Introduction and Purpose of Testimony

Q. Are you the same Samuel C. Hadaway who submitted pre-filed direct testimony in this proceeding on behalf of Rocky Mountain Power ("RMP" or "the Company")?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the cost of common equity (COE) analyses and return on equity (ROE) recommendations offered by Utah Division of Public Utilities (Division) witness Mr. Charles E. Peterson, Utah Office of Consumer Services (OCS) witness Mr. Daniel J. Lawton, and Federal Executive Agencies (FEA) witness Mr. Michael P. Gorman. I will also respond to the comments of Wal-Mart witness Mr. Steve W. Chriss concerning the risk effect of the Company's energy balancing account (EBA). Additionally, I will respond to the other witness's comments on the methodology I used in my direct testimony to estimate RMP's COE, and I will update my analysis for current market costs and conditions.

Review of Other Parties' ROE Recommendations

Q. What are the parties' ROE recommendations?

A. The parties' offer the following ROE recommendations:

Division	10.0%
OCS	9.5%
FEA	9.8%
RMP	10.5%

Mr. Chriss, on behalf of Wal-Mart, does not make a specific ROE recommendation but states that the Commission should consider the risk

reduction effect of the EBA. As I will explain in my updated ROE analysis, my DCF models currently indicate a reasonable range of 10.1 percent to 10.5 percent, as compared to the 10.1 percent to 10.7 percent I presented in my direct testimony. My updated risk premium analysis indicates a range of 10.18 percent to 10.75 percent, as compared to a range of 10.10 percent to 10.24 percent in my direct testimony. Based on these quantitative results and the further increase in interest rates that is expected during the coming year, the Company's requested 10.5 percent ROE remains reasonable and should be applied by the Commission to set RMP's rates.[1]

Q. Please summarize your principal disagreements with the other parties' recommendations?

A. Their recommendations are below RMP's market cost of equity because they use deflated inputs in their models, they use some models that are currently unreliable, and they ignore the increase in interest rates that has occurred. The ROEs recommended by OCA and FEA are lower than the historically low rates set in the Company's most recent cases.[2] Current data show that the low interest rate cycle has reversed and that the other parties' continuing downward ROE recommendations are not consistent with current interest rate levels. With respect

[1] My updated analysis is based on the same models and comparable company selection filters I used in my direct testimony. The fundamental characteristics of the updated 16-company comparable group are shown in Exhibit RMP___(SCH-1R), page 1.

[2] On February 28, 2011, the Idaho Public Utilities Commission (Case No. PAC-E-10-07) found a reasonable ROE for the Company to be 9.9 percent based on the timing of the evidence in that case. On March 25, 2011, the Washington Utilities and Transportation Commission (Docket UE-100749), found a reasonable ROE for the Company to be 9.8 percent, again based on the timing of the evidence in that case. The latest financial data at the time of rebuttal testimony in both of those cases was from August-October 2010, which happened to correspond to the lowest long-term utility interest rates in over 30 years (see RMP Exhibit___(SCH-2R), page 2 and RMP Exhibit___(SCH-8R)).

to Mr. Peterson, while his ROE recommendation is near the bottom of the reasonable range, I disagree with his exclusion of several relevant companies from his comparable group. I also disagree with the weighting scheme he uses in his DCF model growth rate selections. Mr. Chriss provides no useful information for assessing RMP's allowed ROE. Because the comparable companies used to estimate COE by all witnesses in this case have fuel and purchased power adjustment mechanisms, and most of those mechanisms provide full cost recovery of prudently incurred costs, Mr. Chriss' comments about reducing RMP's ROE to account for the EBA's risk effects are entirely misplaced. If anything, his theory would support a higher ROE for RMP. All these factors show that the other parties' recommendations are unreasonably low and should be modified or rejected by the Commission.

Economic and Market Conditions

Q. In your direct testimony, you provided data to illustrate interest rate trends and the spreads between U.S. Treasury bond and single-A rated utility bonds. Have you updated that information?

A. Yes. I provide that data in Exhibit RMP___(SCH-2R), page 1, and summarize the results below in Table 1.

Table 1

Long-Term Interest Rate Trends

Month	Single-A Utility Rate	30-Year Treasury Rate	Single-A Utility Spread
Jun-08	6.38	4.69	1.69
Jul-08	6.40	4.57	1.83
Aug-08	6.37	4.50	1.87
Sep-08	6.49	4.27	2.22
Oct-08	7.56	4.17	3.39
Nov-08	7.60	4.00	3.60
Dec-08	6.52	2.87	3.65
Jan-09	6.39	3.13	3.26
Feb-09	6.30	3.59	2.71
Mar-09	6.42	3.64	2.78
Apr-09	6.48	3.76	2.72
May-09	6.49	4.23	2.26
Jun-09	6.20	4.52	1.68
Jul-09	5.97	4.41	1.56
Aug-09	5.71	4.37	1.34
Sep-09	5.53	4.19	1.34
Oct-09	5.55	4.19	1.36
Nov-09	5.64	4.31	1.33
Dec-09	5.79	4.49	1.30
Jan-10	5.77	4.60	1.17
Feb-10	5.87	4.62	1.25
Mar-10	5.84	4.64	1.20
Apr-10	5.81	4.69	1.12
May-10	5.50	4.29	1.21
Jun-10	5.46	4.13	1.33
Jul-10	5.26	3.99	1.27
Aug-10	5.01	3.80	1.21
Sep-10	5.01	3.77	1.24
Oct-10	5.10	3.87	1.23
Nov-10	5.37	4.19	1.18
Dec-10	5.56	4.42	1.14
Jan-11	5.57	4.52	1.05
Feb-11	5.68	4.65	1.03
Mar-11	5.56	4.51	1.05
Apr-11	5.55	4.50	1.05
May-11	5.32	4.29	1.03
3-Mo Avg	**5.48**	**4.43**	**1.04**
12-Mo Avg	**5.37**	**4.22**	**1.15**

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury rates). Three month average is for March 2011-May 2011. Twelve month average is for June 2010-May 2011.

The data in Table 1 show that interest rates have increased since late summer 2010 and the market turmoil that has occurred over the past three years. Since the lowest levels reached in August and September 2010, both utility interest rates and yields on long-term Treasury bonds have increased over 30 basis points. Over the past three years, interest rates have shown the widest fluctuations in recent history. The Federal Reserve's continuing efforts to reduce borrowing costs for banks by holding the Fed Funds rate near zero and the policy-induced, low rates on U.S. Treasury bonds have affected high quality corporate borrowers as well. While the effects of these artificially low interest rates may not be easily captured in financial models for estimating the rate of return, equity market turbulence and the elevated level of risk aversion that currently exists should not be ignored in estimating the cost of equity capital.

Q. Do the smaller spreads between yields on single-A utility bonds and U.S. Treasury bonds mean that the markets have fully recovered from the economic turmoil that resulted from the financial crisis?

A. No. While markets have stabilized considerably from the conditions that existed in late 2008, investors remain concerned about high unemployment, large federal deficits, the Mideast turmoil and skyrocketing commodity (oil, gold, and silver) and gasoline prices, and the potential for further fallout from foreclosures and other effects of the financial crisis. These factors combined with sluggish growth in gross domestic product (GDP) during the first quarter of 2011 continue to cause a high level of market volatility and contribute to heightened investor risk aversion.

