#### **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. 10-035-124

Direct Testimony and Exhibits of

#### **Michael Gorman**

On behalf of

The Federal Executive Agencies (FEA)

Project 9432 May 11, 2011



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#### **Direct Testimony of Michael Gorman**

- 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A Michael 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

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

#### 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.

**SUMMARY** 

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#### Q PLEASE SUMMARIZE YOUR RETURN ON EQUITY RECOMMENDATIONS.

Based on RMP's proposed capital structure, I recommend the Public Service Commission of Utah (the "Commission") award RMP a return on common equity of 9.80%, which is the midpoint of my estimated range of 10.0% to 9.60%.

Based on my proposed return on equity and RMP's proposed capital structure, I recommend an overall rate of return of 7.89% for RMP, as shown on Exhibit FEA-1 (MPG-1).

I demonstrate that my recommended return on equity and RMP's proposed capital structure will provide RMP with an opportunity to realize cash flow financial coverages and balance sheet strength that conservatively support RMP's current bond rating. Consequently, my recommended return on equity represents fair compensation for RMP's investment risk, and it will preserve the Company's financial integrity and credit standing.

I will also respond to RMP witness Dr. Samuel Hadaway's proposed return on equity of 10.5% and explain why his recommended return on equity for RMP is excessive and should be rejected.

#### 33 Q WHAT METHODOLOGY DID YOU USE TO ESTIMATE RMP'S CURRENT 34 MARKET COST OF EQUITY? I began by developing a proxy group of publicly traded utility companies that have 35 Α investment risk similar to RMP. I then performed three versions of the Discounted 36 37 Cash Flow ("DCF") model, Risk Premium ("RP") study, and Capital Asset Pricing 38 Model ("CAPM") analysis. Based on these assessments, and as discussed in more 39 detail below, I estimate RMP's current market cost of equity to be 9.80%.

#### 40 Q HOW IS YOUR TESTIMONY ORGANIZED?

- 41 A My testimony is organized into the following sections:
- 42 1. I will review the current electric utility industry market outlook.
- 43 2. I will review the investment risk of RMP.

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- 3. I will estimate a fair return on equity for RMP.
- 4. I will show that my recommended rate of return will support RMP's financial integrity and investment grade bond rating.
- 5. Finally, I will respond to RMP witness Dr. Hadaway's recommended return on equity of 10.5% and explain why it is excessive and unreasonable.

#### **ELECTRIC UTILITY INDUSTRY MARKET OUTLOOK**

#### Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

I review the credit rating and investment return performance of the electric utility industry. Based on the assessments described below, I find the credit rating outlook of the industry to be strong and supportive of the industry's financial integrity. Further, electric utilities' stocks have exhibited strong return performance and are characterized as a safe investment.

#### Q PLEASE DESCRIBE THE ELECTRIC UTILITIES' CREDIT RATING OUTLOOK.

A Electric utilities' credit rating outlook is improving over the recent past. Standard & Poor's ("S&P") recently provided an assessment of the credit rating of U.S. electric utilities for 2010. S&P's commentary included the following:

#### Solid Industry Fundamentals Support Stable Outlook

Throughout 2010, U.S. electric utilities performed well amid continuing With rebounding markets, external favorable access to capital. financing activity for the U.S. regulated electric utility industry was about \$35 billion, well below the \$48 billion in more difficult market conditions in 2009. Companies have continued to proactively pre-finance maturities, taking advantage of investor appetite and favorable spreads, and focused on strengthening their balance sheets and liquidity. Investor appetite for first mortgage bonds remained healthy, with deals continuing to be oversubscribed. fundamentals indicate that most, if not all, electric utilities should continue to have ample access to capital markets and credit. Liquidity, an industry-wide strength, has been improving. Banking syndicates are expressing willingness to negotiate credit facilities, now with lengthening terms.1

Similarly, Fitch states:

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#### **Rating Outlook**

Stable Credit Outlook for Most Segments: Relatively low prices for natural gas and power, low interest rates, open capital-market conditions, and a slow economic recovery forecasted by Fitch Ratings for 2011 are the foundation for a <u>stable credit outlook</u> for most business segments within the utilities, power, and gas (UPG) sector. Fitch's 2011 credit outlook for investor-owned gas and electric utilities, utility parent companies, pipelines, and midstream gas companies is stable. A significant exception is the negative 2011 credit outlook for competitive generators, whose profit margins and cash flows are subject to continuing compression from low gas and power prices and an overhang of excess power capacity.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>Standard & Poor's RatingsDirect on the Global Credit Portal: "Industry Economic And Ratings Outlook: Stable Industry Outlook For U.S. Regulated Electric Utilities Supports Ratings," January 14, 2011, emphasis added.

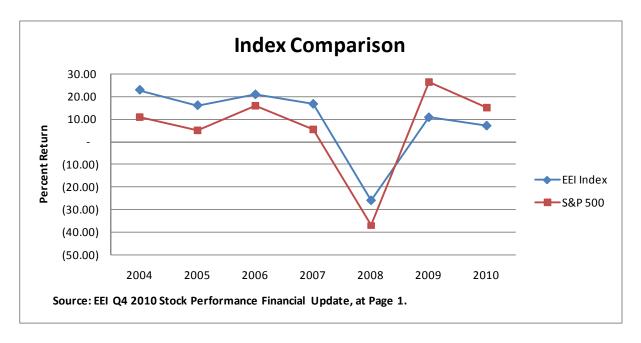
<sup>&</sup>lt;sup>2</sup>Fitch Ratings: "2011 Outlook: U.S. Utilities, Power, and Gas," December 20, 2010, emphasis added.

88 Value Line also continues to characterize utility stock investments as a safe haven: 89 Conclusion 90 The main appeal of electric utility stocks continues to be the prospect 91 of consistent income in the form of quarterly dividends, coupled with relative stability. Each utility in this Issue offers a dividend, which for 92 93 the most part, is guite generous in relation to those in other industries. 94 Although valuation concerns have arisen as of late due to the recent increase in utility stock prices, we believe that these equities remain a 95 96 popular safe haven for conservative investors.3 97 The Edison Electric Institute ("EEI") also opined as follows: 98 Many regulated utilities are engaged in capital spending programs that 99 should help drive solid mid- to high-single-digit earnings growth over the next several years, which will augment the group's strong dividend 100 101 yield.4 102 PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE OVER Q 103 THE LAST FIVE YEARS. 104 Α As shown in Figure 1 below, the EEI has recorded electric utility stock price 105 performance compared to the market. The EEI data shows that its Electric Utility 106 Index has generally outperformed the market over the last few years (2004-2010).

