 changes. Rather, they highlight the potential for rating changes
84 and their direction.) With the remaining 88% of the industry having
85 stable outlooks, and with only a modest influence on the sector's
86 business risk and financial risk profiles as a result of economic
87 volatility, we expect few rating changes in the sector in the near-
88 to-intermediate term.¹

89 * * *

90 **Credit Strength Underlies Solid Access To Funding**

91 Liquidity remains adequate for most utilities and investor appetite
92 for utility debt remains healthy, with deals continuing to be
93 oversubscribed at very attractive rates with tenors as far as five
94 years, and in some cases longer. The amount of medium- to long-
95 term debt and hybrid securities issued during 2013 was about
96 \$35.5 billion. The relative certainty of financial performance by
97 utilities operating under relatively predictable regulatory
98 frameworks, and effective monopoly position, and long-lived
99 assets continue to make the utility sector attractive to investors.
100 These strengths have served to mute any impact on the industry
101 from turbulence in the global financial markets and the slow pace
102 of the economic recovery.

103 Similarly, Fitch states:

104 **Rating Outlook**

105 **Stable Ratings Outlook:** Fitch Ratings expects the ratings and
106 ratings outlook for the overall U.S. Utilities, Power, and Gas (UPG)
107 sector to remain stable in 2014. Fitch expects modest earnings
108 growth from recent rate base additions and continued maturation
109 of capex projects. Broad macroeconomic conditions remain
110 favorable for the sector; Fitch expects modest economic growth,
111 tepid inflation, low natural gas prices, and a favorable interest rate
112 environment.

¹*Standard & Poor's RatingsDirect*. "Industry Economic and Ratings Outlook: U.S. Regulated Utilities Look Forward to Stability in 2014," January 22, 2014 at 4 and 7, emphasis added.

113

* * *

114

Stable Utility and Utility Parent Company Ratings

115

116

117

118

119

120

121

122

Within the context of gradual recovery, low inflation, and stable commodity prices, Fitch expects regulated utilities to maintain their solid investment-grade credit profile. Issuer Default Ratings (IDRs) should remain on the cusp of 'BBB+' to 'A-', with more than 90% of debt issuances being rated in the 'A' category. Long-term debt instrument ratings of Fitch's entire universe of regulated utilities carry investment-grade ratings, a testament to the sound credit profile of the industry.²

123

Q PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE

124

OVER THE LAST SEVERAL YEARS.

125

A As shown in the graph below, the EEI has recorded electric utility stock price

126

performance compared to the market. The EEI data shows that its Electric

127

Utility Index has outperformed the market in downturns and trailed the market

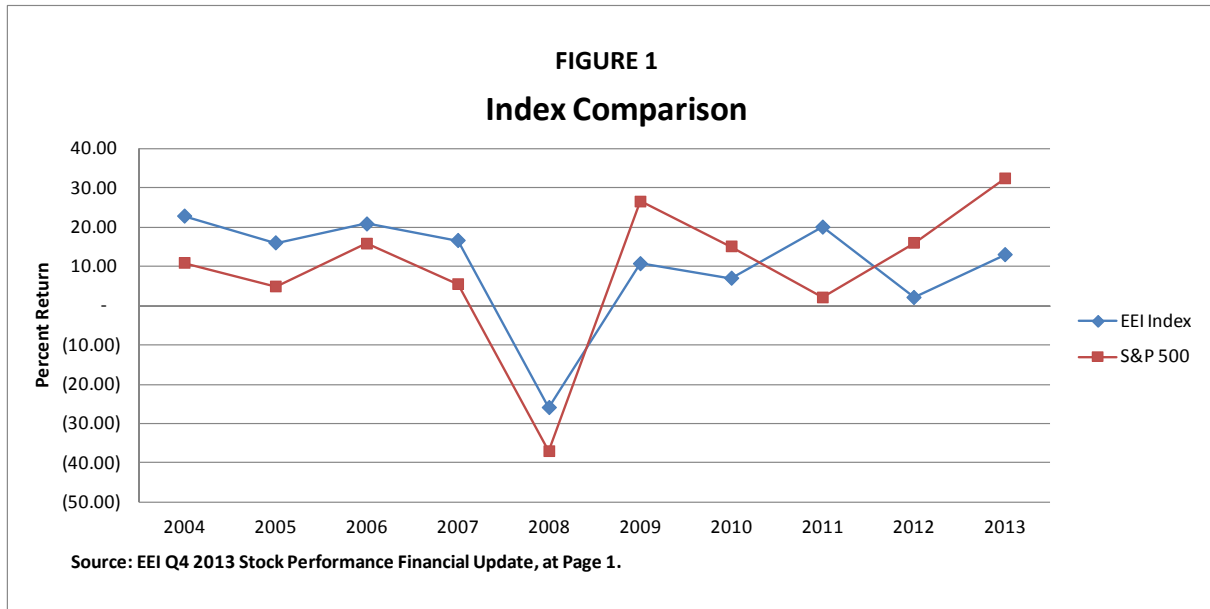
128

during recovery. This supports my conclusion that utility stock investments are

129

regarded by market participants as a moderate to low-risk investment.

²*FitchRatings*: "2014 Outlook: Utilities, Power, and Gas," December 12, 2013 at 1-2, emphasis added.



130 **Q WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS**
131 **ASSESSMENT OF ELECTRIC UTILITY INDUSTRY CREDIT AND**
132 **INVESTMENT RISK OUTLOOKS?**

133 **A** Credit rating agencies consider the electric utility industry to be stable and
134 believe investors will continue to provide an abundance of capital to support
135 utilities' large capital programs and at moderate capital costs. All of this
136 supports the continued belief that electric utility investments are generally
137 regarded as safe-haven or low-risk investments, and the market embraces low-
138 risk investments – like utility investments. The demand for low-risk investments
139 will provide funding for electric utilities in general.

140

RATE OF RETURN

141 **RMP Investment Risk**

142 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT**
143 **RISK OF RMP.**

144 **A** The market's assessment of RMP's investment risk (i.e., PacifiCorp) is
145 described by credit rating analysts' reports. RMP's current corporate and senior
146 secured bond ratings from S&P and Moody's are "A-" and "A," and "A1" and
147 "A3," respectively.³ Both rating agencies have a Stable outlook for RMP.

148 Specifically, S&P states the following:

149 **Initial Analytical Outcome ("Anchor") And Rating**
150 **Result**

151 The stand-alone credit profile (SACP) of 'a-' on PacifiCorp,
152 which is one notch higher than our 'bbb+' group credit
153 profile [(GCP)] on parent holding company MidAmerican
154 Energy Holdings Co. (MEHC), reflecting our assessment of
155 PacifiCorp's business risk and financial risk profiles. Under
156 our group rating methodology, we consider PacifiCorp to
157 be a core subsidiary of the MEHC group. PacifiCorp's
158 issuer credit rating is one notch higher than the 'bbb+' GCP
159 on the parent because the utility's SACP is stronger and
160 there is sufficient regulatory and structural insulation.

161 * * *

162 **Business Risk: Excellent**

163 We base our assessment of PacifiCorp's business risk
164 profile as "excellent," as defined in our criteria, on the
165 company's "strong" competitive profile, "very low" industry
166 risk derived from the regulated utility industry, and the "very
167 low" country risk of the U.S., where the utility operates.
168 PacifiCorp's competitive position reflects the stable

³SNL *Financial*, online April 4, 2014.

169 regulatory framework of the low-risk regulated utility. We
170 consider the utility's geographical, market, and regulatory
171 diversity over its six-state service territory a strength
172 because these factors provide extensive market diversity.
173 About 70% of retail revenue is derived from residential and
174 commercial customers, providing cash flow diversity and at
175 least a base level of usage. PacifiCorp serves a total of 1.7
176 million retail customers, in Utah, Wyoming, and Idaho
177 through its Rocky Mountain Power operating unit; and in
178 Oregon, Washington, and California through its Pacific
179 Power unit, which provides a high level of cash flow
180 diversity.⁴

181 **RMP's Proposed Capital Structure**

182 **Q WHAT IS RMP'S PROPOSED CAPITAL STRUCTURE?**

183 **A** RMP's proposed capital structure is shown in Table 1 below.

<u>Description</u>	<u>Weight</u>
Long-Term Debt	48.38%
Preferred Stock	0.02%
Common Equity	<u>51.60%</u>
Total Regulatory Capital Structure	100.00%

Source: Direct Testimony of Bruce Williams, page 2.