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

A. Interest rates are expected to rise substantially. In Exhibit RMP___(SCH-2R), page 2, I provide Standard and Poor's (S&P) most recent interest rate forecast from its *Trends & Projection*s publication for May 2011. Table 2 below summarizes the interest rate forecasts:

Table 2
Standard & Poor's Interest Rate Forecast

	May 2011 Average	Average 2011 Est.	Average 2012 Est.
Treasury Bills	0.1%	0.2%	2.1%
10-Yr. T-Bonds	3.2%	3.8%	5.2%
30-Yr. T-Bonds	4.3%	4.8%	6.0%
Aaa Corporate Bonds	5.0%	5.4%	6.9%

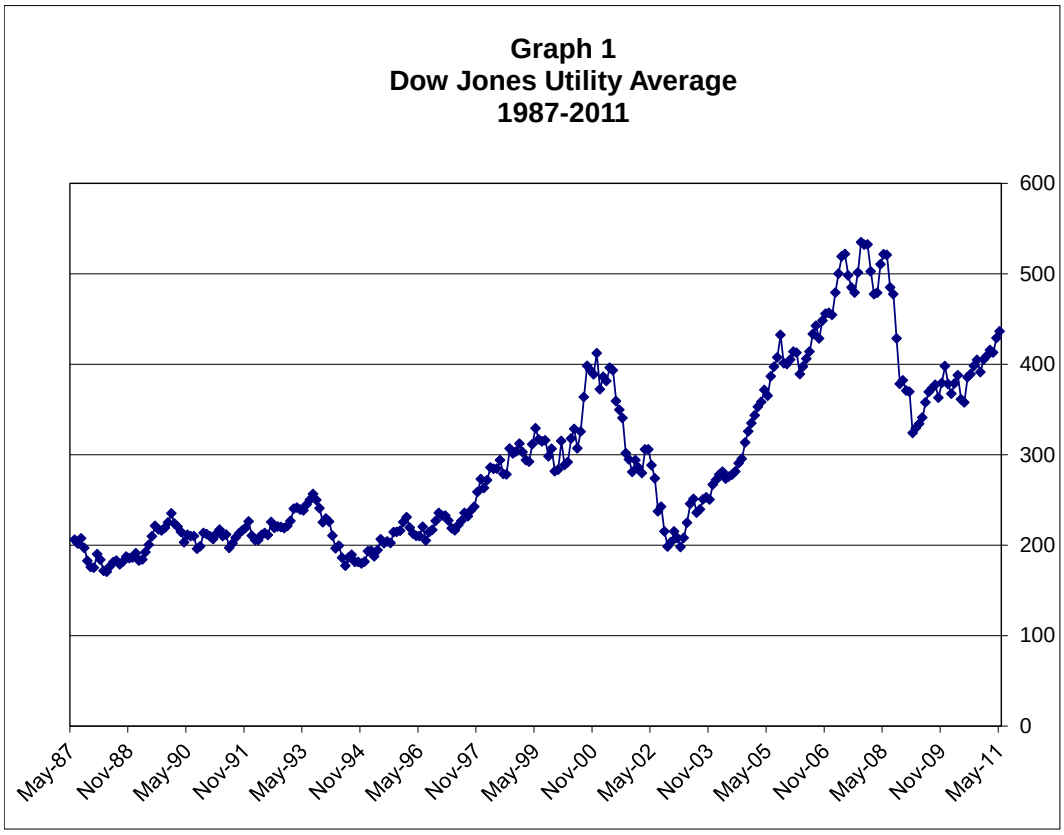
Sources: www.federalreserve.gov, (Current Rates). Standard & Poor's *Trends & Projections*, May 2011, page 8 (Projected Rates).

These data show that, during 2011, average long-term Treasury interest rates are expected to increase by an additional 50 basis points relative to their May 2011 levels and that rates will rise substantially more during 2012. Yields on the other bonds shown in the table are expected to increase by similar amounts. The interest rate increases reported by S&P are consistent with the Federal Reserve ending its so-called Quantitative Easing 2 program (i.e., lower demand for Treasuries, all else equal, will lead to lower prices and higher yields)[3] and a sluggishly improving U.S. economy. Such expectations for large increases in fixed income yields indicate that the expected rates of return for utilities, which must compete with such investments for required capital, are increasing as well. In this environment, the other parties' ROE recommendations are below RMPs cost of equity and should be rejected.

[3] See *Wall Street Journal*, "Fed Takes Foot Off the Gas," April 28, 2011, page A1.

Q. Have you updated the graph from your direct testimony that shows how utility stocks have performed during the past several years?

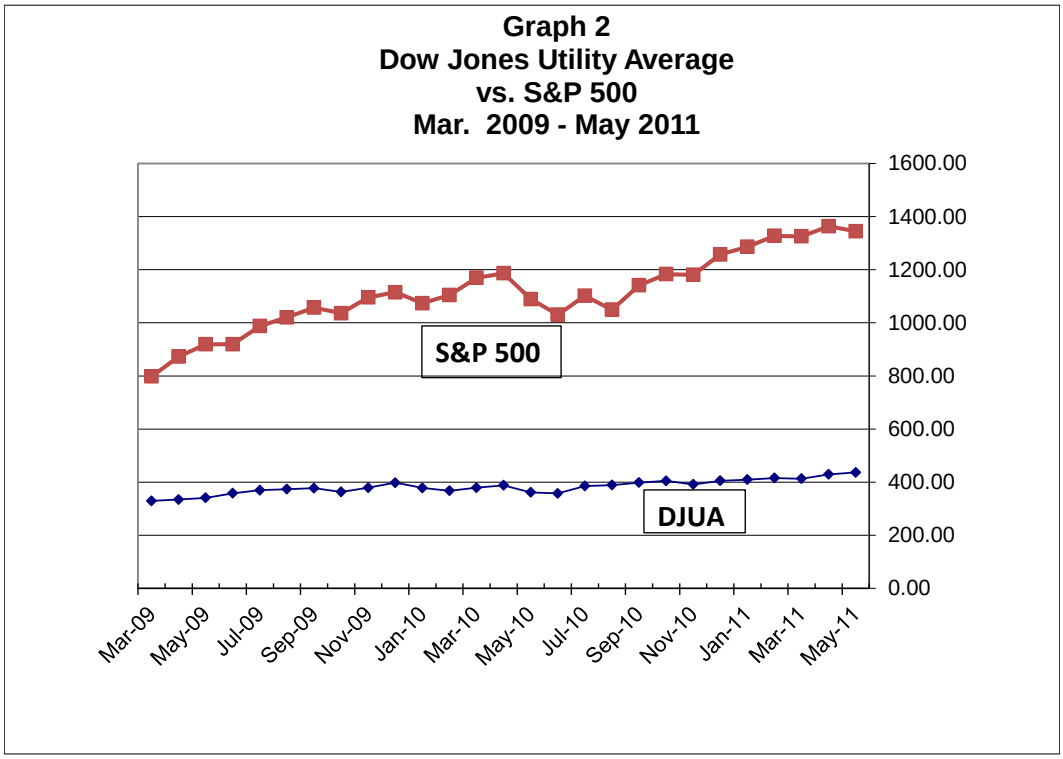
A. Yes. Utility stock prices have remained volatile and are well below their pre-financial crisis levels. The wider fluctuations in more recent years are vividly illustrated in the following Graph 1, which depicts DJUA prices over the past 25 years.



