

Docket No. 08-035-38

Committee of Consumer Services Witness:

**Daniel J. Lawton
Exhibits CCS 3.1 through 3.9**

January 8, 2009

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

**In the Matter of the Application of Rocky §
Mountain Power for Authority to Increase §
Its Retail Electric Utility Services Rates In §
Utah and for Approval of its Proposed §
Electric Service Schedules and Electric §
Service Regulations §
§**

**Docket No. 08-035-38

Direct Rate of Return
Testimony of Daniel J. Lawton
For the Committee of
Consumer Services**

January 8, 2009

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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, revenue requirements/cost of service reviews, and rate design analyses in litigated rate proceedings before federal, state and local regulatory authorities. 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 Exhibit CCS 3.1.

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 CCS 3.1.

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

A. I have been retained to review Rocky Mountain Power's ("Company" or "RMP") cost of capital request on behalf of the Committee of Consumer Services ("Committee").

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

27 structure, and cost rates for equity, debt and preferred stock, which is presented in the
28 direct testimony and second supplemental direct testimony of its cost of capital
29 witnesses, Dr. Samuel Hadaway and the direct and second supplemental testimony of
30 Mr. Bruce Williams.

31 In addition, I will address the second supplemental direct testimony of RMP witness
32 Walje regarding the rate increase and the business risk impacts of cutting specific costs
33 and services to Utah customers.

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

36 A. I have reviewed the Company's testimony (both direct and supplemental), Company
37 responses to interrogatories, Value Line Investment Survey ("Value Line"), financial
38 reports of the Company, and various other financial information available in the public
39 domain. When relying on other sources, I have referenced such sources in my testimony
40 and on attached schedules and included copies or summaries in my attached schedules
41 or workpapers.

42 **Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN THIS**
43 **CASE.**

44 A. My analyses of the Company's 8.69% overall cost of capital and 11.0% return on equity
45 indicate that the Company's request is overstated given current costs of debt and equity
46 capital. I have calculated an alternative cost of long-term debt and common equity for
47 this case which would result in an overall cost of capital of 8.10%, to be earned on
48 RMP's rate base investment.

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

51 (i) The Company's proposed 8.69% overall return on investment is overstated and
52 should not be adopted as representative of the Company's cost of capital requirements;

53 (ii) RMP's proposed 11.0% return for equity shareholders is an overstatement of the
54 required return on equity to hold and attract equity capital;

- 55 (iii) The Company's required return on equity is 10.0%;
- 56 (iv) The Company's estimated interest cost of an \$800 million pro forma long-term
57 debt issue of 8.47% is excessive;
- 58 (v) The Company's interest cost for new long-term debt issues should be 6.07%,
59 resulting in an overall long-term debt cost for the test year of 6.08%; and
- 60 (vi) The Company's overall cost of capital to be earned on rate base investment
61 should be set at 8.10% for setting just and reasonable rates for Utah customers in this
62 proceeding.

63 **SECTION II: REGULATORY ISSUES AND COST OF CAPITAL**

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

66 A. The overall rate of return to be earned on rate base investment is an essential element in
67 the regulatory and rate setting process. The overall return to be earned on rate base
68 investment is typically a major part of overall revenue requirements. For example, in
69 this case the Company's requested overall return is 8.69%¹ and the Company's requested
70 rate base is \$4,549,640,747.² Thus, the Company's requested overall return is
71 \$395,363,781 (8.69% x \$4,549,640,747). Return on rate base investment represents
72 approximately 26% of total requested annual revenue requirements of \$1,546,937,908.
73 In other words, 26 cents of every dollar collected from customers goes to satisfy after
74 tax return requirements of the Company.

75 A small change in return requirements can have a large impact on revenue requirements.
76 For example, I am recommending an overall return of 8.10% in this case. The before
77 tax impact of this return change is about a \$26.8 million reduction to the Company's
78 costs. The impact is larger when the associated federal income tax impact is included.

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

81 A. The overall rate of return in the regulatory process is best explained in two parts. First,

¹ Second Supplemental Direct Testimony Bruce Williams at 7:142-149.

² See Exhibit RMP___ (SRM-1SS) p.2, line 61.

82 return to senior securities, such as debt and preferred stock, which is contractually set at
83 issuance. The reasonableness of the cost of this contractual obligation between the
84 utility and its investors is examined by regulatory agencies as part of the utility's overall
85 cost of service.

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

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

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

102 The cost of capital is defined as the annual percentage that a utility must receive to
103 maintain its financial integrity, to pay a return to security owners and to insure the
104 continued attraction of capital at a reasonable cost and in an amount adequate to meet
105 future needs. Mathematically, the cost of capital is the composite of the cost of several
106 classes of capital used by the utility – debt, preferred stock, and common stock,
107 weighted on the basis of an appropriate capital structure.

108 The ratemaking process requires the regulator to determine the utility's cost of capital
109 for debt, preferred stock and equity costs. These calculations of cost rates, when
110 combined with the proportions of each type of capital in the capital structure, result in a

111 percentage figure that is then multiplied by the value of assets (investment) used and
112 useful in the production of the utility service to ultimately arrive at a rate charged to
113 customers. Rates should not be excessive (exceed actual costs) or burdensome to the
114 customer and at the same time should be just and reasonable to the utility.

115 In summary, the objective of overall rate of return determination in the regulatory
116 process is to compute the return such that the embedded (contractually required) cost of
117 senior securities is recovered. In addition, a regulated utility should be provided an
118 opportunity to generate additional earnings that are sufficient to compensate equity
119 investors at a level that will hold existing investors, attract new investors, and maintain
120 the financial integrity of the utility.

121 **Q. PLEASE EXPLAIN THE COST OF EQUITY CONCEPT.**

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

126 The cost of common equity is not set by contract, and there are no hard and fast
127 mathematical formulae with which to measure investor expectations with regard to
128 equity requirements and perceptions of risk. As a result, any valid cost of equity
129 recommendation must reflect investors' expectations of the risks facing a utility.

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

132 A. I employ the Discounted Cash Flow ("DCF") methodology for estimating the cost of
133 equity, keeping in mind the general premise that any utility's cost of equity capital is the
134 risk free return plus the premium required by investors for accepting the risk of investing
135 in an equity instrument. It is my opinion that the best analytical technique for measuring
136 a utility's cost of common equity is the DCF methodology. Other return on equity
137 modeling techniques such as the Capital Asset Pricing Model ("CAPM") or risk
138 premium are often used to check the reasonableness of the DCF results.

139

140 **Q. PLEASE DESCRIBE THE RISKS YOU REFER TO ABOVE.**

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

146 **Q. PLEASE DESCRIBE ROCKY MOUNTAIN POWER.**

147 A. The Company is one of three business units owned by PacifiCorp. The Rocky Mountain
148 Power business unit provides electrical service to customers in Utah, Wyoming and
149 Idaho. PacifiCorp was acquired and is now a division owned by MidAmerican Energy
150 Holdings Company ("MEHC") in 2006. The equity investment of Rocky Mountain
151 Power is not publicly traded.

152 **Q. PLEASE DISCUSS YOUR UNDERSTANDING OF THE COMPANY'S**
153 **UPDATED REVENUE REQUIREMENT FILING AND THE TEST YEAR**
154 **ORDERED BY THE PUBLIC SERVICE COMMISSION OF UTAH**
155 **("COMMISSION") IN THIS CASE.**

156 A. On December 8, 2008, the Company filed an updated case to reflect this Commission's
157 determination of a December 31, 2009 ending test year. The Company's current rate
158 increase request is approximately \$116.1 million annually. The rate request includes an
159 overall return on investment of 8.69% which includes a return to equity shareholders of
160 11.0 percent.