184 I will not raise issues with RMP's capital structure in this case.

⁴Standard & Poor's RatingsDirect Summary: "PacifiCorp," March 31, 2014 at 2-4.

185

RETURN ON EQUITY

186 **Q PLEASE DESCRIBE WHAT IS MEANT BY A “UTILITY’S COST OF**
187 **COMMON EQUITY.”**

188 A A utility’s cost of common equity is the return investors require on an investment
189 in the utility. Investors expect to achieve their return requirement from receiving
190 dividends and stock price appreciation.

191 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**
192 **REGULATED UTILITY’S COST OF COMMON EQUITY.**

193 A In general, determining a fair cost of common equity for a regulated utility has
194 been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield
195 Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va., 262 U.S. 679
196 (1923) and Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

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

203 **Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE**
204 **RMP'S COST OF COMMON EQUITY.**

205 A I have used several models based on financial theory to estimate RMP's cost of
206 common equity. These models are: (1) a constant growth Discounted Cash
207 Flow ("DCF") model using consensus analysts' growth rate projections; (2) a
208 constant growth DCF using sustainable growth rate estimates; (3) a multi-stage
209 growth DCF model; (4) a Risk Premium model; and (5) a Capital Asset Pricing
210 Model ("CAPM"). I have applied these models to a group of publicly traded
211 utilities that have investment risk similar to RMP's.

212 **Risk Proxy Group**

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

216 A I relied on an electric utility proxy group that I determined to be comparable in
217 investment risk to RMP. My recommended proxy group is the same proxy group
218 used by RMP's witness Dr. Hadaway to estimate RMP's return on equity.

219 **Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS**
220 **REASONABLY COMPARABLE IN INVESTMENT RISK TO RMP.**

221 A The proxy group is shown in Exhibit FEA____(MPG-2). This proxy group has an
222 average corporate credit rating from S&P of "BBB+," which is one notch below
223 S&P's corporate credit rating for RMP of "A-." The proxy group's corporate

224 credit rating from Moody's of "A3" is identical to RMP's corporate credit rating
225 from Moody's of "A3."

226 The proxy group has an average common equity ratio of 46.6% (including
227 short-term debt) from SNL Financial ("SNL") and 49.0% (excluding short-term
228 debt) from *The Value Line Investment Survey* ("Value Line") in 2013. The proxy
229 group's common equity ratio is lower and more reasonable than RMP's 51.6%
230 common equity ratio. RMP's inflated common equity ratio indicates that the
231 proxy group has less financial risk than RMP.

232 I also compared RMP's business risk to the business risk of the proxy
233 group based on S&P's ranking methodology. RMP has an S&P business risk
234 profile of "Excellent," which is identical to the S&P business risk profile of the
235 proxy group.⁵ The S&P business risk profile score indicates that RMP's
236 business risk is comparable to that of the proxy group.

237 I believe that my proxy group reasonably approximates the investment
238 risk of RMP, and can be used to estimate a fair return on equity for RMP.

⁵S&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 RatingsDirect: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded,"* May 27, 2009.

239 **Discounted Cash Flow Model**

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

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

244
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \quad \text{(Equation 1)}$$

245

246 P_0 = Current stock price
247 D = Dividends in periods 1 - ∞
248 K = Investor's required return

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

253
$$K = D_1/P_0 + G \quad \text{(Equation 2)}$$

254 K = Investor's required return
255 D_1 = Dividend in first year
256 P_0 = Current stock price
257 G = Expected constant dividend growth rate

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

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

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

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

265 A I relied on the average of the weekly high and low stock prices of the utilities in
266 the proxy group over a 13-week period ending on March 28, 2014. An average
267 stock price is less susceptible to market price variations than a spot price.
268 Therefore, an average stock price is less susceptible to aberrant market price
269 movements, which may not be reflective of the stock's long-term value.

270 A 13-week average stock price reflects a period that is still short enough
271 to contain data that reasonably reflect current market expectations, but the
272 period is not so short as to be susceptible to market price variations that may
273 not reflect the stock's long-term value. In my judgment, a 13-week average
274 stock price is a reasonable balance between the need to reflect current market
275 expectations and the need to capture sufficient data to smooth out aberrant
276 market movements.

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

279 A I used the most recently paid quarterly dividend, as reported in *Value Line*.⁶
280 This dividend was annualized (multiplied by 4) and adjusted for next year's
281 growth to produce the D_1 factor for use in Equation 2 above.

⁶The *Value Line Investment Survey*, January 31, February 21, and March 21, 2014.

282 **Q** **WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**
283 **GROWTH DCF MODEL?**

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

290 As predictors of future returns, security analysts' growth estimates have
291 been shown to be more accurate than growth rates derived from historical data.⁷
292 That is, assuming the market generally makes rational investment decisions,
293 analysts' growth projections are more likely to influence investors' decisions
294 which are captured in observable stock prices than growth rates derived only
295 from historical data.

296 For my constant growth DCF analysis, I have relied on a consensus, or
297 mean, of professional security analysts' earnings growth estimates as a proxy
298 for investor consensus dividend growth rate expectations. I used the average
299 of analysts' growth rate estimates from three sources: Zacks, SNL, and
300 Reuters. All such projections were available on March 27, 2014, and all were
301 reported online.

⁷See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

302 Each consensus growth rate projection is based on a survey of security
303 analysts. There is no clear evidence whether a particular analyst is most
304 influential on general market investors. Therefore, a single analyst's projection
305 does not as reliably predict consensus investor outlooks as does a consensus
306 of market analysts' projections. The consensus estimate is a simple arithmetic
307 average, or mean, of surveyed analysts' earnings growth forecasts. A simple
308 average of the growth forecasts gives equal weight to all surveyed analysts'
309 projections. Therefore, a simple average, or arithmetic mean, of analyst
310 forecasts is a good proxy for market consensus expectations.

311 **Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT**
312 **GROWTH DCF MODEL?**

313 A The growth rates I used in my DCF analysis are shown in Exhibit FEA____(MPG-
314 3). The average growth rate for my proxy group is 5.27%.

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

316 A As shown in Exhibit FEA____(MPG-4), the average and median constant growth
317 DCF returns for my proxy group are 9.28% and 9.33%, respectively.

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

320 A Yes. The constant growth DCF analysis for my proxy group was based on a
321 long-term sustainable growth rate of 5.27%. This growth rate is higher than my

322 estimate of a maximum long-term sustainable growth rate of 4.7% which I
323 discuss later in this testimony. I believe the constant growth DCF analysis
324 produces slightly overstated return estimates.

325 **Q WHAT IS YOUR ESTIMATE OF A MAXIMUM LONG-TERM SUSTAINABLE**
326 **GROWTH RATE?**

327 A A long-term sustainable growth rate for a utility stock cannot exceed the growth
328 rate of the economy in which it sells its goods and services. Hence, a
329 reasonable proxy for the long-term maximum sustainable growth rate for a utility
330 investment is best proxied by the projected long-term Gross Domestic Product
331 (“GDP”). *Blue Chip Financial Forecasts* projects that over the next 5 and 10
332 years, the U.S. nominal GDP will grow in the range of 4.8% to 4.6%. As such,
333 the average growth rate over the next 10 years is around 4.7%, which I believe
334 is a reasonable proxy of long-term sustainable growth.⁸

335 I discuss in my multi-stage growth DCF analysis academic and
336 investment practitioner evidence that accepts the projected long-term GDP
337 growth outlook as a maximum sustainable growth rate projection. Hence,
338 recognizing the long-term GDP growth rate as a maximum sustainable growth
339 is logical, and generally consistent with academic and economic practitioner
340 accepted practices.

⁸*Blue Chip Financial Forecasts*, December 1, 2013 at 14.

341 **Sustainable Growth DCF**

342 **Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE**
343 **LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF**
344 **MODEL.**

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

350 The internal growth methodology is tied to the percentage of earnings
351 retained in the company and not paid out as dividends. The earnings retention
352 ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the
353 earnings retention ratio increases. An increased earnings retention ratio will
354 fuel stronger growth because the business funds more investments with
355 retained earnings.