In this environment, investors' return expectations and requirements for providing capital to the utility industry remain high relative to the longer-term, traditional view of the utility industry. Increased market volatility for utility shares causes investors to require a higher rate of return.

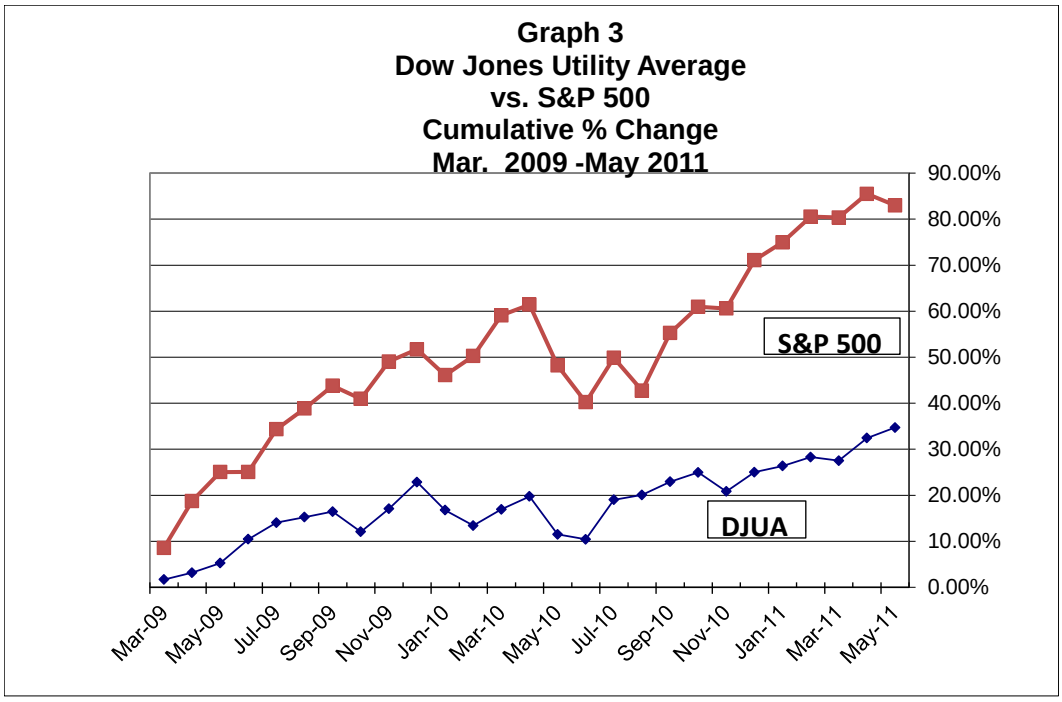
Q. How have utility stocks performed relative to the overall market recovery since March 2009?

A. Utility stock prices have lagged far behind the overall market. Graph 2 shows the monthly levels for the DJUA versus the broader market S&P 500 Index since the market lows that occurred in February and March of 2009.



While the S&P 500 has increased significantly since March 2009, utility prices have remained relatively flat. This result is a further indication that the cost of equity for utility companies has not declined to the same extent as interest rates have fallen or to the same extent that the cost of equity may have come down for the broader equity market. The relatively lower prices for utility shares indicate that the cost of capital for utilities is higher.

Graph 3 further illustrates this result by showing the cumulative percentage change in the two equity indexes since the March 2009 lows.



The general market, as represented by the S&P 500, has recovered 83 percent (83.00%) from its March 2009 lows. During the same period, utility stocks, as measured by the DJUA, have increased by only about 35 percent (34.69%). While utility stock prices are normally less volatile than the general market, their recovery of less than one-half of the general market's gain since March 2009 again points out the market difficulties that utilities face and the continuing relatively higher cost of equity for utility companies.

Q. How do the other parties' ROE recommendations compare to the rates of return authorized by other state utility commissions around the country?

A. They are substantially lower. Over the past five years, quarterly allowed ROEs have averaged about 10.4 percent. For 2010, the average rate for integrated electric utilities was 10.38 percent and for the 1st Quarter of 2011 it was 10.18

percent.[4] Table 3 below summarizes the ROE data as reported by Regulatory Research Associates for the past five years:

Table 3
Authorized Electric Utility Equity Returns

	2007	2008	2009	2010	2011
1st Quarter	10.27%	10.45%	10.29%	10.66%	10.35%
2nd Quarter	10.27%	10.57%	10.55%	10.08%	
3rd Quarter	10.02%	10.47%	10.46%	10.26%	
4th Quarter	10.56%	10.33%	10.54%	10.30%	
Full Year Average	10.36%	10.46%	10.48%	10.34%	10.35%
Average Utility Debt Cost	6.11%	6.65%	6.28%	5.55%	5.66%
Indicated Average Risk Premium	4.25%	3.81%	4.20%	4.79%	4.69%

Source: Regulatory Focus, Regulatory Research Associates, Inc., Major Rate Case Decisions, April 5, 2011. Utility debt costs are the "average" public utility bond yields as reported by Moody's.

The most recent averages for all of 2010 and for the 1st Quarter of 2011 were both approximately 10.35 percent. These data show that Mr. Lawton's 9.5 percent ROE and Mr. Gorman's 9.8 percent ROE are well below the ROEs deemed appropriate in other recently decided cases.

Q. The other parties include CAPM estimates in their COE analyses. Are you providing a CAPM analysis in your updated analysis?

A. No. The market data discussed above show that, under present market conditions, potentially all three of the CAPM's principal inputs tend to understate COE. The risk-free rate, R_f, is understated because, due to governmental credit market policies and investors' increased risk aversion, the U.S. Treasury rates used for R_f are artificially low. The second input, the expected market risk premium, $E(R_m - R_f)$, when based on historical data, is also understated because such data cannot

[4] See Exhibit RMP___(SCH-2R), page 3.

reflect the heightened investor risk aversion that has resulted from the financial crisis. Finally, utility beta coefficients have declined because, as shown in Graphs 2 and 3 above, utility stocks have far underperformed relative to the broader market index during the recent stock market recovery. All these factors indicate that CAPM estimates of COE for utilities are unreliable and currently understated.

Rebuttal of Division Witness Charles E. Peterson

Q. What is the basis for Mr. Peterson's 10.0 percent ROE recommendation?

A. Mr. Peterson continues to apply a "scattergun" approach based on three types of COE estimation models (DCF, CAPM, and Value Line financial strength risk premium). In Exhibit DPU 4.3, he presents estimates from six constant growth DCF models, four two-stage DCF models, one CAPM estimate, and one estimate from his Value Line financial strength risk premium model. At the bottom of that exhibit, he indicates a reasonable range of 9.85 percent to 10.15 percent and a "Final Estimate Applicable to PacifiCorp" of 10 percent.

