BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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. 20-035-04** **Exhibit No. DPU 2.0 DIR**

FOR THE DIVISION OF PUBLIC UTILITIES
DEPARTMENT OF COMMERCE
STATE OF UTAH

Direct Testimony of

Casey J. Coleman

August 20, 2020

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME, EMPLOYER, AND BUSINESS ADDRESS.**

3 A. My name is Casey J. Coleman. I am employed by the Division of Public Utilities

4 (Division) for the State of Utah. My business address is 160 East 300 South Salt Lake

5 City, UT 84114.

6 **Q. BRIEFLY OUTLINE YOUR EMPLOYMENT BACKGROUND.**

7 A. I have worked for the Division for almost nineteen years working as both a Utility

8 Analyst and Utility Technical Consultant. One of my primary responsibilities as Utility

9 Technical Consultant for the Division has been testifying before the Public Service

10 Commission of Utah (Commission) as the Cost of Equity expert for the natural gas,

11 water, and telecommunications rate cases.

12 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

13 A. I received a Bachelor of Science degree in Finance from Weber State University in 1996

14 and a Masters of Business Administration from Utah State University in 2001.

15 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

16 A. Yes. I testified before the Commission as an expert witness in Docket Nos. 02-049-82,

17 03-049-49, 03-049-50, 05-053-01, 05-2302-01, 07-2476-01, 08-2469-01, 10-049-16, 10-

18 2521-01, 10-2526-01, 08-046-01, 15-042-01, 15-2302-01, 17-098-01, and 19-057-02.

19 **Q. WERE THESE ELECTRIC UTILITY RATE CASES?**

20 A. No. However, the ratemaking principles I applied in those cases and address in this

21   testimony are applicable to any cost of equity analysis.

22   **II. SUMMARY**

23 **Q. PLEASE BRIEFLY SUMMARIZE THE WORK AND INVESTIGATIONS THAT**
24   **YOU HAVE PERFORMED IN THIS MATTER.**

25 A. I have reviewed and analyzed the testimonies of Rocky Mountain Power (RMP or the

26   Company) witnesses Ms. Nikki L. Kobilha and Ms. Ann E. Bulkley. Ms. Kobilha

27   provided testimony regarding the cost of debt, and the capital structure of RMP. Ms.

28   Bulkley's testimony presents her analysis regarding the appropriate return on equity

29   (ROE) for RMP's electric utility operations in Utah as well as an assessment of its

30   proposed capital structure to be used for ratemaking purposes.

31   I have also performed my own independent estimation of cost of capital, particularly

32   with respect to the cost of equity[1] and an appropriate capital structure for RMP.

33 **Q. PLEASE SUMMARIZE AND DESCRIBE THE PURPOSE OF YOUR**
34   **TESTIMONY.**

35 A. In a cost of equity order, the Commission, discussed how "applying models requires

36   judgment at each important step."[2] The Commission continued stating each "financial

37   model analysis will provide a good framework for analysis and a useful means of

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[1] Throughout my direct testimony, I interchangeably use the terms "ROE" and "cost of equity".

[2] See Utah Public Service Commission Report and Order Docket No. 02-057-02 page 19

38 organizing relevant information, but not objective cost-of-equity estimates.

39 Assessments of other, including qualitative information is necessary."[3] In a Cost of

40 Capital primer prepared by National Association of Regulatory Commissions

41 (NARUC) for United States Agency for International Development (USAID) offered

42 the same point.

43   An ROE recommendation by a witness or an ROE decision by a regulator
44   requires both the application of financial models and the use of informed
45   judgment. An ROE based solely on judgment would be inappropriate, as
46   would be an ROE that relied solely on the mechanistic and arbitrary
47   application of financial models. In my opinion, it is common for
48   regulatory commissions to acknowledge that any financial model, no
49   matter how conceptually appealing and well-supported, needs to be
50   supplemented with informed judgment. Commissions are on a constant
51   quest to balance the theoretical with the practical.[4]

52 The purpose of my testimony is to provide the data and analysis that provides a

53 reasonable framework for rate making purposes. I present evidence using generally

54 accepted evaluation methods including: the Capital Asset Pricing Model (CAPM), the

55 Constant Growth Discounted Cash Flow (DCF) model, and a Risk Premium method.

56 My direct testimony also provides additional information, including a review of the

57 Return on Equity trend for electric utilities and a discussion on the appropriate cost of

58 debt, and the appropriate capital structure for RMP.

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[3] See Utah Public Service Commission Report and Order Docket No. 02-057-02 page 19.

[4] National Association of Regulatory Utility Commissioners, A Cost of Capital and Capital Markets Primer for Utility Regulators, April 2020 page 20.

59   Finally, I take the data and analysis I completed and discuss how that information

60   should be applied in The Company's rate making proceeding in this docket. My

61   testimony recommends an appropriate capital structure, an overall rate of return, and a

62   return on equity, that RMP should be allowed the opportunity to earn.

63 **Q.   PLEASE SUMMARIZE YOUR CONCLUSIONS.**

64 A.   I have concluded that the appropriate cost of equity for RMP is 9.25 percent. The current

65   market conditions support a reasonable range for cost of equity between 7.24 percent and

66   9.17 percent.