356 The payout ratios of the proxy group are shown in my Exhibit
357 FEA____(MPG-5). These dividend payout ratios and earnings retention ratios
358 then can be used to develop a sustainable long-term earnings retention growth
359 rate. A sustainable long-term earnings retention ratio will help gauge whether
360 analysts' current three- to five-year growth rate projections can be sustained
361 over an indefinite period of time.

362 The data used to estimate the long-term sustainable growth rate is based
363 on the Company's current market to book ratio and on *Value Line's* three- to

364 five-year projections of earnings, dividends, earned returns on book equity, and
365 stock issuances.

366 As shown in Exhibit FEA____(MPG-6), page 1, the average sustainable
367 growth rate for the proxy group using this internal growth rate model is 4.74%.

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

370 A A DCF estimate based on these sustainable growth rates is developed in Exhibit
371 FEA____(MPG-7). As shown there, a sustainable growth DCF analysis
372 produces proxy group average and median DCF results of 8.73% and 8.61%,
373 respectively.

374 **Multi-Stage Growth DCF Model**

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

376 A Yes. My first constant growth DCF is based on consensus analysts' growth rate
377 projections, so it is a reasonable reflection of rational investment expectations
378 over the next three to five years. The limitation on the constant growth DCF
379 model is that it cannot reflect a rational expectation that a period of high/low
380 short-term growth can be followed by a change in growth to a rate that is more
381 reflective of long-term sustainable growth. Hence, I performed a multi-stage
382 growth DCF analysis to reflect this outlook of changing growth expectations.

383 **Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

384 A Analyst projected growth rates over the next three to five years will change as
385 utility earnings growth outlooks change. Utility companies go through cycles in
386 making investments in their systems. When utility companies are making large
387 investments, their rate base grows rapidly, which accelerates their earnings
388 growth. Once a major construction cycle is completed or levels off, growth in
389 the utility rate base slows, and its earnings growth slows from an abnormally
390 high three- to five-year rate to a lower sustainable growth rate.

391 As major construction cycles extend over longer periods of time, even
392 with an accelerated construction program, the growth rate of the utility will slow
393 simply because rate base will slow, and the utility has limited human and capital
394 resources available to expand its construction program. Hence, the three- to
395 five-year growth rate projection should be used as a long-term sustainable
396 growth rate but not without making a reasonable informed judgment to
397 determine whether it considers the current market environment, the industry,
398 and whether the three- to five-year growth outlook is sustainable.

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

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

405 For the short-term growth period, I relied on the consensus analysts'
406 growth projections described above in relationship to my constant growth DCF
407 model. For the transition period, the growth rates were reduced or increased
408 by an equal factor, which reflects the difference between the analysts' growth
409 rates and the long-term sustainable growth rate. For the long-term growth
410 period, I assumed each company's growth would converge to the maximum
411 sustainable long-term growth rate.

412 **Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR**
413 **THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

414 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of
415 the economy in which they sell services. Utilities' earnings/dividend growth is
416 created by increased utility investment or rate base. Such investment, in turn,
417 is driven by service area economic growth and demand for utility service. In
418 other words, utilities invest in plant to meet sales demand growth, and sales
419 growth, in turn, is tied to economic growth in their service areas.

420 The Energy Information Administration ("EIA") has observed that utility
421 sales growth tracks, albeit is lower than, the U.S. GDP growth, as shown in
422 Exhibit FEA____(MPG-8). Utility sales growth has lagged behind GDP growth
423 for more than a decade. As a result, nominal GDP growth is a very conservative
424 proxy for electric utility sales growth, rate base growth, and earnings growth.
425 Therefore, the U.S. GDP nominal growth rate is a conservative proxy for the
426 highest sustainable long-term growth rate of a utility.

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

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

434 The constant growth model is most appropriate for mature
435 companies with a stable history of growth and stable future
436 expectations. Expected growth rates vary somewhat among
437 companies, but dividends for mature firms are often expected to
438 grow in the future at about the same rate as nominal gross
439 domestic product (real GDP plus inflation).⁹

440 **Q IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE**
441 **NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS**
442 **WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

443 A Yes. This is evident by a comparison of the compound annual growth of the
444 U.S. GDP compared to the geometric growth of the U.S. stock market. Ibbotson
445 & Associates measures the historical geometric growth of the U.S. stock market
446 over the period 1929-2012 to be approximately 5.6%. During this same time

⁹*Fundamentals of Financial Management*, Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

447 period, the U.S. nominal compound annual growth of the U.S. GDP was
448 approximately 6.3%.¹⁰

449 As such, the compound geometric growth of the U.S. nominal GDP has
450 been lower but comparable to the nominal growth of the U.S. stock market
451 capital appreciation. This historical relationship indicates the U.S. GDP growth
452 outlook is a conservative estimate of the long-term sustainable growth of U.S.
453 stock investments.

454 **Q HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH**
455 **RATE THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE**
456 **MARKET?**

457 A I relied on the consensus analysts' projections of long-term GDP growth. *Blue*
458 *Chip Financial Forecasts* publishes consensus economists' GDP growth
459 projections twice a year. These consensus analysts' GDP growth outlooks are
460 the best available measure of the market's assessment of long-term GDP
461 growth. These analyst projections reflect all current outlooks for GDP, as
462 reflected in analyst projections, and are likely the most influential on investors'
463 expectations of future growth outlooks. The consensus economists' published
464 GDP growth rate outlook is 4.8% to 4.6% over the next 10 years.¹¹

465 Therefore, I propose to use the consensus economists' projected 5- and
466 10-year average GDP consensus growth rates of 4.8% and 4.6%, respectively,

¹⁰*Ibbotson & Associates 2012 Valuation Yearbook* inflation rate of 3.0%, and U.S. Bureau of Economic Analysis, November 2012.

¹¹*Blue Chip Economic Indicators*, March 10, 2014 at 14.

467 as published by *Blue Chip Economic Indicators*, as an estimate of long-term
468 sustainable growth. *Blue Chip Economic Indicators*' projections provide real
469 GDP growth projections of 2.6% and 2.4%, and GDP inflation of 2.1%¹² over
470 the 5-year and 10-year projection periods, respectively. This consensus GDP
471 growth forecast represents the most likely views of market participants because
472 it is based on published consensus economist projections.

473 **Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**
474 **GROWTH?**

475 A Yes, and these sources corroborate my consensus analysts' projections. The
476 U.S. EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its
477 *2013 Annual Report*, the EIA projects real GDP through 2040 to be in the range
478 of 2.0% to 2.9%, with a midpoint or reference case of 2.5%.¹³

479 Also, the Congressional Budget Office ("CBO") makes long-term
480 economic projections. The CBO is projecting real GDP growth of 2.3% to 2.0%
481 during the next 5 and 10 years, respectively, with GDP price inflation of 2.0%.¹⁴
482 The CBO's real GDP and GDP inflation projections are slightly lower than the
483 consensus economists.

484 The real GDP and nominal GDP growth projections made by the U.S.
485 EIA and those made by the CBO support the use of the consensus analyst 5-

¹²*Id.*

¹³DOE/EIA *Annual Energy Outlook 2013 With Projections to 2040*, April 2013 at 56.

¹⁴CBO: *The Budget and Economic Outlook: Fiscal Years 2013 to 2023*, February 2013 at 64.

486 year and 10-year projected GDP growth outlooks as a reasonable estimate of
487 market participants' long-term GDP growth outlooks.

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

490 A I relied on the same 13-week stock price and the most recent quarterly dividend
491 payment data discussed above. For stage one growth, I used the consensus
492 analysts' growth rate projections discussed above in my constant growth DCF
493 model. The first stage growth covers the first five years, consistent with the term
494 of the analyst growth rate projections. The second stage, or transition stage,
495 begins in year 6 and extends through year 10. The second stage growth
496 transitions the growth rate from the first stage to the third stage using a linear
497 trend. For the third stage, or long-term sustainable growth stage, which starts
498 in year 11, I used a 4.7% long-term sustainable growth rate, which is based on
499 the consensus economists' long-term projected nominal GDP growth rate.

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

502 A As shown in Exhibit FEA____(MPG-9), the average and median DCF returns on
503 equity for my proxy group are 8.83% and 8.94%, respectively.