161 **SECTION III: CURRENT CAPITAL MARKET CONDITIONS**

162 **Q. ARE CURRENT ECONOMIC CONDITIONS DECLINING AS WE END THE**
163 **LAST QUARTER OF 2008?**

164 A. Yes. The U.S. and global financial markets continue to struggle with liquidity issues
165 following the collapse of the subprime mortgage markets. The Federal Reserve and
166 central banks around the world have been ramping up lending in an all out effort to keep
167 the financial markets functioning.

168 The Federal Reserve Chairman, Bernanke predicts that the global financial markets
169 crisis will restrain the U. S. economic growth well into 2009. Thus, while inflation

170 issues have recently receded, economic conditions have worsened prospects of
171 economic growth.

172

173 The Federal Reserve has taken numerous steps to address financial market issues
174 including the recent cut in the federal funds rate to a target range of 0% to 0.25% as of
175 December 16, 2008. While rates for longer-term Treasury Bonds (20 and 30 year) are
176 lower than levels in early 2006, the shorter term rates on Treasury Bills have declined
177 dramatically. High quality corporate bond rates Aaa level until October 2008 have been
178 consistent with interest rate levels ranging back to early 2006. Now, again these higher
179 quality corporate debt securities have seen yield declines of over 100 basis points in
180 December 2008. But, lower quality BBB corporate bond rates have increased by about
181 200 basis points in the past two years. Again, the December 2008 levels show a yield
182 decrease even for lower quality BBB debt securities. I have included in my Exhibit CCS
183 3.2 monthly bond yields for various securities showing changes by month since January
184 2006 through December 2008.

185 **Q. HAVE STOCK PRICES DECLINED AS A RESULT OF THE FINANCIAL**
186 **MARKET PROBLEMS?**

187

188 A. Yes, the Dow Jones Industrial Average ("DJI") declined from about the 14,000 level in
189 November 2007 to 8451 on October 10, 2008. Most of this 5600 point drop in the DJI
190 occurred in the first 10 days of October 2008. Many investors in a flight to safety
191 moved funds from stocks to short-term Treasuries driving 3 month Treasury rates well
192 below 1%. Also, the Dow Jones Utility Average ("DJU") like the DJI dropped
193 substantially during the first part of October 2008.

194 **Q. DO YOU HAVE ANY GENERAL OBSERVATIONS CONCERNING THE**
195 **RECENT TRENDS IN ECONOMIC CONDITIONS AND THE IMPACT ON**
196 **CAPITAL COSTS?**

197

198 A. Yes. As a general matter the U.S. economy has enjoyed general growth, prosperity and
199 stability since the early 1990's. Over this time period there has been a general level of
200 economic expansions accompanied by historical low levels of inflation and interest
201 rates.

202

203 Now, the economy has slowed significantly at least initially as a result of the “sub-
204 prime” mortgage problems and more recently as a result of the liquidity crisis in the
205 financial markets. Moreover, the economic slow down is having global impacts as can
206 be seen in declining energy prices (natural gas, oil) as well as general commodity prices.

207
208 The financial sector crisis has intensified in recent months with the collapse and/or
209 bailout of such institutions as Bear Stearns, Lehman Brothers, Merrill Lynch, Freddie
210 Mac, Fannie Mae, AIG and Citigroup, Inc. The U. S. Government and governments
211 around the world have been and continue to employ unprecedented monetary actions to
212 minimize the impacts of the financial crisis on economic growth. While the impacts of
213 these government rescue efforts and other monetary policy actions have not yet resolved
214 all the tight credit market problems – that does not mean there has been no impact or
215 continued impact. For example, the upward trend in corporate bond yields for AAA and
216 BBB rated debt has reversed in December 2008 as shown in my Exhibit CCS 3.2.

217 The one sure thing is that economic slow down has occurred and is expected to continue.
218 For this reason economic growth will be lower than past forecast estimates have
219 suggested. This is true across all economic sectors including the utility industry. Thus,
220 while utility stock prices may be lower and dividend yields rise – the other side of the
221 coin shows lower economic growth expectations by investors.

222 **Q. WHAT CONCLUSIONS DO YOU DRAW FROM CURRENT ECONOMIC**
223 **CONDITIONS IN PROVIDING GUIDANCE IN SETTING EQUITY CAPITAL**
224 **COSTS IN THIS PROCEEDING?**
225

226 A. As a general matter capital costs remain low in comparison to historical levels. While
227 the bottom tier of corporate bond rates (BBB) has increased dramatically since
228 September 2008 – such increases do not appear to be a trend, but rather the direct impact
229 of an atypical event in the capital markets. As I stated above, BBB bond yields
230 decreased 76 basis points between November and December 2008. Moreover, the
231 economic slow down or recession will cause general investor expectations of growth to
232 decline. The bottom line is that the general economic data does not support increasing
233 capital costs. Further, it is not sound ratemaking to establish revenue requirements and
234 rates on atypical or abnormal events – especially when such events (continuation of the

235 financial crisis) are not likely to continue for a long period of time.

236 **Q. IN YOUR OPINION SHOULD THE COMMISSION SET RATE OF RETURN IN**
237 **THIS CASE BASED ON THE EVENTS AND RESULTS OF THE RECENT**
238 **FINANCIAL/LIQUIDITY CRISIS?**

239 A. Only if the Commission believes that these economic factors are representative of the
240 future when the final rates are implemented for RMP customers. In my opinion these
241 events are not going to continue and the market will adjust.

242

243 While certainly there does appear to be significant economic slow down in the future,
244 recent market events are not likely to be repeated in the near term future. Central banks
245 across the world are now working together to restore and assure confidence in the
246 financial markets. These central banks including the Federal Reserve have developed
247 bail out plans, rescue packages, lowered interest rates, and guaranteed bank lending
248 along with a list of other programs to address these economic/financial issues.

249

250 **SECTION IV COST OF EQUITY CAPITAL DCF ANALYSIS**

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

253 A. For my DCF analyses I employ a comparable risk group of companies because there is
254 no market financial data for RMP. The Company is a division of PacifiCorp which is a
255 wholly owned subsidiary of MidAmerican Energy Holding Company. Thus, without
256 financial data a DCF analysis cannot be computed directly on RMP or for that matter
257 PacifiCorp. The comparable risk group of companies for which there is market data
258 available serve as a proxy for RMP.

259 I applied the DCF method employing market data, as well as forecasted data of various
260 financial parameters to a comparable group of fifteen electric utility companies. The
261 comparable group of fifteen utility companies employed in my analysis comes from the
262 same group of companies used by RMP's witness Dr. Hadaway in this case. Given that
263 I am basing my analysis on the same group of comparable companies as employed by
264 Dr. Hadaway, the equity cost calculation issue is narrowed to the methodology of
265 estimation. I discuss in detail in Section VII the problems I have with Dr. Hadaway's

266 specific cost of equity analyses.

267 **Q. WHY HAVE YOU EXAMINED COMPARABLE ELECTRIC COMPANIES?**

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

270 (1) A comparable risk group analysis is consistent with the requirements of a fair
271 and reasonable return addressed in the *Hope* and *Bluefield* cases. The return on
272 investment should be commensurate with returns earned by firms with
273 comparable risk. Thus, there is a need to examine firms of comparable risk to
274 identify the fair and reasonable comparable returns being earned. In addition, the
275 equity returns of comparable firms are viewed as opportunity costs of forgone
276 investments in the market which, like other investment opportunities, will
277 directly impact the cost of equity of the Company.