67   The Division supports the Company's requested capital structure. To compensate RMP

68   as a vertically integrated electric utility, the Commission should approve the proposed

69   capital structure which has a higher equity portion than RMP has used in the past.

70   Generally, the Company's long-term cost of debt calculations as presented in Ms.

71   Kobliha's direct testimony RMP Exhibit NLK-1, of 4.81 percent is reasonable for RMP.

72 **Q.   WHAT IS THE COMPANY'S FILED POSITION REGARDING COST OF**
73 **CAPITAL?**

74 A.   In its filing dated May 8, 2020, the Company asked for the cost of capital rates of return

75   listed on the next page.[5]

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[5] Rocky Mountain Power, Direct Testimony of Nikki L. Kobliha line 41.

76 <div align="center">Table 1</div>

	Rate	Capital Structure	Weighted Rate
Common Stock	10.20%	53.67%	5.47%
Preferred Stock	6.75%	0.01%	0.00%
Long-term Debt	4.81%	46.32%	2.23%
WACC		100.0%	7.70%

77 The 10.20 percent cost of equity recommendation by RMP is outside the reasonable

78 range, on the high side. The reasonable range for RMP's cost of equity is currently 7.24

79 percent to 9.17 percent. I recommend that RMP's authorized cost of equity be set at 9.25

80 percent.

81 DPU Exhibit 2.02 DIR summarizes the capital structure and cost of capital point

82 estimates supported by the Division. The final weighted average cost of capital is 7.19

83 percent. The following table summarizes the capital structure and cost of capital point

84 estimates supported by the Division.

85 <div align="center">Table 2</div>

	Rate	Capital Structure	Weighted Rate
Common Stock	9.25%	53.67%	4.96%
Preferred Stock	6.75%	0.01%	0.00%
Long-term Debt	4.81%	46.32%	2.23%
WACC		100.0%	7.19%

86 **III. PRINCIPLES OF RATE REGULATION**

87 **Q. WHAT ARE THE PRINCIPLES GUIDING FAIR RATES OF RETURN IN THE**

88 **CONTEXT OF RATE REGULATION?**

89   A.   In a market system, competition generally determines the price for goods and services.

90   Public utilities are permitted to operate as monopolies or near monopolies because: (1)

91   the services provided by utilities are considered necessities by society; and (2) capital-

92   intensive and long-lived facilities are necessary to provide utility service and the

93   construction of multiple, competitive networks of facilities would cost customers more.

94   Generally, utilities are required to serve all customers in their service territory at

95   reasonable rates determined by regulators. As a result, regulators act as something of a

96   substitute for a competitive free-market system when they authorize rates for utility

97   service.

98   Although utilities operate in varying degrees as regulated monopolies, they must

99   compete with governmental bodies, non-regulated industries, and other utilities for

100   labor, materials, and capital. Capital is provided by investors who seek the highest

101   return commensurate with the perceived level of risk; the greater the perceived risk, the

102   higher the required return rate. In order for utilities to attract the capital required to

103   provide service, a fair rate of return should roughly equal an investor required, market-

104   determined rate of return.

105   **Q.**   **WHAT CONSTITUTES A FAIR RATE OF RETURN?**

106   A.   Two noted Supreme Court cases define the benchmarks of fair rate of return. In

107   *Bluefield,*[6] a fair rate of return is defined as: (1) equal to the return on investments in

108   other business undertakings with the same level of risks (the comparable earnings

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[6] Bluefield Water Works & Improvement Company v P.S.C. of West Virginia, 262 U.S. 679 (1923).

109   standard); (2) sufficient to assure confidence in the financial soundness of a utility (the

110   financial integrity standard); or (3) adequate to permit a public utility to maintain and

111   support a reasonable credit rating, enabling the utility to raise or attract additional

112   capital necessary to provide reliable service (the capital attraction standard). The

113   second case, *Hope*,[7] determined a fair rate of return to be based upon guidelines found

114   in *Bluefield* as well as stating that: (1) allowed revenues must cover capital costs,

115   including service on debt and dividends on stock; and (2) the Federal Power

116   Commission was not bound to use any single formula or combination of formulae in

117   determining rates. Utilities are not entitled to a guaranteed return. However, the

118   regulatory-determined price for service must allow the utility a fair opportunity to

119   recover all costs associated with providing service, including a fair rate of return.

120   **Q.   GENERALLY, HOW HAVE REGULATORY COMMISSIONS DETERMINED**

121   **A FAIR RATE OF RETURN FOR A REGULATED UTILITY?**

122   A.   Recently, Regulatory Research Associates (RRA), a group within S&P Global Market

123   Intelligence, gave a succinct overview of the regulatory process and how various

124   commissions have calculated a fair rate of return. The report states:

125   Historically, there have been two approaches in calculating ROE in
126   regulatory proceedings, a comparable earnings approach and a market
127   analysis. In a comparable earnings approach, similar investments with
128   similar risks are analyzed to determine an appropriate ROE. The firms
129   selected and the time period selected for comparison purposes are
130   subjective elements of this analysis. By contrast, the market analysis
131   involves more detailed calculations and assumptions and relies on data
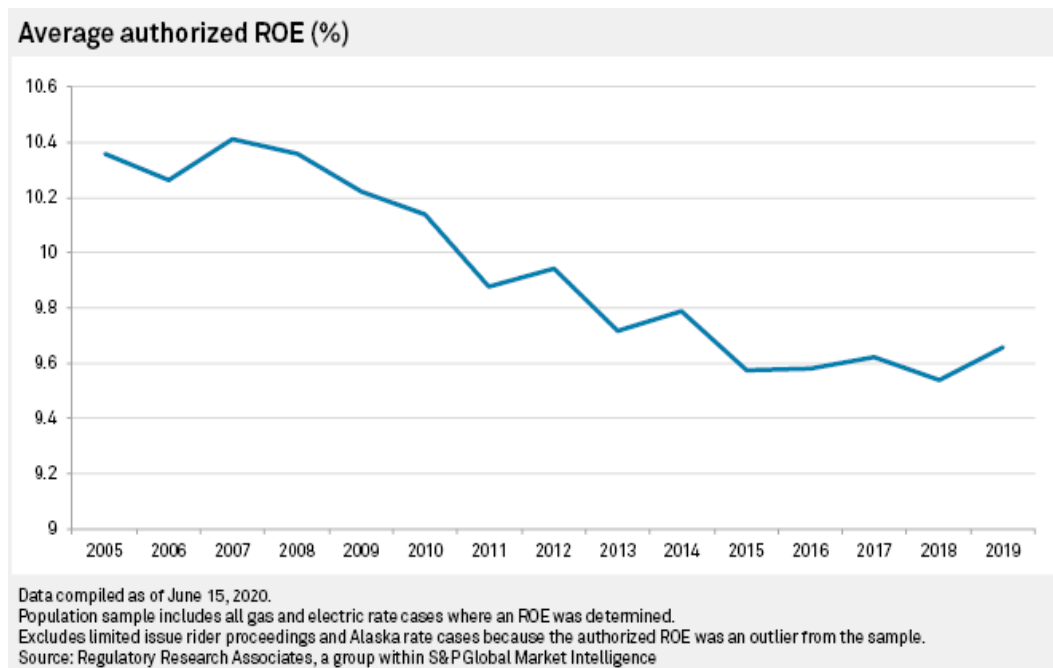132   from the broader securities market.

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[7] Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 602-603, (1944).

133		Two market-based methodologies favored in utility rate case testimony are
134		the discounted cash flow, or DCF, analysis, and the capital asset pricing
135		model, or CAPM, approach. These techniques are among the select few
136		consistently recognized by utility commissions.

137   Similar to the CAPM, the risk premium method, or RPM, measures a
138   company's cost of equity capital by adding a risk premium to a risk-free
139   long-term Treasury bond or yield on a utility bond similarly rated by credit
140   ratings agencies. The risk premium is typically estimated using a variety
141   of approaches, some of which incorporate forward-looking estimates of
142   the cost of equity, and others that consider historical estimates.[8]

143 **Q.   DID RRA HAVE AN OPINION ABOUT THE TREND OF AUTHORIZED**

144   **RETURNS?**

145 A.   Yes. RRA created the chart showing the trend for average authorized ROE and stated:

Average authorized ROE (%)

Data compiled as of June 15, 2020.
Population sample includes all gas and electric rate cases where an ROE was determined.
Excludes limited issue rider proceedings and Alaska rate cases because the authorized ROE was an outlier from the sample.
Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

146   Equity returns authorized in electric and gas utility rate cases have
147   generally trended downwards over the past 15 years consistent with
148   declining interest rates. In addition, the proliferation of automatic

[8] S & P Global Market Intelligence RRA Regulatory Focus, The rate case process: establishing a fair rate of return for regulated utilities. June 29, 2020.

149   adjustment and investment recovery mechanisms that reduce utility
150   business risk have been cited, at times, as a contributing factor by
151   commissions in authorizing lower ROEs.[9]

152   The table above excludes ROEs determined in limited issue proceedings
153   and certain rate cases decided in the state of Alaska, which represent
154   outliers from the general sample. The Regulatory Commission of Alaska
155   typically awards much higher than average ROEs to compensate utilities
156   for the difficult terrain and environmental conditions they face as well as
157   regulatory lag associated with lengthy rate case proceedings.[10]

158 **Q.**   **WHAT HAS RRA OBSERVED FROM ITS DATA CONCERNING INDUSTRY**
159   **ROE AVERAGES AND THE VARIANCE IN THOSE AVERAGES?**

160 A.   In the same report dated June 29, 2020 RRA explained:

161   RRA tracks trends in industry ROE averages and compares commission
162   authorized-ROEs to the industry average in the time period it was
163   established. In some cases, authorized ROEs have been significantly
164   above or below prevailing industry averages at the time established.

165   The variance in authorized ROEs over the years has remained fairly
166   consistent, with the one standard deviation amounting to a range of
167   roughly 40-50 basis points above and below the industry average.
168   Statistically speaking, 68% of a sample population should occur within
169   one standard deviation of a normal distribution; <u>returns above and below</u>
170   <u>one standard deviation could be viewed more significantly different than</u>
171   <u>the RRA average</u>. For example, the majority of ROE authorizations during
172   a year when the average ROE was 9.5% would roughly fall into the range
173   of 9.0%-10.0%.[11]

174 **Q.**   **WHAT IS THE AVERAGE ROE FOR ELECTRIC UTILITIES AS OF**

175   **JULY 1, 2020?**

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[9] <u>Id</u>.