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

505 A The results from my DCF analyses are summarized in Table 2 below:

TABLE 2

<u>Summary of DCF Results</u>		
<u>Description</u>	<u>Proxy Group</u>	
	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	9.28%	9.33%
Constant Growth DCF Model (Sustainable Growth)	8.73%	8.61%
Multi-Stage Growth DCF Model	<u>8.83%</u>	<u>8.94%</u>
Average	8.95%	8.96%

506 My DCF studies indicate a return on equity range of 8.70% to 9.30%. I conclude
507 that a reasonable DCF return for RMP in this case is 9.00%.

508 **Risk Premium Model**

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

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

517 This risk premium model is based on two estimates of an equity risk
518 premium. First, I estimated the difference between the required return on utility
519 common equity investments and U.S. Treasury bonds. The difference between

520 the required return on common equity and the Treasury bond yield is the risk
521 premium. I estimated the risk premium on an annual basis for each year over
522 the period 1986 through 2013. The common equity required returns were based
523 on regulatory commission-authorized returns for electric utility companies.
524 Authorized returns are typically based on expert witnesses' estimates of the
525 contemporary investor-required return.

526 The second equity risk premium estimate is based on the difference
527 between regulatory commission-authorized returns on common equity and
528 contemporary "A" rated utility bond yields by Moody's. I selected the period
529 1986 through 2013 because public utility stocks consistently traded at a
530 premium to book value during that period. This is illustrated in Exhibit
531 FEA____(MPG-10), which shows that the market to book ratio since 1986 for the
532 electric utility industry was consistently above a multiple of 1.0x. Over this
533 period, regulatory authorized returns were sufficient to support market prices
534 that at least exceeded book value. This is an indication that regulatory
535 authorized returns on common equity supported a utility's ability to issue
536 additional common stock without diluting existing shares. It further
537 demonstrates that utilities were able to access equity markets without a
538 detrimental impact on current shareholders.

539 Based on this analysis, as shown in Exhibit FEA____(MPG-11), the
540 average indicated equity risk premium over U.S. Treasury bond yields has been
541 5.34%. Of the 28 observations, 22 indicated risk premiums fall in the range of
542 4.41% to 6.31%. Since the risk premium can vary depending upon market

543 conditions and changing investor risk perceptions, I believe using an estimated
544 range of risk premiums provides the best method to measure the current return
545 on common equity using this methodology.

546 As shown in Exhibit FEA____(MPG-12), the average indicated equity risk
547 premium over contemporary Moody's utility bond yields was 3.94% over the
548 period 1986 through June 2013. The indicated equity risk premium estimates
549 based on this analysis primarily fall in the range of 3.03% to 4.89% over this
550 time period.

551 **Q DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE**
552 **BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO**
553 **DRAW ACCURATE CONCLUSIONS CONCERNING CONTEMPORARY**
554 **MARKET CONDITIONS?**

555 **A** No. The time period I use in this risk premium study is a generally accepted
556 period to develop a risk premium study using "expectational" data.

557 Contemporary market conditions can change dramatically during the
558 period that rates determined in this proceeding will be in effect. A relatively long
559 period of time where stock valuations reflect premiums to book value is an
560 indication that the authorized returns on equity and the corresponding equity
561 risk premiums were supportive of investors' return expectations and provided
562 utilities access to the equity markets under reasonable terms and conditions.
563 Further, this time period is long enough to smooth abnormal market movement
564 that might distort equity risk premiums. While market conditions and risk

565 premiums do vary over time, this historical time period is a reasonable period to
566 estimate contemporary risk premiums.

567 Alternatively, studies have recommended that use of “actual achieved
568 investment return data” in a risk premium study should be based on long
569 historical time periods. The studies find that achieved returns over short time
570 periods may not reflect investors’ expected returns due to unexpected and
571 abnormal stock price performance. Short-term abnormal actual returns would
572 be smoothed over time and the achieved actual investment returns over long
573 time periods would approximate investors’ expected returns. Therefore, it is
574 reasonable to assume that averages of annual achieved returns over long time
575 periods will generally converge on the investors’ expected returns.

576 My risk premium study is based on expectational data, not actual
577 investment returns, and, thus, need not encompass a very long historical time
578 period.

579 **Q** **BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED**
580 **TO ESTIMATE RMP’S COST OF COMMON EQUITY IN THIS PROCEEDING?**

581 **A** The equity risk premium should reflect the relative market perception of risk in
582 the utility industry today. I have gauged investor perceptions in utility risk today
583 in Exhibit FEA____(MPG-13). On that schedule, I show the yield spread between
584 utility bonds and Treasury bonds over the last 34 years. As shown on this
585 schedule, the average utility bond yield spreads over Treasury bonds for “A”
586 and “Baa” rated utility bonds for this historical period are 1.55% and 1.96%,

587 respectively. The utility bond yield spreads over Treasury bonds for “A” and
588 “Baa” rated utilities during 2013 are 1.03% and 1.53%, respectively. The current
589 average “A” and “Baa” rated utility bond yield spreads over Treasury bond yields
590 are now lower than the 34-year average spreads.

591 A current 13-week average “A” rated utility bond yield of 4.56%, when
592 compared to the current Treasury bond yield of 3.68% as shown in Exhibit
593 FEA____(MPG-14), page 1 implies a yield spread of around 88 basis points. This
594 current utility bond yield spread is lower than the 34-year average spread for “A”
595 utility bonds of 1.55%. Similarly, the current spread for the “Baa” utility yields of
596 1.35% is lower than the 34-year average spread of 1.96%.

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

600 **Q HOW DID YOU ESTIMATE RMP’S COST OF COMMON EQUITY WITH THIS**
601 **RISK PREMIUM MODEL?**

602 A I added a projected long-term Treasury bond yield to my estimated equity risk
603 premium over Treasury yields. The 13-week average 30-year Treasury bond
604 yield, ending March 28, 2014 was 3.68%, as shown in Exhibit FEA____(MPG-
605 14), page 1. *Blue Chip Financial Forecasts* projects the 30-year Treasury bond
606 yield to be 4.50%, and a 10-year Treasury bond yield to be 3.70%.¹⁵ Using the
607 projected 30-year Treasury bond yield of 4.50%, and a Treasury bond risk

¹⁵*Blue Chip Financial Forecasts*, April 1, 2014 at 2.

608 premium of 4.41% to 6.31%, as developed above, produces an estimated
609 common equity return in the range of 8.91% (4.50% + 4.41%) to 10.81% (4.50%
610 + 6.31%). My risk premium estimates fall in the range of 8.91% to 10.81%.

611 I next added my equity risk premium over utility bond yields to a current
612 13-week average yield on "Baa" rated utility bonds for the period ending March
613 28, 2014 of 5.03%. Adding the utility equity risk premium of 3.03% to 4.89%,
614 as developed above, to a "Baa" rated bond yield of 5.03%, produces a cost of
615 equity in the range of 8.06% (5.03% + 3.03%) to 9.92% (5.03% + 4.89%).

616 **Q WHAT IS YOUR RECOMMENDED RETURN FOR RMP BASED ON YOUR**
617 **RISK PREMIUM STUDY?**

618 A My recommendation considers both utility security risk and market interest rate
619 risk. Current interest rate spreads suggest the market is embracing utility
620 investments as relatively low-risk investment alternatives. This is clearly evident
621 from the low utility bond spreads relative to Treasury bonds currently compared
622 to the historical time period studied. (See Exhibit FEA____(MPG-13) and Exhibit
623 FEA____(MPG-14)). Also, the market is pricing "Baa" utility bonds to produce
624 lower yields compared to general corporate "Baa" bonds. On average over time,
625 "Baa" utility bond yields are higher than "Baa" corporate bond yields, but not
626 currently. (*Id.*) All of this supports my conclusion that the utility industry is
627 perceived as a low-risk stable investment.

628 On the other hand, the Federal Reserve has been procuring long-term
629 Treasury and collateralized bonds in an effort to stimulate the U.S. economy.

630 This stimulus has reduced long-term interest rates. This government stimulus
631 initiative has been reduced and is expected to be suspended in the near future.
632 The suspension of the Federal Reserve's stimulus in long-term interest rate
633 markets could cause long-term market interest rates to increase. I believe there
634 is additional risk in long-term interest rate markets created by this Federal
635 Reserve stimulus policy.

