Docket No. 13-035-184

Utah Office of Consumer Services Witness

Daniel J. Lawton

Exhibits OCS 1.1D through 1.11D

April 17, 2014

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER COMPANY 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. 13-035-184** **Direct Testimony on** **Rate of Return** **of Daniel J. Lawton** **For the Utah Office of Consumer Services**

April 17, 2014

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Exhibits and Attachments

DIRECT TESTIMONY OF
DANIEL J. LAWTON

SECTION I: INTRODUCTION/BACKGROUND/SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel J. Lawton. My business address is 12600 Hill Country Boulevard, Suite R-275, Austin, Texas 78738.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I have been working in the utility consulting business as an economist since 1983. Consulting engagements have included electric utility load and revenue forecasting, cost of capital analyses, financial analyses, revenue requirements and cost of service reviews, and rate design analyses in litigated rate proceedings before federal, state and local regulatory authorities, and in court proceedings. I have worked with numerous municipal utilities developing electric rate cost of service studies for reviewing and setting rates. In addition, I have a law practice based in Austin, Texas. My main areas of legal practice include administrative law representing municipalities in electric and gas rate proceedings, appellate matters and other litigation and contract matters. I have included a brief description of my relevant educational background and professional work experience in Exhibit OCS _ 1.1D.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN RATE PROCEEDINGS?

A. Yes. A list of cases where I have previously filed expert testimony is included in Exhibit OCS _ 1.1D.

Q. ON WHOSE BEHALF ARE YOU FILING TESTIMONY IN THIS PROCEEDING?

A. I have been retained to review the Rocky Mountain Power ("Company" or "RMP") cost of capital request, and related financial issues, on behalf of the Utah Office of Consumer Services ("OCS").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to address the Company's requested overall cost of capital. I will address the Company's requested overall rate of return to be earned on rate base investment, capital structure, and cost rates for equity capital, preferred stock, and long-term debt, which is presented in the direct testimony of RMP's cost of capital witnesses, Dr. Samuel Hadaway and Mr. Bruce Williams. In addition, I address the Company's financial integrity and cash flow metrics related to return of and on invested capital resulting from my overall recommendations in this case.

Q. WHAT MATERIALS DID YOU REVIEW AND RELY ON FOR THIS TESTIMONY?

A. I have reviewed prior orders of the Public Service Commission of Utah ("Commission"), the Company's current direct testimony, Company responses to interrogatories, Value Line Investment Survey ("Value Line"), financial reports of the Company, along with financial reports of other utility companies of comparable risk and other financial information available in the public domain. When relying on various sources, I have referenced such sources in my testimony and/or attached Exhibits and included copies or summaries in my Exhibits and/or work papers.

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN THIS CASE.

A. My analysis of the Company's required cost of capital results in a recommendation as follows:

Table 1[1]

RECOMMENDED RATE of RETURN on INVESTED CAPITAL

DESCRIPTION	RATIO	COST	WEIGHTED COST
LONG-TERM DEBT	48.38%	5.28%	2.56%
PREFFERED STOCK	0.02%	6.75%	---
COMMON EQUITY	51.60%	9.20%	4.75%
TOTAL	100.00%	---	7.31%

As discussed below, in my opinion, these recommended return levels are consistent with current market capital costs and consistent with just and reasonable rates for consumers. My analyses of the Company's requested 10% equity return request indicates that the Company's request is overstated and is not consistent with just and reasonable rates for consumers given current market capital costs.

Based on my analyses (which are fully explained in the following pages), I make the following conclusions and recommendations:

(i) A return of 9.20% on shareholder equity is consistent with current market capital cost requirements and is more than adequate for the Company to maintain its financial integrity and creditworthiness;

(ii) The Company's cash flows and liquidity at a rate of return on rate base investment of 7.31% are more than adequate to meet cash operating and construction requirements;

(iii) The Company's overall cost of capital, employing the Company's proposed capital structure and cost rates for debt and my recommended equity return of 9.20%, to be earned on rate base investment should be set at 7.31% for setting just and reasonable rates for customers in this proceeding;

[1] Capital structure ratios and debt and preferred cost rates per Company request. See Direct Testimony Bruce Williams at 2:34. Equity return of 9.2% based on analyses and recommendation of this testimony.

(iv) The Company's proposed 10.00% return for equity shareholders is an overstatement of the required return on equity to hold and attract equity capital; and

(v) The Company's proposed 7.72% overall return on investment is overstated and should not be adopted as representative of the Company's cost of capital requirements.

SECTION II: OVERVIEW OF COMPANY'S REQUEST

Q. PLEASE DESCRIBE THE REQUESTED RATE INCREASE.

A. The Company is requesting an annual revenue rate increase of $76.3 million or about 4% of total annual revenue.[2] The claimed cost drivers for the Company's rate increase include:

i. an increase in capital investments and rate base;[3]

ii. a decline in sales revenue and billing determinants;[4]

iii. a reduction in renewable energy credit revenues; [5]

iv. an increase in depreciation expenses;[6]

v. a modest increase in net power costs;[7] and

vi. an increase in cost of capital from the current authorized level.[8]

While the Company refers to the return on equity increase as a "slight increase"[9] the actual dollar impact of the Company's requested return at 10% relative to the current authorized level of 9.8% is about $10 million per year.[10] Thus, about

[2] Direct testimony Company witness Richard Walje at 2:35
[3] ID at 3:45
[4] ID at 3:48
[5] ID at 3:50
[6] ID at 3:53
[7] ID at 3:55
[8] ID at 3:56
[9] ID at 3:56
[10] ID at 6:124

13.1% ($10 mm/$76.3 mm) of the rate request is associated with the Company's equity return increase from the current authorized levels.

SECTION III: SUMMARY OF ISSUES ADDRESSED

Q. WHAT ARE THE ISSUES BEING ADDRESSED WITH REGARD TO EQUITY, RETURN AND CAPITAL STRUCTURE?

A. The overall issue is what level of profits RMP should be authorized to earn on rate base investment. The Company has requested a profit level on shareholder equity of 10% or about $311.1 million[11] based on a requested rate base of $6.029 billion. As discussed earlier, reducing the requested return level by 20 basis points (10.0% to 9.8%) would reduce requested revenue requirements by about $10 million annually. Given that my recommended equity return of 9.2% is 80 basis points lower than the RMP 10% request, the impact of this adjustment would lower the Company's $76.3 million annual increase by about $40 million per year.

The Company's requested shareholder profit and return on investment are overstated in light of current market capital costs. The Company's failure to recognize these lower capital costs overstates the need for a rate increase in this case.

SECTION IV: REGULATORY ISSUES AND COST OF CAPITAL

Q. PLEASE EXPLAIN THE COST OF CAPITAL CONCEPT AS IT RELATES TO THE REGULATORY PROCESS.

A. The overall rate of return to be earned on rate base investment is an essential element in the regulatory and rate setting process and is typically a major part of overall revenue requirements. For example, in this case the Company's requested overall return is 7.72%. As is discussed above, a 20 basis point change in rate of return on equity can have a large impact on overall revenue requirements, in this case about $10 million per year.

[11] See Table 2

Q. WHAT IS THE BREAKDOWN OF RETURN ON CAPITAL AND PROFIT BEING REQUESTED IN THIS CASE?

A. The overall return on rate base investment being requested in this case is shown in the following table.

Table 2[12]

RMP REQUESTED COST OF CAPITAL AND REVENUE REQUIREMENT					
LINE NO.	DESCRIPTION	Company Weighted Cost	Weighted Cost w/ Federal Income Tax	Return Requirement w/o Taxes	Return Requirement w/ Federal Income Tax
1	Long-Term Debt	2.56%	2.56%	$ 154.0 mm	$ 154.0 mm
2	Preferred Stock	-	-	$ 0.0 mm	$ 0.00 mm
3	Common Equity	5.16%	7.94%	$ 311.1 mm	$ 478.6 mm
4	Total	7.72%	10.50%	$465.2 mm	$ 632.8 mm

As can be seen from the Table 2, the Company is requesting that rates be set to allow the Company to earn a 7.72% overall return on a claimed test year investment level of $6.029 billion, which translates into about $465.2 million of after tax total return dollars. The total return dollars can be broken down to $154.0 million of interest return to cover claimed debt costs, a small amount for the remaining preferred dividends, and a Company request of $311.1 million of profit for shareholders.