[10] <u>Id</u>.

[11] <u>Id</u>.

176   A.   As DPU Exhibit 2.07 demonstrates, S&P Global Market Intelligence calculated the

177   average ROE for electric utilities as of July 1, 2020. The information provided by RRA

178   shows each allowed rate of return decided by different state commissions in 2020. The

179   average rate of return for each docket is as follows:

Category	Average Return on Equity
Average Year-to-Date	9.55%
Settled Average	9.53%
Litigated Average	9.58%
Vertically Integrated	9.67%
Exclude Limited Use Rider	9.33%

180   **Q.   WHAT IS THE VALUE IN KNOWING THE AVERAGE ROE FOR ELECTRIC**
181   **UTILITIES AS OF JULY 1, 2020?**

182   A.   Knowing the average return on equity for electricity companies along with the variance

183   analysis done by RRA enables parties to calculate a reasonable range of ROE for RMP.

184   Using the average year-to-date ROE of 9.55 percent and the 40-50 basis points in

185   variance as determined by RRA, the reasonable range for an electric utility would be 9.05

186   percent on the low end to 10.05 percent on the high end. Even when looking at the

187   vertically integrated electric utilities the range would be 9.17 percent on the low end to

188   10.17 on the high end. Similarly, the range for electric utilities after excluding the returns

189   for limited use riders would be 8.83 percent on the low end and 9.83 percent on the high

190   end.

191   **Q.   MS. BULKLEY RECOMMENDED A ROE OF 10.2 PERCENT FOR ROCKY**
192   **MOUNTAIN POWER. WHAT DOES THAT RECOMMENDATION MEAN?**

193   A.   Ms. Bulkley and I have a fundamental disagreement about the relative riskiness of RMP

194   in relation to the other utility companies in the market. The cost of equity approved by

195   other commissions for regulated electric utility companies has been trending downward,

196   over the last few of years. In the last rate case, the Commission approved a cost of equity

197   of 9.80 percent for RMP.

198   Ms. Bulkley's conclusion that RMP's cost of equity should be in the range of 9.75

199   percent to 10.20 percent requires that investors would have to believe RMP is a risky

200   investment relative to other utilities. Generally, a rate increase to 10.2 percent would

201   mean either market conditions have significantly changed or RMP's risks have increased

202   since the last general rate case in 2014 and investors are requiring a higher return because

203   of the additional risks encountered by the Company.

204   As stated by Ms. Bulkley, "investors are considering the authorized returns across the

205   U.S. and are likely to invest in those utilities with the highest returns".[12] Additionally, to

206   accept the proposed range suggested by Ms. Bulkley, implicitly, one must conclude that

207   RMP is a higher risk than the other subsidiaries of PacifiCorp and riskier than a

208   comparable group of regulated electric utilities. Ms. Bulkley states this point in her

209   testimony when she concludes "authorizing an ROE for RMP that is equivalent to the

210   average authorized ROE for other vertically integrated electric utilities is not sufficient to

211   compensate investors for the added risk of RMP."[13]

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[12] Rocky Mountain Power, Direct Testimony of Ms. Ann E. Bulkley lines 1416—1417.

[13] Id, lines 1420-1421.

212   Continuing with this point Ms. Bulkley suggested, "it is important that the Commission

213   consider, as I have in my recommendation, the additional risk of RMP and place the

214   authorized ROE for RMP towards the high end of authorized ROEs for other vertically

215   integrated electric utilities."[14] To support her premise, Ms. Bulkley discusses Capital

216   Expenditures, Regulatory Risk, and Generation Ownership, and how those specific risks,

217   in her opinion, make RMP a riskier investment supporting a higher ROE.

218   RMP is not riskier than other PacifiCorp subsidiaries or comparable regulated electric

219   utilities. Later in my testimony I will show how the specific risks detailed by Ms.

220   Bulkley, (Capital Expenditures, Regulatory Risk, and Generation Ownership) do not

221   make RMP a riskier investment. Therefore, the proposed range or rates suggested by Ms.

222   Bulkley are not supported by comparison of known rates of return for comparable

223   alternative investments, and are not in the public interest.

224   Furthermore, the cost of equity ranges proposed by Ms. Bulkley for RMP are not

225   consistent with published market returns. For example, the Company's proposal is

226   significantly higher than the 8.50 percent Duff and Phelps has calculated for the returns

227   of the total stock market. [15] A rate of return above 8.50 percent suggests that RMP has a

228   higher risk than average market investments. It is not reasonable to conclude that RMP

229   has greater investment risk than the stock market and should require a higher return. I

230   would instead submit that a regulated utility is considerably less risky than the average

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[14] Id, lines 1422-1425.

[15] See DPU Exhibit 3.06 DIR.

231   stock in the market because of the benefits of utility regulation.

232   My testimony shows that RMP, as a regulated utility, is less risky than the entire stock

233   market and does not have a higher risk than any comparable set of utility companies.

234   Nevertheless, we recommend a return of 9.25 percent consistent with our analysis and

235   comparisons to a proxy group of companies.