636 I recommend giving more weight to the high-end of my risk premium
637 results to reflect the greater current market interest rate risk. I propose to
638 provide 70% weight to the high-end of my risk premium estimates and 30% to
639 the low-end of my risk premium estimates. Providing more weight to the high-
640 end risk premium captures the greater market interest rate risk. This results in
641 a risk premium estimate over Treasury bond yields of 10.24%,¹⁶ and a risk
642 premium estimate over "Baa" utility bond yields of 9.36%.¹⁷

643 My risk premium analyses produce a return estimate in the range of
644 9.36% to 10.24%, with a midpoint of approximately 9.80%.

645 **Capital Asset Pricing Model ("CAPM")**

646 **Q PLEASE DESCRIBE THE CAPM.**

647 **A** The CAPM method of analysis is based upon the theory that the market-
648 required rate of return for a security is equal to the risk-free rate, plus a risk

¹⁶70% (10.81) + 30% (8.91) = 10.24.

¹⁷70% (9.92) + 30% (8.06) = 9.36.

649 premium associated with the specific security. This relationship between risk
650 and return can be expressed mathematically as follows:

651 $R_i = R_f + B_i \times (R_m - R_f)$ where:

652 R_i = Required return for stock i

653 R_f = Risk-free rate

654 R_m = Expected return for the market portfolio

655 B_i = Beta - Measure of the risk for stock

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

662 The risks that cannot be eliminated when held in a diversified portfolio
663 are non-diversifiable risks. Non-diversifiable risks are related to the market in
664 general and are referred to as systematic risks. Risks that can be eliminated by
665 diversification are regarded as non-systematic risks. In a broad sense,
666 systematic risks are market risks, and non-systematic risks are business risks.
667 The CAPM theory suggests that the market will not compensate investors for
668 assuming risks that can be diversified away. Therefore, the only risk that
669 investors will be compensated for are systematic or non-diversifiable risks. The
670 beta is a measure of the systematic or non-diversifiable risks.

671 Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

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

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

676 A As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury
677 bond yield is 4.50%.¹⁸ The current 30-year Treasury bond yield is 3.68%, as
678 shown in Exhibit FEA____(MPG-14), page 1. I used *Blue Chip Financial*
679 *Forecasts'* projected 30-year Treasury bond yield of 4.50% for my CAPM
680 analysis.

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

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

¹⁸*Blue Chip Financial Forecasts*, April 1, 2014 at 2.

691 Treasury bond yields, however, do include risk premiums related to
692 unanticipated future inflation and interest rates. A Treasury bond yield is not a
693 risk-free rate. Risk premiums related to unanticipated inflation and interest rates
694 are systematic or market risks. Consequently, for companies with betas less
695 than 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the
696 CAPM analysis can produce an overstated estimate of the CAPM return.

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

698 A As shown in Exhibit FEA____(MPG-15), the proxy group average *Value Line*
699 beta estimate is 0.77.

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

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

703 The forward-looking estimate was derived by estimating the expected
704 return on the market (as represented by the S&P 500) and subtracting the risk-
705 free rate from this estimate. I estimated the expected return on the S&P 500 by
706 adding an expected inflation rate to the long-term historical arithmetic average
707 real return on the market. The real return on the market represents the achieved
708 return above the rate of inflation.

709 Morningstar's *Stocks, Bonds, Bills and Inflation 2013 Classic Yearbook*
710 estimates the historical arithmetic average real market return over the period

711 1926 to 2012 as 8.7%.¹⁹ A current consensus analysts' inflation projection, as
712 measured by the Consumer Price Index, is 2.2%.²⁰ Using these estimates, the
713 expected market return is 11.10%.²¹ The market risk premium then is the
714 difference between the 11.10% expected market return, and my 4.50% risk-free
715 rate estimate, or approximately 6.60%.

716 The historical estimate of the market risk premium was also estimated by
717 Morningstar in *Stocks, Bonds, Bills and Inflation 2013 Classic Yearbook*. Over
718 the period 1926 through 2012, Morningstar's study estimated that the arithmetic
719 average of the achieved total return on the S&P 500 was 11.8%,²² and the total
720 return on long-term Treasury bonds was 6.1%.²³ The indicated market risk
721 premium is 5.7% (11.8% - 6.1% = 5.7%). The average of my market risk
722 premium estimates is 6.3% (6.9% to 5.7%).

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

725 A Morningstar's analysis indicates that a market risk premium falls somewhere in
726 the range of 6.0% to 6.7%. My market risk premium falls in the range of 5.7%
727 to 6.6%. My average market risk premium of 6.2% is within Morningstar's range.

728 Morningstar estimates a forward-looking market risk premium based on
729 actual achieved data from the historical period of 1926 through 2012. Using this

¹⁹*Morningstar, Inc., Ibbotson SBBI 2013 Classic Yearbook*; Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012 at 88.

²⁰*Blue Chip Financial Forecasts*, April 1, 2014 at 2.

²¹ $\{ [(1 + 0.087) * (1 + 0.022)] - 1 \} * 100$.

²²*Morningstar, Inc. Ibbotson SBBI 2013 Classic Yearbook* at 87.

²³*Id.*

730 data, Morningstar estimates a market risk premium derived from the total return
731 on large company stocks (S&P 500), less the income return on Treasury bonds.
732 The total return includes capital appreciation, dividend or coupon reinvestment
733 returns, and annual yields received from coupons and/or dividend payments.
734 The income return, in contrast, only reflects the income return received from
735 dividend payments or coupon yields. Morningstar argues that the income return
736 is the only true risk-free rate associated with Treasury bonds and is the best
737 approximation of a truly risk-free rate.²⁴ I disagree with this assessment from
738 Morningstar, because it does not reflect a true investment option available to
739 the marketplace and therefore does not produce a legitimate estimate of the
740 expected premium of investing in the stock market versus that of Treasury
741 bonds. Nevertheless, I will use Morningstar's conclusion to show the
742 reasonableness of my market risk premium estimates.

743 Morningstar's range is based on several methodologies. First,
744 Morningstar estimates a market risk premium of 6.7% based on the difference
745 between the total market return on common stocks (S&P 500) less the income
746 return on Treasury bond investments. Second, Morningstar found that if the
747 New York Stock Exchange (the "NYSE") was used as the market index rather
748 than the S&P 500, that the market risk premium would be 6.5%, not 6.7%.
749 Third, if only the two deciles of the largest companies included in the NYSE
750 were considered, the market risk premium would be 6.0%.²⁵

²⁴*Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012* at 55.

²⁵Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 54.

751 Finally, Morningstar found that the 6.7% market risk premium based on
752 the S&P 500 was influenced by an abnormal expansion of price-to-earnings
753 (“P/E”) ratios relative to earnings and dividend growth during the period 1980
754 through 2001. Morningstar believes this abnormal P/E expansion is not
755 sustainable.²⁶ Therefore, Morningstar adjusted this market risk premium
756 estimate to normalize the growth in the P/E ratio to be more in line with the
757 growth in dividends and earnings. Based on this alternative methodology,
758 Morningstar published a long-horizon supply-side market risk premium of
759 6.0%.²⁷

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

761 A As shown in Exhibit FEA____(MPG-16), based on Morningstar’s market risk
762 premium of 6.7%, a risk-free rate of 4.50%, and a beta of 0.77, my CAPM
763 analysis produces a return of 9.65%.

764 This CAPM estimate reflects a projected risk-free rate that is
765 approximately 70 basis points higher than the current long-term risk-free rate as
766 proxied by the U.S. Treasury security. Using this projected Treasury bond yield
767 largely captures the additional risk in the marketplace related to the uncertainty
768 of long-term interest rates after the Federal Reserve discontinues its economic
769 stimulus intervention.

²⁶*Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012* at 54.

²⁷*Id.*

770 **Return on Equity Summary**

771 **Q** **BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
772 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY**
773 **DO YOU RECOMMEND FOR RMP?**

774 **A** Based on my analyses, I estimate RMP's current market cost of equity to be
775 9.40%.

<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	9.00%
Risk Premium	9.80%
CAPM	9.65%

776 My recommended return on common equity of 9.40% is the midpoint of
777 my estimated range of 9.00% to 9.80%. The high-end of my estimated range is
778 based on my risk premium studies, and the low-end is based on my DCF
779 studies. The midpoint of this range reflects current market capital costs,
780 increased interest rate risk in the current market due to Federal Reserve policies
781 and other factors, and represents fair compensation to RMP's investors for the
782 total investment risk of its regulated utility.