It is important to note that the shareholder profit being requested is an after tax request. In other words, customers also must pay through rates a return on equity investment and income (state/federal/revenue related) taxes such that the $311.1 million profit request is available after all taxes are paid. Federal income taxes alone, at a 35% rate, adds about $167.5 million to electric customer rates.[13]

[12] Capital structure and cost rates per testimony of RMP witness Bruce Williams, assumes a rate base of $6,029,328,450 per Exhibit RMP__ SRM 1, page 1 of 4, Line 61.

[13] Tax Factor equals 1/(1-tax rate), which is (1/(1-.35)) equals 1.53846154. This tax factor of 1.53846154

Q. PLEASE EXPLAIN HOW THE VARIOUS COMPONENTS OF COST OF CAPITAL ARE DETERMINED.

A. The overall rate of return in the regulatory process is best explained in two parts. First, return to senior securities, such as debt and preferred stock, both of which are included in the capital structure, are contractually set at issuance. The reasonableness of the cost of this contractual obligation between the utility and its investors is examined by regulatory agencies as part of the utility's overall revenue requirement.

The second part of a company's overall return requirement is the appropriate cost rate to assign the equity portion of capital costs. The return to equity should be established at a level that will permit the firm an opportunity to earn a fair rate of return. By fair rate of return, I mean a return to equity holders, which is sufficient to hold and attract capital, sufficient to maintain financial integrity, and a return to equity comparable to other investments of similar risks.

Two U.S. Supreme Court decisions are often cited as the legal standards for rate of return determination. The first is *Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia*, 262. U.S. 679 (1923). The *Bluefield* case established the following general standards for a rate of return: The return should be sufficient for maintaining financial integrity and capital attraction and a public utility is entitled to a return equal to that of investments of comparable risks.

The second U.S. Supreme Court decision is the *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1942). In the *Hope* decision, the Court affirmed its earlier *Bluefield* standards and found that methods for determining return are not the test of reasonableness rather the result and impact of the result are controlling.

The cost of capital is defined as the annual percentage that a utility must receive to maintain its financial integrity, to pay a return to security owners and to ensure

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times the requested shareholder profit level requested equals taxes and profits.

the continued attraction of capital at a reasonable cost and in an amount adequate to meet future needs. Mathematically, the cost of capital is the composite of the cost of several classes of capital used by the utility such as debt, preferred stock, and common stock, weighted on the basis of an appropriate capital structure.

The ratemaking process requires the regulator to determine the utility's cost of capital for debt, preferred stock and equity costs. These calculations of cost rates, when combined with the proportions of each type of capital in the capital structure, result in a percentage figure that is then multiplied by the value of assets (investment) used and useful in the production of the utility service to ultimately arrive at a rate charged to customers. Rates should not be excessive (exceed actual costs) or burdensome to the customer and at the same time should be just and reasonable to the utility.

Q. PLEASE EXPLAIN THE COST OF EQUITY CONCEPT.

A. The cost of equity, or return on equity capital, is the return expected by investors over some prospective time period. The cost of equity one seeks to estimate in this proceeding is the return investors expect prospectively when the rates from this case will be in effect.

The cost of common equity is not set by contract, and there are no hard and fast mathematical formulae with which to measure investor expectations with regard to equity requirements and perceptions of risk. As a result, any valid cost of equity recommendation must be developed using rational methodologies that estimate investors' expectations of the risks facing a utility.

Q. WHAT PRINCIPAL METHODOLOGY DO YOU EMPLOY IN YOUR COST OF EQUITY CAPITAL ANALYSES?

A. I employ the Discounted Cash Flow ("DCF") methodology for estimating the cost of equity, keeping in mind the generally accepted premise that any utility's cost of equity capital is the risk free return plus the premium required by investors for accepting the risk of investing in an equity instrument. It is my opinion that the

best analytical technique for measuring a utility's cost of common equity is the DCF methodology. Other return on equity modeling techniques such as the Capital Asset Pricing Model ("CAPM") or risk premium are often used to check the reasonableness of the DCF results. I have employed all these modeling methods to arrive at my recommendations in this case.

Q. PLEASE DESCRIBE THE RISKS YOU REFER TO ABOVE.

A. As I stated above, equity investors require compensation above and beyond the risk free return because of the increased risk factors investors face in the equity markets. Thus, investors require the risk free return plus some risk premium above the risk free return. The basic risks faced by investors that make up the equity risk premium include business risks, financial risks, regulatory risks, and liquidity risks.

SECTION V: CURRENT CAPITAL MARKET CONDITIONS

Q. DO CURRENT ECONOMIC CONDITIONS WARRANT HIGHER RETURNS FOR UTILITY COMPANIES?

A. In my opinion, no. While the financial markets, and the economy in general, have experienced periods of uncertainty and turmoil since September 2008, government intervention has had a favorable impact on financial markets. Moreover, recent January and March 2014 Federal Reserve monetary policy announcements have signaled continuation of accommodative monetary policy and expectations of continued low interest rates. The end result is that cost of capital today remains at lower levels following the economic turmoil that impacted the global markets in the autumn of 2008. The cost of capital continues at low levels as evidenced by an historical annual review of bond yields and authorized equity returns set by regulatory authorities around the country.

Q. ARE ECONOMIC CONDITIONS EXPECTED TO CONTINUE IMPROVEMENT IN 2014?

A. Yes, but conditions are expected to continue to demonstrate slow growth. As

noted above the economy is in the fifth year of recovery. However, unemployment while declining has remained at elevated levels and when viewed with structural changes and metrics of employment participation, these workforce levels continue to be depressed. Growth in GDP has been lackluster since the recovery began, but the second half of 2013 did demonstrate a growth rate of 3.3 percent. Whether this GDP growth will continue into and through 2014 remains a question and a concern for investors and government policy makers.

Recent economic projections released by the Federal Reserve Open Market Committee ("FOMC") in December 2013 indicate a 3.0% (midpoint) GDP growth rate for 2014 and 3.2% GDP (midpoint) growth in 2015. As for unemployment, the December 2013 projections continue to estimate unemployment levels above 6.5% throughout 2014 declining to about 6% in 2015. These December 2013 projections continue to project inflation well under the targeted 2.0% for both 2014 and 2015. I have included these FOMC December 2013 projections in my Exhibit OCS_1.2D.

I should note that over the last number of years the Federal Reserve forecasts of GDP growth and declining unemployment estimates have been consistently overly optimistic. The Federal Reserve quarterly forecast revisions are generally lower than earlier estimates. This trend of revising projections downward has again occurred as shown in the March 19, 2014 Federal Reserve estimates and economic projections. These latest Federal Reserve projections are also provided in my Exhibit OCS_1.2D.

One factor that may impact economic growth in 2014 is the increase in consumer liquidity. Generally, consumers are carrying less debt and housing price increases have impacted consumer balance sheets in a positive fashion. Given that consumer spending accounts for approximately two-thirds of GDP, a healthier consumer base of spending may result in higher economic growth consistent with projections. While early year 2014 severe weather conditions have dampened consumer activity and economic growth, a longer view through the year may see a rise to projected growth levels. It is unknown whether this higher growth will occur. The only known is that we continue to have very low growth since the

bottom of the last recession.

Q. DOES THE FEDERAL RESERVE CONTINUE TO TARGET A LOW FEDERAL FUNDS RATE AS PART OF ITS MONETARY POLICY?

A. Yes. Since December 2008, the federal funds targeted rate, by the FOMC of the Federal Reserve, has been between 0 and .25 percent – essentially zero. Thus, for the past five years the Federal Reserve policy has been to maintain low short-term interest rates as part of the monetary policy.

In a January 29, 2014 FOMC press release related to the federal funds rate, the Federal Reserve provided forward guidance on monetary policy and stated: "…it likely will be appropriate to maintain the current target range for federal funds rate well past the time the unemployment rate declines below 6½ percent, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal."[14] Included in Exhibit OCS_1.2D are the January 29, 2014 and March 19, 2014 Federal Reserve press releases.

Thus, despite the FOMC decision in December 2013 and January 2014 to reduce the pace of Quantitative Easing, other efforts towards accommodative monetary policy and low interest rates are expected to continue. The signal from the Federal Reserve is continued accommodative policy and low interest rates until the economy gains sufficient traction to address issues beyond the stated 6.5 percent unemployment metric so long as inflation stays in check at the targeted 2.0 percent long-run projection.