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

289 (3) An analysis of a comparable group also avoids circularity problems. In the
290 analysis of investor-owned utilities, the stock price (that is, the cost of capital) is
291 a direct function of an investor's growth rate expectations, which is also a
292 function of an investor's perception of the regulatory environment. The bottom
293 line is that the cost of equity depends in part on the anticipated regulatory
294 environment and actions. Thus, both the components of the DCF model –
295 dividend yield and growth expectations – are influenced by the regulatory
296 process.

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

304 **Q. HAVE YOU PROVIDED A LISTING OF THE COMPANIES IN THE**
305 **COMPARABLE GROUP?**

306 A. Yes. Contained in my Exhibit CCS 3.3 is a list of the fifteen companies in the
307 comparable group along with additional data of Company Beta and equity ratio
308 projected for 2008, 2009 and 2012.

309 **Q. PLEASE EXPLAIN THE DCF METHODOLOGY YOU HAVE EMPLOYED IN**
310 **YOUR ANALYSIS.**

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

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

321
$$K = D/P + G$$

322 where:

323 K = required return on equity,

324 D = dividend rate,

325 P = stock price,

326 D/P = dividend yield, and

327 G = growth in dividends.

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

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

335 While there is no fixed period for selecting the denominator of the dividend yield (i.e.,
336 stock price), the key guideline is that the yield not be distorted due to fluctuations in
337 stock market prices. On the other hand, dividends, the numerator of the yield
338 calculation, are relatively stable, as opposed to the stock prices, which are subject to
339 daily and cyclical market fluctuations. The selection of a representative time period will
340 dampen the effect of stock market changes.

341 The price and dividend data used for each of the companies in the comparable group is
342 contained in my Exhibit CCS 3.4.

343 As I discussed in Section III of this testimony there has been substantial volatility in the
344 market during the first part of October 2008 due to impacts associated with the current
345 financial market crisis. For these reasons I have employed an average 52-week high and
346 low price for the twelve month period ending December 15, 2008. For this period I
347 employ the average of the high and low stock prices to calculate a representative price
348 for the dividend yield calculation.

349 To calculate dividends, I employed the current Value Line estimate for next year's 2009
350 dividend to estimate dividend payment expected by investors. The resulting dividend
351 yield is shown on my Exhibit CCS 3.4 for the comparable group.

352 **Q. HOW DOES YOUR DIVIDEND YIELD CALCULATION COMPARE TO DR.**
353 **HADAWAY'S ESTIMATES?**

354 A. As shown on my Exhibit CCS 3.4 the comparable group average dividend yield is
355 between 4.62% and 4.66%. Dr. Hadaway's analysis shown in his Exhibit RMP
356 ___(SCH-3SS) page 2 of 5, shows a dividend yield range for the comparable group of
357

358 4.56% to 4.65%. The average of his range is 4.60% which is consistent with my 4.60%
359 estimate for the comparable group.

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

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

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

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

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

383 Common earnings growth rate forecasts and historical growth rate data may be found in
384 the Value Line Investment survey ("Value Line") publication. These Value Line
385 earnings estimates are five year projections in annual earnings. Again, Value Line is
386 widely available to the public, and is a good source of earnings projections. Other
387 earnings estimates are forecasted by Zacks as well as First Call projections, widely

388 available on the internet at Zacks.com and Yahoo Finance respectively. Those earnings
389 projections along with other stock specific financial data provide a range of estimates of
390 earnings and are readily available at no cost.

391 Another growth estimate is referred to as the sustainable growth or retention ratio
392 growth estimate. To project future growth in earnings under the sustainable growth
393 method, one multiplies the fraction of a firm's earnings expected to be retained (not paid
394 out as dividends) by the expected return on book equity. As a formula:

$$395 \quad (\text{growth} = b \times r)$$

396 Where:

$$397 \quad b = 1 - (\text{dividends per share} / \text{earnings per share})$$

$$398 \quad r = \text{earnings per share} / \text{net book value share}$$

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

401 **Q. PLEASE EXPLAIN YOUR GROWTH RATE ANALYSIS.**

402 A. I have included in my Exhibit CCS 3.5 the growth rates I have reviewed in my analysis.
403 The first set of growth rates examined is the five year and ten year historical growth
404 rates in earnings per share, dividends per share, and book value per share as reported by
405 Value Line. The second set of growth rates is the Value Line forecasted growth rates in
406 earnings per share, dividends per share, and book value per share for each company in
407 the comparable group. The third set of growth rates examined is the Zacks forecasted
408 growth rates in earnings. The fourth growth estimate considered is the First Call growth
409 rates which are readily available to investors at Yahoo Finance.

410 In addition, I have examined the growth rates based on the forecasted retention ratio
411 growth estimate discussed above. These calculations are included in my Exhibit CCS
412 3.5.

413 The growth rates described above provide a range of estimates for each of the
414 comparable companies. The resulting range of average growth rates for the group is
415 from 4.0% to 6.0% when looking at internal growth forecasts and earnings per share

416 (“EPS”) forecast estimates for the comparable group. Relying on the combined
417 forecasted earnings per share estimates and internal growth rate estimates, the growth
418 rate average range can be narrowed to 5.0% to 5.2% as shown in Exhibit CCS 3.5.

419 **Q. HOW DO THESE GROWTH RATES COMPARE TO GROWTH ESTIMATES**
420 **EMPLOYED BY DR. HADAWAY?**

421 A. Reviewing Dr. Hadaway’s Exhibit RMP__(SCH-3SS) page 2 of 5, it appears Dr.
422 Hadaway has relied upon a 6.12% growth average for the comparable group. This
423 estimate is limited to Value Line, Zacks and Yahoo Finance estimates that are both
424 outdated and overstated. The end result is Dr. Hadaway’s estimates should not be relied
425 on in this case.

426 **Q. PLEASE SUMMARIZE YOUR CONSTANT GROWTH DCF ANALYSIS.**

427 A. I have summarized these results in my Exhibit CCS 3.6. For the comparable group
428 based on an average yield of 4.6% to 4.7% and a growth rate range of 5.0%³ to 5.2%⁴ the
429 ROE estimate based on the comparable group is 9.8% to 10.0%. Employing the
430 midpoint of the range for these estimates results in an ROE estimate of 9.9%.

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

433 A. Yes. I have calculated a two stage non-constant growth DCF analysis for the
434 comparable group companies.

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

436 This analysis calculates equity cost using a non-constant growth Two Stage DCF Model.
437 The constant growth DCF model is often adjusted to reflect multiple growth
438 assumptions because the constant growth rate assumption is often not consistent with
439 investor expectations. As an example, it is often the case where short-term growth
440 estimates are not consistent with long-term sustainable growth projections. In those
441 instances, where more than one growth rate estimate is appropriate, a multi-stage non-
442 constant growth model can be employed to derive a cost of capital estimate. In other

³ Forecasted average EPS for Value Line, Zacks and Yahoo Finance and Internal Growth.

⁴ Forecasted EPS Value Line, Zacks and Yahoo Finance.

443 words, the constant growth model is adjusted to incorporate multiple growth rate
444 periods, assuring a constant growth (long-term) rate is estimated for a longer period.

445 For the first growth stage (years 1-4) of the model, the Value Line growth in dividends
446 is employed and an annual dividend is calculated. The second stage (years 5 and
447 beyond)⁵ an earnings growth estimate based on the comparable group average of 5.5% is
448 employed. This long-run earnings estimate is based on the Value Line, Zacks, and First
449 Call earnings forecasts along with the internal growth estimate. I employed a 5.5%
450 midpoint of the 5% to 6% range.