783 **Financial Integrity**

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

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

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

792 A S&P publishes a matrix of financial ratios that correspond to its assessment of
793 the business risk of the utility company and related bond rating. On May 27,
794 2009, S&P expanded its matrix criteria²⁸ by including additional business and
795 financial risk categories. Based on S&P's most recent credit matrix, the
796 business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair,"
797 "Weak," and "Vulnerable." Most electric utilities have a business risk profile of
798 "Excellent" or "Strong." The financial risk profile categories are "Minimal,"
799 "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged."
800 Most of the electric utilities have a financial risk profile of "Aggressive." RMP
801 has an "Excellent" business risk profile and a "Significant" financial risk profile.

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

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

²⁸S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*. "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

809 S&P publishes ranges for three primary financial ratios that it uses as
810 guidance in its credit review for utility companies. The three primary financial
811 ratio benchmarks it relies on in its credit rating process include: (1) Total Debt
812 to Total Capital; (2) Debt to Earnings Before Interest, Taxes, Depreciation and
813 Amortization (“EBITDA”); and (3) Funds From Operations (“FFO”) to Total
814 Debt.²⁹

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

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

²⁹*Standard & Poor’s RatingsDirect*: “Criteria Methodology: Business Risk/Financial Risk Matrix Expanded,” May 27, 2009.

826 **Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT EQUIVALENTS?**

827 A Yes. As shown on page 3 of my Exhibit FEA____(MPG-17), I included \$271
828 million of off-balance sheet debt equivalents including purchased power
829 agreements and operating leases and their associated interest and depreciation
830 expenses. I included these debt equivalents in my credit metric calculations.

831 **Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS**
832 **FOR RMP.**

833 A The S&P financial metric calculations for RMP at a 9.40% return are developed
834 on Exhibit FEA____(MPG-17), page 1.

835 RMP's adjusted total debt ratio is approximately 49.3%. This is within
836 the "Aggressive" utility guideline range of 50% to 60%. This total debt ratio will
837 support an investment grade bond rating.

838 As shown in Exhibit FEA____(MPG-17), page 1, column 1, based on an
839 equity return of 9.40%, RMP will be provided an opportunity to produce a debt
840 to EBITDA ratio of 3.2x. This is within S&P's "Significant" guideline range of
841 3.0x to 4.0x.³⁰ This ratio also supports an investment grade credit rating.

842 Finally, RMP's retail operations FFO to total debt coverage at a 9.40%
843 equity return is 22%, which is within S&P's "Significant" metric guideline range
844 of 20% to 30%. The FFO/total debt ratio will support an investment grade bond
845 rating.

³⁰*Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009 at 4.

846 At my recommended return on equity of 9.40% and the Company's
847 proposed capital structure, RMP's financial credit metrics are supportive of its
848 current investment grade utility bond rating.

849 **RESPONSE TO RMP WITNESS DR. SAMUEL HADAWAY**

850 **Q WHAT RETURN ON COMMON EQUITY IS RMP PROPOSING FOR THIS**
851 **PROCEEDING?**

852 A RMP is proposing to set rates based on a return on equity of 10.00%. RMP's
853 return on equity proposal is based on the analyses and judgment of Dr. Samuel
854 Hadaway. Dr. Hadaway's results are summarized at page 29 of his direct
855 testimony.

856 **Q DO DR. HADAWAY'S METHODOLOGIES SUPPORT HIS 10.00% RETURN**
857 **ON EQUITY?**

858 A No. As discussed in detail below, Dr. Hadaway's own analyses would support
859 a return on equity in the range of 8.9% to 9.4% if it is adjusted to reflect current
860 market data and his models are properly applied. These adjustments to Dr.
861 Hadaway's return on equity estimates support my recommended return on
862 equity of 9.40%.

863 **Q DOES DR. HADAWAY EXPRESS CONCERNS ABOUT THE RELIABILITY**
864 **OF MEASURING A UTILITY'S RETURN ON EQUITY BASED ON DCF AND**
865 **RISK PREMIUM STUDIES IN THIS CASE?**

866 A Yes. At pages 12 through 15 and 45-46 of his direct testimony, Dr. Hadaway
867 states he discounts the results of many of his studies because they are
868 produced through some of the historically lowest government induced interest
869 rates. He believes that this government intervention makes it difficult to interpret
870 the qualitative models and estimate a utility's cost of equity. He acknowledges
871 that utility stock prices have increased which has driven down utility dividend
872 yields, but he believes that the market volatility for utility stocks remains high.
873 Based on this assessment, he believes using a lower DCF return will understate
874 the cost of equity for utility companies.

875 **Q PLEASE RESPOND.**

876 A I appreciate Dr. Hadaway's concern about government stimulus efforts in long-
877 term interest rates.

878 These Federal Reserve efforts have driven down interest rates and have
879 maintained relatively low long-term interest rates for several years. This Federal
880 Reserve intervention in long-term interest rate markets likely will be further
881 tapered or terminated in the near future. However, the impact on long-term
882 interest rates once the Federal Reserve discontinues its economic stimulus
883 effort is not well known, nor can it be accurately predicted. Indeed, interest rates
884 have already increased in anticipation of the termination of these Federal

885 Reserve stimulus activities. It is simply not known how much, if any, long-term
886 interest rates will increase from current levels, or whether they have already fully
887 accounted for the termination of the Federal Reserve's quantitative easing
888 program. Nevertheless, I do agree that this Federal Reserve program does
889 introduce risk or uncertainty in long-term interest rate markets. Because of this
890 uncertainty, caution should be made estimating RMP's current return on
891 common equity in this case.

892 However, all market indicators suggest that utilities' cost of capital today
893 is at a historically low level, and will remain at historically low levels for the
894 foreseeable future. This is evident by observing utility bond yields, stock
895 dividend yields, and robust valuation metrics of utility stocks.

896 For example, as shown on my Exhibit FEA____(MPG-18), for the proxy
897 group, utility stock valuations based on market-to-book ratio, and price-to-
898 earnings ratio and market price to cash flow metrics, all exhibit very strong
899 valuations of utility stocks. This again is clear evidence that investors are
900 embracing utility investments (both equity and debt investments) as low-risk
901 stable investments.

902 Because of the market's preference and demand for stable low-risk
903 investments, utility security prices have been bid up, and their cost of capital
904 has declined. As such, it would be an injustice to customers to ignore this
905 historically low capital cost to utilities in developing the utilities' cost of service
906 and rates.

907 **Q IS THERE CERTAINTY THAT THE TAPERING OF THE FED'S**
908 **QUANTITATIVE EASING POLICY WILL RESULT IN AN INCREASE IN**
909 **UTILITIES' COST OF CAPITAL?**

910 A No. The Fed has tapered its quantitative easing three times in the last four
911 months, and interest rates for utility securities have not increased, but rather
912 have been stable to slightly lower. This is shown on my Exhibit FEA____(MPG-
913 19). Treasury yields, as well as interest rates for utility bonds rated "Baa" and
914 "A," have actually decreased in the 13-week period ending March 28, 2014,
915 compared to the 26-week average. This is significant because two of the three
916 times the Fed has announced tapering of the quantitative easing program have
917 taken place in the last 13 weeks: once in January 2014, and again in March
918 2014.

919 In these steps, the Fed reduced its procurement of collateralized
920 mortgage agreements and Treasury securities from \$85 billion a month prior to
921 December 2013, down to about \$55 billion a month currently. Despite this
922 tapering of the Fed's quantitative easing, utilities' cost of capital has not
923 increased. In fact, 30-year treasury yields have fallen 33 basis points, "Baa"
924 and "A" rated utility bond yields have fallen 33 and 35 basis points, respectively,
925 since December 13, 2013, the Friday before the Fed's first tapering
926 announcement

927 While the Fed's quantitative easing does create uncertainty about future
928 interest rates, it is not proper to interpret the risk as a certainty that interest rates
929 will increase once the Fed's quantitative easing is terminated.

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

932 A Dr. Hadaway develops his return on common equity recommendation using
933 three versions of the DCF model, and two utility risk premium analyses. I have
934 summarized Dr. Hadaway's results in Table 4 under column 1. Under column
935 2, I show the results of Dr. Hadaway's analyses adjusted for updated data and
936 more reasonable application of the models.