Q. THE FOMC USES MONETARY POLICY TO ACHIEVE TWO MANDATES. PLEASE EXPLAIN THESE MANDATES.

A. On January 28, 2014, the FOMC issued a public statement to explain and clarify its monetary policy decisions to the general public as clearly as possible. The purpose of the FOMC policy statement to the public points out "…clarity facilitates well-informed decision-making by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary

[14] See Exhibit OCS_1.2D January 29, 2014 Federal Reserve Press Release

policy, and enhances transparency and accountability…" [15]

In terms of the FOMC's first mandate of stable prices and inflation, the FOMC long-term target inflation level is 2.0 percent. The Federal Reserve's continued communication in its January 29th press release of the long-term inflation goal is expected to influence long-term inflation expectations and price stability, as well as moderate long-term interest rates.

The FOMC's second statutory mandate of promoting maximum employment is generally impacted and largely influenced by non-monetary policy factors. Thus, unlike the 2% long-term inflation goal, the FOMC does not specify a specific goal for employment or unemployment. Instead, the FOMC policy decisions are informed by estimates of longer-run normal unemployment published four times each year in the FOMC's Summary of Economic Projections. The most recent estimates of the longer-run normal rate of unemployment have a central tendency range of 5.2% to 5.6%. Therefore, one would expect monetary policy to be consistent with achieving the long-term inflation goal of 2% and normal long-term unemployment goals of 5.2% to 5.6%.

Q. WHAT IS THE COURSE OF THE FOMC MONETARY POLICY TO ACHIEVE ITS GOALS WITH REGARD TO INFLATION AND UNEMPLOYMENT?

A. The FOMC January 29, 2014, Press Release states:

> To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the asset purchase program ends and the economic recovery strengthens…<u>In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measure of labor market conditions</u>…The Committee continues to anticipate…that <u>it is likely appropriate to maintain the current target range of federal funds rate well past the time the unemployment rate declines below 6 ½ percent</u>…[16] (emphasis added)

[15] www.federalreserve.gov, "Statement on Longer-Run Goals and Monetary Policy Strategy"
[16] See Exhibit OCS_ 1.2. also see www.federalreserve.gov/newsevents/press/monetary/

Given the above from the January 2014 FOMC meetings, the course continues to be accommodative monetary policy and maintaining low long-term interest rates. The FOMC's third annual "Statement on Longer-Run Goals and Monetary Policy Strategy" changed little from prior years. Thus, the Federal Reserve has made clear that there will be more of the same on monetary policy. These same policy goals were restated by the FOMC in the March 19, 2014 press release.[17]

Q. DO THE FEDERAL RESERVE POLICY ACTIONS PROVIDE ANY INSIGHT AS TO THE DIRECTION AND LEVEL OF LONGER-TERM INTEREST RATES?

A. Current monetary policy objectives of the Federal Reserve are designed to stimulate economic growth and employment. The Federal Reserve has previously stated that short-term rates will remain at or near zero at least until late 2014 in an effort to provide further economic stimulus and employment growth. Now, the Federal Reserve guidance signals a longer period for the near zero federal funds rate.

The market evidence provided in Exhibit OCS _ 1.3D shows long term interest yields have declined since last summer. Although, since May 2013 there has been an up tick in yields from earlier lower levels and this higher yield level has continued through December 2013. Recent months since the end of 2013 have seen yields decline and current yields are continuing to decline. Thus, the Federal Reserve stated policy of continued lower interest rates is reflected in market results. The Federal Reserve actions continue efforts to maintain lower interest rates in an effort to promote economic growth and lowering unemployment levels. The evidence of declining and lower rates in the market place all indicate it is reasonable to expect continued low yields for the foreseeable near term future.

Q. BASED ON CURRENT ECONOMIC CONDITIONS, WHAT CONCLUSIONS DO YOU DRAW FOR SETTING EQUITY CAPITAL COSTS IN THIS PROCEEDING?

[17] ID

A. As a general matter capital costs remain low in comparison to pre-2009 historical levels. While the yields of the bottom tier of investment grade corporate bonds increased substantially during the liquidity crisis such increases do not appear to be a trend, but rather the direct impact of an atypical event in the capital markets. Current or spot triple-B corporate bond yields during the last week of March 2014 are at the 5.0% level.[18] Spot corporate AAA yields are in the 4.3% range for late March 2014.[19] The economic slowdown and continued but modest growth in recovery will cause general investor expectations of growth to continue to be moderate. The bottom line is that the general economic data does not support increasing capital costs.

Q. HAVE REGULATORY AUTHORITIES AROUND THE COUNTRY RECOGNIZED THE DECLINING COST OF EQUITY AND DEBT CAPITAL IN SETTING RATES?

A. Absolutely. The most recent rate case summary from the Edison Electric Institute ("EEI") for the fourth quarter of 2013 indicates the following regarding authorized equity returns for electric utilities:

> The average allowed ROE in Q4, at 9.90%, was the third lowest quarterly total in recent decades and near the bottom of a long trend of declining allowed ROE's caused by falling interest rates and, in recent years, commissions' concerns about rate increases in economically challenging times.
>
> The average allowed ROEs for 2013 was 10.02%, the lowest in our decades of data. The average allowed ROE for 2012 was 10.15%. The last four years have set successive record lows. [20]

Given that monetary policy is expected to continue the accommodative track and interest rates are expected to remain low relative to past historical levels, the low equity return awards by regulatory authorities consistent with low capital costs are likely to continue for some time. There is no evidence to suggest equity return levels will or should be higher than those levels experienced in 2013.

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[18] Federal Reserve Selected Interest Rates (weekly) www.federalreserve.gov/h15/20140331/

[19] ID

[20] "Q4 2013 Financial Update, Quarterly Report of U.S. Shareholder-Owned Electric Utility Industry" Edison Electric Institute at www.eei.org

As I explain below, RMP is less risky than the average electric utility. Accordingly, one would expect that RMP's cost of equity is below the 9.90% average equity return award most recently granted by regulators across the country.

SECTION VI: THE UTAH REGULATORY PROCESS

Q. WHAT IS THE TEST YEAR IN THIS CASE?

A. The test year is a forecasted test period consisting of the twelve months ending June 30, 2015. Employing a forecasted test year is advantageous for the utility as projected future test year expenditures and expected future investment can be captured in the prospective rate setting process reducing regulatory lag impacts.

Q. DOES THE REGULATORY PROCESS IN UTAH AFFORD UTILITY COMPANIES RISK REDUCING OPPORTUNITIES?

A. Yes. For example, single capital investments that exceed 1% of rate base investment qualify for interim recovery without a full rate case proceeding. This large investment recovery mechanism, Major Plant Addition ("MPA"), provides an opportunity to reduce regulatory lag and reduce the risk of revenue erosion. In addition, the Utah Commission approved a net power cost adjustment mechanism or Energy Balancing Account ("EBA") for RMP which serves to limit the Company's exposure or risk to fuel and purchase power price volatility.

Q. YOU MENTIONED REGULATORY LAG. PLEASE EXPLAIN THE TERM AND HOW IT IMPACTS RATE SETTING AND REGULATORY RISK.

A. Regulatory lag is the period of time it takes to adjust tariffs in a rate case proceeding. Generally, it is the time between the request or realization of a needed rate adjustment and the ultimate authorization of a rate change. For example, a utility requesting a rate increase of $1 million based on a historical test year may claim earnings erosion due to the regulatory lag during the pendency of the rate process until the authorized increase is implemented.

The counter argument to these claims of regulatory lag and risks is that the utility controls the timing of its rate requests. Also, regulatory lag is built into the regulatory process to encourage the utility to control and monitor costs as a means of bolstering profits. Regulatory lag can work both ways-sometimes there is earnings erosion while other times there can be excess earnings.

Other contributions to regulatory lag include rising costs, inflation, increasing capital investments and lower growth and sales. I have discussed three mechanisms in Utah that mitigate these regulatory lag issues: (i) forecasted test year, (ii) MPA, and (iii) EBA. For example, the forecasted test year (in this case the 12 months ended June 30, 2015) affords the Company the opportunity to capture the future expected cost, investment, and sales changes in this rate proceeding. Second, the large investment mechanism (MPA) allows for streamlined or more rapid rate changes to capture cost changes associated with increased investment. Third, the EBA limits the Company's risk to fuel and purchase power price volatility. The regulatory process in Utah provides the Company ample opportunity to earn its authorized return by reducing significant regulatory lag in the rate process.

National regulatory lag for 2013 averaged about 8.42 months.[21] This is a decline from the historical 10-month average for regulatory lag.[22] Rate mechanisms such as interim increases, fuel cost trackers, and forecasted test years have all contributed to the decline in regulatory lag and regulatory risks.

