Docket No. 11-035-200

Utah Office of Consumer Services Witness

Daniel J. Lawton

Exhibits OCS 1.1D through 1.10D

May 31, 2012

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	§ § § § § § § § § § §	**Docket No. 11-035-200** **Direct Rate of Return Testimony of Daniel J. Lawton For the Utah Office of Consumer Services**

MAY 31, 2012

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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 701 Brazos, Suite 500, Austin, Texas 78701.

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/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 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 and other litigation and contract matters. I have included a brief description of my relevant educational background and professional work experience in my Exhibit OCS 1.1D.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN RATE PROCEEDINGS?

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

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

A. I have been retained to review Rocky Mountain Power Company's ("Company" or "RMP") cost of capital request, financial integrity metrics 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 rate of return, capital structure, and cost rates for equity, capital, preferred stock, and long-term debt, which is presented in the direct testimony of cost of capital witnesses, Bruce Williams and Dr. Samuel Hadaway. In addition, I am addressing financial integrity and cash flow issues related to return of and on invested capital.

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

A. I have reviewed the Company's current direct and previous testimony, Company responses to interrogatories, Value Line Investment Survey ("Value Line"), financial reports of the Company, along with other utility companies of comparable risk and various 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 or workpapers.

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 of a 9.4% return on equity for shareholders combined with the RMP proposed capital structure and cost rates for debt and preferred securities and an overall return to be earned on rate base investment of 7.49%. As discussed below, in my opinion, these recommended return levels are consistent with current market capital costs and consistent with reasonable rates for consumers. My analyses of the Company's requested 7.91% overall cost of capital and 10.2% return on equity indicate that the

Company request is overstated and is not consistent with just and reasonable rates for consumers given current market costs of capital.

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

(i) A return of 9.4% on shareholder equity is more than adequate for the Company to maintain its financial integrity;

(ii) The Company's cash flows and liquidity at a rate of return on investment of 7.49% 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 preferred capital and my recommended 9.4% equity return, to be earned on rate base investment should be set at 7.49% for setting just and reasonable rates for customers in this proceeding;

(iv) The Company's proposed 10.20% 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 7.91% 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. A review of the testimony of Mr. Walje at 2:31 and rate filing at Exhibit RMP_(SRM-3) at 1.0, shows the Company is requesting a $172,267,339 annual revenue increase. This represents about a 9.7 percent increase to the current General Business revenue levels of $1,772,847,495.

Q. WHAT FACTORS ARE DRIVING THE SIZE OF THE RATE INCREASE?

A. Based on the testimony of RMP's President, Richard Walje, there appear to be five main cost drivers underlying the Company's $172.3 million annual revenue increase request. First, Mr. Walje asserts that $37 million of the $172.3 million annual increase is

associated with the return and carrying charge requirements associated with new or additional rate base investment. At page 3, lines 54 to 57 of his direct testimony, Mr. Walje claims that much of the added capital is for environmental mandates, transmission reliability, relocations and mobile radio replacements. The ultimate decision by this Commission with regard to rate of return will impact the size of this capital additions cost driver.

A second cost driver listed at page 3, line 62 of Mr. Walje's testimony is a $30 million increase in the Company's operating and maintenance budget. A third claimed cost driver outlined at page 4, lines 72 to 76 is the claimed $16 million increase in net power costs. The fourth claimed cost driver is the approximate $26 million decline in renewable energy credit revenues which will not be available to offset cost of service. This issue or cost driver is discussed at page 4, lines 81-90 of Mr. Walje's testimony. The fifth claimed cost driver outlined at pages 4 and 5, lines 93 to 102 of Mr. Walje's testimony is associated with declining, or lower than expected, load growth. Because fixed costs are spread over fewer billing determinants with lower present rate revenue than projected, about $47 million of the increase has been attributed to lower load growth.

Lastly, the Company, at page 5, lines 107 to 112 of Mr. Walje's testimony points out that the requested 10.2 percent equity return request (up 20 basis points from the 10.0 percent authorized in the last RMP case) amounts to a $9.7 million impact of the overall $172.3 million annual rate request.

Q. DO YOU HAVE ANY GENERAL COMMENTS ON THE EQUITY RETURN IMPACT ON THE COMPANY'S RATE INCREASE REQUEST?

A. Yes. I am recommending a 9.4% equity return in this case – given the Company's rate base investment level, such a change in return would reduce revenue requirements by about $37 million. Thus, the ultimate decision on return will have a significant impact on the ultimate rate increase and rates paid by Utah customers.

SECTION III: RECENT TRENDS FOR PACIFICORP ROE

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

A. The overall issue is what level of profits for shareholders or equity return should be allowed through rates. The Company has requested a 10.2% or about $305.7 million per year of shareholders after tax profits. Setting return at a more reasonable 9.4% level, when combined with a 52.1% equity ratio, results in reducing the after tax shareholder profit by about $24 million. When the impact of federal income taxes is factored into the revenue requirement analysis, the resulting revenue requirement reductions are about $37 million annually.

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

Q. HAVE THE COMPANY'S COST OF CAPITAL REQUESTS IN UTAH BEEN TRENDING DOWNWARD?

A. In general the answer is yes, but there seems to be a lag in the Company's recognition of these declining costs. For example, in the Company's last case Dr. Hadaway was supporting a 10.5% equity return. The 10.5% recommendation in the last case was down from Dr. Hadaway's 11.0% equity return recommendation in prior proceedings. Now, Dr. Hadaway is recommending a 10.2% equity return. Clearly the cost of equity is declining as is evidenced by the Company's own filings. The problem with the Company's analyses is the failure to recognize the true measure of capital cost decline. At least in the Utah jurisdiction the Company seems to see a 10% equity return as a floor. But, in reality the Company's cost of equity is below 10% and failure to recognize that reality will subject Utah customers to excessive rates.