<sup>&</sup>lt;sup>3</sup> Value Line Investment Survey, November 26, 2010 at 139, emphasis added.

<sup>&</sup>lt;sup>4</sup>EEI Q4 2010 Financial Update at 1, emphasis added.

FIGURE 1



During 2009 and 2010, the EEI Index underperformed the market, which is not unusual for stocks that are considered "safe havens" during periods of market turbulence. The EEI states the following:

The EEI Index produced a 1.3% return in the fourth quarter of 2010, significantly trailing the Dow Jones Industrials' 8.0% return, the S&P 500's 10.7% return and the Nasdaq Composite's 12.0% gain. During the quarter, the broad market sustained the rally that began in July on signs that the U.S. economy would avoid a dip back into recession and that Europe's political leaders would find a way to defuse the sovereign debt crisis affecting its weaker economies, avoiding a traumatic impact on the stability of European banks. Fears of slowing U.S. growth and the eruption of Europe's sovereign debt worries had driven the broad market down during May and June, while regulated utilities stocks outperformed. In a strong quarter for the market, one might expect utilities to underperform, and indeed they did during Q4.

\* \* \*

By late in the year, most industry analysts were commenting that utility price earnings multiples had climbed above their historical average levels and that the undervaluation evident earlier in the year had largely disappeared. However, with interest rates as low as they are and the risk of a return to broad economic weakness still very much in play, there was a general sense of confidence that the sector's capital investment growth potential and strong dividend yields offer a floor of

renewed weakness.5 131 132 RMP INVESTMENT RISK 133 Q PLEASE PROVIDE A BRIEF OVERVIEW OF RMP AND ITS INVESTMENT 134 CHARACTERISTICS. 135 Α PacifiCorp does business as RMP in Utah, Wyoming, and Idaho and Pacific Power in 136 Oregon, Washington and California. PacifiCorp is owned by MidAmerican Energy 137 Holdings Company ("MEHC"). RMP's current senior secured bond ratings from S&P 138 and Moody's are "A" and "A2," respectively.6 RMP's corporate credit ratings from S&P and Moody's are "A-" and "Baa1," respectively.<sup>7</sup> 139 140 Specifically, S&P states the following: 141 Rationale 142 The 'A-' corporate credit rating on PacifiCorp (PPW) reflects its "excellent" business risk profile, evidenced by a diverse and growing 143 144 service territory, and "significant" financial risk profile. PPW has made 145 modest strides in improving regulatory outcomes which should put the company on a path to achieving cash flow coverage metrics that 146 147 comfortably support the rating. The company has made progress in 148 increasing core earnings amid a recession and a period of heavy 149 capital spending for the company. 150 151 **Outlook** 152 The stable outlook on the PPW ratings incorporates our expectation 153 that MEHC will continue to support the utility by contributing equity sufficient to ensure that fully adjusted debt to total capitalization is 154 managed over the next few years to a level of closer to 50% and that 155 156 FFO to total debt and FFO interest coverage will be in the area of 20% and the 4.0x-4.5x range, respectively. Given that PPW's financial risk 157 158 profile is weak for the ratings, we do not expect near-term upward 159 ratings momentum for the utility. PPW's regulatory and structural

support for its stock prices, especially if the economy should suffer

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<sup>&</sup>lt;sup>5</sup>EEI Q4 2010 Financial Update at 1, 4 and 6, emphasis added.

<sup>&</sup>lt;sup>6</sup>Hadaway Direct at 3.

<sup>&</sup>lt;sup>7</sup>SNL Financial, downloaded on May 4, 2011.

160 insulation shields the utility from MEHC credit deterioration, to an 161 extent. Specifically, our criteria provide that the PPW corporate credit 162 rating can be no more than three notches above the MEHC consolidated credit rating. The company is comfortably within this 163 range, so we do not see significant risks that the utility rating will fall as 164 165 a result of adverse rating changes on MEHC, which also has a stable rating outlook.8 166 167 Similarly, Moody's confirms RMP's supportive regulatory treatment: 168 **Rating Rationale** 169 PacifiCorp's Baa1 rating for its senior unsecured obligations is driven 170 by the stability of its regulated cash flows, the geographically diverse 171 and relatively constructive regulatory environments in which it operates, the diversification of its generation portfolio, credit metrics 172 173 that are within the ranges appropriate for a regulated utility rated Baa1. 174 The rating also considers PacifiCorp's position as a subsidiary of 175 MEHC, a holding company whose subsidiaries are primarily engaged in regulated activities. 176 177 178 PacifiCorp's credit metrics are toward the upper end of the ranges 179 indicated in the Methodology for utilities rated Baa, which is consistent 180 with PacifiCorp's Baa1 rating.9 181 Q WHAT DO YOU RECOMMEND THE COMMISSION TAKE FROM THIS CREDIT 182 REPORT REVIEW OF THE REGULATORY TREATMENT RMP IS RECEIVING? 183 Credit analysts consider the regulatory treatment for RMP to be constructive and Α 184 supportive of RMP's "Excellent" business risk profile and stable investment grade 185 credit standing.

<sup>&</sup>lt;sup>8</sup>Standard & Poor's RatingsDirect on the Global Credit Portal: "PacifiCorp," October 7, 2010, emphasis added.

<sup>&</sup>lt;sup>9</sup>Moody's Investors Service Global Credit Research: "Credit Opinion: PacifiCorp," August 6, 2010, provided by RMP as Attachment FEA 7.3-2, page 18 of 57.

186		RMP'S PROPOSED CAPITAL STRUCTURE
187	Q	WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE TO
188		DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC OPERATIONS IN
189		THIS PROCEEDING?
190	Α	RMP's 2010 forecasted capital structure, as supported by RMP witness Mr. Bruce N.
191		Williams, is shown below in Table 1.

TABLE 1 <u>RMP's Proposed Capital Structure</u> (June 30, 2012)		
Description	Percent of Total Capital	
Long-Term Debt Preferred Stock Common Equity Total Capital Structure	47.8% 0.3% <u>51.9</u> % 100.0%	
Source: Williams Direct at 2.		

## ARE YOU PROPOSING ANY ADJUSTMENTS TO PACIFICORP'S PROPOSED CAPITAL STRUCTURE IN THIS PROCEEDING?

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No. PacifiCorp is moving its capital structure common equity ratio down toward its long-term target of roughly 50% debt and 50% equity. As outlined in Mr. Williams' testimony, PacifiCorp is pursuing this target by issuing debt, and starting to pay a dividend payment to MEHC. While PacifiCorp's current capital structure still represents more common equity than that targeted by Mr. Williams, it is a significant movement in the right direction. Specifically, prior to the initiation of a dividend payment, PacifiCorp's common equity ratio exceeded 53%. With dividend payments and the planned debt issue, the capital structure weight of total capital has declined to

approximately 51.9%. This is a positive development, but PacifiCorp should continue to reduce its common equity ratio of total capital until it achieves its target 50% weight of total capital. Pursuing this target capital structure objective will help minimize PacifiCorp's overall rate of return, maintain its financial integrity, and keep its cost of service as competitive as possible.