Q. HAVE RATING AGENCIES WEIGHED IN WITH REGARD TO THE RISKS AND EXPECTATIONS OF THE COMPANY?

A. Yes. A September 16, 2013, Fitch Ratings for PacifiCorp's parent company MidAmerican Energy Holding Company ("MEHC") stated:

> Rate treatment is fair and well-diversified across multiple state jurisdictions. Exposure to commodity risk is largely mitigated by power adjustment mechanisms in five of the six rate designs. Other rate features allow for the recovery or deferral for future recovery of

[21] Edison Electric Institute, Financial Update, Rate Case Summary Q4 2013 at 1.
[22] Id

> investments in renewable generation, or other investments outside traditional rate filings.[23]

In the same report, Fitch also stated the following regarding the PacifiCorp utility operations:

> The utility's rating and Stable Outlook reflects PPW's low business risk profile, competitive resource base, solid financial metrics, and a fairly balanced and diversified regulatory environment.[24]

Thus, the rating agencies recognize the importance of the risk mitigation opportunities provided by regulators through forecasted test years, MPAs, and EBAs.

Q. ARE OTHER RATING AGENCY REPORTS FOR RMP CONSISTENT WITH THE RECENT FITCH RATINGS EVALUATION YOU DESCRIBED ABOVE?

A. Yes. A May 8, 2013, Moody's Credit Opinion for PacifiCorp states:

> PacifiCorp's ratings are supported by the stability of the utility's regulated cash flows, the geographically diverse and relatively constructive regulatory environments in which it operates…and solid credit metrics.[25] (emphasis added)

Moody's describes the regulatory environment as "constructive" and supportive of stable or less risky cash flows and resulting solid credit metrics. It is important to note that these stable cash flows and solid credit metrics occurred during a period when the PacifiCorp regulatory authorities, including this Commission, authorized equity returns below 10% for PacifiCorp.

The accommodative regulatory policy tools such as forecasted test year, MPA, and EBA have had a significant impact in lowering risks—much more of an impact than higher equity return awards would accomplish without these rate mechanisms.

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[23] "Fitch Affirms MEHC's and Subsidiaries Ratings; Outlook Stable; NNG Outlook Revised to Stable," Fitch Ratings (September 16, 2013) at 2.
[24] Id.
[25] "Credit Opinion: PacifiCorp," Moody's Investor Service (May 8, 2013) at 2.

Q. DOES THE COMPANY FACE ANY UNUSUAL BUSINESS OR FINANCIAL RISK?

A. No. If anything, risks have declined with cost recovery through the credit supportive mechanisms implemented in Utah.

I should also note that credit supportive mechanisms have been implemented in the other PacifiCorp regulatory jurisdictions as well. The bottom line is that credit rating agencies project solid and stable ratings for PacifiCorp with low risk; and therefore, higher equity returns are not justified in addressing these low risks. On this topic, Moody's Investor Services states the following:

> One of the most referenced, but potentially misleading, indicators used to judge whether a particular utility is recovering its costs and earning an adequate return is its regulatory allowed return on equity…[t]his measure cannot be looked at in isolation but must be viewed in relation to a utility's cost recovery provisions that impact actual earned rate of return, like automatic adjustment clauses, the length of rate cases, and the degree of regulatory lag that may occur. Some regulators believe that mechanisms like automatic adjustment clauses materially reduce the business and operating risk of a utility, providing justification for a relatively low allowed rate of return. We believe this is one of several reasons why both allowed and requested ROE's have trended downward over the last two decades.[26]

PacifiCorp, over the past few years, has maintained low risks (business and financial) with the benefit of enhanced regulatory mechanisms along with authorized equity returns below 10%.

The low risk environment will continue for the PacifiCorp subsidiaries including RMP--there is no business risk basis to increase authorized equity returns. Instead, equity returns from the current 9.8% should be lowered—this will not increase business risk and will recognize the lower capital costs in today's markets.

SECTION VII: COMPARABLE GROUP ANALYSIS

[26] "Cost Recovery Provisions Key to Investor Owned Utility Ratings and Credit Quality," Moody's Investor Services (June 18, 2010) at 1.

Q. PLEASE EXPLAIN AND DESCRIBE THE STARTING POINT OF YOUR COST OF CAPITAL ANALYSIS FOR THIS CASE.

A. Each of the components of the cost of capital analysis is addressed in detail in the following pages. But, the first step for any cost of equity capital analysis is the selection of a comparable group of companies for which market data is available to conduct a market based cost of capital analysis. My analysis starts with the electric utility companies from the March 2014 AUS Utility Reports. I then reduced this group to reflect only electric companies with the following characteristics: (i) 60% or more regulated revenues, (ii) a Single-A rating from Moody's or S&P, (iii) not involved in a merger, (iv) dividend-paying, and (v) no unusual financial issues or events. The resulting companies are presented in my Exhibit OCS _ 1.4D. All of these companies are dividend-paying utilities rated within the single-A investment grade bond rating group by either Moody's or Standard & Poor's or both. The resulting comparable group of electric utilities consists of 23 companies. These 23 companies represent a broader sample than the comparable group of 13 companies Dr. Hadaway employed. I should note that in RMP's cost of capital analysis, all 13 of Dr. Hadaway's companies are included in my 23-company comparable risk group.

In my listing in Exhibit OCS _ 1.4D of the electric utilities in the comparable group, I have included basic data for beta, historical and forecasted equity ratios and bond ratings.

Q. **DO YOU HAVE OTHER SPECIFIC REASONS EXPLAINING WHY YOU EXAMINED COMPARABLE ELECTRIC UTILITY COMPANIES?**

A. There are several reasons why the estimate of a cost of capital requires an analysis of a group of comparable risk companies rather than the single firm subject of the analysis:

(1) A comparable risk group analysis is consistent with the requirements of a fair and reasonable return addressed in the *Hope* and *Bluefield* cases. The return on investment should be commensurate with returns earned by firms with comparable risk. Thus, there is a need to examine firms of

comparable risk to identify the fair and reasonable comparable returns being earned. In addition, the equity returns of comparable firms are viewed as opportunity costs of forgone investments in the market that, like other investment opportunities, will directly impact the cost of equity of the Company.

(2) The reliability of the cost of equity estimate is enhanced when the calculation is based on equity capital estimates from a variety of risk equivalent companies. A group of comparable companies can be employed as a check on a single company analysis. Further, the comparable group analysis, whether employed as a check or the primary analysis, mitigates any distortions resulting from measurement errors in dividend yield and expected growth measures and estimates. For example, the average growth rate estimate based on forecasts of several comparable firms is less likely to deviate from investor expectations of growth than an estimate for a single firm. Moreover, the general assumptions underlying the DCF model are more likely to be met for a group of companies than for a single firm.

(3) An analysis of a comparable group also avoids circularity problems. In the analysis of investor-owned utilities, the stock price (that is, the cost of equity capital) is a direct function of an investor's growth rate expectations, which is also a function of an investor's perception of the regulatory environment. The cost of equity depends in part on the anticipated regulatory environment and actions.

(4) Extending the sample size of comparable companies beyond a single regulatory influence will mitigate the regulatory circularity problem. Specific conditions concerning a subject utility often require that a comparable company analysis be employed. One of the most common conditions is the lack of market data necessary to perform a DCF analysis. In times of utility consolidation and merger, many utilities are owned and controlled by a single parent holding company.

SECTION VIII: COST OF CAPITAL MODELS – DISCOUNTED CASH FLOW (DCF)

Q. PLEASE EXPLAIN THE CONSTANT GROWTH DCF METHODOLOGY YOU HAVE EMPLOYED IN YOUR ANALYSIS.

A. The foundation of the DCF model is in the theory of security valuation. The price that an investor is willing to pay for a share of common stock today is determined by what income stream the investor expects to receive from the investment. The return the investor expects to receive over the investment time horizon is composed of: (i) dividend payments and (ii) the appreciated sale value of the investment. A proper analysis adds dividends to the gain on the final sale value, and discounts these expected future earnings to a present value.

To determine or estimate investor requirements using the DCF model, one computes a cost of capital requirement, or discount rate, from the current market data and the expected dividend stream. The DCF model stated as a formula is as follows:

$$K = D/P + G$$

where:

K = required return on equity,

D = dividend rate,

P = stock price,

D/P = dividend yield, and

G = growth in dividends.

Q. PLEASE EXPLAIN HOW YOU CALCULATED THE DIVIDEND YIELD FOR THE COMPARABLE COMPANIES.

A. The dividend yield is the ratio of the dividend rate to the stock price. When calculating the dividend yield, one must be cautious and not rely on spot stock prices. One must be equally cautious not to rely on long periods of time as the data becomes unrepresentative of market conditions. The objective is to use a period of time such that the resulting dividend yield is representative of the prospective period when rates will be in effect.