Q. Are Mr. Peterson's "reasonable range" and point estimate of ROE based on all the models he presents?

A. No, they do not appear to be. While he provides extensive discussion of the constant growth DCF models on pages 31-34, the two-stage growth DCF models on pages 35-36, the CAPM on pages 37-40, and his risk premium model on pages 40-41, he does not say how he decided on the reasonable range. At page 33, lines 731-732, referring to Exhibit DPU 4.6, he does say that the 75-25 percent earnings growth-dividend growth weighting scheme resulted in a range of 9.85 to 10.15 percent.

Q. Is Mr. Peterson's 9.85 percent to 10.15 percent range actually supported by the 75-25 percent growth rate weighting approach that he attributes to the Commission from the 2002 Questar Gas Company case, Docket No. 02-057-02?

A. No. Although not a large difference mathematically, his statement at page 33, lines 731-732, does not appear to be correct. In fact, 9.85 percent is the result from his constant growth DCF model with the growth rate based on dividend growth only, and 10.15 percent is his result based on earnings growth only. As shown on his Exhibit DPU 4.6, in the "Estimated Cost of Equity Wtd. Growth" column, the 75-25 weighting scheme produces an ROE estimate of 10.06 percent. In effect, his selection of the midpoint of the dividends-earning range gives 50 percent weight to dividend growth and 50 percent weight to earnings growth, not the 75-25 percent approach he cites from the Commission's decision in *Questar*. If interpreted correctly, therefore, based on Mr. Peterson's own comparable group and his preferred growth rate approach, his results support an ROE above 10 percent.

Q. Why do you disagree with Mr. Peterson's interpretation of the growth rate weighting scheme from the 2002 *Questar* case?

A. In the *Questar* case, the Commission found that a 75 percent earnings-25 percent dividends growth rate was a reasonable approach for setting the *low end* of the range. The Commission also recognized projected earnings growth rates for establishing the entire DCF growth rate range. In fact, in that case the Commission used the weighted average as the bottom of the DCF range only and

applied a 100 percent earnings approach to set the top end of the range (*Questar* Order at 34-35). From a policy perspective, reliance on dividend growth instead of earnings growth is problematic because, over the long-term horizon measured by the DCF model, earnings growth drives dividend growth, not the opposite. Had Mr. Peterson correctly used the 10.06 percent ROE from his dividend-earnings weighted average for the bottom of his range and the 10.15 percent ROE from his earnings-only growth rate for the top of his range, his midpoint would have been slightly above 10.1 percent, not the 10.0 percent he recommends.

Q. Do you have other areas of disagreement with Mr. Peterson's growth rate inputs?

A. Yes. While he appears to give less weight to his two-stage growth DCF analysis, it is clear that the results from that analysis would have been higher if he had used more reasonable long-term growth rates in stage 2 of his models. The two-stage results are shown in DPU Exhibit 4.9. In the first three of Mr. Peterson's four estimates, he finds an ROE range of only 9.24 percent to 9.34 percent. The results for these three models are low because the long-term growth rate in stage 2 of those models (4.62%) is based on unreasonably low long-term GDP growth estimates. In Exhibit DPU 4.5, Mr. Peterson indicates that the 4.62 percent GDP growth rate is from Congressional Budget Office (CBO) and. U.S. Energy Administration (EIA) long-term forecasts.

These rates are low because they assume inflation rates that are only about one-half the long-term historical inflation rate in the U.S. economy. The projected inflation rate in the CBO forecast is 2.0 percent and in the EIA forecast, it is 1.8

percent. As shown in my updated GDP forecast in Exhibit RMP___(SCH-3R), for the past 60 years, the U.S. GDP deflator measure of inflation has averaged a 3.4 percent increase per year and the consumer price index has increased by 3.7 percent per year. Government policy issues for balancing the budget and containing the national debt aside, such low long-term inflation rates are not consistent with investors' long-term experience or with the long-term requirements of the DCF model. As shown in Exhibit RMP___(SCH-3R), the long-run average nominal GDP growth rate has been 6.7 percent and my moderated current forecast is 5.8 percent. Mr. Peterson's (as well as. Mr. Lawton's and Mr. Gorman's) two-stage DCF estimates are based on unreasonably low growth rate projections and should be disregarded.

Q. If Mr. Peterson had used your long-term GDP growth forecast in his two-stage DCF models, what would his results have shown?

A. That analysis is provided in Exhibit RMP___(SCH-4R), pages 1 and 2. In that analysis, I substituted my 5.8 percent estimated long-term GDP growth rate in stage two of his two-stage models. The results indicate an ROE range of 10.20 percent to 10.30 percent.

Q. In Exhibit DPU 4.3, Mr. Peterson shows a CAPM result of only 8.73 percent and he includes that result in the average and median estimates he shows near the bottom of that exhibit. How do you respond to this portion of Mr. Peterson's analysis?

A Mr. Peterson's inclusion of the low CAPM result in his average and median values is potentially confusing. The range produced by those values (9.73%-

9.98%) might appear to support his 10.0 percent recommendation as reasonable. However, in the electronic version, in the unprinted area of Exhibit DPU 4.3, Mr. Peterson gives no weight at all to his CAPM result. Additionally, the Commission has previously addressed its rejection of the CAPM: In the 2002 *Questar* case, which Mr. Peterson cites in his DCF growth rate discussion, the Commission stated flatly: "[W]e cannot rely on the CAPM." (*Questar* Order at 34). Mr. Peterson's continuing efforts to inject the CAPM into this Commission's ROE deliberations is not supported by economic facts or the Commission's prior findings.

Q. On page 42, Mr. Peterson explains that he eliminated 11 companies from your initial comparable group and used the remaining nine in his analysis. How do you respond to his group selections?

A. I agree with his elimination of Duke Energy, Progress Energy, and DPL, Inc., and I have eliminated those companies from my updated analysis, because they are involved in mergers. I also agree that NextEra (formerly FPL Group) should be eliminated, which I have also done in my updated analysis, because its percentage of regulated revenues has fallen below 70 percent. With respect to the other companies, however, Mr. Peterson's explanations are questionable. The average revenues for the six companies he eliminates as being too small are about the same size as RMP's Utah operations, which are the subject of the present case. Additionally, his elimination of Sempra Energy and Vectren Corp. as being primarily gas companies is inconsistent with Value Line's classification of those companies in their electric utility group. As shown in DPU Exhibit 4.4, his

resulting 9-company group has mean and median revenues that are over twice the size of PacifiCorp's total company revenues. Finally, Mr. Peterson's approach is the opposite of that taken by Mr. Lawton and Mr. Gorman, both of whom accepted my comparable group selections as reasonable. While it is not clear what the effect of these eliminations might have been on Mr. Peterson's analysis, based on my updated DCF analysis, Exhibit RMP___(SCH-7R), the analysts' growth rate results for nine companies that Mr. Peterson selected are 30 to 60 basis points lower than the results for the seven additional companies that remain in my updated group (see Exhibit RMP___(SCH-4R), page 3).[5]

Q. On page 43, lines 935-936, Mr. Peterson says that you put little or no weight on your DCF results based on analysts' growth rates. Is this statement correct?