451 In the two-stage model the dividend cash flows are discounted equal to the price⁶ paid
452 for the stock. The calculated discount rate or internal rate of return is the cost of equity
453 capital estimate.

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

456 A. The results of the two-stage non-constant growth DCF analysis are shown in Exhibit
457 CCS 3.7. The comparable group average indicates a cost of equity of 10.0% and 10.2%.

458 **Q. PLEASE SUMMARIZE YOUR DCF ESTIMATES.**

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

460
TABLE 1
SUMMARY OF COMPARABLE GROUP DCF ANALYSES

Description	COMPARABLE GROUP
Constant Growth DCF	9.8% to 10.0%
Non-Constant Growth Two Stage DCF	10.0% to 10.2%

461 This range of estimates of 9.8% to 10.2% indicates a cost of equity of about 10% for the group.

462 **SECTION V: RISK PREMIUM/CAPM COST OF EQUITY ESTIMATE**

463 **Q. PLEASE DESCRIBE THE RISK PREMIUM ANALYSIS.**

464 A. Debt instruments such as bonds (long-term debt) are less risky than common equity

⁵ The model is ended at year 150.

⁶ Price is based on the 52 week average of the high and low price discussed earlier.

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

479 Another version of the risk premium method is the capital asset pricing model
480 ("CAPM"). Generally, the CAPM begins with a theoretically risk-free interest rate such
481 as a three-month Treasury bill rate. The risk premium, or equity spread above and
482 beyond the risk free rate is adjusted by the stock beta.⁷ The risk free return measure is
483 combined with the equity risk premium adjusted for the measure of beta to arrive at a
484 CAPM result.

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

491 For all of the above reasons, risk premium methods should be viewed with considerable
492 caution. The risk premium analysis and CAPM described below consists of analyses of

⁷ 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.

shorter time horizons and are employed as a check on the DCF results described earlier.

Q. HOW DID YOU CALCULATE YOUR RISK PREMIUM ANALYSIS?

A. For the calculation of risk premium I employed the basic analysis presented in Dr. Hadaway's Direct Testimony at Exhibit RMP___(SCH-5) page 1 of 2. This analysis is updated and corrected for a more reasoned estimate of expected single-A bond yield. I outline the calculations in my Exhibit CCS 3.8. Employing a single-A debt rate of 6.07% and a 4.46% risk premium, results in a risk premium estimate of 10.5%.

Q. DID YOU CALCULATE AN ALTERNATIVE RISK PREMIUM?

A. Yes. An alternative analysis entailed calculating a risk premium based on the difference between returns on stocks (10.4%) and the returns on long-term corporate bonds (5.9%) for the period covering 1926 – 2007 as reported in the 2008 Stocks, Bonds and Inflation Classic Yearbook published by Morningstar, Inc. The resulting risk premium is 4.5% (10.4% - 5.9%=4.5%) employing the geometric mean average returns. Combining a 4.5% risk premium and a 6.07% single-A debt rate results in a 10.6% ROE based on a risk premium approach.

CAPITAL ASSET PRICING MODEL ANALYSIS

Q. PLEASE DESCRIBE THE CAPITAL ASSET PRICING MODEL.

A. The Capital Asset Pricing Model ("CAPM") is a version of the risk premium approach described above. The CAPM measures the relationship between a specific security's investment risk and its return. The general mathematical form of the CAPM can be described as follows:

$$K=RF+B(RM-RF)$$

Where: K = cost of equity
 Rf=risk free return
 Rm=return on market
 B=Beta
 Rm-Rf= market risk premium

Q. HOW HAVE YOU CALCULATED YOUR CAPM ESTIMATES?

521 A. I have applied the CAPM to each company in the comparable risk group as is show in
522 my Exhibit CCS 3.9. For the risk free rate I have employed a three month average yield
523 (October 2008 – December 2008) for 20 year U.S. Treasury Bonds. Over the 3 month
524 period 20 year Treasury Bonds had an average yield of 4.03%.

525 The market risk premium component ($R_m - R_f$) represents the investor expected risk
526 premium over the risk free return. For this calculation I have relied on the 2008
527 Morningstar yearbook which provides long-term (1926-2007) market and government
528 bond returns. The market return over this time horizon is 10.4%⁸ while the long-term
529 government bond return is 5.5%⁹ resulting in a risk premium of 4.9% based on the
530 geometric average return calculation. I also ran the calculation employing arithmetic
531 average returns which show a market return (1926 – 2007) of 12.3%¹⁰ and a long-term
532 government bond return of 5.8%¹¹ resulting in a risk premium of 6.5%.

533 **Q. PLEASE DESCRIBE THE BETA YOU EMPLOYED IN YOUR CAPM**
534 **ANALYSIS.**

535 A. Beta is a measure of specific stock volatility relative to a market index. Betas less than
536 1.0 move less than the market while Betas greater than 1.0 have more movement or
537 volatility relative to a market index. For this case I employed the Value Line Betas for
538 each company in the comparable group.

539 **Q. WHAT ARE THE RESULTS OF YOUR CAPM ROE ESTIMATES?**

540 A. My analysis for CAPM is contained in my Exhibit CCS 3.8. The CAPM result is
541 8.91%.

542 **Q. PLEASE SUMMARIZE YOUR DCF, RISK PREMIUM AND CAPM**
543 **ANALYSES?**

544 A. The following table 2 summarized the cost of equity results for each analysis:
545

⁸ Morningstar at 31.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

546
547

TABLE 2
COST OF EQUITY CAPITAL SUMMARY

<u>Model</u>	<u>Range</u>	<u>Midpoint</u>
Constant Growth DCF	9.8% - 10.0%	9.9%
Two-Stage DCF	10.0% - 10.2%	10.1%
CAPM	8.91%	
Risk Premium	10.5% - 10.6%	

548 The DCF results range from 9.8% to 10.2% with a midpoint of 10.0%. The high end of
549 the CAPM 8.91% and Risk Premium results of 10.5% - 10.6% indicate an average of
550 9.8%. Thus, an equity return of 10% is consistent with the results of the DCF models
551 and it is supported by the CAPM and Risk Premium check.

552 **Q. IS YOUR RECOMMENDATION CONSISTENT WITH THIS COMMISSION'S**
553 **RECENT DECISION IN THIS COMPANY'S LAST RATE CASE – DOCKET**
554 **NO. 07-035-93?**

555 A. Yes, it is. This Commission recently (August 11, 2008) issued a final order addressing
556 all issues in RMP's 2007 rate case. One of the issues decided in Docket No. 07-035-93
557 was cost of equity capital and overall cost of capital. With regard to the cost of equity
558 the Commission stated the following:

559 Through our consideration of the financial models as we deem appropriate, with the
560 inputs or components and weighting we believe reasonable, and weighing all of the
561 expert financial testimony and other witness testimony received, we find and conclude
562 that a rate of return on common equity of 10.25 percent is reasonable.¹²

563 The commission pointed out that the DCF-based range of estimates considered was from
564 6.82% to 11.3% and the risk premium/CAPM evidence ranged from 6.48% to 11.43% in
565 the last case.¹³ From that the Commission considered the parties range of estimates at
566 9.85% to 10.75%.¹⁴

567 The evidence in this case, just 6 months later suggest about the same range of estimates
568 is before the Commission. The Company's original ROE estimate was 10.75% before

¹² Docket No. 07-035-93 Final Order at 18 (August 11, 2008).

¹³ *Id.* at 16.

¹⁴ *Id.* at 17.

569 the recent update to 11.0%. Moreover, my recommendation of 9.85% in the last case is
570 within the range of DCF results and CAPM/Risk Premium results discussed above.