236   **IV.   CONCERNS WITH ROCKY MOUNTAIN POWER'S ANALYSIS**

237 **Q.   DO YOU HAVE ANY CONCERNS OR DISAGREEMENTS WITH THE**

238 **COMPANY'S INFORMATION RELATED TO ITS COST OF CAPITAL**

239 **CALCULATION?**

240 A.   Yes. Although the approaches used by Ms. Bulkley to estimate the cost of equity in this

241   case are generally consistent with previous general rate cases filed by RMP and some are

242   similar to the approaches used in my analysis, I have identified the following areas of

243   concern and disagreement with Ms. Bulkley's analysis and testimony.

244   1. According to Ms. Bulkley, "[r]ecent market conditions reflect short-term exogenous

245   shocks that are not expected to persist over the long term. As a result, the recent

246   atypical market conditions do not reflect the market conditions that should be expected

247   to be present when the rates for RMP will be in effect."[16]

248   To adjust for these "atypical" market conditions, Ms. Bulkley feels it is critical to use

249   "forward looking assumptions to estimate the cost of equity."[17] The Division is highly

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[16] See Rocky Mountain Power, Direct Testimony of Ann E. Bulkley, lines 727 – 730.

[17] Id, lines 733—735.

250   uncomfortable with the use of "forward looking assumptions" to calculate the ROE for

251   RMP. Calculating an appropriate ROE for a company is already difficult and requires a

252   solid framework of analysis from a variety of ROE estimation models and judgment at

253   each important step. Although ratemaking is both an art and a science, if the inputs or

254   assumptions of the model are flawed then the analysis and judgment will be equally

255   flawed.

256   The biggest concern the Division has, is the significant potential for flawed data when

257   using forward-looking assumptions to estimate the cost of equity. In a rate making

258   proceeding where even small percentages can have significant impacts, there should be

259   caution in the use of forward looking projections. The longer the horizon with the

260   projections the greater the likelihood of flawed assumptions and judgment which would

261   over of understate the correct ROE for RMP. The Division is not comfortable trying to

262   project that far into the future to set the appropriate return on equity for RMP.

263   The Commission in past rate cases has generally avoided using data points that

264   included projected calculations or assumptions and used the best data available at the

265   time of the general rate case. The Commission should place little if any weight or merit

266   to models that are using forward-looking[18] assumptions when there is current data

267   available.

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[18] The Division recognizes that at times the Commission has used "forward-looking" information. An excellent example is using a forward-looking test year. The major difference is that a forward-looking test year is allowed by statute, reviewed by the parties and agreed upon as part of the general rate case. Additionally, the future projections are being made by RMP on its business. There is a higher level of comfort with this type of projection where costs, rate base, and other items are easier to control by the

268   2. The DCF model calculation in RMP AEB-4 Constant Growth DCF Model does not

269   use the 75 percent earnings growth and 25 percent dividend growth calculation as

270   ordered in the 2002 Questar General Rate Case.

271   This is inconsistent with the Commission's order in that case. Using the 75 percent

272   earnings growth and 25 percent dividend growth calculation, as ordered by the

273   Commission, considers the fact that while the model is theoretically about dividends

274   and not earnings, it also reflects that dividend growth is related to earnings growth.

275   Implicit, is the concept that differences between dividend growth and earnings growth

276   rates in the near-term have a greater effect on the cost of equity than any such

277   differentials in the far future. Therefore, in addition to being ordered by the

278   Commission, this weighting scheme is reasonable and has been used as part of my

279   analysis.

280   3. Regarding her Constant DCF Model Ms. Bulkley stated "it is appropriate to exclude

281   Constant Growth DCF results below a specified threshold at which equity investors

282   would consider such returns to provide an insufficient return increment above long-

283   term debt costs."[19]

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company. RMP has zero control of the risk-free-rate, future stock prices, future dividend yield, etc. Each of those items are controlled by the financial markets.

[19] See Rocky Mountain Power, Direct Testimony of Ann E. Bulkley, lines 944-951.

284 The analysis shows that 7.0 percent was the minimum threshold at which Ms. Bulkley

285 eliminated the results of comparable companies.[20] Although the Division understands

286 the rationale given by Ms. Bulkley, it does not seem like a prudent adjustment to

287 arbitrarily eliminate DCF results below 7.0 percent.

288 4. Ms. Bulkley's Projected DCF Model analysis in RMP Exhibit AEB-5 includes

289 Value Line projected growth rates for years 2023 - 2025. The two data points projected

290 in Ms. Bulkley's Projected DCF Model are stock price and annualized dividend from a

291 time frame past the 2021 test year. Using these projected analyst estimates undermines

292 a major premise of the DCF models, which is only one assumption or calculation must

293 be made, the appropriate dividend or earnings growth rate. Each point of data is

294 projected which increases the possibility that the results of the model will be inaccurate.

295 As stated earlier, projected growth rates are not in the public interest and should not be

296 included in the analysis for the ROE of RMP. The Commission should give no weight

297 to these calculations.

298 5. Ms. Bulkley's CAPM model calculation includes an Equity Risk Premium however

299 the calculated Equity Risk Premium does not appear to be using a generally accepted

300 methodology that has been published and peer reviewed like other financial theories.