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#### **RETURN ON COMMON EQUITY**

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

A utility's cost of common equity is the return investors expect, or require, in order to make an investment. Investors expect to achieve their return requirement from receiving dividends and stock price appreciation.

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

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

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

224	Q	PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE COST	
225		OF COMMON EQUITY FOR RMP.	
226	Α	I have used several models based on financial theory to estimate RMP's cost of	
227		common equity. These models are: (1) a constant growth Discounted Cash Flow	
228		("DCF") model; (2) a sustainable growth DCF model; (3) a multi-stage growth DCF	
229		model; (4) a Risk Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I	
230		have applied these models to a group of publicly traded utilities that I have	
231		determined reflect investment risk similar to RMP.	
232	Q	HOW DID YOU SELECT A PROXY GROUP OF UTILITIES SIMILAR IN	
233		INVESTMENT RISK TO RMP TO ESTIMATE ITS CURRENT MARKET COST OF	
234		EQUITY?	
235	Α	I relied on the same proxy group used by RMP witness Dr. Hadaway to estimate	
236		RMP's return on equity, with the exception of three companies: DPL Inc., Duke	
237		Energy, and Progress Energy. I excluded these companies because they are	
238		involved in mergers or acquisitions. Duke Energy is acquiring Progress Energy, and	
239		AES Corp. has announced a plan to acquire DPL Inc.	
240	Q	HOW DOES THIS PROXY GROUP'S INVESTMENT RISK COMPARE TO THE	
241		INVESTMENT RISK OF RMP?	
242	Α	The proxy group is shown on Exhibit FEA-2 (MPG-2). This proxy group has an	
243		average senior secured credit rating from S&P of "A-," which is comparable to RMP's	
244		senior secured credit rating from S&P of "A." The proxy group's senior secured credit	
245		rating from Moody's is "A2," which is identical to RMP's senior secured credit rating	

from Moody's. Therefore, my proxy group has comparable total investment risk to RMP.

The proxy group has an average common equity ratio of 45.5% (including short-term debt) from AUS and 48.2% (excluding short-term debt) from *Value Line* in 2009. This proxy group's common equity ratio is lower than RMP's proposed common equity ratio of 51.9%. RMP's higher common equity ratio is an indication that RMP has less financial risks than the proxy group.

I also compared RMP's business risk to the business risk of my proxy group based on S&P's ranking methodology. RMP has a business risk profile of "Excellent," which is identical to the risk profile of my proxy group. S&P's profile score methodology is discussed later in my testimony.

#### **Discounted Cash Flow Model**

#### Q PLEASE DESCRIBE THE DCF MODEL.

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

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

 $P_0$  = Current stock price

D = Dividends in periods 1 - ∞

K = Investor's required return

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

270		$K = D_1/P_0 + G   (Equation 2)$		
271 272 273 274		<ul> <li>K = Investor's required return</li> <li>D<sub>1</sub> = Dividend in first year</li> <li>P<sub>0</sub> = Current stock price</li> <li>G = Expected constant dividend growth rate</li> </ul>		
275		Equation 2 is referred to as the annual "constant growth" DCF model.		
276	Q	PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.		
277	Α	As shown under Equation 2 above, the DCF model requires a current stock price,		
278		expected dividend, and expected growth rate in dividends.		
279	Q	WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR		
280		CONSTANT GROWTH DCF MODEL?		
281	Α	I relied on the average of the weekly high and low stock prices over a 13-week period		
282		ended April 21, 2011. An average stock price is less susceptible to market price		
283		variations than a spot price. Therefore, an average stock price is less susceptible to		
284		aberrant market price movements, which may not be reflective of the stock's		
285		long-term value.		
286		A 13-week average stock price is still short enough to contain data that		
287		reasonably reflect current market expectations, but is not so short a period as to be		
288		susceptible to market price variations that may not be reflective of the security's		
289		long-term value. In my judgment, a 13-week average stock price is a reasonable		
290		balance between the need to reflect current market expectations and the need to		
291		capture sufficient data to smooth out aberrant market movements.		
292		I used the most recently paid quarterly dividend, as reported in The Value Line		
293		Investment Survey. This dividend was annualized (multiplied by 4) and adjusted for		

next year's growth to produce the D<sub>1</sub> factor for use in Equation 2 above.

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## Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT GROWTH DCF MODEL?

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There are several methods one can use in order to estimate the expected growth in dividends. However, for purposes of determining the market required return on common equity, one must attempt to estimate investors' consensus about what the dividend or earnings growth rate will be, and not what an individual investor or analyst may use to form individual investment decisions.

Security analysts' growth estimates have been shown to be more accurate predictors of future returns than growth rates derived from historical data because they are more reliable estimates. Assuming the market generally makes rational investment decisions, analysts' growth projections are more likely the growth rate estimates considered by the market that influence observable stock prices than are growth rates derived from only historical data.

For my constant growth DCF analysis, I have relied on a consensus, or mean, of professional security analysts' earnings growth estimates as a proxy for the investor consensus dividend growth rate expectations. I used the average of three sources of analysts' growth rate estimates: Zacks, SNL Financial and Reuters. All consensus analysts' projections used were available on April 21, 2011, as reported online.

Each consensus growth rate projection is based on a survey of security analysts. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. It is problematic as to whether any particular analyst's forecast is more representative of general market

<sup>&</sup>lt;sup>10</sup>See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

319		expectations. Therefore, a simple average, or arithmetic mean, of analyst forecasts is	
320		a good proxy for market consensus expectations.	
321	Q	WHAT IS THE GROWTH RATE YOU USED IN YOUR CONSTANT GROWTH DCF	
322		MODEL?	
323	Α	The growth rates I used in my DCF analysis are shown in Exhibit FEA-3 (MPG-3).	
324		The average and median growth rates for my proxy group are 5.38% and 5.33%,	
325		respectively.	
326	Q	WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?	
327	Α	As shown in Exhibit FEA-4 (MPG-4), the average constant growth DCF return for the	
328		proxy group is 9.81%.	
329	Q	DO YOU HAVE ANY COMMENTS CONCERNING THE RESULTS OF YOUR	
330		CONSTANT GROWTH DCF ANALYSIS?	
331	Α	Yes. The three- to five-year growth rate exceeds a long-term sustainable growth rate	
332		as required by the constant growth DCF model.	
333	Q	WHY DO YOU BELIEVE THE PROXY GROUP'S THREE- TO FIVE-YEAR	
334		GROWTH RATE IS IN EXCESS OF A LONG-TERM SUSTAINABLE GROWTH?	
335	Α	The three- to five-year growth rate of the proxy group exceeds the growth rate of the	
336		overall U.S. economy. As developed below, the consensus of published economists	
337		projects that the U.S. Gross Domestic Product ("GDP") will grow at a rate of no more	
338		than 5.1% and 4.7% over the next 5 and 10 years, respectively. A company cannot	
339		grow, indefinitely, at a faster rate than the market in which it sells its products. The	

340 U.S. economy, or GDP, growth projection represents a ceiling, or high-end, 341 sustainable growth rate for a utility over an indefinite period of time.