While there is no fixed period for selecting the denominator of the dividend yield (i.e., stock price), the key guideline is that the yield not be distorted due to

fluctuations in stock market prices. On the other hand, dividends, the numerator of the yield calculation, are relatively stable, as opposed to the stock prices, which are subject to daily and cyclical market fluctuations. The selection of a representative time period will dampen the effect of stock market changes.

The price and dividend data used for each of the proxy companies in the comparable group are contained in my Exhibit OCS _ 1.5D.

I have examined weekly closing stock prices for the period January 2, 2014 through the last week of March 2014 for 12 week, 8 week, 6 week along with 52 week high and low averages, and spot intervals to calculate a representative price for the dividend yield calculation. For this analysis, I have employed the most current period, the recent six-week average price as most representative in calculating the dividend yield.

To calculate dividends, one could employ the current annualized dividend increased for ½ the expected growth rate to capture investor's dividend expectations. Because utility companies tend to increase quarterly dividends at different times throughout the year, the assumption is that dividend increases will be evenly distributed over the calendar quarters for the comparable group companies. Given the above, it is appropriate to calculate the expected dividend yield by applying one-half of the long-term estimates of growth to the current dividend yield.

An alternative calculation is to employ current estimates of next year's expected dividend (in this case because the first quarter has ended I would apply a 75% weight to the 2014 dividend estimate and a 25% weight to the 2015 dividend estimate) and then no other growth adjustment is necessary. For this proceeding I have calculated the yield employing both approaches and the recent six-week average price. The resulting dividend yields are shown in my Exhibit OCS _ 1.5D, Columns E and G. It should be noted that the dividend yield results are essentially the same whether computed employing one-half growth multiplier or relying on next year's dividend calculated as described above.

Q. EXPLAIN HOW YOU HAVE CALCULATED THE EXPECTED

GROWTH RATE IN YOUR CONSTANT GROWTH DCF ANALYSIS FOR THE COMPANIES IN THE COMPARABLE GROUP.

A. Like the dividend yield, there exists no single or simple method to calculate growth rates. The calculation of investor growth expectations is the most difficult part of the DCF analysis. To estimate investor expectations of growth, I have examined historical growth and forecasted growth rates, and other financial data for each of the companies in the comparable group.

Implementation of the DCF model requires the exercise of considerable judgment with regard to estimating investor expectations of growth and it is a difficult task, but such difficulties are not insurmountable. Many economic factors affect capital markets in general and individual stocks specifically. Such economic variables entail the current state of the economy, the trade deficit, federal budget uncertainty, fiscal policy, inflation, and Federal Reserve Board policies on interest rates.

Investors generally have good information on the economic and financial variables outlined above. All of this information is available quickly, especially in recent decades with easy access to the worldwide web. This information influences return expectations and the maximum price an investor will pay for various securities.

Like the information available on the general economy, investors also have access to a wealth of information about particular types of securities, industries and specific company investments. This information is also factored into investor expectations and therefore the stock price individuals are willing to pay.

Common stock earnings growth rate forecasts and historical growth rate data may be found in the Value Line publication. These Value Line earnings estimates are five-year projections in annual earnings. Again, Value Line is widely available to the public, and is a good source of earnings projections. Zacks Investment Research as well as First Call Corporation forecasts are other earnings estimates, which are widely available on the Internet at Zacks.com and finance.yahoo.com

respectively. Those earnings projections along with other stock specific financial data provide a range of estimates of earnings and are readily available at no cost.

For my analysis, I have included an additional method to estimate the growth rate. This added growth estimate is referred to as the sustainable growth or retention ratio growth estimate. To project future growth in earnings under the sustainable growth method, one multiplies the fraction of a firm's earnings expected to be retained (not paid out as dividends) by the expected return on book equity. As a formula:

$$\text{Growth} = (\text{"}b\text{"} \; x \; \text{"}r\text{"})$$

Where:

"b" =1- (dividends per share/earnings per share)

"r" =earnings per share / net book value share

All the data necessary to calculate the elements of the sustainable growth method are available on a forecasted basis in Value Line.

I have extended this sustainable growth formula to include the impact of external equity financing. The growth formula including external financing is:

$$g = br + sv$$

The terms "b" and "r" have been described above, "s" is the expected growth in shares to finance investment, and "v" is the profitability of those expected investments.

Q. PLEASE EXPLAIN YOUR GROWTH RATE ANALYSIS.

A. I have included in my Exhibit OCS _ 1.6D, a schedule showing the growth rates I have reviewed in my analysis. The first set of growth rates examined is the five-year and ten-year historical growth rates in earnings per share, dividends per share, and book value per share as reported by Value Line. The second set of growth rates is the Value Line forecasted growth rates in dividends, book value and earnings per share for each company in the comparable group. The third set of

growth rates examined is the Zacks forecasted growth rates in earnings. The fourth growth estimate considered are First Call (a Thomson Financial Services company) growth estimates which are readily available to investors at Yahoo Finance.

In addition, I have examined the growth rates based on the forecasted internal growth, the so-called sustainable growth estimate discussed above.

The growth rates described above provide a range of estimates for each of the comparable companies. The resulting range of average and median forecasted growth rates for the electric utility comparable group is from 4.0% to 5.47%. (See Exhibit OCS _ 1.6D, columns H through M). Relying on the average forecasted earnings per share estimates and internal growth rate estimates, the growth rate average and median range can be narrowed to 4.34% to 5.47% as shown in Exhibit OCS _ 1.6D, columns M and N. For this analysis I employed the forecasted EPS growth estimate average of Zacks, Yahoo Finance, and Value Line. These growth estimates provide a narrower range at the upper end of growth estimates of 4.93% to 5.47%, as shown in Exhibit OCS _ 1.6D, column M.

Q. DID YOU RELY ON THE HISTORICAL GROWTH RATES?

A. No. Historical growth rates are a starting place for the analysis, but investors consider additional information when formulating expectations. Moreover, whether the trends of the past ten or five years continue to hold may be a suspect assumption. Instead, I rely on analyst earnings forecasted growth rates as a better predictor of investor expectations. I should note that despite a number of missing and excluded negative historical growth observations; this historical average range is 4.42% to 5.23% (Exhibit OCS _ 1.6D, column G) for the group and is consistent with the forecast range discussed above, albeit at the lower end of the range.

Q. PLEASE SUMMARIZE YOUR CONSTANT GROWTH DCF ANALYSIS.

A. The comparable group mean and median results fall in a range of 8.96% to 9.17% with about a 9.07% midpoint. These analyses can be found in my Exhibit OCS _

1.7D, column G. As I note on my Exhibit OCS _ 1.7D all results below 7.75% have been excluded from the calculations. There are no regulatory authorities considering or authorizing equity returns below 7.75% and investment alternative returns would likely keep investors from seeking returns below 7.75% for utility companies under current market conditions. Thus, I treated all results below 7.75% as unreasonable or outliers and excluded them from the analysis.

Q. HAVE YOU CALCULATED ADDITIONAL DCF ANALYSES FOR THE COMPARABLE GROUP COMPANIES?

A. Yes. I have calculated a two-stage non-constant growth DCF analysis for the companies in the comparable groups.

Q. PLEASE DESCRIBE YOUR TWO-STAGE NON-CONSTANT GROWTH DCF.

A. This analysis calculates equity cost using a non-constant growth two stage DCF Model. The constant growth DCF model is often adjusted to reflect multiple growth assumptions because the constant growth rate assumption is often not consistent with investor expectations. As an example, it is often the case where short-term growth estimates are not consistent with long-term sustainable growth projections. In those instances, where more than one growth rate estimate is appropriate, a multi-stage non-constant growth model can be employed to derive a cost of capital estimate. In other words, the constant growth model is adjusted to incorporate multiple growth rate periods, assuring a constant growth (long-term) rate is estimated for a longer period.

For the comparable group, the first growth stage (years 1-4) of the model, the Value Line growth in dividends is employed and an annual dividend is calculated. The second stage (years 5 and beyond) employs an earnings growth estimate based on the individual company in the comparable group forecast earnings per share ("EPS") average estimate. The forecasted EPS estimate is the average of the analyst earnings per share growth estimates and represents the higher end of my growth rate range.

In the two-stage model the dividend cash flows are discounted equal to the price paid for the stock. The calculated discount rate is the cost of equity capital estimate.