Q. SINCE THE COMPANY'S LAST CASE WHERE EQUITY COST WAS SET AT 10%, HAVE CAPITAL COSTS DECLINED?

A. Yes. For example, RMP witness Bruce Williams describes how in January 2012 the Company completed a $650 million bond issue at interest rates "…among the lowest

ever achieved by borrowers."[1] Mr. Williams goes on to point out that the capital cost for this $650 million debt issue was "…tied for the lowest utility rate on record…"[2] While the 30 year bonds at a rate of 4.10% is the "…third lowest coupon achieved by any issuer in any industry and credit rating."[3] The Company's cost of capital is lower in 2012 than when the 10% cost of equity was set in the last case.

Q. HAVE OTHER PACIFICORP JURISDICTIONS RECEIVED EQUITY RETURNS BELOW 10 PERCENT?

Yes. The Washington jurisdiction of PacifiCorp received a 9.8% authorized equity return in the Company's 2010 rate case, Docket UE-100749. The Company maintained the 9.8% equity return when it filed Docket UE-111190 with the Washington Utilities and Transportation Commission on or about July 1, 2011 wherein Mr. Williams testified:

> I am aware that Dr. Hadaway's recommendations in recent general rate cases continue to support a return on equity in excess of the 9.8 percent authorized by the Commission in the 2010 Rate Case.[4]

Apparently in the Washington jurisdiction the Company is willing to set rates below their own witness Hadaway's recommendations and even below 10% return on equity.

SECTION IV: <u>REGULATORY ISSUES AND COST OF CAPITAL</u>

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 7.91%. As is discussed below, a small change in rate of return can have a large impact on revenue requirements.

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[1] Direct Testimony Bruce Williams at 7:137-141
[2] *Id* 7:141-143
[3] *Id* 7:143-145
[4] Washington Utilities and Transportation Commission Docket No. UE:111190, Pacific Power & Light Co. Testimony of Bruce Williams at 3:17-19

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 1[5]
RMP REQUESTED CAPITAL STRUCTURE AND RETURN

DESCRIPTION	RATIO	COST RATE	WEIGHTED COST	REQUESTED RETURN[6]
Long-Term Debt	47.60%	5.41%	2.5752%	$148,145,573
Preferred Stock	0.30%	5.43%	0.0163%	$937,142
Common Equity	52.10%	10.20%	5.3142%	$305,718,947
Total	100.00%		7.9057%	$454,801,662
Rate Base	$5,752,868,671			

As can be seen from the above table, the Company is requesting that rates be set to allow the Company to earn a 7.91% overall return on a claimed test year investment level of $5,752,868,671, which translates into about $454.8 million of total return dollars. The total return dollars can be broken down to $148.1 million of interest return to cover claimed debt costs, $937,142 of preferred dividends, and a Company request of $305,718,947 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 return and income (state/federal/revenue related) taxes such that the $305.7 million profit request is available after all taxes are paid. Federal income taxes alone, at a 35% rate, adds about $165.1 million to customer rates.[7]

[5] See Exhibit OCS 1.9D
[6] *Id* and weighted cost times rate base requested
[7] Tax Factor equal 1/(1-tax rate), which is 1/(1-.35) which equals 1.53846154. This tax factor of 1.53846154 times the requested shareholder profit level requested equals taxes and profits.

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 cost of service.

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 insure 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 – 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 reflect 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 general 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 earlier in this testimony, 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. As discussed earlier and acknowledged by Company witness Williams, the Company's capital costs – borrowing costs – have declined to record lows. While the financial markets, and the economy in general, has experienced periods of uncertainty and turmoil since September 2008, government intervention has had an impact on financial markets. Moreover, recent January 2012 Federal Reserve monetary policy announcements have signaled a longer term period for low interest rates and yields. The end result is that cost of capital today is not higher as a result of the economic turmoil that impacted the global markets in the autumn of 2008. Moreover, the cost of capital continues to decline as evidenced by a review of historical bond yields, and demonstrated by RMP's own borrowing costs, and authorized equity returns set by regulatory authorities around the country.

Q. ARE ECONOMIC CONDITIONS EXPECTED TO CONTINUE TO IMPROVE IN 2012?

A. Yes, but slowly. Forecasts are for continued, but slowed economic improvement. Economic conditions in 2011 and early 2012, when compared to the end of 2008, are much improved. The Federal Reserve has lowered economic growth estimates to reflect the slower growth in GDP.

GDP forecasts were all lowered to about 2.7% for 2011 and 3.2% for 2012. Unemployment levels were in the 9.1% range for 2011 and projected at 8.25% by the end of 2012. The economy while improving from the levels experienced in the depths of the 2008 financial/liquidity crisis is recovering at a much slower pace than past predictions and expectations would indicate.

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

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

Q. HAS THE FEDERAL RESERVE RECENTLY CHANGED ITS PUBLIC REPORTING POLICY OF THESE CLOSELY WATCHED INTEREST RATES?

A. Yes. At the December 2011 meeting of the Federal Reserve, it was decided to start communicating to the public, four times per year, how long the Federal Reserve will maintain short-term interest rates at current levels.[8] In other words, projections of target federal reserves combined with the Summary of Economic Projections (which are released four times per year and include projections of economic growth, unemployment, and inflation) would help the public and markets better understand monetary policy.

The first forecast of interest rates was published following the January 24-25, 2012 Federal Reserve meeting. Some of the goals of this new projected information are to provide the public increased transparency of monetary policy, and assure the public that interest rates will not rise before a specific time, which is expected to lower longer term yields further and provide some economic stimulus.

Following the January 2012 Federal Open Market Committee meetings, the Federal Reserve stated: "…the Committee decided today to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that economic conditions – including low rates of resource utilization and a subdued outlook for inflation over the medium run – are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014."

Thus, the Federal Reserve has made a new commitment extending these 0% to ¼% federal funds rates from the mid-2013 period at least through late 2014. Certainly, the

[8] www.federalreserve.gov, see minutes of Federal Open Market Committee, December 13, 2011 at 9-10.

Federal Reserve's assurance that these key interest rates will remain at or near zero for an additional 18 months beyond the previous mid-2013 projection points to continued sluggish economic conditions and lower near term expectations.