A. No. In my direct testimony, I included the analysts' growth rate results (10.1%) as the bottom end of my DCF range. As shown in Exhibit RMP___(SCH-7R), I continue to include that analysis in my update, which currently indicates a DCF range, based solely on analysts' growth rates, of 10.1 percent to 10.5 percent.

Rebuttal of OCS Witness Daniel J. Lawton

Q. What is the basis for Mr. Lawton's 9.5 percent ROE recommendation?

A. At page 8, lines 188-195, Mr. Lawton explains that he employs the DCF model to estimate the cost of equity as well as CAPM and risk premium methods as checks of reasonableness. At page 23, in Table 2, and on lines 587-588, he explains

[5] As shown in the upper right hand portion of the exhibit, the difference after excluding Entergy's low result from Mr. Peterson's group is 30 to 40 basis points.

further that his DCF models produce a range of 9.3 percent to 9.7 percent, with an average of 9.5 percent. On page 29, in Table 4, and on lines 726-730, he expands his explanation to include CAPM and risk premium results and points to a wider range of 9 percent to 10 percent as further support for his 9.5 percent recommendation. In addition to his ROE estimation models, at pages 30-33, he also discusses risk mitigation factors and concludes that a 25 basis point reduction to ROE would be appropriate, although he does not apply this reduction to reach his 9.5 percent ROE recommendation.

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

A. Mr. Lawton's ROE recommendation is far below RMP's cost of equity. His analysis is flawed in at least four areas, and he is quite selective in the data he uses to support his low recommendation. In fact, within his analysis, much of the data support an ROE of well above 10 percent. His one-sided discussion of risk mitigation factors, without any consideration for RMP's heightened investment and operating risk factors or the implicit debt created by its purchased power contracts, seems to be a recognition that his technical analysis does not reasonably support his recommendation. All these factors indicate that Mr. Lawton's arguments should be rejected and his unreasonably low ROE recommendation should be disregarded.

Q. What are the four fundamental flaws in Mr. Lawton's analysis?

A. The overriding factor is that Mr. Lawton would have the Commission believe, incorrectly, that utility capital costs are declining. At page 13, line 316, he says

that corporate bond interest rates have "steadily declined" since the peak levels reached in November 2008. While it is true that the liquidity crisis (at least for now in the U.S.) has eased, it is simply not true that interest rates have "steadily declined." Mr. Lawton's data in Exhibit OCS 1.2 show that since late summer 2010, yields on 30-year Treasury bonds have increased by over 70 basis points (from 3.77% September 2010 to 4.50% in April 2011). That same exhibit shows that BBB corporate rates have increased from 5.66 percent in September 2010 to 6.02 percent in April 2011. Furthermore, as discussed previously and shown in my Table 2, both Treasury and corporate interest rates are predicted to rise substantially more during the coming year. Mr. Lawton's basic premise that capital costs are declining is simply not true.

His technical analyses are also flawed by his efforts to average down the DCF results with unreliable growth rates and to apply a currently unreliable model (the CAPM) and unreliable inputs in his additional risk premium analysis. In his discussion, he also attempts to discount the more reasonable outcomes from his portions of his own analysis. For example, in his Exhibit OCS 1.16, he shows a constant growth DCF median of 9.26 percent and average of 9.66 percent. In his discussion (at 21, line 557), he concludes that this result supports an ROE estimated range of 9.3 percent to 9.7 percent. However, these low results are only obtained by his averaging in totally unreliable "b times r" growth rates (at a 50% weight) for his comparable companies. Had Mr. Lawton simply reported the constant growth results based on his own analysts' growth projections, without b times r, his range would have been 9.95 percent to 10.05 percent. Mr. Lawton's

failure to even report the constant growth DCF result based on his own analysts' growth rates is indicative of his efforts to produce an unreasonably low ROE.

His two-stage growth DCF analysis is similarly flawed. In Exhibit OCS 1.7, he derives a two-stage DCF estimate of 9.57 percent to 9.61 percent and states (at 22, line 583) that this analysis supports an ROE of 9.6 percent. In his discussion (at 22, lines 575-576), Mr. Lawton says that the long-term (stage-two) growth rate is 5.2 percent, based on the average of his analysts' growth rate estimates. However, in Exhibit OCS 1.5, page 1, in column M "Average EPS Forecast," the growth rate is 5.4 percent. When this higher growth rate is inserted into Mr. Lawton's two-stage analysis, the result is a range of 9.74 percent to 9.79 percent, not the 9.6 percent he reports. I will also show below that had Mr. Lawton used a long-term GDP growth rate of 5.8 percent in this analysis, his range would have been 10.10 percent to 10.14 percent. Mr. Lawton was only able to support his low ROE recommendation by injecting incorrect and negatively biased growth rates into his DCF analysis.

Q. Can you demonstrate the estimates of COE that Mr. Lawton's DCF models would have produced with more reasonable input assumptions?

A. Yes. In Exhibit RMP___(SCH-5R), I have recalculated his constant growth and two-stage growth models with more reasonable growth rate inputs.[6] Page 1 of that exhibit contains the results of his constant growth analysis with the growth rate based on his average analysts' growth rates, without his unreliable "b times r"

[6] In my recalculations of Mr. Lawton's models, I also eliminated three companies (DPL, Inc., Duke Energy, and Progress Energy), which are currently involved in merger activities.

growth rates. The result of that analysis is a COE range of 10.10 percent to 10.17 percent. On page 2 of Exhibit RMP___(SCH-5R), I have recalculated Mr. Lawton's two-stage DCF model with my 5.8 percent GDP growth rate estimate substituted for his long-term growth rate estimate. The result of that analysis is a COE range of 10.00 percent to 10.10 percent. These calculations show that Mr. Lawton's DCF results do not support his low ROE recommendation when more reasonable growth rate inputs are used.

Q. On pages 24-25, Mr. Lawton describes a risk premium analysis similar to the one you presented in your direct testimony (Exhibit RMP___(SCH-5)). Is his recalculation of you risk premium analysis reasonable?

A. No. Mr. Lawton's risk premium analysis is incorrect for two reasons. First, he bases his analysis solely on a 5.4 percent "current" single-A bond yield. In this regard, he totally ignores projections for higher utility interest rates during the coming year. In my updated risk premium analysis (Exhibit RMP___(SCH-8R)), I provide the risk premium results with interest rates projected for the coming year. That analysis indicates an ROE of 10.75 percent, well above Mr. Lawton's 8.7 percent to 10.14 percent risk premium range. Mr. Lawton also has a second, and more fundamental error in his risk premium analysis. For the low end of his risk premium range, he uses a simple average of the risk premiums from the historical 1980-2010 data, without adjustment for the inverse relationship between interest rate levels and risk premiums. The 8.7 percent result he obtains in this manner, without accounting for the inverse relationship between interest rates and risk premiums, is incorrect and should be disregarded.

Q. Can you illustrate the inverse relationship between interest rates and equity risk premiums without relying on the statistical analysis that you provided in your direct testimony?