Q. WHAT ARE THE RESULTS OF THE TWO STAGE NON-CONSTANT GROWTH DCF ANALYSIS?

A. The results of the two-stage non-constant growth DCF analysis are shown in Exhibit OCS _ 1.8D, column L. The 23 company comparable group mean and median results indicate a cost of equity range of 9.10% to 9.14% with a 9.12% midpoint.

SECTION IX: COST OF CAPITAL MODELS - RISK PREMIUM AND ECAPM

Q. PLEASE DESCRIBE THE RISK PREMIUM ANALYSIS.

A. Debt instruments such as bonds (long-term debt) are less risky than common equity when both classes of capital are issued by the same entity. Bondholders have a prior contractual claim to the earnings of the corporation and returns on bonds are less variable and more predictable than stocks. The bottom line is that debt is less risky than equity. There are numerous return studies of capital market investments, all of which show lower returns with lower risks and higher returns with higher risk investments. These financial truisms provide a sound theoretical basis and foundation for the risk premium method for estimating equity costs. The risk premium approach is useful in that the analysis is based on current market interest rates, that is, the current observable cost of debt capital. But, the risk premium approach is not without its problems and drawbacks. In practice, there is considerable debate as to the time period to analyze in the determination of the bond/equity return risk spread. Historical debt/equity risk spreads measured over many decades may not be relevant to current capital market requirements. Others argue that a long-term analysis is necessary, since the goal is to measure investors' long-term expectations.

Another version of the risk premium method is the capital asset pricing model ("CAPM"). Generally, the CAPM begins with a theoretically risk-free interest rate such as a 30-year Treasury bond yield. The risk premium, or equity spread above and beyond the risk free rate is adjusted by the stock beta.[27] The risk free return measure is combined with the equity risk premium adjusted for the measure of beta to arrive at a CAPM result.

Like the risk premium discussed above, the CAPM is subject to measurement uncertainties. First, the problem of how to measure the equity risk premium and the time period for which the premium is analyzed are subject to considerable debate. This problem and the associated criticisms are generic to all variants of the risk premium model. Second, measures of beta are sometimes unstable from period to period and may not reflect the equity risk spread measure.

For all of the above reasons, risk premium methods should be viewed with caution. The risk premium analysis and CAPM described below consist of analyses that estimate RMP's cost of capital and are employed along with the DCF results described earlier to estimate RMP's cost of equity.

Q. DESCRIBE YOUR RISK PREMIUM ANALYSIS.

A. I performed two analyses. The first compared the authorized electric utility return on equity relative to 30-year U.S. Treasury bond yields and the second analysis calculated the risk premium from the higher-risk average triple-B corporate bond yield for the period 1980 - 2013. This analysis is set forth in my Exhibit OCS _ 1.9D. For each risk premium analysis the resulting risk premium is combined with the 30-year U.S. Treasury Bond or triple-B corporate bond recent 3-month average yield to determine the risk premium estimate of equity costs. I also expanded each analysis to include the most current or spot yield at the end of March 2014.

The resulting risk premium range of results for electric utilities is 9.75% to 10.01% with a midpoint of 9.88%

[27] Beta is a measure of the volatility of the specific stock movement relative to that of a market measure such as the S&P 500. A beta below 1.0 means that a specific stock is less volatile than the market measure, while a beta above 1.0 indicates a specific stock is more volatile than the market measure.

Q. PLEASE EXPLAIN HOW YOU CALCULATED THE EQUITY RETURN ESTIMATE EMPLOYING THE CAPM.

A. I employed the basic CAPM formula denoted as follows:

$$\text{ROE} = R_f + \beta(R_m - R_f)$$

Where:

R_f = risk free rate;

β =beta;

R_m = market return; and

$R_m - R_f$ = market risk premium or MRP

This is the typical model structure employed by most financial analysts in estimating equity returns.

Q. WHAT RISK-FREE (R_f) VALUE DID YOU EMPLOY IN YOUR CAPM ESTIMATE?

A. I employed the most recent three-month average of the 30-Year U.S. Treasury Bond rates. This three-month average is:

January 2014	3.77%
February 2014	3.66%
March 2014	3.62%
3 Month Average	3.68%

Q. WHAT VALUE DID YOU EMPLOY FOR BETA IN YOUR CAPM ANALYSIS?

A. I employed a Value Line beta estimate for each company in the comparable group as shown in my Exhibit OCS _ 1.10D, column A.

Q. WHAT VALUE HAVE YOU EMPLOYED FOR THE MARKET RISK PREMIUM ("MRP")?

A. To calculate the MRP, I first looked at the historical risk premiums for the period 1926-2013. These historical equity and bond returns are calculated and reported through the Ibbotson yearbook published by Morningstar. The following

797 summarizes the historical MRP for the 1926-2013 period:

Investment[28]	Arithmetic Mean Return
Large Company Stocks	12.1%
Long Term Government Bonds	6.3%
Historical MRP	5.8%

798 Thus, the historical MRP is 5.8% above the risk free rate U.S. Treasury Bonds.

799 I also estimated a more current MRP by measuring the difference between the
800 long-term equity returns on large company stocks of 12.1% and the current three-
801 month average U.S. Treasury yield of 3.68%. This alternative produces a MRP
802 of 8.42% (12.1% - 3.68%).

803 Taking both the historical MRP and more current MRP values into consideration
804 by averaging the two, results in an MRP of 7.11% ((5.8 + 8.42)/2). Such an MRP
805 is consistent with the ranges of MRP's of 5% - 8% found in a number of studies
806 in the financial literature.[29]

807 **Q. IN YOUR ANALYSES, HAVE YOU INCLUDED A CALCULATION OF**
808 **THE EMPIRICAL CAPM OR ECAPM RETURN ESTIMATE FOR THIS**
809 **CASE?**

810 **A.** Yes. Like the CAPM analysis discussed above, the ECAPM estimate of equity
811 return relies on basic financial theory in order to correct for biased beta estimates,
812 an adjustment is made so as not to understate the cost of equity. The basic formula
813 for the ECAPM for beta conversion is as follows:

814 $$K = R_f + 0.25(R_m - R_f) + 0.75\beta(R_m - R_f)$$

815 **Q. WHAT ARE THE RESULTS OF YOUR CAPM AND ECAPM ANALYSES**
816 **FOR THE ELECTRIC COMPANY COMPARABLE GROUP?**

817 **A.** The results of these CAPM and ECAPM analyses can be found in my Exhibit

[28] "Market Results for Stocks, Bonds, Bills, and Inflation, 1926-2013", Morningstar 2014 Classic Yearbook at 40 Table 2-1.
[29] Morin, Roger; "New Regulatory Finance", Public Utility Reports, Inc. (2006). See Chapter 5 at 163.

OCS _ 1.10D at columns E and J for the comparable group. The range of CAPM and ECAPM results are 9.02% to 9.59% with a midpoint of 9.31%.

Q. PLEASE SUMMARIZE YOUR COST OF EQUITY CAPITAL RESULTS FOR RMP.

A. Table 5 below is a summary of the equity cost estimates for the comparable group of companies employing the DCF, 2-Stage DCF, Risk Premium, CAPM and ECAPM models.

Table 5

Comparable Group Cost of Equity Estimates for RMP[30]

MODEL	COMPARABLE GROUP	
DESCRIPTION	RANGE	MIDPOINT
DCF	8.96% - 9.17%	9.07%
2 Stage DCF	9.10% - 9.14%	9.12%
CAPM and ECAPM	9.02% - 9.59%	9.31%
Risk Premium	9.75%-10.01%	9.88%

The comparable group produces constant growth DCF results of 9.07%. This result is supported by the range and midpoint 9.12% estimate from the two-stage DCF model. The CAPM and ECAPM estimates of 9.02% to 9.59% produce equity returns covering the general range of results of the DCF models, but the upper end of the ECAPM range is somewhat higher than the results of the DCF analyses. The risk premium produced even higher results at 9.88%. These risk premium results fall outside the range of results for any of the basic models. As I stated earlier, these risk premium models must be viewed with caution.

Giving equal weight to each of the models midpoint estimate DCF and CAPM/ECAPM and averaging the model results produces about a 9.16% equity return, which I round to 9.20%. In the alternative, looking only at the range of all the midpoint results produces a 9.07% to 9.88% range with a 9.50% midpoint. The comparable group results indicate an equity return between 9.20% and 9.50%. These are the results before considering RMP's specific risk relative to the

[30] See Exhibit OCS 1.7D, 1.8D, 1.9D and 1.10D.

comparable group. This specific risk is related to RMP's capital structure.