Q. HAS THE FEDERAL RESERVE ISSUED A MORE RECENT ECONOMIC ASSESSMENT?

A. Yes, an April 25, 2012 press release from the Federal Reserve indicates low federal funds rates through late 2014. The press release notes that while unemployment has declined it remains elevated, housing remains depressed and longer term inflation expectations remain stable. The following table summarizes the Federal Reserve current projections compared to the January 2012 projections for real GDP, unemployment, and inflations. Slight changes are expected in the 2012 – 2014 period, but longer run projections remain constant.

Table 2

Percent

Variable	Central tendency[1]				Range[2]			
	2012	2013	2014	Longer run	2012	2013	2014	Longer run
Change in real GDP	2.4 to 2.9	2.7 to 3.1	3.1 to 3.6	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.9 to 4.3	2.2 to 3.0
January projection	2.2 to 2.7	2.8 to 3.2	3.3 to 4.0	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.8 to 4.3	2.2 to 3.0
Unemployment rate	7.8 to 8.0	7.3 to 7.7	6.7 to 7.4	5.2 to 6.0	7.8 to 8.2	7.0 to 8.1	6.3 to 7.7	4.9 to 6.0
January projection	8.2 to 8.5	7.4 to 8.1	6.7 to 7.6	5.2 to 6.0	7.8 to 8.6	7.0 to 8.2	6.3 to 7.7	5.0 to 6.0
PCE inflation	1.9 to 2.0	1.6 to 2.0	1.7 to 2.0	2.0	1.8 to 2.3	1.5 to 2.1	1.5 to 2.2	2.0
January projection	1.4 to 1.8	1.4 to 2.0	1.6 to 2.0	2.0	1.3 to 2.5	1.4 to 2.3	1.5 to 2.1	2.0
Core PCE inflation[3]	1.8 to 2.0	1.7 to 2.0	1.8 to 2.0		1.7 to 2.0	1.6 to 2.1	1.7 to 2.2	
January projection	1.5 to 1.8	1.5 to 2.0	1.6 to 2.0		1.3 to 2.0	1.4 to 2.0	1.4 to 2.0	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The January projections were made in conjunction with the meeting of the Federal Open Market Committee on January 24–25, 2012.

1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Q. WHAT ARE CURRENT TRENDS PERTAINING TO LONGER TERM INTEREST YIELDS?

A. Longer term interest yields are best described as low and lower relative to longer-term historical averages. I have included in my Exhibit OCS 1.2D historical bond monthly bond yields for longer term government and corporate bonds. For example, current 30

year; 20 year and 10 year U.S. Treasury Bond yields are essentially at or below 3 percent. All three government bonds are near six year lows in terms of yields. As explained above, current efforts by the Federal Reserve are to maintain and/or lower these longer term yields. The same is true for long term Aaa and Baa corporate bond yields, which are near their respective six year lows and generally declining.

Q. DO THE FEDERAL RESERVE POLICY ACTIONS PROVIDE YOU 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 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.

The market evidence shown in Exhibit OCS 1.2D, shows longer term interest rates generally declining. 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. 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. WHAT LEVEL OF INTEREST RATES AND EXPECTATIONS DO YOU EMPLOY FOR YOUR COST OF CAPITAL ANALYSIS?

A. I employ the most current three month average as the best approximation of interest rate levels. In my opinion, the most recent three months or quarter of activity adequately captures the levels and trends of interest rates – while avoiding any limited influences that monthly or shorter durations may have on interest rates.

Q. S&P RECENTLY LOWERED U.S. DEBT RATINGS, HAS ANY OTHER RATING AGENCY DOWNGRADED U.S. DEBT?

A. No. Both Fitch and Moody's have affirmed their AAA rating for U.S. debt. It does not appear that U.S. capital markets have over-reacted to S&P's unilateral downgrade of U.S. debt.

Q. WHAT DOES THE FEDERAL RESERVE'S MOST RECENT ECONOMIC ASSESSMENT INDICATE?

A. I discussed earlier the revised and lowered economic estimates of the Federal Reserve Open Market Committee that reflect lower or slower growth. Basically, economic growth is substantially slower than expected. Unemployment at high levels continues. The Federal Reserve response is to maintain the federal funds rate at or near zero through late-2014.

Economic projections from the Federal Reserve meeting in April 2012 indicate longer term range (beyond 2014) GDP growth in the 2.2% to 3.0% range, unemployment in the 4.9% to 6.0% range and inflation at 2.0%. The shorter range up to 2014 has a GDP growth range at 2.9% to 4.3%, unemployment at 6.3% to 7.7% and inflation at 1.5% to 2.2%.

Generally, the recent Federal Reserve actions reflect a view of weaker economic conditions than was previously projected. The current policy of extending low interest rates through the end of 2014 is viewed as an attempt to further increase economic growth to address higher levels of unemployment.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM CURRENT ECONOMIC CONDITIONS IN PROVIDING GUIDANCE IN SETTING EQUITY CAPITAL COSTS IN THIS PROCEEDING?

A. As a general matter capital costs remain low in comparison to historical levels. While the bottom tier of investment grade corporate bond rates (BBB) 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 BBB bond rates are at the 5.2% level. Single A borrowing costs as discussed earlier and in the testimony of Mr. Williams are at historical lows. The economic slowdown or recession, and modest growth in recovery, will cause general investor expectations of growth to decline. 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. Many regulatory authorities have established equity returns at or below 10%. The Company has agreed in a stipulation to a 9.8 percent equity return in Washington. Further, the Company recently filed another proceeding in Washington requesting a 9.8 percent equity return.

SECTION VI: COST OF EQUITY CAPITAL DCF ANALYSIS

Q. PLEASE DESCRIBE THE COMPANY.

A. Rocky Mountain Power ("RMP" or "Company") is one of three primary subsidiaries of PacifiCorp. Since about 2006 PacifiCorp has been a wholly owned subsidiary of MidAmerican Energy Holdings Company which is an affiliate of Berkshire Hathaway. RMP also serves customers in Wyoming and Idaho, while another PacifiCorp subsidiary, Pacific Power, serves customers in Oregon, California and Washington.