A. Yes. While statistical analysis is often used, especially in academic research, to substantiate certain economic and financial relationships, for the equity risk premium issue, the relationship is so basic that simple observation and averaging of the data for various time periods makes the inverse relationship clear. In Table 4 below, I have averaged the utility bond yields and equity risk premiums for each non-overlapping five-year period between 1980 and 2010 from my equity risk premium data that Mr. Lawton used.

Table 4
Average Five-Year Interest Rates and Equity Risk Premiums
(1980-2010)

Period	Average Utility Bond Interest Rate	Average Equity Risk Premium
1980-1985	13.96%	1.23%
1986-1990	9.86%	3.21%
1991-1995	8.31%	3.48%
1996-2000	7.61%	3.72%
2001-2005	6.75%	4.16%
2006-2010	6.13%	4.27%
Simple Average	8.94%	3.28%

Source: Exhibit RMP___(SCH-8R), page 1.

These data clearly show that equity risk premiums have consistently increased as interest rates have declined. This result is a simple reflection of the fact that expected and achieved rates of return in the stock market are not entirely dependent on changes in interest rates. Because utilities must compete with other types of equity investments for capital, the COE for utilities does not change by as

much as the observed changes in interest rates. For Mr. Lawton (and Mr. Gorman) to use the unadjusted simple average of long-term equity risk premiums with current, historically low interest rates is simply wrong. Such an approach to will consistently understate the required COE.

Q. On page 25, Mr. Lawton provides an additional risk premium analysis based on the long-term Morningstar risk premium data. Does the 10.25 percent COE estimate he obtains from that analysis support his 9.5 percent ROE recommendation?

A. No. At this point, he concedes that this check of reasonableness "indicates the equity return estimate should not be higher than the lower 10% levels." (Lawton at 25, line 650.) Again, Mr. Lawton's own technical analysis shows that his ROE recommendation is well below the zone of reasonableness.

Q. On pages 26-29, Mr. Lawton presents two versions of the CAPM and finds an ROE range of 8.14 percent to 8.54 percent from those models. How do you respond to this portion of his analysis?

A. Mr. Lawton summarizes these results along with the low ends of his DCF and risk premium analyses in his Table 4 on page 29. The CAPM results are by far the lowest of any of the estimates shown in the table. As I explained previously, under present market conditions, all three of the principal inputs to the CAPM (risk-free rate, market risk premium, and beta) are likely depressed and, therefore, the results from that model are unreliable. In this context, Mr. Lawton should have rejected the CAPM outcomes. Only by retaining these unreasonably low results was he able to obtain a CAPM/risk premium range that might appear to

support his low ROE recommendation. This analysis should be rejected, and Mr. Lawton's ROE recommendation should be disregarded.

Q. On pages 30-33, Mr. Lawton discusses "Risk Mitigation Factors." Do these factors reduce RPM's operating risks relative to typical electric utility industry standards?

A. No. He lists six factors that he says the Commission should consider in setting RPM's allowed rate of return. Mr. Lawton's assessment of these factors is incorrect because he fails to address the existence of these factors for other electric utilities, he fails to balance his discussion with other higher risk factors that RMP faces, and he fails to even mention that the bottom line effect of these factors has not allowed RMP to earn a profit level for its shareholders anywhere near its allowed rate of return.

With respect to capital structure, Mr. Lawton notes that RMP's requested equity ratio is slightly higher than the comparable group average. He does not, however, discuss the additional financial leverage that RMP's purchased power contracts create. It is clear from the rating agency discussions of RMP's financial metrics (see Exhibit RMP___(BNW-3)) that RMP's position on a stand-alone basis might not support its present "A" bond rating. Balancing the financial leverage created by the imputed debt of purchased power agreements requires a slightly higher equity ratio.

With respect to operating risks, Mr. Lawton's discussion is similarly one-sided. He notes the EBA, but he fails to mention that every company in his comparable group has fuel and purchased power cost recovery mechanisms in

place (as shown in Exhibit RMP___(SCH-1R), page 2). Likewise, he points to the Company's forecasted test year and major plant addition filings, but in these areas he fails to discuss the relative size of the Company's capital requirements or the earnings attrition that the Company continues to face. With respect to bonus depreciation, however, he says that the Company is relatively better off than other utilities *because of the size and timing* of its investment additions. Finally, he claims that RMP's proposed $10 customer charge is a further risk reducing factor. In fact, none of these "Factors" is unique to RMP. The consistent bond ratings for the proxy group, relative to PacifiCorp, also suggest that the rating agencies do not find Mr. Lawton's risk mitigation factors persuasive. A more balanced view and the simple recognition that RMP has not been able to earn its allowed return shows that his "Risk Mitigation" discussion is suspect.

Rebuttal of FEA Witness Michael P. Gorman

Q. What is the basis for Mr. Gorman's 9.80 percent ROE recommendation?

A. Mr. Gorman's results are summarized on pages 20 and 31 of his testimony. Based on two constant growth DCF model and one multi-stage growth model, a risk premium analysis, and the CAPM, he concludes that the reasonable COE range is 9.6 percent to 10.0 percent with a midpoint of 9.80 percent.

Q. What is your general assessment of Mr. Gorman's ROE testimony and recommendation?

A. Mr. Gorman's recommendation is far below RMP's COE. His recommendation is understated because he employs negatively biased model inputs and he includes the results from one model, the CAPM, that are currently unreliable. In addition,

his equity risk premium analysis is flawed because he rejects the well-documented fact that equity risk premiums increase when interest rates are low (as they are now) and decrease when interest rates are higher. I will show that, but for these deficiencies, Mr. Gorman's analysis should have supported an ROE of 10.35 percent.

Q. What are your specific areas of disagreement with Mr. Gorman's analysis?

A. Mr. Gorman and I disagree strongly on the principal inputs to several of his models, and we disagree on the current reliability of the CAPM. In his analysis, he consistently applies inputs that produce low COE estimates. In his constant growth DCF models, he omits readily available data and makes flawed assumptions about long-term growth that are not substantiated by his own results. In his multi-stage DCF model, which is similar to the one I use, he agrees that GDP growth is an appropriate input, but he uses short-term GDP growth rate forecasts that are significantly dominated by recently low inflation rates. The inflation rates in his GDP forecast are almost a full percentage point lower than the longer-term historical averages. This approach is not consistent with the long-term growth rate requirement of the DCF model.

In his equity risk premium analysis, he selects data that are not consistent with the recent risk premiums allowed by regulators and he fails to include the well documented inverse relationship that exists between equity risk premiums and interest rates, i.e., equity risk premiums tend to increase when interest rates are low and decrease when interest rates are high. With this omission, in the currently low interest rate environment, his equity risk premiums are significantly

understated and, therefore, his equity risk premium estimates of COE are low.