SECTION X: CAPITAL STRUCTURE

Q. WHAT CAPITAL STRUCTURE IS THE COMPANY PROPOSING IN THIS PROCEEDING?

A. Based on the direct testimony of Company witness Bruce Williams, and reflecting capital cost estimates through the June 30, 2015, test year end, the Company is proposing the following capital structure, cost rates and overall cost of capital to be earned on rate base investment:

Table 6
ROCKY MOUNTAIN POWER
OVERALL REQUESTED COST OF CAPITAL[31]

Line No	Description	Percent	Cost Rate	Weighted Cost
1	Long-Term Debt	48.38%	5.28%	2.56%
2	Preferred Stock	0.02%	6.75%	---
3	Common Equity	51.60%	10.0%	5.16
4	Total	100.00%	---	7.72%

Thus, the Company requests an overall cost of capital to be earned on rate base investment of 7.72% in this case.

Q. WHAT IS THE SIGNIFICANCE OF CAPITAL STRUCTURE?

A. The overall cost of capital is the sum of the weighted average cost rates of various sources of capital. The quantity or portion of each type of capital, combined with the cost rate of capital determines the overall rate of return that the Company should be allowed to earn in this proceeding. The most significant relationship in

[31] Direct Testimony Bruce Williams at 2:34.

any capital structure is the debt to equity ratio.

Q. DOES THERE EXIST SOME SET RELATIONSHIP OR IDEAL MIX OF DEBT AND EQUITY CAPITAL?

A. There exists no set debt/equity relationship for all firms or all industries in terms of leveraging. However, the ideal capital structure is one that minimizes the overall cost of capital to the firm, while still maintaining financial integrity so as to maintain the ability to attract capital at reasonable costs to meet future needs. Because the cost of debt is generally lower than the cost of equity, and also because the cost of debt represents a tax deductible expense, any increase in the quantity of debt capital tends to decrease the overall cost of capital relative to equity financing. One must keep in mind that increases in the quantity of debt financing can cause the financial risk of the Company to increase. In other words, there is a cost for the savings associated with increased debt leveraging. That cost is increased financial risk to the firm.

In summary, it is not possible to determine with precision the exact proportion of debt and equity that minimizes the overall cost of capital without imposing undue financial risk upon the Company. There does exist some range of capital structure that generally meets the goal of minimizing the overall cost of capital while maintaining the firm's financial integrity.

Q. WHAT CRITERIA SHOULD REGULATORS EMPLOY IN DETERMINING THE APPROPRIATE CAPITAL STRUCTURE TO BE USED FOR RATEMAKING?

A. In my opinion, rate regulation should focus on two criteria to determine the appropriate capital structure. Those factors as outlined below should be economy and safety.

The advantage of debt in the capital structure is that debt costs less than equity. Moreover, interest charges are deductible for income tax purposes and act to reduce taxes. Thus, the more debt in the capital structure the lower the cost of capital will be. The question of economy is addressed by examining whether

increases in the debt ratio act to increase the cost rates of both debt and equity so as to over balance the benefits of the larger proportion of debt.

In addition, there is always the overriding question of safety. In other words, financial risk is increased if the proportion of debt is increased by such a magnitude that interest obligations cannot be covered during periods of depressed earnings.

Q. HOW DOES THE COMPANY'S CAPITAL STRUCTURE EQUITY RATIO COMPARE TO THE COMPARABLE GROUP EQUITY PERCENTAGE FOR 2014?

A. The RMP equity ratio of 51.60% is higher than the comparable group average of 49.4% equity for the 2014 to 2015 period. (See Exhibit OCS _ 1.4D) This higher RMP equity ratio indicates that the Company has less financial risk than the comparable group.

It is a fundamental truism of finance that as a firm increases the relative amount of debt capital in the capital structure, total fixed charges (interest) increase the fixed obligations of the firm. The resulting residual earnings available to shareholders become subject to increased volatility and risk as leverage and fixed obligations increase. The end result is for shareholders to require higher equity returns as leverage increases.

Q. CAN YOU POINT TO STUDIES IN THE FINANCIAL LITERATURE THAT EVALUATE THE IMPACT OF INCREASED FINANCIAL LEVERAGE IN THE CAPITAL STRUCTURE AND EQUITY COST?

A. Yes. There are numerous studies in the financial literature both empirical and theoretically based that attempt to quantify the effects of leverage on the common equity costs.[32] These studies suggest an increase in common equity costs in a range of 7.6 to 13.8 basis for every one percent increase in the debt ratio within the 40% to 50% range of leverage.[33] Thus, on average, there is about a 10.7 basis

[32] See Morin, Roger: "New Regulatory Finance", Public Utility Reports, 2006, at 468-469.
[33] Id.

point increase [(7.6% + 13.8%)/2] in equity cost for every 1% increase in debt leverage.[34]

Q. DOES THE FACT THAT THE COMPARABLE GROUP HAS A HIGHER DEBT RATIO THAN THE COMPANY IMPLY THAT RMP IS LESS RISKY THAN THE COMPARABLE GROUP?

A. Yes. The RMP leverage is less than the comparable group, thus RMP's financial risks are less than the comparable group. Given the test year data is based on June 30, 2015, I have conservatively estimated the comparable group equity ratio based on the median of the 2014 and 2015 data to be 49.50%. The RMP June 2015 equity ratio is 51.60%. The 2.1 percentage point difference (51.60% - 49.50%) translates into a 22.4 basis point (2.1 x 10.7 basis points) equity cost reduction for RMP relative to the comparable group results.

Thus, due to the capital structure and financial risk differences between RMP and the comparable group, I have reduced my comparable group model results of 9.20% to 9.50% by an additional 20 basis points (rounded down from 22 basis points) to a 9.00% to 9.30% equity return recommendation reflecting RMP's lower financial risk. I recommend a 9.20% equity return for this case.

Q. HAVE YOU MADE ANY OTHER CHANGES TO THE COMPANY'S PROPOSED CAPITAL STRUCTURE AND COST RATES?

A. Other than reducing the cost of equity to 9.20%, I am not at this time proposing any other capital structure or cost rate changes. It is my understanding that RMP will update the cost of debt to reflect a recent financing, to the extent that the Company makes changes in updates, additional issues may be raised that may need to be addressed.

Q. WHAT CAPITAL STRUCTURE AND COST RATES ARE YOU RECOMMENDING THAT THE COMMISSION ADOPT IN THIS CASE?

A. Based on the analyses and results discussed above, I am recommending the

[34] Id.

following capital structure, cost rates and overall cost of capital for this case:

Table 7
ROCKY MOUNTAIN POWER
OCS RECOMMENDED COST OF CAPITAL

Description	Ratio	Cost	Weighted Cost
Long-term Debt	48.38%	5.28%	2.56%
Preferred Stock	0.02%	6.75%	---
Common Equity	51.60%	9.20%	4.75%
Total	100.00%	---	7.31%

As can be seen from the above table when the long-term debt cost rates and common equity cost rates reflect current market conditions, the Company's overall cost of capital is 7.31%. I have included the capital structure in my Exhibit OCS _ 1.11D as part of the financial metrics analysis.

SECTION XI: FINANCIAL INTEGRITY

Q. HAVE YOU REVIEWED CREDIT RESEARCH REPORTS FOR THE COMPANY REGARDING CREDIT QUALITY AND CORPORATE FINANCIAL METRICS?

A. Yes. As I discussed earlier, the Company's credit quality is not threatened or under pressure of downgrade. I have discussed these issues earlier with regard to a recent Moody's and Fitch Credit Reports.

Q. WILL YOUR RECOMMENDED RETURN PROVIDE THE COMPANY SUFFICIENT CASH FLOW AND FINANCIAL METRICS TO MAINTAIN ITS FINANCIAL INTEGRITY?

A. Yes. Based on the capital structure above, my recommended overall cost of capital (which is based on a 9.20% equity return) provides sufficient financial metrics for the Company.

Q. WHAT FINANCIAL RATIOS OR FINANCIAL METRICS SHOULD THE COMMISSION CONSIDER WHEN EVALUATING COST OF EQUITY?

A. In my opinion, the Commission should consider the financial metrics that bond rating agencies consider in evaluating credit risk to a company. Three key financial metrics involve cash flow coverage of interest, cash flow as a percentage of debt, and debt leverage ratio.

Q. HOW ARE THESE FINANCIAL RATIOS CONSIDERED AND CALCULATED?

A. Ratings agencies such as Moody's and Standard & Poor's develop rating guidelines that make explicit general ratings outcomes that are typical or expected given various financial and business risk combinations. A rating matrix or guideline is just that, a guideline, not a rule written in stone that guarantees a particular rating for a particular achieved financial metric level.