Of the six different state jurisdictions served by RMP and Pacific Power, the Utah jurisdiction is the largest in terms of energy sold to retail customers. The 2011 PacifiCorp Form 10K shows the following retail sales by state jurisdiction over the 2009 through 2011 period:

State	Gwh 2011	%	Gwh 2010	%	Gwh 2009	%
*Utah	23,245	43%	22,477	42%	22,098	42%
Oregon	13,014	24%	12,717	24%	13,422	25%
*Wyoming	9,793	18%	9,680	18%	9,202	17%
Washington	4,006	7%	3,985	8%	4,184	8%
*Idaho	3,440	6%	3,326	6%	2,956	6%
California	809	2%	831	2%	848	2%
Total	54,307	100%	53,016	100%	52,710	100%

*Part of Rocky Mountain Power

The RMP operations represent about two-thirds of total Gwh sales.

Q. WHAT IS THE COMPANY'S REQUEST IN THIS CASE?

A. The Company is requesting an annual rate increase of $172.3 million or about a 9.7% increase in rates.[9] The Company asserts there are five cost drivers for this increase.[10] Part of the claimed cost increase is the Company's request to increase the equity return from 10% to 10.2% amounting to about $9.7 million of the $172.3 million rate request.[11] As I will discuss later in this testimony, capital costs in general are declining and the Company's request to boost the equity return is not supported by capital market evidence.

Q. WHAT IS THE TEST YEAR IN THIS CASE?

A. The test year is a forecasted test period consisting of the twelve months ending May 2013. Employing a forecasted test year is advantageous for the utility as future test year expenditures 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 risk of revenue erosion. In addition, the Utah Commission recently approved a net power cost adjustment mechanism or Energy Balancing Account ("EBA") which serves to limit the utility exposure or risk to fuel and purchase power price volatility. Rating agencies such as Standard & Poor's view the EBA as a "…step forward for credit quality because it mitigates key business risk for electric utilities…"[12]

[9] Direct Testimony Richard Walje at 2:31
[10] *Id* at 2:37-46
[11] *Id* at 5:105-6:116
[12] See Direct Testimony Bruce Williams, Exhibit 2, Standard & Poor's, Global Credit Portal, PacifiCorp. October 3, 2011.

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 an 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. Also, a utility that receives a rate adjustment may assert regulatory lag if it finds its unit costs are higher than the cost levels upon which the rate adjustment was based.

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 are rising costs, inflation, increasing capital investments and lower growth and sales. I have discussed three mechanisms in Utah that address 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 May 30, 2013) affords Utah utilities the opportunity to capture expected cost and sales changes in the rate proceeding. Second, the large investment mechanism allows for stream-lined or more rapid rate charges to capture cost changes associated with increased investment. Third, the aforementioned 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.

Nationally regulatory lag for 2011 averaged about 9.6 months.[13] This is a decline from the historical 10 month average for regulatory lag.[14] Rate mechanisms such as interim

[13] Edison Electric Institute, Financial Update, Rate Case Summary Q4 2011 at 2.
[14] *Id*

increases, cost trackers, and forecasted test years have all contributed to the decline in regulatory lag and regulatory risks.

Q. HAVE UTILITY COMMISSIONS ADJUSTED UTILITY EQUITY RETURNS TO LOWER LEVELS DUE TO IMPLEMENTATION OF RISK SHIFTING RATE MECHANISMS?

A. Yes. A review of rate decisions does indicate that regulatory authorities have ordered lower returns due to cost trackers and other rate mechanisms.[15] For example, Hawaii Electric's equity return was set at 10% because various rate mechanisms reduced the Company's risk.[16] The impact of rate mechanisms to reduce and/or shift risk on equity return decisions were also seen in Indiana and Massachusetts.[17]

To the extent the regulatory scheme is changed to ameliorate regulatory lag and the risk is shifted to consumers an adjustment to equity return can be made to reflect lower risks or taken into consideration in the Commission's return on equity award.

Q. IS THERE A TREND IN TERMS OF DECLINING EQUITY COSTS APPROVED BY REGULATORY AUTHORITES?

A. Yes. In 2011 the average ROE allowed by regulatory authorities was about 10.25%. This level of ROE award reflects declining market capital costs along with the impacts of various risk moderating rate mechanisms discussed earlier. The evidence of the market place and recent decisions of regulatory authorities is that capital costs in general are lower and ROE's required by utility companies are lower.

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

A. Yes. Standard & Poor's[18] which rate PacifiCorp's corporate credit rating at A- lists the following strengths:

- Market and regulatory diversity;

[15] *Id* at 9
[16] *Id*
[17] *Id*
[18] Standard & Poor's, Ratings Direct PacifiCorp, October 2, 2011 at 2.

- Favorable electric rates relative to other suppliers;
- The recent approval of a fuel and purchased power adjuster in Utah is a positive development because the state is the company's largest market and will limit the amount the utility will have to absorb if purchased fuel and power costs exceed levels authorized in electric rages;
- Dependence on purchased power has decreased.

As weaknesses Standard & Poor's lists:

- Regulatory lag;
- Continued large capital investments and weak economic conditions;
- Slow sales growth

In terms of weaknesses, regulatory lag should not be an issue given the rate adjustment mechanism for major plant additions and slowed or reduced capital expenditures. Slower sales growth can benefit the Company in assessing costs and future expansion.

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

A. No.

Q. YOU STATED ABOVE THAT YOU RELIED ON A DCF ANALYSIS. PLEASE DESCRIBE HOW YOU CONDUCTED YOUR DCF ANALYSIS.

A. For my DCF analyses I employ a 21 company comparable risk group of companies to evaluate cost of capital. The comparable risk group of companies, for which there is market data available, serves as a reasonable proxy for the Company.