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## Q WHY IS THE GDP GROWTH PROJECTION CONSIDERED A CEILING GROWTH RATE FOR A UTILITY?

Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the overall economy. Utilities' earnings/dividend growth is created by increased utility investment or rate base. Utility plant investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth, and sales growth in turn is tied to economic growth in their service areas. The Energy Information Administration ("EIA") has observed that utility sales growth is less than U.S. GDP growth, as shown in Exhibit FEA-5 (MPG-5). Utility sales growth has lagged behind GDP growth. Hence, nominal GDP growth is a very conservative, albeit overstated, proxy for electric utility sales growth, rate base growth, and earnings growth. Therefore, GDP growth is a reasonable proxy for the highest sustainable long-term growth rate of a utility.

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

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

The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at

about the same rate as nominal gross domestic product (real GDP plus inflation).<sup>11</sup>

#### **Sustainable Growth DCF**

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## Q PLEASE DESCRIBE HOW YOU ESTIMATE A SUSTAINABLE LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

A sustainable growth rate is based on the percentage of the utility's earnings that are retained and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base (rate base) and will grow earnings when the reinvested earnings investment is put into service, and the Company is allowed to earn its authorized return on the additional rate base investment.

The internal growth methodology is tied to the percentage of earnings retained in the company and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases. An increased earnings retention ratio will fuel stronger growth because the business funds more investments with retained earnings. As shown in Exhibit FEA-6 (MPG-6), *Value Line* projects the proxy group to have a declining dividend payout ratio over the next three to five years. These dividend payout ratios and earnings retention ratios can then be used to develop a sustainable long-term earnings retention growth rate to help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

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

<sup>&</sup>lt;sup>11</sup>"Fundamentals of Financial Management," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

projections per earnings, dividends, earned return on book equity, and projected stock issuances.

As shown in Exhibit FEA-7 (MPG-7), page 1 of 2, the average and median sustainable growth rates for the proxy group using this internal growth rate model are 5.08% and 5.13%, respectively.

## 392 Q WHAT IS THE CONSTANT GROWTH DCF ESTIMATE USING THIS 393 SUSTAINABLE LONG-TERM GROWTH RATE?

A DCF estimate based on this sustainable growth rate is developed in Exhibit FEA-8 (MPG-8). As shown there, a sustainable growth DCF analysis produces a group average DCF result of 9.61%.

The sustainable growth DCF result is based on the dividend and price data used in my constant growth DCF study (using analyst growth rates) and the sustainable growth rate discussed above and developed in Exhibit FEA-7 (MPG-7).

#### **Multi-Stage Growth DCF Model**

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#### Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

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

#### 409 Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

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

For the short-term growth period, I relied on the consensus analysts' growth projections described above in relationship to my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor, which reflects the difference between the analysts' growth rates and the GDP growth rate. For the long-term growth period, I assumed each company's growth would converge to the maximum sustainable growth rate for a utility company as proxied by the consensus analysts' projected growth for the U.S. GDP of 4.9%.

## Q WHAT DO YOU BELIEVE IS A REASONABLE SUSTAINABLE LONG-TERM GROWTH RATE?

A reasonable growth rate that can be sustained in the long run should be based on consensus analysts' projections. *Blue Chip Economic Indicators* publishes consensus GDP growth projections twice a year. Based on its latest issue, the consensus economists' published 5- to 10-year GDP growth rate outlook is 5.1% to 4.7%, respectively.<sup>12</sup>

Therefore, I propose to use the consensus economists' projected GDP consensus growth rate of 4.9%, as published by *Blue Chip Economic Indicators*, as an estimate of sustainable long-term growth. This consensus GDP growth forecast

<sup>&</sup>lt;sup>12</sup>Blue Chip Economic Indicators, March 10, 2011 at 15.

represents the most likely views of market participants because it is based on published economist projections.

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

I relied on the same 13-week stock price and the most recent quarterly dividend payment discussed above. For stage one growth, I used the consensus analysts' growth rate projections discussed above in my constant growth DCF model. The transition period begins in year 6 and ends in year 10. For the long-term sustainable growth rate starting in year 11, I used 4.9%, the average of the consensus economists' 10-year and 5-year projected nominal GDP growth rates.

#### 442 Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?

As shown in Exhibit FEA-9 (MPG-9), the average DCF return on equity for the proxy group is 9.43%.

#### 445 Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

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

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TABLE 2 Summary of DCF Results	
Description	Proxy Group
Constant Growth DCF Model (Analysts' Growth)	9.81%
Constant Growth DCF Model (Sustainable Growth)	9.61%
Multi-Stage Growth DCF Model	9.43%
Average DCF Return	9.62%

For reasons set forth above, I believe my constant growth DCF model based on analysts' growth is inflated because short-term analyst growth rate projections are not reasonable estimates of long-term sustainable growth. Therefore, the DCF model based on analysts' growth rate estimates should not be used on a stand-alone basis. I recommend it be averaged with my other DCF estimates to produce a reasonable DCF point estimate that can be used to derive RMP's return on equity. The constant growth DCF model based on the sustainable growth approach is based on a growth rate that is sustainable in the long term in comparison to GDP growth, but may not reflect analysts' short-term growth outlooks. The multi-stage growth DCF model return reflects the expectation of changing growth rates over time. Even though I have strong concerns about the accuracy of the constant growth DCF at this time, I included all estimates in my DCF return of 9.62% (rounded to 9.60%), the average of my DCF estimates.

#### Risk Premium Model

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#### Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

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

This risk premium model is based on two estimates of an equity risk premium.

First, I estimated the difference between the required return on utility common equity

investments and U.S. Treasury bonds. The difference between the required return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year over the period 1986 through the first quarter of 2011. The common equity required returns were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the contemporary investor required return.