571 Given all of the above, it would appear that my recommendations are consistent with
572 recent decisions of this Commission and Dr. Hadaway's proposals are simply
573 overstated.

574 **SECTION VI: CAPITAL STRUCTURE**

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

577 A. Based on the Second Supplemental Direct Testimony of Company witness Bruce
578 Williams, RMP is proposing the following capital structure, cost rates and overall cost
579 of capital to be earned on rate base investment as follows:

580 **TABLE 3¹⁵**
581 **ROCKY MOUNTAIN POWER**
582 **OVERALL COST OF CAPITAL**
583

<u>Description</u>	<u>Percent</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-Term Debt	48.2%	6.23%	3.00%
Preferred Stock	0.3%	5.41%	0.02%
Common Equity	<u>51.5%</u>	<u>11.00%</u>	<u>5.67%</u>
Total	<u>100.00%</u>	-	<u>8.69%</u>

584 Thus, the Company requests an overall cost of capital to be earned on rate base
585 investment of 8.69% in this case.

586 **Q. HAS THE COMPANY'S CAPITAL STRUCTURE AND CLAIMED COST**
587 **RATES CHANGED SINCE THE FILING OF DIRECT TESTIMONY?**

588 A. Yes. When the Company filed its direct case the following capital structure, cost rates
589 and overall cost of capital were requested:

590

¹⁵ Second Supplemental Direct Testimony Bruce Williams at 7:142.

TABLE 4¹⁶
ROCKY MOUNTAIN POWER
OVERALL COST OF CAPITAL

<u>Description</u>	<u>Ratio</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-Term Debt	47.7%	6.24%	2.98%
Preferred Stock	0.4%	5.41%	0.02%
Common Equity	<u>51.9%</u>	<u>10.75%</u>	<u>5.58%</u>
Total	<u>100.0%</u>	=	<u>8.58%</u>

The Company's new capital structure (Table 3 above) shows that the equity level and preferred stock ratio have fallen slightly while the debt capitalization has increased slightly. These slight capitalization ratio changes are the result of updating for the December 31, 2009 Commission ordered test year for this case. In addition, the Company now proposes an 11% return to equity shareholders rather than the original request of 10.75%. Lastly, long-term debt cost changed slightly between the Company's original and current proposals.

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

¹⁶ Direct Testimony Bruce Williams at 3:48-55.

616 overall cost of capital relative to equity financing. One must keep in mind that increases
617 in the quantity of debt financing can cause the financial risk of the Company to increase.
618 In other words, there is a cost for the savings associated with increased debt leveraging.
619 That cost is increased financial risk to the firm.

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

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

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

630 The advantage of debt in the capital structure is that debt costs less than equity.
631 Moreover, interest charges are deductible for income tax purposes and act to reduce
632 taxes. Thus, the more debt in the capital structure the lower the cost of capital will be.
633 The question of economy is addressed by examining whether increases in the debt ratio
634 act to increase the cost rates of both debt and equity so as to over balance the benefits of
635 the larger proportion of debt.

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

639 **Q. HOW DOES THE COMPANY'S PROPOSED CAPITAL STRUCTURE WHICH**
640 **INCLUDES A 51.5% EQUITY RATIO COMPARE WITH THE CAPITAL**
641 **STRUCTURE RATIOS OF THE COMPARABLE RISK COMPANIES?**

642 A. The Company's proposed capital structure compares quite favorably to the equity ratios
643 in the comparable risk group. As can be seen from Exhibit CCS 3.3 the comparable
644 group equity ratio averages 49 percent for 2009, while RMP has an equity ratio of
645 51.5% for the test year ending 2009. Thus, RMP has less financial risk than the

646 comparable group companies.

647 **Q. DO YOU HAVE ANY COMMENTS ON THE COMPANY'S PROPOSED**
648 **CAPITAL STRUCTURE?**

649 A. Yes. It must also be remembered that the Company is being afforded the opportunity to
650 employ a forecasted test period and capital structure. While the Commission has
651 determined the forecast test period is calendar year 2009 and not the 12 months ending
652 June 30, 2009, the test year is even more forward looking than originally requested by
653 RMP. A forecasted test year provides the Company benefits by reducing risks
654 associated with regulatory lag. In other words, future investment and cost changes that
655 are reasonably expected to occur in the rate effective period are reflected in the
656 Company's revenue requirement and capital structure. For example, the capital
657 structure proposed by RMP reflects expected 2009 financings.

658 **Q. HOW DID THE COMPANY CALCULATE THE COST FOR LONG-TERM**
659 **DEBT FOR THE TEST YEAR ENDING DECEMBER 31, 2009?**

660 A. The Company calculated the cost of long-term debt of 6.23% based on averaging the
661 weighted average cost of long-term debt at December 31, 2008 and projected December
662 31, 2009.¹⁷

663 **Q. DID THE COMPANY ADJUST THE OUTSTANDING BOOK VALUES OF**
664 **LONG-TERM DEBT FOR DEBT ISSUES DURING JULY 2008?**

665 A. Yes. The Company reflected two long-term debt issues made in July 2008 in the total
666 amount of \$800 million.¹⁸ The weighted interest cost of these two debt issues is
667 approximately 6.0%.

668 **Q. IN THE COMPANY'S LAST CASE, DOCKET NO. 07-035-93 DID RMP**
669 **INCLUDE AN ADJUSTMENT FOR A PRO FORMA LONG-TERM DEBT**
670 **ISSUANCE.**

671 A. Yes. In RMP's last case the Company included a projected or pro forma debt issue of
672 \$700 million of additional long-term debt issues in the end of 2008. The Company
673 through the testimony of witness Bruce Williams estimated the cost of this pro forma

¹⁷ Second Supplemental Direct Testimony Bruce Williams at 2:43-46. Also see Exhibit RMP__(BNW-155).

¹⁸ *Id.* at 3:52-57.

674 issuance to be 6.52%.¹⁹ In that previous case, I pointed out the problems with Mr.
675 Williams' estimate and I recommended that the pro forma debt cost should be estimated
676 at 6.07%.

677 In July 2008, the Company issued \$800 million of long-term debt in two separate
678 issuances.²⁰ The weighted average debt cost of these two long-term debt issues for July
679 2008 was about 6.0% - well below Mr. William's estimate of 6.52%, but quite close to
680 the 6.07% I estimated in the last case.

681 **Q. DOES THE COMPANY INCLUDE IN THE LONG-TERM DEBT COST**
682 **ESTIMATE AN ADDITIONAL PRO FORMA ESTIMATE FOR ADDITIONAL**
683 **LONG-TERM DEBT TO BE ISSUED IN 2009?**

684 A. Yes. The Company has included an additional or pro forma estimate of \$800 million of
685 long-term debt to be issued in 2009 at an interest rate estimated to be 8.47%.

686 **Q. HOW DOES THE COMPANY ESTIMATE THE INTEREST RATE FOR THE**
687 **\$800 MILLION PRO FORMA LONG-TERM DEBT ISSUE?**

688 A. The Company employs the same erroneous estimation methodology that led to the
689 overstatement of debt costs in the last RMP case. The Company's debt cost estimation
690 methodology is as follows:

691 (i) The Company "estimates" the credit spread between corporate debt and long-
692 term treasury rates to be 3.87% at December 31, 2009;²¹

693 (ii) The Company employs a 4.51% "estimate" for the December 31, 2009 30 year
694 Treasury Bond;²² and

695 (iii) The Company assumed an additional .09 percent for issuance costs.²³

696 When the three components above; credit spread (3.87%), estimated December 2009
697 long-term Treasury rate (4.51%) and issuance cost (.09%) are added together, the
698 Company estimates a pro forma interest cost of 8.47% for the \$800 million of forecasted

¹⁹ Docket No. 07-035-93, Direct Testimony of Bruce Williams at 10:224-229.