Q. PLEASE EXPLAIN HOW YOU DEVELOPED YOUR COMPARABLE GROUP OF COMPANIES.

A. The starting point is the group of regulated electric utilities that are followed by and contained in the Value Line Investment Survey ("Value Line"). Value Line is an important source for market information and it is a widely followed source for investors. This group was further screened for the following criteria:

(i) Investment grade bond rating of BBB or Baa by Standard & Poor's (S&P) and Moody's;

(ii) Sales revenues of at least 70% from utility operations, and at least 50% electric revenues;

(iii) Currently paying dividends; and

(iv) No current major merger or asset sale activities that could impact share prices and earnings estimates.

Applying these criteria employing data from Value Line and the AUS Utility Reports ("AUS") for May 2012, I was able to construct a comparable group consisting of 21 electric and combination electric and gas companies. The list of companies in the comparable group is included in my Exhibit OCS 1.3D.

Q. ARE THE COMPANIES IN YOUR COMPARABLE GROUP SIMILAR TO THOSE USED BY COMPANY WITNESS HADAWAY IN THIS CASE?

A. Yes. Dr. Hadaway's comparable group consists of 14 electric utilities and 11 of his comparable companies are included in my group as well. My screening criteria regarding S&P and Moody's bond rating was not quite as narrow (requiring a senior secured rating of at least "A- " by S&P or A3 by Moody's) as Dr. Hadaway imposed for group selection.[19] My screening also includes lower rated BBB utilities. I would note that Dr. Hadaway's Exhibit RMP_(SCH-1) shows five of his comparable group companies have split ratings of BBB to A. Thus, inclusion of BBB investment grade rating is not inconsistent with his analysis. Further, the inclusion of more rather than fewer companies dampens any unusual influence one company may have on the proxy group sample and final results.

Q. THERE ARE THREE COMPANIES IN DR. HADAWAY'S SAMPLE THAT YOU DID NOT USE IN YOUR ANALYSIS, PLEASE EXPLAIN WHY.

A. Black Hills Corp was excluded because less than 50 percent of its revenues came from the regulated electric business. Sempra Energy and Vectren Corp were excluded because, like Black Hills, less than 50 percent of their regulated revenues came from the

[19] See Hadaway Direct Testimony at 2:42-45.

electric business. In the case of Sempra and Vectren regulated electric revenues represented about 28 percent of total revenues.

Q. PLEASE SUMMARIZE YOUR COMPARABLE GROUP SELECTION AS COMPARED TO COMPANY WITNESS HADAWAY'S COMPARABLE GROUP FOR THIS CASE.

A. As explained earlier, my comparable group is larger and not subject to unusual and isolated influences of one company. Second, this larger group, unlike Dr. Hadaway's proxy group, has eliminated companies that are primarily gas utility operations. In my opinion, the larger 21 company sample is a better proxy for RMP in this case.

Q. ARE THERE OTHER REASONS EXPLAINING WHY YOU EXAMINED COMPARABLE ELECTRIC 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 which, 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 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 bottom line is that the cost of equity depends in part on the anticipated regulatory environment and actions. Thus, both the components of the DCF model – dividend yield and growth expectations – are influenced by the regulatory process.

(4) Extending the sample size of comparable companies beyond a single regulatory influence will mitigate the regulatory circulatory problem. Specific conditions concerning a subject utility often requires 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.

Q. HAVE YOU PROVIDED A LIST OF THE COMPANIES IN YOUR COMPARABLE GROUP?

A. Yes. Contained in my Exhibit OCS 1.3D is a list of the companies in the comparable group, along with additional data of company Beta values, historical and projected equity ratio for 2010, 2011, 2012, 2013 and 2015-2017, bond rating by Standard & Poor's along with Moody's, and the percentages of regulated revenues.

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 companies in the comparable group is contained in my Exhibit OCS 1.4D.

I have examined weekly closing stock prices for the period February 2012 through April 2012 for 4 week, 6 week, along with 52 week, and spot intervals to calculate a

representative price for the dividend yield calculation. For this analysis, I have employed the six week average price in calculating the dividend yield.

To calculate dividends, I employed the current annualized dividend increased for ½ the expected growth rate. The resulting base dividend yield is shown on my Exhibit OCS 1.6D for the comparable group companies.

Q. HOW DOES YOUR RECOMMENDED DIVIDEND YIELD COMPARE TO THE DIVIDEND YIELD ESTIMATE OF DR. HADAWAY?

A. Dr. Hadaway's dividend yield average and median estimate for the electric utility comparable group companies ranges from 4.3% to 4.4%.[20] The dividend yields I have computed based on more recent data for the comparable group are about 4.4% and 4.5%, and are in the same range or slightly higher than the levels estimated by Dr. Hadaway.

Q. PLEASE EXPLAIN HOW YOU HAVE CALCULATED THE EXPECTED GROWTH RATE IN YOUR CONSTANT GROWTH DCF ANALYSIS FOR THE COMPANIES IN THE COMPARABLE GROUP.

A. Like dividend yields, 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 regards 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

[20] Direct Testimony of Dr. Hadaway Exhibit SCH-5, pp. 2 and 3.

and, as a result, 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 earnings growth rate forecasts and historical growth rate data may be found in the Value Line Investment Survey ("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. Other earnings estimates are forecasted by Zacks as well as First Call projections, which are widely available on the internet at Zacks.com and Yahoo Finance 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.

Another 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:

(growth = $b\ x\ r$)

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.

Q. PLEASE EXPLAIN YOUR GROWTH RATE ANALYSIS.

A. I have included in my Exhibit OCS 1.5D, a two page 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 is the First Call growth rates which are readily available to investors at Yahoo Finance.

In addition, I have examined the growth rates based on the forecasted retention ratio growth estimate discussed above. These calculations are included in my Exhibit OCS 1.5D at page 2.

The growth rates described above provide a range of estimates for each of the comparable companies. The resulting range of average forecasted growth rates for the electric utility comparable group is from 4.0% to 5.5%. Relying on the forecasted earnings per share estimates and internal growth rate estimates, the growth rate average range can be narrowed to 4.1% to 5.2% as shown in Exhibit OCS 1.5D, page 1, average and median at columns M and N.