937 As shown in Table 4, using consensus economists' projection of GDP
938 growth rather than Dr. Hadaway's inflated GDP growth estimates, his own DCF
939 analyses would support a return on equity for RMP in the range of 8.7% to 9.1%,
940 with an average of 8.9%. Proper adjustments to Dr. Hadaway's utility risk
941 premium estimates to reflect the unadjusted equity risk premium would reduce
942 this estimate from 10.2% to 9.3%. Therefore, Dr. Hadaway's return on equity
943 estimate with reasonable adjustments will produce a return on equity for RMP
944 in the range of 8.9% to 9.3%.

TABLE 4

Summary of Dr. Hadaway's Return on Equity Estimate

Description	Hadaway Results ¹ (1)	Adjusted Hadaway Results ² (2)
<u>DCF Analysis</u>		
Constant Growth (Analysts' Growth)	9.1%	9.1%
Constant Growth (GDP Growth)	9.6% - 9.7%	8.7%
Multi-Stage Growth Model	<u>9.5% - 9.6%</u>	<u>8.8%</u>
Indicated DCF Range	9.1% - 9.7%	8.9%
<u>Risk Premium Analysis</u>		
Forecasted Utility Yield + Equity Risk Premium	10.1%	9.3%
3-Mo. Average Utility Yield + Equity Risk Premium	<u>10.0%</u>	<u>9.3%</u>
Risk Premium Estimate	10.0%	9.3%
Proposed Return on Equity	10.0%	
Adjusted Return on Equity		8.9% - 9.3%

Sources:

¹Hadaway Direct at 29.

² Exhibit FEA___(MPG-20), and pp. 48-52.

945 Q PLEASE DESCRIBE DR. HADAWAY'S CONSTANT GROWTH DCF
946 ANALYSIS.

947 A Dr. Hadaway's constant growth DCF analysis is shown on his
948 Exhibit RMP___(SCH-5), page 2. As shown on that exhibit, Dr. Hadaway's
949 constant growth DCF analysis is based on a recent stock price, an annualized
950 dividend and an average of three growth rates: (1) *Value Line*; (2) Zacks; and
951 (3) Thomson.

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

953 A No, for at least two reasons. First, Dr. Hadaway's constant growth DCF based
954 on analyst growth rates produces a high return estimate because his analyst
955 growth DCF study is based on growth rate estimates of 4.98%, which is higher
956 than the consensus growth outlook of the U.S. GDP.

957 Second, his GDP growth rate used in his constant growth and multi-stage
958 growth models is based on an inflated GDP growth rate of 5.63%. (Exhibit
959 RMP____(SCH-5), page 3). This GDP growth is excessive and not reflective of
960 current market participant consensus outlooks.

961 **Q PLEASE DESCRIBE DR. HADAWAY'S CONSTANT GROWTH DCF MODEL**
962 **USING ANALYSTS' GROWTH RATE PROJECTIONS.**

963 A Dr. Hadaway develops his constant growth DCF study using analysts' growth
964 projections on his Exhibit RMP____(SCH-5), page 2. As shown on that exhibit,
965 he relies on projected growth rates from *Value Line*, *Zacks* and *Thomson*. He
966 relies on an average growth rate of 4.98% for his proxy group. This
967 methodology produces a DCF return of 9.1%.

968 As noted above, the group average growth rate of 4.98% is above a
969 reasonable estimate of a long-term sustainable growth of around 4.7%. As
970 such, Dr. Hadaway's DCF estimate is approximately 30 basis points higher than
971 that which would be produced through a reasonable and sustainable long-term
972 growth rate estimate.

973 As such, Dr. Hadaway's constant growth DCF analysis is overstated
974 because it relies on excessive growth rates.

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

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

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

983 A The consensus economists' projected GDP growth rate is much lower than the
984 GDP growth rate used by Dr. Hadaway in his DCF analysis. A comparison of
985 Dr. Hadaway's GDP growth rate and consensus economists' projected GDP
986 growth over the next five and ten years is shown in Table 5. As shown in this
987 table, Dr. Hadaway's GDP rate of 5.63% reflects real GDP of 2.7% and an
988 inflation outlook of 2.9%. However, consensus economists' projections of
989 nominal GDP include GDP inflation projections over the next five and ten years
990 of 2.1%.³¹

³¹*Blue Chip Economic Indicators*, March 10, 2014 at 14.

991 As is clearly evident in Table 5, Dr. Hadaway's historical GDP growth
992 reflects historical inflation, which is much higher than, and not representative of,
993 consensus market expected forward-looking inflation.

<u>Description</u>	<u>GDP Inflation</u>	<u>Real GDP</u>	<u>Nominal GDP</u>
Dr. Hadaway ¹	2.9%	2.7%	5.6%
Consensus Five-Year Projection ²	2.1%	2.6%	4.8%
Consensus Ten-Year Projection ²	2.1%	2.4%	4.6%

Sources:
¹Exhibit RMP___(SCH-4).
²*Blue Chip Economic Indicators*, March 10, 2014 at 14.

994 As such, Dr. Hadaway's 5.63% nominal GDP growth rate is not reflective of
995 consensus market inflation outlooks and should be rejected.

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

999 **A** As shown in Exhibit FEA___(MPG-20), I updated Dr. Hadaway's DCF analyses
1000 using a GDP growth rate of 4.7%. This GDP growth rate is the consensus
1001 economists' five- and ten-year projected growth rate of the GDP as published
1002 in *Blue Chip Economic Indicators*. As shown in Exhibit FEA___(MPG-20), using

1003 this consensus economists' projected GDP growth rate, reduces Dr. Hadaway's
1004 long-term GDP growth DCF result from 9.6% to 8.77%, rounded to 8.8%.

1005 **Q PLEASE SUMMARIZE YOUR ADJUSTMENTS TO DR. HADAWAY'S DCF**
1006 **STUDIES.**

1007 A Using a more reasonable GDP growth rate, reduces the average DCF result
1008 produced by Dr. Hadaway's studies from 9.5% down to 8.9%. Dr. Hadaway's
1009 original estimates, and these updated and adjusted results are shown below in
1010 Table 6.

Description	Range Average	
	<u>Hadaway DCF</u>	<u>Adjusted DCF</u>
Constant Growth (Analysts' Growth)	9.1%	9.1%
Constant Growth (GDP Growth)	9.7%	8.7%
Multi-Stage Growth Model	<u>9.6%</u>	<u>8.8%</u>
Average	9.5%	8.9%

1011 As shown above in Table 6, using a consensus economists' GDP forecast,
1012 rather than the GDP forecast derived by Dr. Hadaway, would support a return
1013 on equity for RMP of 8.9%.

1014 **Q PLEASE DESCRIBE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSIS.**

1015 A Dr. Hadaway's utility bond yield versus authorized return on common equity risk
1016 premium is shown in Exhibit RMP____(SCH-6). As shown in this exhibit,
1017 Dr. Hadaway estimated an annual equity risk premium by subtracting Moody's

1018 average bond yield from the electric utility regulatory commission authorized
1019 return on common equity over the period 1980 through 2012. Based on this
1020 analysis, Dr. Hadaway estimates an average indicated equity risk premium over
1021 current utility bond yields of 3.41%.

1022 Dr. Hadaway then adjusts this average equity risk premium using a
1023 regression analysis based on an expectation that there is an ongoing inverse
1024 relationship between interest rates and equity risk premiums. Based on this
1025 regression analysis, Dr. Hadaway increases his equity risk premium from
1026 3.41%, up to 4.94% and 5.09%, respectively, relative to projected and current
1027 "A" rated bond yields of 5.78%, 4.98% and 5.26%. He then adds these inflated
1028 equity risk premiums to the projected and current "A" rated utility bond yields of
1029 5.11% and 4.76%, respectively, to produce a return on equity in the range of
1030 9.9% to 10.1%.

1031 **Q ARE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSES**
1032 **REASONABLE?**

1033 **A** No. Dr. Hadaway develops a forward-looking risk premium model, relying on
1034 forecasted interest rates and volatile utility spreads, which are highly uncertain
1035 and produce inaccurate results. Further, Dr. Hadaway's proposal to adjust the
1036 actual equity risk premium of 3.41% to reflect the inverse relationship between
1037 interest rates and utility risk premiums to 4.94% to 5.09% is unreasonable. This
1038 adjustment is inappropriate and not consistent with academic literature that

1039 finds that this relationship should change with changes to investment risk and
1040 not simply changes to interest rates.