²⁰ Williams Second Supplemental Direct Testimony at 3:52-59.

²¹ Williams Second Supplemental Direct Testimony at 4:71 - 75.

²² *Id.*

²³ *Id.*

699 debt issues.²⁴

700 **Q. DO YOU AGREE WITH THE COMPANY'S PRO FORMA LONG-TERM DEBT**
701 **INTEREST COST ESTIMATE?**

702 A. No. Just like the previous case the Company's future estimates of interest cost on long-
703 term debt are overstated. Moreover, as discussed earlier, the results of RMP's last case
704 demonstrates the interest cost overstatement. Allowing RMP to charge an 8.47% long-
705 term debt cost will lead to an overstatement of revenue requirement and unreasonable
706 customer rates.

707 It is also important to note that when Mr. Williams filed his direct testimony, his
708 estimate for pro forma debt was 6.58%.²⁵

709 Now, a few short months later, Mr. Williams claims the interest rate should be 8.47% or
710 1.89% higher than originally projected. On an \$800 million dollar debt issue such an
711 increase amounts to \$15,120,000 in increased annual revenue requirements. (1.89% x
712 \$800,000,000 = \$15,120,000).

713 **Q. HAVE YOU QUANTIFIED AN ALTERNATIVE PRO FORMA LONG-TERM**
714 **DEBT INTEREST COST?**

715 A. Yes. Employing a four month credit spread (July 08 – October 08) presented in Dr.
716 Hadaway's second supplemental direct testimony results in a credit spread of 2.30%.²⁶
717 Rather than rely on historical high credit spreads a four month average tends to
718 normalize the credit spreads. The current 30 year Treasury Bond yield is about 3.68%
719 based on a three month average (October 2008 – December 2008). Accepting the
720 Company's claimed issuance expense of 0.09% combined with historical (not estimated)
721 credit spreads and 30 year Treasury Bond yields results in a pro forma long-term debt
722 interest estimate of 6.07% (2.30% + 3.68% + 0.09% = 6.07%). This 6.07% long-term
723 debt interest rate is consistent with my 6.07% estimate provided in my testimony just a
724 few months ago in the last docket.
725

726 **Q. WHAT IS THE ANNUAL IMPACT ON REVENUE REQUIREMENTS OF**

²⁴ *Id.*

²⁵ Direct Testimony of Bruce N. Williams at 11:232.

²⁶ Second Supplemental Direct Testimony of S. Hadaway at 5:91-92.

727 **EMPLOYING A 6.07% RATHER THAN THE COMPANY PROPOSED 8.47%**
728 **INTEREST RATE FOR THE \$800 MILLION PRO FORMA DEBT ISSUE?**

729 A. The difference in interest rates (prior to considering income tax impacts) is about
730 \$19,200,000 per year in lower interest costs. Employing a more realistic interest rate
731 assumption of 6.07% for the \$800 million pro-forma debt issue results in lowering the
732 long-term debt interest cost in capital structure from 6.23% to 6.08%. I recommend a
733 long-term debt rate of 6.08% in capital structure for this case.

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

736 A. I am recommending that the Commission approve the Company's proposed
737 capitalization levels for the test period ending December 31, 2009, but I also recommend
738 that the long-term debt cost rate and common equity cost rate be reduced to the levels I
739 recommended earlier in this testimony.

740 Based on the analyses and results discussed above, I am recommending the following
741 capital structure, cost rates and overall cost of capital for this case:

742 **TABLE 5**
743 **RECOMMENDED OVERALL COST OF CAPITAL**
744 **FOR ROCKY MOUNTAIN POWER**
745 **TEST YEAR ENDING DECEMBER 31, 2009**
746

<u>Description</u>	<u>Ratio</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-term Debt	48.2%	6.08%	2.93%
Preferred Stock	0.3%	5.41%	0.02%
Common Equity	<u>51.5%</u>	<u>10.00%</u>	<u>5.15%</u>
Total	<u>100.0%</u>	—	<u>8.10%</u>

747

748 As can be seen from the above table when the long-term debt cost rates and common
749 equity cost rates reflect current market conditions, the Company's overall cost of capital
750 is 8.10%.

751 **Q. PLEASE SUMMARIZE YOUR OVERALL COST OF CAPITAL**

RECOMMENDATION IN THIS CASE.

A. The Company's requested 11.0% return on equity is overstated. A more reasoned cost of equity analysis results in a required return on shareholder equity of 10%. The Company's claimed cost of long-term debt of 6.23% should be reduced to 6.08% to correct for a significant overstatement of future financing costs. The combination of these recommended adjustments results in an overall cost of capital of 8.10% in this case.

Q. WILL YOUR RECOMMENDED RETURN PROVIDE THE COMPANY SUFFICIENT INTEREST COVERAGE TO MAINTAIN ITS FINANCIAL INTEGRITY?

A. Yes. Based on the capital structure above, my recommended 8.10% overall cost of capital provides coverage ratios of 3.71x and 2.76x for pretax and after-tax interest coverage respectively. In my opinion, these coverage ratios are sufficient for the Company to maintain financial integrity.

SECTION VII: COMMENTS ON DR. SAMUEL C. HADAWAY TESTIMONY

Q. DO YOU HAVE ANY GENERAL COMMENTS ON DR. HADAWAY'S ANALYSES?

A. Yes. First, Dr. Hadaway's recommendation in this case of an 11.0% to 11.5% return on equity is an overstatement of the cost of equity. Such a return if adopted would lead to excessive, unjust and unreasonable rates for customers.

As I discuss below, Dr. Hadaway's results are overstated for the following reasons:

1. The growth rates employed for the constant growth DCF averaging 6.12% are overstated, outdated and fail to take into account declining expectations of growth during an economic slow down or recession. When Dr. Hadaway's growth rates are updated and corrected his DCF results are consistent with the 9.8% to 10.0% DCF results I calculated and discussed above.
2. The growth rate employed for the long-term GDP growth DCF of 6.5% fails to reflect investor expectations and should be in the range of 5.2% - 5.5%. When this analysis is corrected his DCF results are consistent with my 9.8% to 10% results

781 discussed earlier.

782 3. The long-term growth rates employed in Dr. Hadaway's two-stage DCF suffer from
783 the same infirmities as discussed in (2) above. When these long-term growth rates
784 are corrected even to the 5.5%, level his two-stage DCF results match my 10.0% -
785 10.2% estimates discussed earlier for the two-stage DCF analysis.

786 4. Dr. Hadaway's updated risk premium analyses ranging from 10.83% to 12.44% are
787 significantly overstated. When corrected for a realistic risk premium level and/or
788 corrected for a more reasonable estimate of single-A rated debt yield – these risk
789 premium results like the DCF analyses are dramatically reduced.

790 Overall, despite Dr. Hadaway's attempts to support an ROE estimate of 11.0% to 11.5%
791 the facts just do not support his analysis.

792 **Q. PLEASE COMMENT ON DR. HADAWAY'S UPDATED EQUITY RETURN**
793 **RECOMMENDATION CONTAINED IN HIS SECOND SUPPLEMENTAL**
794 **DIRECT TESTIMONY.**

795 A. Dr. Hadaway is now recommending an equity return of 11.0% to 11.5% - which is
796 higher than his direct testimony point estimate for equity return of 10.75%. The
797 problem with his updated analysis is that Dr. Hadaway has allowed abnormal or atypical
798 events to cloud his view of fundamental ratemaking and establishing reasonable
799 estimates.