Funds from a company's operations, in other words cash flow, are very critical to any rating/risk consideration. Interest and principal obligations of a company cannot be paid out of earnings if earnings are not cash. Thus, analyses of cash flow reveal debt-servicing ability.

Debt and capital structure considerations are indicative of leverage and flexibility to address financial changes. The liquidity crisis that hit all markets and industries is an example of the importance of financial flexibility. Stable and continuous cash flows provide financial flexibility.

Each of these financial ratios is calculated in my Exhibit OCS _ 1.11D[35] employing my recommendations in this proceeding. The results of my analyses indicate strong financial metrics, supporting the Company's current single "A"

[35] Refer to Lines 12 to 19 of Exhibit OCS_1.11D.

bond rating.

SECTION XII: RESPONSIVE TESTIMONY TO DR. HADAWAY

Q. DO YOU HAVE ANY COMMENTS REGARDING THE DIRECT TESTIMONY AND RECOMMENDATIONS OF COMPANY WITNESS DR. SAMUEL HADAWAY?

A. Yes, I have a number of comments related to Dr. Hadaway's testimony and recommendation in this case. Dr. Hadaway's model results summarized at page 29, Table 4, of his direct testimony; indicate the following equity return estimates:

Table 8

SUMMARY OF RMP EQUITY RETURN ESTIMATES

Constant Growth DCF (Analyst's Growth)	9.1%
Constant Growth DCF(GDP Growth)	9.6% -9.7%
Multistage Growth Model	9.5%-9.6%
Summary of DCF Models	9.1%-9.7%
Forecasted Risk Premium	10.1%
Current Risk Premium	9.9%
Dr. Hadaway Recommended	10.0%

As can be seen from the above table, Dr. Hadaway relies on the highest Risk Premium results for his 10 percent recommendation. All of his DCF model results (Constant Growth Analysts' Growth, Constant Growth GDP Growth, and

Multistage Growth Model) are given no weight, but instead these alternatives are essentially abandoned in his calculus of 10% equity return recommendation. Had Dr. Hadaway instead, considered his 9.1%-9.7% DCF range-the midpoint 9.4% would fall in line with my own model estimates and recommendation in this case, before consideration of capital structure differences.

Given that Dr. Hadaway has ignored all analyses except the highest risk premium results, little time should be spent on his abandoned analyses. Instead, I will focus my comments on the small amount of testimony Dr. Hadaway relied on for his ROE recommendation, that being his risk premium presentation.

Q. PLEASE ADDRESS DR. HADAWAY'S CLAIM AT PAGE 3:46-48 THAT THE FOMC ANNOUNCED PLANS TO REDUCE ITS ACCOMMODATIVE MONETARY POLICIES.

A. Dr. Hadaway is quite incorrect; the FOMC has not announced plans to change the course of accommodative monetary policies. I have included in Exhibit OCS _ 1.2D, the FOMC recent press releases for January and March 2014. Neither press release suggests a change in accommodative monetary policy. Instead, these FOMC press releases state that accommodative monetary policy will continue. It is true the FOMC has tapered back the Quantitative Easing 3 Program, but as stated in the March 19, 2014, FOMC press release:

> To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that a highly accommodative stance of monetary policy remains appropriate. (emphasis added)

It appears Dr. Hadaway's views of monetary policy are out of touch and inconsistent with those of the FOMC policy makers. Again, one need only examine the March 19, 2014, FOMC press release.

The FOMC documents, press releases, and policy actions are all inconsistent with Dr. Hadaway's claims.

Q. PLEASE COMMENT ON DR. HADAWAY'S SELECTION OF THE MODEL THAT PRODUCED THE HIGHEST RETURN ON EQUITY.

A. It appears that Dr. Hadaway's analyses are based on a predetermined result of at least 10%. In other words, Dr. Hadaway selects the higher result no matter the model. For example, in the most recent PacifiCorp case in the state of Washington, Dr. Hadaway filed direct testimony in January 2013, stating:

> The fair and reasonable ROE for the Company is 10 percent. This requested ROE, at the top of my DCF range, is appropriate given the ongoing effects of U.S. and global economic turmoil on the equity market for utility shares…Under these conditions, use of a lower DCF range or equity risk premium estimates based strictly on historical risk premium relationships will understate the market cost of equity.[36]

In his PacifiCorp Washington direct testimony, Dr. Hadaway's DCF range was 9.4% - 10%, while his risk premium results ranged from 9.3-9.6%.[37] As noted above, Dr. Hadaway recommended the high end 10% DCF result.

In August 2013, Dr. Hadaway filed his rebuttal testimony in the PacifiCorp Washington case. But, his updated rebuttal testimony results for his DCF model indicated a 9.0%-9.6% range.[38] Dr. Hadaway's risk premiums showed a range of 9.6%-10.0%.[39] So, undeterred, Dr. Hadaway maintained the 10% ROE recommendation and concluded, "…more emphasis should be placed on the current risk premium results…"[40]

In a recent Arkansas case on behalf of Entergy Arkansas, Dr. Hadaway filed direct testimony in March 2013, again relying on the high end 10% DCF results combined with the high end 10% forecasted risk premium results and stated:

> …I discount the lowest results from the …DCF format and the lowest results from the risk premium model, which are derived directly from currently low, government-induced interest rates.[41]

When Dr. Hadaway updated his Entergy Arkansas results in late August 2013, his

[36] Washington Utilities and Transportation Commission, PacifiCorp Rate Request, Docket No. VE-130043, Hadaway Direct at 30-31.
[37] Id.
[38] Id. Dr. Hadaway Surrebuttal at 23:2-3.
[39] Id. 23:11.
[40] Id. 23:20-22.
[41] Arkansas Public Service Commission, In The Matter of The Application of Entergy Arkansas, Inc, Docket No. 13-028-U, Direct Testimony Dr. Hadaway at 51-52.

DCF estimates fell below 10%, so he abandoned the DCF models and stated the following:

> …I believe more emphasis should be placed on the current risk premium results, based on more recent interest rate data that do reflect the [FOMC] policy shift.[42]

Again, Dr. Hadaway's evolving analysis abandons the DCF models and any model that produces results below 10%, and relies entirely on the risk premium that produced a 10% result. The Dr. Hadaway equity return model evolution consistency is the 10% result and not the type of model.

While Dr. Hadaway may claim FOMC monetary policy has changed requiring different approaches to capture investor expectations, the facts show FOMC accommodative monetary policy has not changed. Moreover, Dr. Hadaway's over-arching concern of rising interest rates has been incorrect since January 2014, because interest rates have declined in each of the past three months.

While there is no way to predict the future of interest rates, the current policy of the FOMC is to maintain low levels of long-term interest rates to promote GDP growth and reduce unemployment. These policies are not factored into Dr. Hadaway's conclusions, which explains why his equity return recommendation is overstated.

Q. IN YOUR OPINION, SHOULD THE COMMISSION RELY ON DR. HADAWAY'S RISK PREMIUM ESTIMATE, WHICH IS THE ONLY MODEL RESULT TO SUPPORT A 10% EQUITY RETURN IN THIS CASE?

A. No. Only by using a forecast of higher interest rates is Dr. Hadaway able to estimate a cost of equity above 10%. His forecast of a single-A utility bond yield is an estimate for December 31, 2014 which is higher than current yields. Dr. Hadaway relies on a single projection that will, in all likelihood, be different from the current forecast estimate. Instead, the Commission is better served by considering all models and results rather than relying solely on a singular model

[42] Id. Dr. Hadaway Rebuttal Testimony at 45:18-19.

based on an interest rate forecast as Dr. Hadaway proposes.[43] In addition, as I stated earlier in my testimony, risk premium models should be used with caution.

SECTION XIII: CONCLUSIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. Based on an analysis of a comparable group, I have concluded that an equity return range of 9.20% to 9.50% is consistent with the risks faced by the comparable group of companies in today's markets.

Considering RMP's lower financial risk relative to the collective comparable group risk because of RMP's higher equity ratio, I have reduced the 9.20% to 9.50% comparable group equity return range by an additional 20 basis points to arrive at a recommendation for the lower risk RMP. My recommended equity return range for RMP in this case is 9.00% to 9.30 with a conservative point estimate of 9.20%.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[43] See Dr. Hadaway Direct Testimony in Docket No. 13-035-184 at Exhibit RMP_(SCH-6)