The second equity risk premium method is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields. This time period was selected because over the period 1986 through the first quarter of 2011, public utility stocks have consistently traded at a premium to book value. This is illustrated in Exhibit FEA-10 (MPG-10), where the market to book ratio since 1986 for the electric utility industry was consistently above 1.0. Over this time period, regulatory authorized returns were sufficient to support market prices that at least exceeded book value. This is an indication that regulatory authorized returns on common equity supported a utility's ability to issue additional common stock, without diluting existing shares. It further demonstrates that utilities were able to access equity markets without a detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit FEA-11 (MPG-11), the average indicated equity risk premium over U.S. Treasury bond yields has been 5.21%. Of the 26 observations, 20 indicated risk premiums fall in the range of 4.40% to 6.09%. Since the risk premium can vary depending upon market conditions and changing investor risk perceptions, I believe using an estimated range of risk premiums

provides the best method to measure the current return on common equity using this methodology.

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As shown in Exhibit FEA-12 (MPG-12), the average indicated equity risk premium over contemporary Moody's utility bond yields was 3.79% over the period 1986 through the first quarter of 2011. The indicated equity risk premium estimates based on this analysis primarily fall in the range of 3.03% to 4.62% over this time period.

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

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

The time period I use in this risk premium study is a generally accepted period to develop a risk premium study using "expectational" data. Conversely, studies have recommended that use of "actual achieved return data" should be based on very long historical time periods. The studies find that achieved returns over short time periods

may not reflect investors' expected returns due to unexpected and abnormal stock price performance. However, these short-term abnormal actual returns would be smoothed over time and the achieved actual returns over long time periods would approximate investors' expected returns. Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

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

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

The equity risk premium should reflect the relative market perception of risk in the utility industry today. I have gauged investor perceptions in utility risk today in Exhibit FEA-13 (MPG-13). On that exhibit, I show the yield spread between utility bonds and Treasury bonds over the last 30 years. As shown in this exhibit, the 2008 utility bond yield spreads over Treasury bonds for "A" rated and "Baa" rated utility bonds are 2.25% and 2.97%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for 2009 are 1.96% and 2.98%, respectively. In 2010, these spreads declined to 1.21% and 1.71%, respectively. These utility bond yield spreads over Treasury bond yields are now lower than the 30-year average spreads of 1.59% and 1.99%, respectively.

A current 13-week average "A" rated utility bond yield of 5.61%, when compared to the current Treasury bond yield of 4.56% as shown in Exhibit FEA-14 (MPG-14), page 1 of 3, implies a yield spread of around 1.05%. This current utility bond yield is lower than the 30-year average spread for "A" utility bonds of 1.59%.

The spread for the "Baa" utility yields of 1.47% is also lower than the 30-year average spread of 1.99%.

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

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

I added a projected long-term Treasury bond yield to my estimated equity risk premium over Treasury yields. The 13-week average 30-year Treasury bond yield, ending April 21, 2011 was 4.56%, as shown in Exhibit FEA-14 (MPG-14), page 1 of 3. *Blue Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 5.2%, and a 10-year Treasury bond yield to be 4.4%.<sup>13</sup> Using the projected 30-year bond yield of 5.2%, and a Treasury bond risk premium of 4.40% to 6.09%, as developed above, produces an estimated common equity return in the range of 9.60% (5.20% + 4.40%) to 11.29% (5.20% + 6.09%), with a midpoint of 10.45%.

I next added my equity risk premium over utility bond yields to a current 13-week average yield on "A" rated utility bonds for the period ending April 21, 2011 of 5.61%. Adding the utility equity risk premium of 3.03% to 4.62%, as developed above, to an "A" rated bond yield of 5.61%, produces a cost of equity in the range of 8.64% to 10.23%, with a midpoint of 9.44%.

My risk premium analyses produce a return estimate in the range of 9.44% to 10.45%, with a midpoint estimate of 9.95%.

<sup>&</sup>lt;sup>13</sup>Blue Chip Financial Forecasts, April 1, 2011 at 2.

#### Capital Asset Pricing Model ("CAPM")

#### Q PLEASE DESCRIBE THE CAPM.

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

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

R<sub>i</sub> = Required return for stock i

 $R_f$  = Risk-free rate

 $R_m$  = Expected return for the market portfolio

 $B_i$  = Beta - Measure of the risk for stock

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

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

#### 591 Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

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

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

As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield is 5.2%. <sup>14</sup> The current 30-year Treasury bond yield is 4.56%. I used *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield of 5.2% for my CAPM analysis.

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

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

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

<sup>&</sup>lt;sup>14</sup>Blue Chip Financial Forecasts, April 1, 2011 at 2.

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

#### Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

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As shown in Exhibit FEA-15 (MPG-15), the proxy group average *Value Line* beta estimate is 0.70.

#### Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

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

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

Morningstar's *Stocks, Bonds, Bills and Inflation 2011 Classic Yearbook* publication estimates the historical arithmetic average real market return over the period 1926 to 2010 as 8.7%.<sup>15</sup> A current consensus analysts' inflation projection, as measured by the Consumer Price Index, is 2.2%.<sup>16</sup> Using these estimates, the expected market return is 11.09%.<sup>17</sup> The market premium then is the difference between the 11.09% expected market return, and my 5.2% risk-free rate estimate, or 5.89%, rounded to 5.90%.

<sup>&</sup>lt;sup>15</sup>Morningstar, Inc. Ibbotson SBBI 2011 Classic Yearbook at 86.

<sup>&</sup>lt;sup>16</sup>Blue Chip Financial Forecasts, April 1, 2011 at 2.

 $<sup>^{17}</sup>$ { [ (1 + 0.087) \* (1 + 0.022) ] - 1 } \* 100.

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The historical estimate of the market risk premium was also estimated by Morningstar in *Stocks, Bonds, Bills and Inflation 2011 Classic Yearbook*. Over the period 1926 through 2010, Morningstar's study estimated that the arithmetic average of the achieved total return on the S&P 500 was 11.9%, <sup>18</sup> and the total return on long-term Treasury bonds was 5.9%. <sup>19</sup> The indicated equity risk premium is 6.0% (11.9% - 5.9% = 6.0%).

## Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO THAT ESTIMATED BY MORNINGSTAR?

Morningstar's analysis indicates that a market risk premium falls somewhere in the range of 6.0% to 6.7%. My market risk premium falls in the range of 5.9% to 6.0%. My market risk premium is on the low end of Morningstar's range.