Q. HOW DO YOUR COMPARABLE GROUP GROWTH ESTIMATES COMPARE TO DR. HADAWAY'S GROWTH ESTIMATES FOR THE CONSTANT GROWTH DCF ANALYSIS?

A. Dr. Hadaway's average growth estimate for the electric utilities in the comparable group ranges 5.11% to 5.8%,[21] and this range generally exceeds the very upper end of my estimates.

My growth rate analyses are more current (as we both relied on Value Line and Zacks EPS forecast estimates) and my analysis looks to other earnings estimates along with a sustainable growth calculation. Therefore, in my opinion, my analysis covers a wider array of growth estimates and is not as limited as Dr. Hadaway's proposal. Also, my analysis does not ignore the low end of the growth results. Dr. Hadaway's DCF analysis totally ignores the lower end of growth ranges. This is especially unusual given the slower rate of economic growth in general. I will discuss specific problems in Dr. Hadaway's analysis later in my testimony.

Q. PLEASE SUMMARIZE YOUR CONSTANT GROWTH DCF ANALYSIS.

A. For the 21 company electric utility comparable group, based on an average yield and a

[21] See Direct Testimony Dr. Hadaway, Exhibit SCH-5, p.2

low and high range growth rate, the ROE estimate is 9.0% to 9.8%. These results are presented in my Exhibit OCS 1.6D.

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.

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 electric utility 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)[22] employs an earnings growth estimate based on the comparable group forecast EPS average estimate of 5.2%. The 5.2% growth estimate is the average of these EPS growth estimates and represents the higher end of my range.

In the two-stage model the dividend cash flows are discounted equal to the price[23] paid for the stock. The calculated discount rate or internal rate of return is the cost of equity capital estimate.

[22] The model is ended at year 150.
[23] Price is based on the 6 week average discussed earlier.

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 1.7D. The 21 company comparable group average indicates a cost of equity range of 9.5% to 9.6%.

Q. PLEASE SUMMARIZE YOUR DCF ESTIMATES.

A. The table below is a summary of the DCF results:

TABLE 3
SUMMARY OF COMPARABLE GROUP
DCF ANALYSES

DESCRIPTION	COMPARABLE GROUP ELECTRIC UTILITIES
Constant Growth DCF	9.0% - 9.8%
Non-Constant Growth Two Stage DCF	9.5% - 9.6%
DCF Range	9.0% - 9.8%

This range of estimates of 9.0%% to 9.8% % indicates an average cost of equity of about 9.4% based on the DCF analysis.

SECTION VII: RISK PREMIUM/CAPM COST OF EQUITY ESTIMATE

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 three-month Treasury bill rate. The risk premium, or equity spread above and beyond the risk free rate is adjusted by the stock beta.[24] 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 general problem of how to measure the equity risk premium and the time period for which the premium is analyzed is subject to considerable debate. This problem and associated criticisms is generic to all variants of the risk premium model. Second, measures of beta are often 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 considerable caution. The risk premium analysis and CAPM described below consists of analyses of shorter time horizons and are employed as a check on the DCF results described earlier.

Q. DESCRIBE YOUR RISK PREMIUM ANALYSIS?

A. I examined two analyses comparing the authorized electric utility return on equity relative to the Moody's Average Public Utility Bond Yield for the period 1980 - 2011. This analysis is set forth in my Exhibit OCS 1.8D. In this analysis I estimate equity risk premiums by comparing authorized electric utility returns with Moody's average public utility bond yields employing a current single "A" bond yield and a forecasted single

[24] 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.

"A" bond yield. The resulting risk premium is combined with the current single "A" corporate bond yield of 4.51% and the projected estimate of a single "A" utility bond yield of 4.32% to arrive at a cost of equity estimate. The current 4.51% single "A" bond yield is computed consistent with Dr. Hadaway's approach of adding 132 basis points to the long-term U.S. Treasury yield of 3.19%, or about 4.51%. The projected single "A" yield of 4.32% is based on the Company's pro forma debt cost at 3/15/13 of 4.32%.

The resulting risk premium range of results is 9.52% to 9.63% with a 9.58% midpoint estimate.

CAPITAL ASSET PRICING MODEL ANALYSIS

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

A. Employing the basic CAPM formula denoted as follows:

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:

February 2012	3.11%
March 2012	3.28%
April 2012	3.18%
3 Month Average	3.19%

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

A. I employed a beta estimate of .72, which is the average beta for the comparable group as shown in my Exhibit OCS 1.3D.

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

A. I have employed a MRP of 4.9% based on the following calculation:

DESCRIPTION[25]	GEOMETRIC AVG	ARITHMETIC AVG
Large Company Stock Returns (1/1/26 - 12/31/10)	9.8%	11.8%
Long Term Government Bonds	5.7%	6.1%
Risk Premium	4.1%	5.7%
Midpoint	4.9%	

Q. WHAT IS THE RESULT OF YOUR CAPM ANALYSIS?

A. Employing a beta value of .72, a risk free rate of 3.19%, and a MRP of 4.9% results in a CAPM estimate of:

$$K = 3.19\% + .72(4.9\%)$$

[25] Stocks, Bonds, Bills and Inflation Market Report, December 2011 at 12 on Table 7.

$$K = 3.19\% + 3.53\%$$

$$K = 6.72\%$$

Q. IN YOUR ANALYSES, HAVE YOU INCLUDED A CALCULATION OF THE ECAPM RETURN ESTIMATE FOR THIS CASE?

A. Yes. Like the CAPM analysis discussed above, the ECAPM estimate of equity return relies on basic financial theory in order to correct for biased beta estimates, an adjustment is made so as not to understate the cost of equity.