301 As I will discuss in detail later, the Equity Risk Premium calculated by Ms. Bulkley

302 over-estimates the market risk premium leading to a higher CAPM cost of equity result

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[20] See Rocky Mountain Power, Direct Testimony of Ann E. Bulkley, footnote 74.

303   for RMP. The Division believes the Commission should use an Equity Risk Premium

304   from established, and well known sources.

305   6. Ms. Bulkley's CAPM analysis uses projected risk-free-rates.   Later, evidence will

306   be provided that shows the error in projecting risk-free-rates and why those projected

307   risk-free-rates should not be considered.

308   7. In her attachment AEB-7 Risk Premium Analysis, Ms. Bulkley uses the Blue Chip

309   Near-Term Projected Forecast (Q3 2020 – Q3 2021) and Blue Chip Long-Term

310   Projected Forecast (2021-2025) to calculate the ROE for RMP. As stated before,

311   forward-looking interest projections are not in the public interest and should be

312   excluded from the analysis. The primary model point the Commission should use in its

313   measured judgment of ROE is the analysis that uses the current 30-day average of 30-

314   year U.S. Treasury bond yield.

315   8. In Ms. Bulkley's direct testimony at line 196 she states "[t]o the extent the utility is

316   provided the opportunity to earn its market-based cost of capital, neither customers nor

317   shareholders are disadvantaged."[21]

318   The Division agrees that models using a market-based cost of capital are appropriate

319   and should be the only models considered. Ms. Bulkley includes in her analysis an

320   ROE calculation using the Expected Earnings (EE) Analysis. As will be shown later in

321   my testimony, the EE is not a market based model. Additionally, there are some

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[21] See Direct Testimony of Ann E. Bulkley lines 196 - 197

322   inherent flaws with the model that has caused this method to lose favor in regulatory

323   proceedings. Because of these flaws and the model **not** being market based, the

324   Commission should not include the results of the model in RMP's ROE calculation. As

325   stated by Ms. Bulkley, if the Commission were to include an ROE analysis that was not

326   market based, either shareholders or customers would be disadvantaged, and this is not

327   in the public interest. [22]

328 **Q.   DOES MS. BULKLEY'S ANALYSIS SUPPORT A 10.2 PERCENT ROE WHEN**
329   **ADJUSTED FOR THE ABOVE STATED ISSUES?**

330 A.   No. I performed an analysis adjusting for each item the Division was uncomfortable

331   with in Ms. Bulkley's testimony. Using the information provided by Ms. Bulkley and

332   adjusting each calculation results in a ROE range of 5.83 percent to 9.53 percent.

333   Below is a chart similar to what Ms. Bulkley used in her testimony showing the new

334   calculated rates with the suggested adjustments.

[22] Id.

335   **Figure 1: Summary of Cost of Equity Analytical Results**
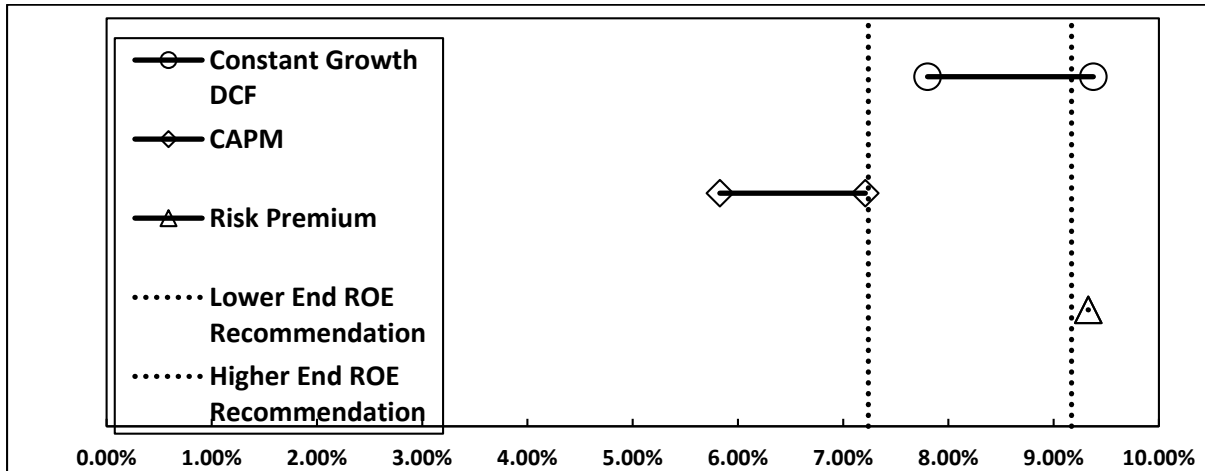
336

337   V.   **CAPITAL STRUCTURE**

338   **Q.   WHAT IS REQUIRED TO DEVELOP AN OVERALL RATE OF RETURN FOR**

339   **A PUBLIC UTILITY?**

340   A.   The first step in developing an overall rate of return is to select the capital structure

341   ratios. Next, the cost or rate for each capital component, debt and equity, is

342   determined. The overall rate of return is the product of weighting each capital

343   component by its respective cost of capital. This procedure results in RMP's overall

344   rate of return, weighted average cost of capital (WACC), being weighted properly to

345   reflect the amount of capital and cost of capital for both debt and equity.