Q. Can you demonstrate what Mr. Gorman's results would have been if he had used more reasonable input assumptions?

A. Yes. I have redone both of Mr. Gorman's constant growth DCF models with simple corrections and I have redone his multi-stage model with a higher long-term GDP growth rate. In his "analysts' growth" DCF model, he excludes Empire District Electric Company because apparently that company was not included in his growth rate sources. However, Value Line projects Empire District's earnings growth rate to be 7.0 percent and the Thomson Financial Network (available at yahoo.com) indicates an Empire District growth rate of 6.0 percent. The average of these two growth rates is 6.50 percent. In my correction of Mr. Gorman's analysts' growth rate analysis, I include this growth rate for Empire District. In addition, I update his dividend data for the Value Line West companies from their most recent Value Line edition (May 6, 2011). This analysis is shown in Exhibit RMP___(SCH-6R), page 2. With these updates, the median and average COEs are 10.10 percent and 10.03 percent, respectively as compared to Mr. Gorman's average result of 9.81 percent.

Q. Has Mr. Gorman changed his position on how he summarizes his DCF results in this case?

A. Yes. In other recent cases Mr. Gorman has relied on the "median" of his DCF results to support his ROE recommendations. In those cases, this approach produced slightly lower results than if he had relied on the "average" of his results. In this case, without explanation, Mr. Gorman has switched back to using

average results in his DCF summary tables. Again, while the differences are not large, in this case the "average" approach produces the lower results. For his constant growth DCF analysis, his average is 9.81 percent, whereas his median result is 9.94 percent. For his multi-stage DCF analysis, the average is 9.43 percent and the median is 9.60 percent. For the sustainable growth DCF analysis, the median is also lower.

Q. Mr. Gorman says that the analysts' growth rates in his constant growth DCF analysis are too high and not sustainable. Is this conclusion consistent with other data in Mr. Gorman's analysis?

A. No. This conclusion is not consistent with his overall recommendation. Mr. Gorman's constant growth DCF analysts-based study produces an average ROE estimate of 9.81 percent. This result is virtually identical to his overall ROE recommendation of 9.80 percent. Hence, there is no basis for Mr. Gorman to reject analysts' growth rates when they produce the virtually the same result as he ultimately recommends.

Q. Are there flaws in Mr. Gorman's "sustainable growth" DCF calculation?

A. Yes, this approach should be rejected entirely. As mentioned above in my rebuttal of Mr. Lawton, the "b times r," "sustainable" growth methodology is unreliable because it fails to consider sources of growth other than retained earnings and because it is circular. The "sustainable" growth rate depends directly on the earned ROE for each company, which obviously depends on the level of ROE set in the regulatory process. For these reasons, the "sustainable" growth approach is generally rejected.

Q. What is your specific disagreement with Mr. Gorman's multi-stage DCF analysis?

A. In that analysis, he uses analysts' growth rates in the first five years and a GDP growth rate forecast for years 11 and later. In the intermediate years, years six through ten, he interpolates between stage 1 and stage 3. I disagree with his results because they are dominated by his very low GDP growth estimate. His GDP growth forecast is from the five and ten-year periods published by the Blue Chip Financial Forecast service. Like the CBO and EIA forecasts, the current Blue Chip forecast is low because it is dominated by low expected real growth in the economy (caused by the recent recession) and an assumed long-term inflation rate of only about 2.0 percent. As shown in my updated GDP forecast (Exhibit RMP___(SCH-2R)), this inflation rate is lower than for any ten-year period in the last 60 years. The nominal 4.90 percent growth rate that Mr. Gorman uses is approximately equal to or lower than nominal GDP growth in any 10-year period, other than the most recent recession-dominated 10 years. For Mr. Gorman to base his long-term DCF growth estimate on currently depressed, near-term GDP growth is inconsistent with the DCF model's long-term growth rate requirement.

Q. If Mr. Gorman had used your updated GDP growth rate, what would the results of his multi-stage DCF analysis have been?

A. In Exhibit RMP___(SCH-6R), page 3, I have reproduced Mr. Gorman's multi-stage analysis (from his Exhibit WIEC__(MPG-9)) with my 5.8 percent GDP growth forecast substituted for the Blue Chip growth rate he used in years eleven and later. In addition, I included Empire District in the analysis based on the

discussion above. Based on the latest dividend data for the Value Line West companies from their most recent Value Line edition (May 6, 2011), that analysis indicates an average COE of 10.30 percent and a median COE of 10.35 percent.

Q. Please comment on Mr. Gorman's equity risk premium analysis.

A. Mr. Gorman has a fundamental mistake in his equity risk premium analysis. In that analysis, he excludes the well-documented inverse relationship between equity risk premiums and interest rate levels, i.e., the tendency for equity risk premiums to increase when interest rates are low and to decrease when interest rates are higher. In my direct testimony, I provided a detailed regression analysis to document this fact. Also, as I demonstrated in my rebuttal of Mr. Lawton in Table 4, the basic relationship can be shown clearly without need for the statistical analysis. Additionally, in his criticism of my analysis, Mr. Gorman provides an incomplete discussion of the academic literature. In fact, while portions of that literature do point to additional factors that may affect equity risk premiums, the literature does not dispute the basic inverse relationship. When Mr. Gorman's analysis is properly modified to reflect this relationship, his equity risk premium and estimate of COE are much higher.

Q. Please elaborate.

A. Mr. Gorman presents his equity risk premium data in Schedules MPG-11 through MPG-12. He discusses that analysis on pages 21-25 of his testimony. The analysis consists of two parts. In one approach, he adds equity risk premiums based on government bond interest rates of 4.40 percent to 6.09 percent to a projected Treasury bond yield of 5.20 percent. This analysis produces a COE range of 9.60

602 percent to 11.29, with a midpoint of 10.45 percent. In his second approach he
603 adds equity risk premiums of 3.03 percent to 4.62 percent over utility bond yields
604 to the recent "A" utility bond yield of 5.61 percent. This analysis produces a COE
605 range of 8.64 percent to 10.23 percent, with a midpoint estimate of 9.44 percent.
606 From these two results, he concludes that a risk premium COE of 9.95 percent is
607 appropriate (average of 10.45% and 9.44%).

608 **Q. What does Mr. Gorman's equity risk premium data indicate when the**
609 **inverse relationship between interest rates and risk premiums is included?**

610 A. In Exhibit RMP___(SCH-6R), pages 4-7, I have applied the standard regression
611 analysis to calculate "interest rate adjustment" factors for his two equity risk
612 premium studies. This approach properly takes into account the inverse
613 relationship between equity risk premiums and interest rates. With this
614 adjustment, Mr. Gorman's Treasury bond equity risk premium analysis indicates a
615 COE of 10.85 percent, as shown in pages 4-5 of Exhibit RMP___(SCH-6R). His
616 utility bond equity risk premium analysis indicates a COE of 10.21 percent (pages
617 6-7). The midpoint of these revised risk premium results is 10.53 percent.