Morningstar estimates a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2010. Using this data, Morningstar estimates a market risk premium derived from the total return on large company stocks (S&P 500), less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or dividend payments. The income return, in contrast, only reflects the income return received from dividend payments or coupon yields. Morningstar argues that the income return is the only true risk-free rate associated with the Treasury bond and is the best approximation of a truly risk-free rate. I disagree with this assessment from Morningstar, because it does not reflect a true investment option available to the marketplace and therefore does not produce a legitimate estimate of the expected premium of investing in the stock

<sup>&</sup>lt;sup>18</sup>Morningstar, Inc. Ibbotson SBBI 2011 Classic Yearbook at 86.

<sup>&</sup>lt;sup>19</sup>ld.

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

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Morningstar's range is based on several methodologies. First, Morningstar estimates a market risk premium of 6.7% based on the difference between the total market return on common stocks (S&P 500) less the income return on Treasury bond investments. Second, Morningstar found that if the New York Stock Exchange (the "NYSE") was used as the market index rather than the S&P 500, that the market risk premium would be 6.5% and not 6.7%. Third, if only the two deciles of the largest companies included in the NYSE were considered, the market risk premium would be 6.0%.<sup>20</sup>

Finally, Morningstar found that the 6.7% market risk premium based on the S&P 500 was impacted by an abnormal expansion of price-to-earnings ("P/E") ratios relative to earnings and dividend growth during the period 1980 through 2001. Morningstar believes this abnormal P/E expansion is not sustainable. Therefore, Morningstar adjusted this market risk premium estimate to normalize the growth in the P/E ratio to be more in line with the growth in dividends and earnings. Based on this alternative methodology, Morningstar published a long-horizon supply-side market risk premium of 6.0%.<sup>21</sup>

#### Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

As shown in Exhibit FEA-16 (MPG-16), based on a market risk premium of 6.0%, a risk-free rate of 5.2%, and a beta of 0.70, my CAPM analysis produces a return of 9.40%. Using Morningstar's high-end market risk premium of 6.7% would produce a CAPM return of 9.89%. I am concerned about the low estimates produced by the

<sup>&</sup>lt;sup>20</sup>Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. Morningstar, Inc. *Ibbotson SBBI 2011 Valuation Yearbook* at 54. <sup>21</sup>*Id.* at 66.

680 CAPM at this time. Therefore, I will use the high-end of this range, 9.89% (rounded to 9.90%) for use in my recommended return for RMP.

#### **Return on Equity Summary**

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

Based on my analyses, I estimate RMP's current market cost of equity to be 9.80%.

TABLE 3		
Return on Common Equity Summary		
<u>Description</u>	<u>Results</u>	
DCF Risk Premium CAPM	9.60% 9.95% 9.90%	

My recommended return on equity range is 9.60% to 10.00%, with a midpoint of 9.80%. My high end is based on my risk premium return estimate and my low end is based on my DCF analysis. My CAPM result supports the midpoint of this range.

#### **Financial Integrity**

Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN
 INVESTMENT GRADE BOND RATING FOR RMP?
 Yes. I have reached this conclusion by comparing the key credit rating financial

ratios for RMP at its proposed capital structure, and my return on equity to S&P's benchmark financial ratios using S&P's new credit metric ranges.

## Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.

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S&P publishes a matrix of financial ratios that correspond to its assessment of the business risk of the utility company and related bond rating. On May 27, 2009 S&P expanded its matrix criteria<sup>22</sup> by including additional business and financial risk categories. Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most electric utilities have a business risk profile of "Excellent" or "Strong." The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the electric utilities have a financial risk profile of "Aggressive." RMP has an "Excellent" business risk profile and a "Significant" financial risk profile.

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

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

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

<sup>&</sup>lt;sup>22</sup>S&P updated its credit metric guidelines on November 30, 2007, and incorporated utility metric benchmarks with the general corporate rating metrics.

## 719 Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE 720 REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

A I calculated each of S&P's financial ratios based on RMP's cost of service for retail operations. While S&P would normally look at total consolidated financial ratios in its credit review process, my investigation in this proceeding is to judge the reasonableness of my proposed cost of capital for rate-setting in RMP's regulated utility operations. Hence, I am attempting to determine whether the rate of return and cash flow generation opportunity reflected in my proposed retail utility rates for RMP will support target investment grade bond ratings and RMP's financial integrity.

#### 728 Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT ("OBSD")?

Yes. As shown in Exhibit FEA-17 (MPG-17), page 3 of 4, I used an OBSD amount of \$432.2 million. This OBSD is attributed to RMP's operating leases and purchased power agreements ("PPAs").

#### 732 Q HOW DID YOU ESTIMATE RMP'S OBSD?

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The OBSD is estimated by S&P and can be found in Exhibit FEA-17 (MPG-17), page 4 of 4. Because I am focused on retail operations, I included only the amount of total PacifiCorp OBSD that is clearly tied to provision of retail electric utility service. Therefore, I only included the amount of OBSD attributable to leases and PPAs. I did not include OBSD attributable to Other Post-Retirement Employee Benefits ("OPEB") post-retirement benefits because these costs are largely driven by management decisions to make cash contributions to the employee benefit trust, and also because OPEB obligations are to employees of the Company, that have a vested interest in the continued operation of the utility Company.

The OPEB obligations on a total debt basis were based on total Company operations, however, for the operating characteristics in determining FFO and EBITDA, I allocated a portion of the debt interest expense associated with OBSD, and debt amortization imputations to Utah retail operations. A portion of total Company imputed interest and amortization expense was allocated to Utah based on an allocation of Utah rate base to total Company rate base.

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## 749 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR 750 RMP.

751 A The S&P financial metric calculations for RMP are developed on Exhibit FEA-17
752 (MPG-17), page 1 of 4.

As shown on Exhibit FEA-17 (MPG-17), page 1 of 4, column 1, based on an equity return of 9.80%, RMP will be provided an opportunity to produce a debt to EBITDA ratio of 3.1x. This is at the low end of S&P's new "Significant" guideline range of 3.0x to 4.0x.<sup>23</sup> This ratio supports an investment grade credit rating.

RMP's retail operations FFO to total debt coverage at a 9.80% equity return would be 26%, which is within the new "Significant" metric guideline range of 20% to 30%. The FFO/total debt ratio will support an investment grade bond rating.

Finally, RMP's total debt ratio to total capital is 49%. This is within the new "Significant" guideline range of 45% to 50%. This total debt ratio will support an investment grade bond rating.

<sup>&</sup>lt;sup>23</sup>Standard & Poor's RatingsDirect: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

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

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DO YOU BELIEVE THIS CREDIT METRIC EVALUATION OF RMP AT YOUR PROPOSED RETURN ON EQUITY PROVIDES MEANINGFUL INFORMATION TO HELP THE COMMISSION DETERMINE THE APPROPRIATENESS OF YOUR RECOMMENDATION?