346   **Q.   WHAT CAPITAL STRUCTURE RATIO IS APPROPRIATE TO USE TO**

347   **DEVELOP RMP'S OVERALL RATE OF RETURN?**

348   A.   The Division recommends using the capital structure proposed by RMP witness Ms.

349   Nikki L. Kobliha. The Division recognizes the proposed equity portion is higher than

350   other electric utilities and higher than the ratios followed by RMP in the past. Because

351   RMP is a vertically integrated electricity utility with increased capital expenses, using a

352   higher equity portion now to mitigate possible financing risks is reasonable.

353 **Q.**   **IS THERE A SET OF REGULATORY AND FINANCIAL PRINCIPLES USED**

354   **TO DETERMINE THE APPROPRIATE CAPITAL STRUCTURE FOR COST**

355   **OF CAPITAL PURPOSES?**

356 A.   Yes. There is a general set of regulatory and financial principles used in deciding the

357   capital structure issue for cost of capital purposes that are consistent with both

358   regulatory and financial theories:[23]

359   1.   It is generally preferable to use a utility's actual capital structure in developing its

360   rate of return. However, in deciding whether a departure from this general

361   preference is warranted in a particular case, it is appropriate to first look to the

362   issue of whether the utility is a financially independent entity.[24] In determining

363   whether a utility is a financially independent entity or self-financing, it is important

364   to look to whether the utility: (1) has its own bond rating; (2) provides its own debt

365   financing; and (3) debt financing is not guaranteed by a parent company.

366   2. When a utility issues its own debt that is not guaranteed by the public or private

367   parent and has its own bond rating, regulatory and financial principles indicate to

368   use a utility's own capital structure, unless the utility's capital structure is not

369   representative of the utility's risk profile or where use of the actual capital structure

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[23] See generally Roger A. Morin Ph.D., Utilities Cost of Capital, 14-18 (1984).

[24] See generally Fundamentals of Financial Management, 7th Edition, chapters 5, 8, 9, and 12.

370   would create atypical results. Regulatory and financial principles require the

371   analyst to determine whether the actual capital structure is atypical when compared

372   with the capital structure approved by the Commission for other utilities that

373   operate in the same industry (i.e., water utility, gas distribution utility,

374   telecommunications company, etc.), as well as those of proxy utility companies that

375   operate in the same industry. [25]

376   3. If a utility does not provide its own financing, public utility commissions often look

377   to another entity. Generally, public utility commissions use the actual capital

378   structure of the entity that does the financing for the regulated utility as long as it

379   results in just and reasonable rates. This generally means using a parent company.

380   Once the cost of equity for the proxy companies is determined, public utility

381   commissions should determine where to set the utility's return based upon how the

382   utility's risk compares with that of other utilities that operate in the same industry (i.e.

383   water utility, gas distribution utility, etc.). The risk analysis begins with the assumption

384   that the utility generally falls within a broad range of average risk, absent highly

385   unusual circumstances that indicate an inconsistently high or low risk as compared to

386   other utilities that operate in the same industry. Generally, financial risk is the function

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[25] For a comprehensive overview of the regulatory process and the issues involved, see Howe, K.M. and Rasmussen, E.F. *Public Utility Economics and Finance*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., (1982).

387   of the amount of debt in an entity's capital structure used for the cost of capital

388   purposes. When there is more debt, there is more risk everything else being equal.[26]

389 **Q.** **CAN YOU DISCUSS HOW THE FINANCIAL PRINCIPLES OUTLINED**

390   **ABOVE APPLY TO RMP?**

391 **A.** Yes. RMP is wholly owned subsidiary of Berkshire Hathaway Energy Company

392   (BHE). Even though RMP is wholly owned by BHE, RMP has obtained debt

393   independent of the parent company.[27] Using these guiding principles, it would seem

394   reasonable at first glance to use the actual capital structure of RMP in this proceeding.

395   As discussed in Ms. Kobliha's testimony, RMP has a number of capital expenditures

396   that will require new sources of capital. To help fund these capital expenditures RMP

397   is requesting a 46.32 percent debt and 53.67 percent equity capital structure. This is a

398   higher equity position than RMP has been authorized to use in the past. RMP is a

399   vertically integrated electric company and a higher equity portion seems reasonable in

400   order to help fund the additional capital expenditures. The higher equity portion will

401   allow RMP to maintain its favorable credit ratings and allow RMP to reasonably

402   manage its financing costs.

403   **VI.**   **COST OF DEBT**

404 **Q.** **DO YOU HAVE A COMMENT ABOUT THE COST OF DEBT INCLUDED IN**

405   **THE APPLICATION?**

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[26] See generally Kahn, Alfred E. The Economics of Regulation Principles and Institutions Volume 1 and Volume II, The MIT Press (1988).

[27] Rocky Mountain Power Direct Testimony of Nikki L. Kobilha Exhibit NLK-1.

406   A.   Yes. The original application provided specific interest rates for the existing debt

407   obligations. Using the information provided,[28] the Division has reviewed the debt and

408   agrees that the cost of debt for RMP should be 4.81 percent.