ECAPM[26]

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

$$K = 3.19\% + 0.25(4.9\%) + 0.75 \times .72(4.9\%)$$

$$K = 3.19 + 1.225\% + 2.646\%$$

$$K = 7.061\%$$

Q. PLEASE SUMMARIZE YOUR COST OF EQUITY CAPITAL RESULTS FOR THIS CASE.

A. The DCF results both constant and two-stage DCF for both comparable groups, updated CAPM and ECAPM, along with the updated risk premium and alternative risk premium analysis are summarized in the following table:

Table 4
Summary of Cost of Equity Modeling

Description	**Range**	
DCF Constant Growth Electric Utility Group	9.0%	9.8%
DCF Two-Stage Electric Utility Group	9.5%	9.6%
CAPM	6.7%	
ECAPM	7.1%	
Historical Risk Premium Authorized Electric Utility Returns	9.5%	9.6%

[26] *Id*

The constant growth DCF range is 9.0% to 9.8% with a 9.4% midpoint. The two-stage DCF results fall slightly above the 9.4% midpoint at 9.55%. The risk premium results also fall slightly above the midpoint at 9.55%. Given that the two-stage DCF results are driven by a higher 5.2% growth rate, the 9.4% constant growth DCF midpoint is the more balanced final estimate. The risk premium results fall within the DCF range and on average fall closer to the midpoint of 9.4% than either end of the overall 9.0% to 9.8% range. For these reasons I am recommending a 9.4% equity return in this case.[27]

The 9.4% equity return midpoint is further supported by the addition of Utah regulatory mechanisms such as the MPA and EBA which improve credit quality and mitigate business risk for RMP.

SECTION VIII: CAPITAL STRUCTURE

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

A. Based on the direct testimony of Company witness Bruce Williams, the Company is proposing the following capital structure, cost rates and overall cost of capital to be earned on rate base investment as follows:

TABLE 5[28]
ROCKY MOUNTAIN POWER
DOCKET NO. 11-035-200 TEST YEAR ENDED MAY 31, 2013
OVERALL REQUESTED COST OF CAPITAL

Line No	Description	Percent	Cost Rate	Weighted Cost
1	Long-Term Debt	47.60%	5.41%	2.5752%
2	Preferred Stock	0.30%	5.43%	0.0163%
3	Common Equity	52.10%	10.20%	5.3142%
4	Total	100.00%	---	7.9057%

[27] The CAPM results well below 8% were omitted as outliers.
[28] Company filed (Certification) Schedule F, p. 1 of 2.

Thus, the Company requests an overall cost of capital to be earned on rate base investment of 7.91% 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 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. HAVE YOU MADE ANY CHANGES TO THE PROPOSED CAPITAL STRUCTURE AND COST RATES?

A. Other than reducing the cost of equity to 9.4%, I am not at this time proposing any other capital structure or cost rate changes. However, in data request 10.13 the Division asked:

> **Cost of Capital/Capital Structure** PacifiCorp reported issuing $100 million in first mortgage bonds in March 2012; the proceeds, in part, are to be used to redeem approximately $84 million in pollution control revenue bonds. Does Mr. Williams plan to revise his testimony to reflect this event that was not included in his direct testimony? If so, when does he expect to file his revised testimony?
>
> **The Company responded**: Yes, Mr. Williams plans to revise his testimony concerning the cost of debt during rebuttal testimony.

I will review his rebuttal testimony and make any necessary adjustments at that time.

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

TABLE 6

ROCKY MOUNTAIN POWER COMPANY
RECOMMENDED ALTERNATIVE COST OF CAPITAL

Description	Ratio	Cost	Weighted Cost
Long-term Debt	47.60%	5.41%	2.5752%
Preferred Stock	0.30%	5.43%	0.0163%
Common Equity	52.10%	9.40%	4.8974%
Total	100.00%	---	7.4889%

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 7.49%.

SECTION IX: FINANCIAL INTEGRITY

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDED 7.49% COST OF CAPITAL ON THE COMPANY'S CLAIMED LEVEL OF RATE INCREASE?

A. Employing the $5,752,868,671 rate base from the Company's filing schedule and my recommended 7.49% return grossed-up for federal income taxes to a level of 10.13% results in a revenue requirement of $583,035,008 (See Exhibit OCS 1.9D). The Company's requested return and tax level of 10.7759% applied to the $5,752,868,671 rate base results in a revenue requirement of $619,924,172 (See Exhibit OCS 1.9D). Thus, the impact on revenue requirements of employing a 9.4% rather than a 10.2% return on equity in this case is a $36,889,164 reduction to the Company's requested $172.3 million annual rate increase.

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

A. Yes. The Company's credit quality is not threatened or under significant pressure of downgrade. Current bonus depreciation impacts on cash flow will cause rating agencies to focus more on earnings before interest, taxes, depreciation and amortization; or EBITDA metrics as pure cash flow measures are temporarily influenced by current tax law impacts.

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 9.4% 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 1.9D employing my recommendations in this proceeding. The results of my analyses indicate strong financial metrics, supporting the current B bond rating.

The resulting financial metrics at a 9.4% equity return are consistent with the current single A bond rating.

SECTION X: ISSUES RAISED IN DR. HADAWAY'S DIRECT TESTIMONY

Q. DO YOU HAVE ANY COMMENTS REGARDING DR. HADAWAY'S TESTIMONY?

A. Yes, I have a number of comments. First, Dr. Hadaway's DCF analysis results in a range of results of 9.6 percent to 10.2 percent.[29] Further, Dr. Hadaway's risk premium results indicate a range of 9.55 percent to 9.70 percent which is consistent with the lower end of his DCF model results.[30] Rather than embracing the consistency of his modeling results, Dr. Hadaway discounts the current equity risk premium 9.55 percent to 9.70 percent range "…because they are unduly affected by the artificially low interest rates caused by the federal governments expansionary monetary policy."[31]

His risk premium results are very consistent with his DCF results, albeit at the lower end of the range. Dr. Hadaway does assert the lower end of his DCF results at the 9.6 percent level have been unduly affected by unusual market factors.[32] I find Dr. Hadaway's abandonment of his lower end DCF results and risk premium analysis unsupported.

[29] Direct Testimony Samuel C. Hadaway at 1:20-22.
[30] *Id* at 1:22,23 – 2:24
[31] *Id* at 2:24027
[32] *Id* at 31:633-636

Q. PLEASE EXPLAIN WHY YOU FIND DR. HADAWAY'S ABANDONMENT OF HIS LOWER DCF RESULTS AND ALL HIS RISK PREMIUM ANALYSES TO BE UNSUPPORTED.