800 For example, at page 3 of his updated testimony Dr. Hadaway describes the events as
801 follows:

- 802 • "...more turbulent than at any time since the 1930's", Second Supplemental at
803 3:49
- 804 • "Extremely large daily swings in the stock market...", *id.* at 3:49-50
- 805 • "...unprecedented corporate interest rate spreads in the debt markets have
806 resulted in near chaos." *Id.* at 3:50-51
- 807 • "The financial markets have been reeling from a credit crisis." *Id.* at 3:57
- 808 • "The Federal government enacted emergency legislation ...to stabilize the
809 economy." *Id.* at 3:65-67

- 810 • “...the Federal Reserve pledged to pump another \$800 billion into ailing credit
811 markets...”, *id.* at 4:70 – 71
- 812 • “...investment grade spreads are at or near 5-year highs with utility company
813 spreads in excess of 500 basis points.” *Id.* at 4:85 – 86
- 814 • “These virtually unprecedented spreads reflect the market conditions...”. *Id.* at
815 6:134-135

816 Dr. Hadaway’s description of recent capital market events are accurate and I agree with
817 his use of such adjectives as “turbulent”, “unprecedented”, “chaos”, “financial markets
818 reeling”, “unprecedented [credit] spread” as descriptive of financial events. But, rates
819 and rate of return should be established not based on markets “reeling” or in “chaos” or
820 “unprecedented [credit] spreads” – unless this Commission believes such events will
821 continue into the future when rates from this case will be implemented.

822 In my opinion, instead of relying on extreme results that are “unprecedented”, “chaotic”,
823 or the result of “reeling” financial markets – one needs to look to how the U.S. and
824 world governments have responded and continue to address the situation. In light of
825 government action such as economic stimulus packages, rescue plans for major financial
826 institutions and other industries and overall efforts to increase credit market liquidity –
827 the recent or post July 2008 events are not likely to continue or be repeated anytime
828 soon.

829 While economic growth continues to be dampened and recession has impacted growth
830 expectations, turbulent times in the credit markets are more likely to improve than get
831 worse or stay the same. Dr. Hadaway’s own forecast source “Trends &
832 Projects”/October 2008 shows declining credit spreads from the beginning to the end of
833 2009. Further, his forecasting source also shows declining interest rates on new issue
834 corporate debt.

835 Bottom line – unless it can be shown that chaos will continue to rule the financial
836 markets for the foreseeable future – Dr. Hadaway’s data and analyses do not reflect a
837 realistic assessment of future capital costs.

838 **Q. EARLIER YOU STATED THAT DR. HADAWAY’S UPDATED CONSTANT**
839 **GROWTH DCF ANALYSIS INCLUDES OVERSTATED GROWTH**
840 **ESTIMATES. PLEASE EXPLAIN.**

841 A. Dr. Hadaway has relied on earnings per share forecasts of growth from Value Line,
 842 Zacks and Yahoo Finance/Thomson to arrive at his 6.12% average growth estimate. At
 843 this time, the Zacks and Thomson forecast estimates are overstated from about 15-30
 844 basis points. Given the economic slowdown one would expect growth forecasts to
 845 decline. I expect these growth estimates will continue to decline over the next few
 846 months.

847 **Q. YOU STATED THAT DR. HADAWAY'S USE OF A 6.5% GDP GROWTH**
 848 **RATE OVERSTATES THAT COST OF CAPITAL. PLEASE EXPLAIN.**

849 A. As a long-term growth measure of the future, relying on the GDP historical growth
 850 measure as one of the measures to predict future earnings growth is not unreasonable.
 851 So long as future growth in GDP approaches the historical GDP measure, then the GDP
 852 growth rate proxy could be a reasonable estimate. However, caution should be taken in
 853 relying on historical GDP growth as the sole measure of expected growth in earnings.

854 I also differ with Dr. Hadaway in his change in methodology in calculating the GDP
 855 measure. In previous testimony such as the PacifiCorp rate case, Docket No. 03-2035-
 856 02, filed in May 2003, Dr. Hadaway employed a simple 20-year historical average of
 857 GDP growth for his long-term earnings growth proxy, which would produce a 5.5%
 858 GDP growth estimate. Since the 2003 case, Dr. Hadaway changed his methodology for
 859 calculating the historical GDP long-term growth rate. Rather than using the 20-year
 860 GDP average of 5.5%, Dr. Hadaway now takes an average of six different GDP growth
 861 period averages as illustrated in Table 3 below:

TABLE 6²⁷
SUMMARY GDP GROWTH AVERAGES

10-year GDP average	5.2%
20-year GDP average	5.5%
30-year GDP average	6.6%
40-year GDP average	7.3%
50-year GDP average	7.1%
60-year GDP average	7.0%
Average of periods	6.5%

²⁷ Dr. Hadaway Direct Testimony Exhibit RMP_ (SCH-3).

862 In other words, Dr. Hadaway's new methodology averages the historical averages. Dr.
863 Hadaway provides no explanation or basis for his changed methodology, the net impact
864 of which is to increase the long-term growth estimate from the 20-year average of 5.5%
865 to 6.5%.

866 **Q. DO YOU RECOMMEND THE COMMISSION ACCEPT DR. HADAWAY'S**
867 **NEW METHODOLOGY FOR COMPUTING LONG TERM GROWTH?**

868 A. No. A 20-year period is certainly a sufficiently long time period to smooth aberrations
869 and/or outliers to project into the future. I find no theoretical (economic or
870 mathematical) reason to employ an average of the 10, 20, 30, 40, 50 and 60 year
871 averages. It could be argued that more recent GDP growth data is more important, and
872 the 10-year GDP average of 5.2% would be the best GDP proxy of growth. This may be
873 especially true given recent Federal Reserve projections of a much lower and declining
874 GDP growth. In my opinion, if the GDP average is to be used as one of the growth rate
875 estimates, then the 10-year or 20-year average of 5.2% to 5.5% is a reasonable
876 compromise for consideration in this case. The mid-point of 5.35% as a GDP growth
877 rate proxy is consistent with analyst estimates for earnings and reflects current
878 expectations of declining GDP growth. For example, a 5.4% growth estimate is
879 consistent with analyst's estimates at this time.

880 **Q. IF DR. HADAWAY'S GDP GROWTH RATE CALCULATION IS CORRECTED**
881 **WHAT DCF RESULTS DOES HIS DATA AND MODEL PRODUCE?**

882 A. Reducing the GDP growth estimate from 6.5% to 5.4% is a 110 basis point reduction to
883 Dr. Hadaway's claimed 11.1% to 11.2% results. Thus, correcting Dr. Hadaway's results
884 using a 5.5% GDP growth rate indicates a 10.0% to 10.1% constant growth DCF result.

885 It is important to note that the corrected ROE results above are consistent with the
886 constant growth results of 10% I calculated earlier.

887 **Q. DID DR. HADAWAY ESTIMATE A DCF RESULT EMPLOYING A MULTI-**
888 **STAGE DCF GROWTH MODEL?**

889 A. Yes. Dr. Hadaway's two-stage growth rate DCF model produces DCF estimates for
890 ROE of 10.8% - 11.0%.²⁸ The problem with this analysis is his primary reliance on the

²⁸ Exhibit RMP_ (SCH-5) p.1.

891 faulty 6.5% GDP growth measure. When Dr. Hadaway's results are corrected for a
 892 5.4% GDP growth rate, the results are in the 10% to 10.2% range. Thus, the corrected
 893 multi-stage DCF model produces results consistent with the previous DCF analyses
 894 discussed above.