Yes. While S&P calculates these credit metrics based on total Company operations, and not the retail operations of RMP as I have performed in this study, it still provides meaningful information on the proposed rate of return for RMP in this case and how it will contribute and help support consolidated operations credit standing. Further, while credit rating agencies also consider other financial metrics and qualitative considerations, these metrics are largely driven by the cost of service items of depreciation expense and return on equity. Hence, to the extent these important aspects of cost of service impact RMP's internal cash flows, the relative impact on RMP will be measured by these credit metrics. As illustrated above, an authorized return on equity of 9.80% will support internal cash flows that will be adequate to maintain RMP's current investment grade bond rating.

## RESPONSE TO RMP WITNESS DR. SAMUEL HADAWAY 781 782 Q WHAT RETURN ON COMMON EQUITY IS RMP PROPOSING FOR THIS PROCEEDING? 783 784 Α RMP is proposing to set rates based on a return on equity of 10.5%. RMP's return on 785 equity proposal is based on the analysis and judgment of Dr. Samuel Hadaway. 786 Dr. Hadaway's results are summarized at page 32 of his direct testimony. 787 Q DO DR. HADAWAY'S METHODOLOGIES SUPPORT HIS 10.5% RETURN ON **EQUITY FOR HIS PROXY GROUP?** 788 789 No. As discussed in detail below, reflecting current market data and properly Α 790 applying his models, Dr. Hadaway's own analyses would support a return on equity 791 within my recommended range of 9.6% to 10.0%. These adjustments to Dr. 792 Hadaway's return on equity estimates support my recommended return on equity of 9.80%. 793 HAS RMP'S AUTHORIZED RETURN ON EQUITY GENERALLY BEEN 794 Q 795 **CONSISTENT WITH THAT RECOMMENDED BY DR. HADAWAY?** 796 Α No. Dr. Hadaway's proposed return on equity has generally been higher than that 797 found appropriate by regulatory commissions. For example, in Washington, the 798 Washington Utilities and Transportation Commission awarded RMP a return on equity 799 of 9.8% in March 2011.<sup>24</sup> Similarly, the Idaho Public Utilities Commission awarded 800 affiliate RMP a return on equity of 9.9%.<sup>25</sup> In both of those cases, Dr. Hadaway was the RMP rate of return witness, and recommended returns on equity of 10.6% in 801

Washington Utilities and Transportation Commission, Docket UE-100749, Order 06, Rocky Mountain Power, at 39, March 25, 2011.
 <sup>25</sup>Idaho Public Utilities Commission, Case No. PAC-E-10-07, Order 32 -196 at 2, February 28,

<sup>&</sup>lt;sup>25</sup>Idaho Public Utilities Commission, Case No. PAC-E-10-07, Order 32 -196 at 2, February 28, 2011.

802 those cases. The Commission should find in this case, as it did in those cases, that 803 Dr. Hadaway's recommended return on equity is unreasonably high. 804 Q PLEASE DESCRIBE THE METHODOLOGY SUPPORTING DR. HADAWAY'S 805 RETURN ON COMMON EQUITY RECOMMENDATION. 806 Α Dr. Hadaway develops his return on common equity recommendation using three 807 versions of the DCF model, and two utility risk premium analyses. I have summarized 808 Dr. Hadaway's results below in Table 4 under column 1. Under column 2, I show the 809 results of my adjustments to Dr. Hadaway's analyses. These adjustments are 810 discussed below. 811 As shown below in Table 4, using consensus economists' projection of GDP 812 growth rather than Dr. Hadaway's inflated GDP growth estimates, his own DCF 813 analyses would support a return on equity for RMP in the range of 9.3% to 10.1%, 814 with a midpoint of 9.7%.

TABLE 4 Summary of Dr. Hadaway's ROE Estimate				
Description	Hadaway Results <sup>1</sup> (1)	Adjusted Hadaway <u>Results</u> (2)		
DCF Analysis Constant Growth (Analysts' Growth) Constant Growth (GDP Growth) Multi-Stage Growth Model Reasonable DCF Range	10.1% - 10.1% 10.6% - 10.7% <u>10.3% - 10.3%</u> 10.1% - 10.7%			
Risk Premium Analysis Forecasted Utility Debt + Equity Risk Premium Current Utility Debt + Equity Risk Premium Risk Premium Estimate	10.24% <u>10.10%</u> 10.7%	Reject <u>9.65%</u> 9.65%		
Recommended ROE  Source:  1 Hadaway Direct at 41.	10.5%	9.3% - 10.1%		

With these adjustments, Dr. Hadaway's methodologies support my recommended return on equity of 9.80%.

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

Dr. Hadaway's adjusted constant growth DCF analysis is shown in Exhibit FEA-18 (MPG-18). As shown on that exhibit, Dr. Hadaway's constant growth DCF analysis is based on a recent stock price, an annualized dividend and an average of four growth rates: (1) *Value Line*; (2) Zacks; (3) Thomson; and (4) Reuters.

#### Q ARE DR. HADAWAY'S DCF ESTIMATES RELIABLE?

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A No. Dr. Hadaway's constant growth DCF based on analyst growth rates produces excessive return estimates for the same reasons discussed above concerning my

DCF studies. That is, Dr. Hadaway's analyst growth DCF study is based on growth rate estimates in the range of 4.98% to 6.01%. These growth rates are not sustainable in the long-run.

Second, his GDP growth rate used in his constant growth and multi-stage growth models is based on an inflated GDP growth rate of 6.0%. This GDP growth is excessive and not reflective of current market expectations.

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

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

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

The consensus economists' projected GDP growth rate is much lower than the GDP growth rate used by Dr. Hadaway in his DCF analysis. A comparison of Dr. Hadaway's GDP growth rate and consensus economists' projected GDP growth over the next five and ten years is shown below in Table 5. As shown in this table, Dr. Hadaway's GDP rate of 6.0% reflects real GDP of 3.1% and a GDP inflation factor of 2.9%. However, consensus economists' projections of nominal GDP include GDP inflation projections over the next five and ten years of 2.1%, and real GDP growth of 3.0% to 2.6%, respectively.<sup>26</sup>

<sup>&</sup>lt;sup>26</sup>Blue Chip Economic Indicators, March 10, 2011, at 15.

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As is clearly evident in the table below, Dr. Hadaway's historical GDP growth reflects historical inflation and real GDP growth. This historical GDP growth data simply does not reflect nominal GDP growth outlooks of consensus market participants.

TABLE 5					
GDP Projections					
Description	GDP <u>Inflation</u>	Real GDP	Nominal <u>GDP</u>		
Dr. Hadaway Consensus 5-Year Projection Consensus 10-Year Projection	3.1% 2.1% 2.1%	2.9% 3.0% 2.6%	6.0% 5.1% 4.7%		
Source: Blue Chip Economic Indicator	rs, March 10, 2	011, at 15.			