A. Dr. Hadaway has undertaken no analysis to support this conclusion he merely states:

> "[r]ecent market turmoil and the continuing effects on capital markets make it difficult to strictly interpret quantitative model estimates for the cost of equity….equity market volatility remains high. Under these conditions, use of a lower DCF range or equity risk premium estimates…will understate the market cost of equity. Based on all these factors, an ROE of 10.2 percent is a reasonable rate."[33]

While Dr. Hadaway may call his selection of 10.2% "judgment", in reality it is nothing more than a flat out guess. His judgment could have been 9.6% as well as 10.2%, there is no way to duplicate that result. In other jurisdictions such as Washington, PacifiCorp apparently sees no problem with "market turmoil", "equity market volatility" or an equity return below 10 percent.

Q. IN YOUR OPINION, IS THE MARKET CURRENTLY IN TURMOIL BECAUSE OF EQUITY MARKET VOLATILITY?

A. Markets are functioning and operating in the way they always do. Certainly, the market turmoil from late 2008 and in 2009 is not present in today's markets.

While there is some debate as to how volatile markets are today relative to the past, one must recognize markets have always been subject to volatility.

Today substantial market volumes are subject to computer trades where high-frequency traders rely on algorithms to capitalize on quick market movements. How, or if this type of market change creates more volatility is not clear.

Factors such as European economic issues, or double dip recession fears or concerns of margin call impacts are frequently issues looming over the market. Historically such events may have been the first bail out of Chrysler, or the New York City financial

[33] *Id* at 31:629-637

crisis, or inflation in the late 1970's and early 1980's – markets have frequently been subjected to crisis and events. But, whether you look at the Dow Industrials and Dow Utility index over the past five or 80 years, (See Exhibit OCS 1.10D) there is no evidence to conclude current market volatility is any reason to discard current market cost of capital results.

Q. DO YOU HAVE ANY COMMENTS ON DR. HADAWAY'S COMPARABLE RISK OR PROXY GROUP IN THIS CASE?

A. I pointed out earlier in this testimony that a larger company sample (my 21 company group versus Dr. Hadaway's smaller 14 company group) avoids the problem of being unduly influenced by large variations by one or more of the companies. I also pointed out that some of the companies in Dr. Hadaway's sample are better suited for a gas case rather than an electric case. Lastly, Dr. Hadaway's restriction or requirement for a single A bond rating unnecessarily limits the proxy group.

Given all of the above, my comparable group may be a better risk proxy in this case. Whether my proxy group or Dr. Hadaway's group or both groups are employed, the final equity return number will not be markedly different.

Q. DO YOU HAVE ANY COMMENTS ON DR. HADAWAY'S CONSTANT GROWTH DCF ANALYSIS?

A. In my opinion, the growth rate range is limited resulting in an overstatement of the equity return recommendation. As I noted in the growth rate section of this testimony, an estimate and inclusion of the internal "b" times "r" growth rate provides a more balanced and complete estimate for the DCF analysis. Dr. Hadaway's constant growth analysis is limited and lacks a balanced range of growth.

Q. DO YOU HAVE ANY COMMENTS ON DR. HADAWAY'S CONSTANT GROWTH DCF EMPLOYING THE LONG-TERM GDP GROWTH METRIC?

A. In my opinion, the 5.8 percent GDP growth estimate is not supported or consistent with current investor or market growth expectations. Growth measured by this GDP measure of 5.8% is overstated by at least 50 basis points. There are no current market forecasts that currently estimate a 5.8 percent GDP growth estimate. While Dr. Hadaway may in

fact believe in this 5.8% growth estimate, the market and most importantly investors are not forming investment decisions on GDP forecasts of 5.8%. A search of recent and current market forecasts of GDP suggests only Dr. Hadaway has such a bold high growth projection of GDP. For these reasons a 5.8% GDP growth projection is not supported by market evidence or helpful in determining the RMP cost of equity in this case.

Q. DO YOU HAVE ANY COMMENTS ON THE PROPOSED TWO-STAGE DCF FORMULA?

A. Yes, again the Company proposes to employ a 5.8% long-term growth rate based on Dr. Hadaway's estimate of GDP growth. The first four years of the two-stage DCF model are based on short-term Value Line estimates for dividends, but the remaining 146 years of the calculation are based on the 5.8% GDP growth estimate. Given the primary reliance on the 5.8% GDP growth metric, the two-stage DCF model will be overstated.

Q. BASED ON YOUR ANALYSIS OF DR. HADAWAY'S GROWTH ANALYSIS, IS THE 9.6% TO 10.2% DCF RANGE REASONABLE?

A. In my opinion, Dr. Hadaway's DCF range is somewhat overstated as such range is driven to some extent by the 5.8% growth in GDP. But, if one looks at only the constant growth DCF employing analysts' growth estimates, the DCF range is 9.6% - 10.0% as discussed at line 567 of Dr. Hadaway's direct testimony. Only by employing a 5.8% GDP growth rate does Dr. Hadaway get the DCF estimates above 10% in this case.

Q. WHAT ARE THE RESULTS OF DR. HADAWAY'S RISK PREMIUM ANALYSES?

A. As discussed at line 579 of his direct testimony, Dr. Hadaway discusses a risk premium range of 9.55% to 9.70%. Dr. Hadaway goes on to state that these results are discounted because of the claimed impact of monetary policy on interest rates. These risk premium results generally support my recommendation in this case. His risk premium results certainly support an equity return below 10%.

SECTION XI: CONCLUSION ON COST OF EQUITY

Q. PLEASE SUMMARIZE YOUR OVERALL COST OF CAPITAL RECOMMENDATION IN THIS CASE.

A. The Company's requested 10.2% return on equity is overstated. A more reasoned cost of equity analysis results in a required return on shareholder equity of 9.4%. These recommended adjustments results in an overall cost of capital of 7.49% in this case.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.