895 **Q. PLEASE COMMENT ON DR. HADAWAY'S RISK PREMIUM ANALYSES.**

896 A. Dr. Hadaway presents three risk premium results at page 9 of his Second Supplemental
 897 Testimony as follows:

898

TABLE 7

899

DR. HADAWAY RISK PREMIUM MODEL RESULTS

900

Model	Interest Rate	Risk Premium	ROE
Forecasted Interest Rate and Risk Premium	6.55%	4.29%	10.84%
October Interest Rate and Risk Premium	7.56%	3.87%	11.43%
New Debt Interest Rate and Risk Premium	9.30%	3.14%	12.44%

901

902 First, Dr. Hadaway's third model "New Debt Interest Rate and Risk Premium" is such
 903 an outlier at 12.44% even he discards that result.

904

905

906

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908

As to methods 1 and 2, Dr. Hadaway employs two estimates for single A debt. First, his 6.55% estimate is based on a three month average credit spread (August 08 – October 08) of 2.45%,²⁹ which is added to the 4.1% 30 year Treasury Bond forecast.³⁰ The 429 basis point risk premium is a direct calculation from Dr. Hadaway's risk premium analysis at (SCH-4SS) page 1 of 2.

909

910

911

912

For his second model, Dr. Hadaway's interest rate (single-A corporate debt) of 7.56% is the reported October 2008 cost rate as shown in his Exhibit RMP__ (SCH-2SS) page 1. This interest rate is employed in his updated analysis at Exhibit RMP__ (SCH-5SS) page 1 and the result is 11.43%.

913

The problem with these analyses is the overstatement of the single-A debt cost. In the

²⁹Exhibit RMP__ (SCH-255) p.1.

³⁰ *Id.* at 2.

914 supplemental testimony the Company has presented this Commission three very
915 different single-A debt costs. First, Mr. Williams claims single-A debt costs are 8.47%
916 and that amount is included in the calculation of long-term debt.

917 Dr. Hadaway claims single-A debt costs are forecasted to be 6.55% and the October
918 2008 level is calculated at 7.56%. The Company is not a model of consistency with
919 regard to estimating single-A debt costs in this case.

920 I provided a reasoned analysis demonstrating that the single-A debt cost is in the 6.07%
921 range. Moreover, I also demonstrated that the Company's past single-A debt cost
922 estimates were wrong by a wide margin. Thus, if a more reasonable cost of single-A
923 debt were used, such as the 6.07% estimate discussed earlier, Dr. Hadaway's risk
924 premium results would support an equity return of 10% which is consistent with
925 correcting his DCF results.

926 **Q. PLEASE SUMMARIZE YOUR COMMENTS REGARDING DR. HADAWAY'S**
927 **EQUITY RETURN PROPOSALS.**

928 A. Dr. Hadaway's analyses overstate the cost of equity and should not be accepted by this
929 Commission to set rates in this case. In my opinion, when Dr. Hadaway's analyses are
930 adjusted to reflect more realistic and normalized estimates – the results indicate a 10%
931 return on equity is appropriate.

932 **SECTION VIII: COMMENTS ON A RICHARD WALJE TESTIMONY**

933 **Q. DO YOU HAVE ANY COMMENTS REGARDING THE TESTIMONY OF A.**
934 **RICHARD WALJE?**

935 A. Yes, I have a number of comments. First, Mr. Walje's statement that the \$116.1 million
936 or 8.6% increase represents an 11 cent per day increase of an average residential
937 electricity user is irrelevant as to the merits of the increase.³¹ Certainly, when one
938 measures an annual increase in days or hours of the year – one can make large changes
939 look small. But, the issue is whether the costs included in the Company's \$116.1
940 million annual increase are just, reasonable and necessary for the provision of electric
941 service.

³¹ Second Supplemental District Testimony of A. Richard Walje at 1:19-23.

942 Thus, while customer rate impacts are important – it is more important to address
943 whether the costs being imposed on customers are reasonable and necessary.

944 **Q. AT PAGE 3, LINES 57-60 OF HIS SUPPLEMENTAL TESTIMONY MR.**
945 **WALJE STATES “THE COST OF OUR INPUTS HAVE GONE UP AND THE**
946 **POPULATION IN THE STATE OF UTAH HAS GROWN: THE COMPANY**
947 **AND OUR SHAREHOLDERS HAVE ABSORBED MORE THAN 20 YEARS OF**
948 **INFLATION AND GROWTH. ADDITIONAL SAVINGS CAN ONLY BE**
949 **ACHIEVED BY SACRIFICING QUALITY OF SERVICE.” DO YOU HAVE**
950 **ANY COMMENTS?**

951 **A.** Yes. Until the last docket, the Company had settled a number of rate proceedings in
952 Utah. There is no evidence that the Company subsidized customer rates to the detriment
953 of shareholder returns as suggested by Mr. Walje. Moreover, productivity
954 improvements combined with growth in sales keeps unit costs lower – a factor not
955 considered when analyzing nominal price changes since 1985.³²

956 Further, when comparing regulatory authority responses to rate requests the equity
957 return granted in Utah is consistent with the level authorized the Company in other
958 states. Thus, to suggest the Utah authorized rate revenue levels do not provide the
959 Company the opportunity to meet its obligations³³ is not consistent with the facts.

960 **Q. AT PAGE 6, LINES 119-137 MR. WALJE SUGGESTS THAT THE**
961 **REGULATORY LAG ASSOCIATED WITH PUTTING LARGE INVESTMENTS**
962 **IN RATES CAUSES A LOSS IN EARNINGS – DO YOU HAVE ANY**
963 **COMMENTS?**

964 **A.** Yes. First, Utah does allow for a case to include a future test period. For example, in
965 this case the test year end is December 31, 2009. This allows the Company to address
966 regulatory lag issues. Second, Mr. Walje’s quantification of earnings erosion is one-
967 sided and fails to consider all attendant impacts related to accumulated depreciation and
968 revenue growth. For example, assuming annual depreciation expense is \$183.3 million
969 and overall return is 8.69%, the loss of one year of accumulated depreciation to
970 customers is \$15,929,000 ($\$183,300,000 \cdot 0.0869$). Thus, the quantification of a three
971 month lag for a wind project of \$11 million of lost return also has cost offsets from the
972 customer side of the ledger.

³² *Id.* at 2:27-28.

³³ *Id.* at 4:72-73.

973 **Q. IN YOUR OPINION, IF THE COMMISSION ALLOWS THE COMPANY TO**
974 **RECOVER ITS REASONABLE AND NECESSARY COSTS AND AUTHORIZES**
975 **AN OVERALL RETURN CONSISTENT WITH YOUR RECOMMENDATION**
976 **WILL RMP BE REQUIRED TO IMPLEMENT ADDITIONAL COST**
977 **REDUCTION MEASURES LIKE THOSE ADDRESSED IN MR. WALJE'S**
978 **TESTIMONY AT PAGE 13 LINES 288-298?**

979 A. No. No regulatory authority should micro-manage a utility operation – and as such the
980 assumption is that the Company will spend funds as outlined in its rate request. Once a
981 rate change is granted the Company management will allocate funds to expenditures as
982 management deems necessary. However, if management practices result in deficient
983 service to customers in an effort to boost corporate profits or a failure to carry out
984 prudent responsible management practices then such matters can be addressed in future
985 proceedings as necessary. To the extent management practices cause cost and/or risk
986 increases such costs and risk should be the Company shareholder burden not the
987 customers.

988 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

989 A. Yes.