As such, Dr. Hadaway's 6.0% nominal GDP growth rate is not reflective of consensus market expectations and should be rejected.

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

As shown in Exhibit FEA-18 (MPG-18), I updated Dr. Hadaway's DCF analyses using a GDP growth rate of 4.9%. This GDP growth rate is the consensus economists' projected GDP growth rate over the next 5 and 10 years as published in the *Blue Chip Economic Indicators* on March 10, 2011. As shown in Exhibit FEA-18 (MPG-18) and in Table 6 below, using this consensus economists' projected GDP growth rate, reduces Dr. Hadaway's DCF results from 10.4% to 9.7%.

861	Q	PLEASE	SUMMARIZE	YOUR	UPDATE	AND	ADJUSTMENTS	10
862		DR. HADA	WAY'S DCF STU	JDIES.				
863	Α	Modifying	the study for a n	nore reaso	nable GDP	arowth	rate reduces the ave	erage

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Modifying the study for a more reasonable GDP growth rate reduces the average DCF result produced by Dr. Hadaway's studies from 10.4% down to 9.7%. Dr. Hadaway's original estimates and the updated and adjusted results I prepared are shown below in Table 6.

TABLE 6				
Adjusted Hadaway DCF				
	Range Average			
Description	Hadaway DCF	Adjusted DCF		
Constant Growth (Analysts' Growth)	10.1%	10.1%		
Long-Term Constant Growth DCF	10.7%	9.6%		
Multi-Stage Growth Model	<u>10.3%</u>	9.3%		

10.4%

9.7%

As shown above in Table 6, using a consensus economists' GDP forecast, rather than the GDP forecast derived by Dr. Hadaway, would support a return on equity for RMP of 9.7%.

## 870 Q PLEASE DESCRIBE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSIS.

Average

Dr. Hadaway's utility bond yield versus authorized return on common equity risk premium is shown in Exhibit RMP \_\_\_\_ (SCH-5). As shown in this exhibit, Dr. Hadaway estimated an annual equity risk premium by subtracting Moody's average bond yield from the electric utility regulatory commission authorized return on common equity over the period 1980 through 2010. Based on this analysis, Dr. Hadaway estimates an average indicated equity risk premium over current utility bond yields of 3.28%.

878 Dr. Hadaway then adjusts this average equity risk premium using a regression 879 analysis based on an expectation that there is an ongoing inverse relationship between interest rates and equity risk premiums. Based on this regression analysis, 880 881 Dr. Hadaway increases his equity risk premium from 3.28%, up to 4.66% and 4.76% 882 relative to projected and current "A" bond yield of 5.58% and 5.34%, respectively. He 883 then adds these equity risk premiums to the projected and current "A" rated utility 884 bond yield of 5.58% and 5.34% to produce a return on equity of 10.24% and 10.10%, 885 respectively.

### ARE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSES REASONABLE?

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No. Dr. Hadaway develops a forward-looking risk premium model, relying on forecasted interest rates and volatile utility spreads, which are highly uncertain and produce inaccurate results. Further, Dr. Hadaway's proposal to adjust the actual study equity risk premium of up to 4.66% and 4.76% is unreasonable. This adjustment reflects a simplistic inverse relationship between interest rates and utility risk premiums. This adjustment is inappropriate and not consistent with academic literature that finds that this relationship should change with risk changes and not simply changes to interest rates.

# Q DO YOU HAVE ANY COMMENTS CONCERNING DR. HADAWAY'S FORECASTED UTILITY YIELD OF 5.58%?

Yes. Dr. Hadaway develops his forecasted utility yield based on the 3-month historical spread of "A" rated utility bond yields and 30-year Treasury yields of 1.81% added to his projected long-term Treasury yield of 4.4%. This approach is unreasonable because Dr. Hadaway relies on projected interest rates and static

spreads between utility bond yields and Treasury bond yields. The accuracy of Dr. Hadaway's interest rate projections are highly problematic.

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# WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST RATES IS HIGHLY PROBLEMATIC?

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

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

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

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

Α

Dr. Hadaway's belief that there is a simplistic inverse relationship between equity risk premiums and interest rates is not supported by academic research. While academic studies have shown that, in the past, there has been an inverse relationship with these variables, researchers have found that the relationship changes over time and is influenced by changes in perception of the risk of bond investments relative to equity investments, and not simply changes to interest rates.<sup>27</sup>

In the 1980s, equity risk premiums were inversely related to interest rates, but that was likely attributable to the interest rate volatility that existed at that time. Interest rate volatility currently is much lower than it was in the 1980s.<sup>28</sup> As such, when interest rates were more volatile, the relative perception of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

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

<sup>&</sup>lt;sup>27</sup>"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.

<sup>&</sup>lt;sup>28</sup>Morningstar, Inc. Ibbotson SBBI 2010 Valuation Yearbook at 77.

changes to the risk of equity versus debt securities investments, not simply changes to interest rates.

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

# CAN DR. HADAWAY'S RISK PREMIUM ANALYSES BASED ON CURRENT AND PROJECTED YIELDS BE MODIFIED TO PRODUCE MORE REASONABLE RESULTS?

Yes. Dr. Hadaway's study indicates that an unadjusted equity risk premium is 3.28%. Using this unadjusted equity risk premium and the current "A" rated utility yield of 5.61% will produce a return on equity of 8.89%. Using Dr. Hadaway's 2010 equity risk premium of 4.79% as shown in Exhibit RMP \_\_\_\_\_ (SCH-5) and a current "A" rated utility yield of 5.61% will produce a return of 10.40%. Therefore, Dr. Hadaway's risk premium study adjusted to include reasonable equity risk premiums produces a return on equity in the range of 8.89% to 10.40%, with a midpoint of 9.65%.

#### 962 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

963 A Yes, it does.

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## **Qualifications of Michael Gorman**

1	0	PLEASE STATE YOUR NAME AND BUSINESS ADDRES	22
- 1	· ·	FLEASE STATE TOUR NAME AND BUSINESS ADDRES	33.

- 2 A Michael 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.**

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

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

In 1987, I was promoted to Director of the Financial Analysis Department. In this position, I was responsible for all financial analyses conducted by the staff. Among other things, I conducted analyses and sponsored testimony before the ICC on rate of return, financial integrity, financial modeling and related issues. I also supervised the development of all Staff analyses and testimony on these same issues. In addition, I supervised the Staff's review and recommendations to the

Commission concerning utility plans to issue debt and equity securities.

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

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

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

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

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

### HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

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

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

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

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

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