618 **Q. Please summarize the results of your adjustments to Mr. Gorman's analysis.**

619 A. My adjustments are summarized in Table 5 below:

Table 5
Summary of Updated Gorman ROE Results

	Gorman Average DCF	Updated Median DCF	Updated Average DCF
DCF Models			
Constant Growth DCF (Analysts' Growth)	9.81%	10.10%	10.03%
Constant Growth DCF (Sustainable Growth)	9.61%	N/A	N/A
Multi-Stage DCF	9.43%	10.35%	10.30%
DCF	9.62%	10.22%	10.17%
Risk Premium Average	9.95%	10.53%	10.53%
CAPM	9.90%	9.90%	9.90%
Indicated ROE	**9.80%**	**10.20%**	**10.20%**
Indicated ROE without CAPM		**10.35%**	**10.35%**

In the DCF model based on analysts' growth rates, the inclusion of readily available growth estimates for Empire District and the inclusion of updated Value Line information increases his estimate to 10.03 percent to 10.19 percent. His sustainable growth DCF model is flawed and should be rejected. The inclusion of a more realistic long-term GDP growth rate of 5.8 percent in his multi-stage DCF analysis increases that result to 10.30 percent to 10.35 percent. Factoring in the observed inverse relationship between interest rates and equity risk premiums increases the equity risk premium average to 10.53 percent. I did not adjust his CAPM result. As shown above, the average of the adjusted DCF result with the risk premium and CAPM results is a COE of 10.20 percent. Without the inclusion of the unreliable CAPM results, the adjusted average is 10.35 percent. Had Mr. Gorman considered more reasonable inputs, his COE estimates would have been well above the 9.80 percent ROE he recommends.

Q. On page 40, Mr. Gorman criticizes your GDP growth forecast by saying that it is based on historical GDP data. Is it accurate to say that your forecast is a historical input?

A. No. The GDP growth rate that I use is a forecast based on general economic conditions that investors may expect for utilities in the very long run, as is required in the DCF model. While I develop my forecast from the St. Louis Federal Reserve Bank data base that covers the past 60 years, my forecast is not a simple average or an extrapolation of the historical data. As is done in most econometric forecasts, I use the long-run historical relationships to project what investors may reasonably expect for the long-term future. I also give more weight to more recent observations by applying weighted averages that give about five times as much weight to the most recent 10 years as compared to the earliest 10 years. Giving more weight to the more recent data lowers the overall growth rate forecast. For example, my current forecast is 5.8 percent whereas the annual average of the growth rate data is 6.7 percent. In this context, Mr. Gorman's criticism of my growth forecast is unwarranted and his comparison of my approach to forecasted earnings growth rates is misplaced.

Q. How do you respond to Mr. Gorman's criticisms of your equity risk premium analysis?

A. Portions of his comments are inconsistent with his own risk premium analysis. He adopts my commission-authorized ROEs to estimate risk premiums and then he applies those risk premiums, as I do, to both projected and current interest rates. The primary differences between our approaches is that my historical timeframe

is longer (my data go back to 1980 and Mr. Gorman's to 1986) and I take into account the inverse relationship between interest rates and equity risk premiums. As I demonstrated previously, had Mr. Gorman included this fundamental relationship in his analysis, his equity risk premium analysis would have produced an ROE above 10 percent.

Q. Mr. Gorman criticizes your use of projected interest rates in your risk premium analysis (pages 42-43). Is this fair?

A. No. In fact, Mr. Gorman relies on projected interest rates in developing key parts of his own ROE analysis. In one of his risk premium studies, he uses the projected long-term Treasury bond yield as the starting point to which he adds an equity risk premium. In his CAPM analysis, he relies on a projected Treasury bond yield as his risk-free rate. Mr. Gorman's remarks concerning my use of projected interest rates are inconsistent with his own analysis and should be disregarded.

Q. On pages 36 and 37, Mr. Gorman refers to the recent Idaho and Washington decisions as evidence that your ROE recommendations have been too high. Have other commissions recently found just the opposite in evaluating your and Mr. Gorman's respective ROE recommendations?

A. Yes. In its Order dated May 24, 2011, in Commonwealth Edison, Docket No. 10-0467, the Illinois Commerce Commission (ICC) offered the following evaluation of Mr. Gorman's 9.6 percent ROE recommendation:

> The Commission finds the testimony of [Illinois Industrial Energy Consumers] IIEC and AG/CUB relating to ROE also unpersuasive. **The evidence shows that Mr. Gorman's estimated ROE is too low because his model inputs are negatively biased and that under current market conditions his CAPM is unreasonable.** In addition, the Commission agrees with ComEd that Mr. Gorman

> incorrectly believes that the cost of equity for utilities have declined as much as interest rates. (Order at 153, emphasis added.)

The ICC also found the following:

> The results of Dr. Hadaway's updated DCF analysis yield an estimated ROE range of 10.3%-10.9%. (Order at 123) Th[e adjusted Staff CAPM] number would be more in the range of Dr. Hadaway's midpoint of 10.6%. A reasonable average between [Staff witness] Mr. McNally's CAPM with adjustments and Dr. Hadaway's average is 10.50 %. Having reviewed all of the evidence and the arguments of the parties, the Commission finds that a 10.50% cost of common equity for ComEd is reasonable and is hereby adopted in this proceeding. (Order at 153-154.)

Rebuttal of Wal-Mart Witness Steve W. Chriss

Q. On page 3, lines 7-11, Mr. Chriss recommends that the Commission should consider the reduction in the Company's risk that, he says, results from the ECAM? What is your response to his recommendation?

A. Mr. Chriss is mistaken on at least two accounts. First, the premise of his recommendation is that the Utah EBA reduces the Company's risk. With the Company exposed to potential loss of up to 30 percent of the difference between its in-rates and actual net power costs, it is unlikely that investors perceive substantial risk reduction. While the EBA should protect against catastrophic conditions like those that resulted from the 2000-2001 energy crisis, other avenues of recovery might also be available under such conditions. Thus, Mr. Chriss' basic premise is questionable. The second, and more important, fallacy in his recommendation is that he ignores the relative position of RMP with respect to the comparable group. In Exhibit RMP___(SCH-1R), page 2, I show the fuel and purchased power recovery mechanisms for the 16 companies, with their operations in over 30 jurisdictions. In all the jurisdictions, there are only eight

instances that involve dead bands or sharing mechanisms, and these are generally in the two percent to five percent range. All the other operations provide dollar-for-dollar recovery of prudently incurred costs. Using these companies to estimate RMP's cost of equity clearly eliminates any need to reduce the ROE estimate for RMP's EBA. Mr. Chriss' recommendation in this regard is inappropriate and should be disregarded.

Update of ROE Estimates

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

A. Yes. Consistent with my customary practice, I have updated my analysis for current conditions using the same methodologies that I employed in my direct testimony.

Q. What are the results of your updated analysis?

A. My updated DCF results are shown in Exhibit RMP___(SCH-7R). The indicated DCF range is 10.1 percent to 10.5 percent. My updated equity risk premium studies are shown in RMP Exhibit___(SCH-8R). That analysis indicates a COE range of 10.18 percent to 10.75 percent.

Q. What do you conclude from your updated analyses?

A. Interest rates as measured by both long-term Treasury yields and yields on long-term single-A rated utility bonds have increased substantially since the Company's direct case was filed. While my updated DCF results continue to support only a mid-to-lower 10 percent range, the results of my risk premium analysis are now about 50 basis points higher than they were when the case was

filed. Importantly, interest forecasts for the coming year indicate significant further interest rate increases. In this environment, an ROE of 10.5 percent is reasonable. I believe this is a reasonable reflection of RMP's cost of equity capital.

Q. Does this conclude your rebuttal testimony?

A. Yes.