1041 **Q DO YOU HAVE ANY COMMENTS CONCERNING DR. HADAWAY'S**
1042 **FORECASTED UTILITY BOND YIELD OF 5.78%?**

1043 A Yes. Dr. Hadaway develops his forecasted utility bond yield based on the 3-
1044 month historical spread of A-rated utility bond yields and 30-year Treasury yields
1045 of 1.00% added to his projected long-term Treasury yield of 4.11%. This
1046 approach is unreasonable because Dr. Hadaway relies on projected interest
1047 rates. The accuracy of his projections are highly problematic. Indeed, while
1048 interest rates have been projected to increase over the last several years, those
1049 increased interest rate projections have turned out to be wrong.

1050 **Q WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED**
1051 **INTEREST RATES IS HIGHLY PROBLEMATIC?**

1052 A Over the last several years, observable current interest rates have been a more
1053 accurate predictor of future interest rates than economists' consensus
1054 projections. Exhibit FEA____(MPG-21) illustrates this point. On this exhibit,
1055 under Columns 1 and 2, I show the actual market yield at the time a projection
1056 is made for Treasury bond yields two years in the future. In Column 1, I show
1057 the actual Treasury yield and, in Column 2, I show the projected yield two years
1058 out.

1059 As shown in Columns 1 and 2, over the last several years, Treasury
1060 yields were projected to increase relative to the actual Treasury yields at the
1061 time of the projection. In Column 4, I show what the Treasury yield actually
1062 turned out to be two years after the forecast. Under Column 5, I show the actual
1063 yield change at the time of the projections relative to the projected yield change.

1064 As shown in this exhibit, over the last several years, economists
1065 consistently have been projecting that interest rates will increase. However, as
1066 shown under Column 5, those yield projections have turned out to be overstated
1067 in virtually every case. Indeed, actual Treasury yields have decreased or
1068 remained flat over the last five years, rather than increased as the economists'
1069 projections indicated. As such, current observable interest rates are just as
1070 likely to accurately predict future interest rates as are economists' projections.

1071 **Q WHY IS DR. HADAWAY'S USE OF A SIMPLE INVERSE RELATIONSHIP**
1072 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS NOT**
1073 **REASONABLE?**

1074 **A**Dr. Hadaway's belief that there is a simplistic inverse relationship between
1075 equity risk premiums and interest rates is not supported by academic research.
1076 While academic studies have shown that, in the past, there has been an inverse
1077 relationship with these variables, researchers have found that the relationship
1078 changes over time and is influenced by changes in perception of the risk of bond

1079 investments relative to equity investments, and not simply changes to interest
1080 rates.³²

1081 In the 1980s, equity risk premiums were inversely related to interest
1082 rates, but that was likely attributable to the interest rate volatility that existed at
1083 that time. Interest rate volatility currently is much lower than it was in the
1084 1980s.³³ As such, when interest rates were more volatile, the relative
1085 perception of bond investment risk increased relative to the investment risk of
1086 equities. This changing investment risk perception caused changes in equity
1087 risk premiums.

1088 In today's marketplace, interest rate variability is not as extreme as it was
1089 during the 1980s. Nevertheless, changes in the perceived risk of bond
1090 investments relative to equity investments still drive changes in equity
1091 premiums. However, a relative investment risk differential cannot be measured
1092 simply by observing changes to nominal interest rates. Changes in nominal
1093 interest rates are highly influenced by changes to inflation outlooks, which also
1094 change equity return expectations. As such, the relevant factor needed to
1095 explain changes in equity risk premiums is the relative changes to the risk of
1096 equity versus debt securities investments, not simply changes to interest rates.

1097 Importantly, Dr. Hadaway's analysis simply ignores investment risk
1098 differentials. He bases his adjustment to the equity risk premium exclusively on

³²"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.

³³Morningstar SBBI, 2009 Yearbook at 95-96.

1099 changes in nominal interest rates. This is a flawed methodology and does not
1100 produce accurate or reliable risk premium estimates. His results should be
1101 rejected by the Commission.

1102 **Q CAN DR. HADAWAY'S RISK PREMIUM ANALYSES BASED ON CURRENT**
1103 **AND PROJECTED YIELDS BE MODIFIED TO PRODUCE MORE**
1104 **REASONABLE RESULTS?**

1105 A Yes. Eliminating the inverse relationship adjustment to the equity risk premium
1106 of 3.41% and relying on an updated current "Baa" rated utility yield of 5.03% will
1107 result in a return on equity risk premium of 8.44%. Using Dr. Hadaway's equity
1108 risk premium of 5.09% as shown in his Exhibit RMP____(SCH-6) and the current
1109 "Baa" rated utility yield of 5.03% will result in a return of 10.12%. An updated
1110 risk premium study using Dr. Hadaway's methodology would be in the range of
1111 8.44% to 10.12%, with a midpoint of 9.28%, rounded to 9.3%.

1112 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

1113 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,
3 Suite 140, 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
6 with Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory
7 consultants.

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

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

15 In August of 1983, I accepted an analyst position with the Illinois
16 Commerce Commission ("ICC"). In this position, I performed a variety of anal-
17 yses for both formal and informal investigations before the ICC, including:
18 marginal cost of energy, central dispatch, avoided cost of energy, annual
19 system production costs, and working capital. In October of 1986, I was

1 promoted to the position of Senior Analyst. In this position, I assumed the
2 additional responsibilities of technical leader on projects, and my areas of
3 responsibility were expanded to include utility financial modeling and financial
4 analyses.

5 In 1987, I was promoted to Director of the Financial Analysis Department.
6 In this position, I was responsible for all financial analyses conducted by the
7 Staff. Among other things, I conducted analyses and sponsored testimony
8 before the ICC on rate of return, financial integrity, financial modeling and
9 related issues. I also supervised the development of all Staff analyses and
10 testimony on these same issues. In addition, I supervised the Staff's review and
11 recommendations to the Commission concerning utility plans to issue debt and
12 equity securities.

13 In August of 1989, I accepted a position with Merrill-Lynch as a financial
14 consultant. After receiving all required securities licenses, I worked with indi-
15 vidual investors and small businesses in evaluating and selecting investments
16 suitable to their requirements.

17 In September of 1990, I accepted a position with Drazen-Brubaker &
18 Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc.
19 was formed. It includes most of the former DBA principals and Staff. Since
20 1990, I have performed various analyses and sponsored testimony on cost of
21 capital, cost/benefits of utility mergers and acquisitions, utility reorganizations,
22 level of operating expenses and rate base, cost of service studies, and analyses
23 relating to industrial jobs and economic development. I also participated in a

1 study used to revise the financial policy for the municipal utility in Kansas City,
2 Kansas.

3 At BAI, I also have extensive experience working with large energy users
4 to distribute and critically evaluate responses to requests for proposals (“RFPs”)
5 for electric, steam, and gas energy supply from competitive energy suppliers.
6 These analyses include the evaluation of gas supply and delivery charges,
7 cogeneration and/or combined cycle unit feasibility studies, and the evaluation
8 of third-party asset/supply management agreements. I have participated in rate
9 cases on rate design and class cost of service for electric, natural gas, water
10 and wastewater utilities. I have also analyzed commodity pricing indices and
11 forward pricing methods for third party supply agreements, and have also
12 conducted regional electric market price forecasts.

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

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

16 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost
17 of service and other issues before the Federal Energy Regulatory Commission
18 and numerous state regulatory commissions including: Arkansas, Arizona,
19 California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa,
20 Kansas, Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico,
21 New York, North Carolina, Ohio, Oklahoma, Oregon, South Carolina,
22 Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia,

1 Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta and
2 Nova Scotia, Canada. I have also sponsored testimony before the Board of
3 Public Utilities in Kansas City, Kansas; presented rate setting position reports
4 to the regulatory board of the municipal utility in Austin, Texas, and Salt River
5 Project, Arizona, on behalf of industrial customers; and negotiated rate disputes
6 for industrial customers of the Municipal Electric Authority of Georgia in the
7 LaGrange, Georgia district.

8 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
9 **ORGANIZATIONS TO WHICH YOU BELONG.**

10 A I earned the designation of Chartered Financial Analyst (“CFA”) from the CFA
11 Institute. The CFA charter was awarded after successfully completing three
12 examinations which covered the subject areas of financial accounting,
13 economics, fixed income and equity valuation and professional and ethical
14 conduct. I am a member of the CFA Institute’s Financial Analyst Society.

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