409   **VII.   COST OF COMMON EQUITY**

410   Q.   **WILL YOU SUMMARIZE THE RETURN ON EQUITY AMOUNT THE**

411   **DIVISION IS RECOMMENDING FOR THIS CASE?**

412   A.   Yes. I have completed and included the calculations for the various models and

413   recommend that the appropriate cost of equity for RMP is 9.25 percent. The Division's

414   recommendation is higher than the calculated range of 7.24 percent to 9.17 and is based

415   on an evaluation of the DCF, CAPM, and Risk Premium Method. The reason for this

416   recommendation will be addressed later in my testimony. The recommended range is

417   just and reasonable to the ratepayers and to RMP and is comparable with the 9.55

418   average authorized rate of return for electric companies in 2020.[29] The results of the

419   Division's calculations are summarized in DPU Exhibit 2.01 DIR.

420   **VIII. DIVISION ANALYSIS**

421   **A. AN OVERVIEW OF COST OF COMMON EQUITY MODELS**

422   Q.   **WHAT METHODS DID YOU LOOK AT TO ESTIMATE THE CURRENT**

423   **MARKET COST OF EQUITY FOR RMP?**

424   A.   I used similar models to those used in previous rate cases before the Commission and

425   similar to those used in Ms. Bulkley's analysis. I have included a Constant Growth

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[28] Direct Testimony of Nikki L. Kobilha for RMP Exhibit NLK-1.

[29] Please see DPU Exhibit 2.07 Past Allowed ROR.

426   Discounted Cash Flow or DCF model. Within the model I have considered the growth

427   rates from multiple sources. I have included multiple risk premium models (RPM),

428   including the capital asset pricing model (CAPM), and the Bond-Yield-Risk-Premium

429   approach. Later in this section, I will discuss the issues with the Expected Earnings (EE)

430   approach, why it is not considered a market based ROE estimation tool and why this

431   model is falling out of favor with regulatory commissions.

432   Q.   **PLEASE BRIEFLY DESCRIBE THE DCF MODEL.**

433   A.   The DCF model assumes that the value of ownership in a common stock is based upon

434   the returns the stockholder expects to receive into perpetuity. It incorporates the current

435   dividend and the prospects for growth in that dividend over time. Among other things,

436   the model assumes that the expected price-to-earnings ratio for the company's stock will

437   remain constant at the current level. In the DCF model it is assumed that there exists a

438   growth rate "g" that is constant. That is, this "g" will adequately serve as a surrogate for

439   the growth in dividends for all periods of time in the future. The formula used is:

$$k_e = D_0*(1+g)/P_0 + g$$

Where: k_e is the cost of common equity
D_0 is the current dividend
P_0 is the current stock price
g is the (constant) growth rate

446   Q.   **WHAT ARE THE STRENGTHS AND WEAKNESSES OF THE DCF MODELS?**

447   A.   Briefly, the strengths of the models are their simplicity and ease of application,

448   particularly in the single-stage version of the model. DCF models are derived directly

449   from the financial theory that the price of a common stock is equal to the present value

450   of the expected future cash flow to stockholders. Two of the three principal

451   components of the model are directly observable in the market: the dividend and the

452   stock price. The future growth rate is necessarily an estimate, and thus can be

453   controversial. The single-stage model can be faulted because of its assumption that

454   there is a single growth rate, usually derived from relatively short-term growth

455   forecasts that will apply to the company into the indefinite future (theoretically

456   forever). Non-constant and multi-stage DCF models use changing growth rates in

457   future periods and sometimes changing discount rates, but they are increasingly

458   complex. Moreover, without knowledge of future events there is no reason to conclude

459   that multi-stage DCF models are more accurate than single stage models unless there is

460   a known anomaly in the short term.

461 **Q.** **AS YOU MENTIONED EARLIER, IN THE 2002 QUESTAR GAS GENERAL**
462   **RATE CASE, THE COMMISSION ADOPTED A 75 PERCENT WEIGHTING ON**
463   **EARNINGS GROWTH ESTIMATES AND 25 PERCENT WEIGHTING ON A**
464   **DIVIDEND GROWTH ESTIMATE. DO YOU HAVE ANY COMMENTS ON**
465   **THIS WEIGHTING?**

466 A. Yes. For a DCF model, this weighting appears reasonable. It gives consideration to the

467   fact that the model is theoretically about dividends and not earnings, but also reflects

468   that dividend growth is related to earnings growth. Also implicit is the concept that

469   differences between dividend growth and earnings growth rates in the near-term have a

470   greater effect on the cost of equity than any such differentials in the long-term. I

471   believe the current weighting is reasonable and should continue to be used.

472   **Q.**   **PLEASE BRIEFLY DESCRIBE THE CAPITAL ASSET PRICING MODEL.**

473   A.   The CAPM is a type of risk premium model. CAPM grew out of theoretical work in

474   modern portfolio theory in the 1960s. Modern portfolio theory has shown that diversified

475   portfolios could reduce the variability in the value of those portfolios and that a risk

476   factor called "beta" could be used to estimate the relative variability of a portfolio to the

477   market portfolio. The theory of CAPM is that the cost of equity is equal to the risk free

478   rate plus a market risk premium adjusted by the beta risk factor. The market risk

479   premium is the additional return over the risk free rate that a portfolio of all risky

480   investments, i.e. the "market," would expect to earn. One of the theoretical

481   underpinnings of CAPM is that investors through a diversified portfolio could virtually

482   eliminate risk specific to a particular investment such that if the investor were sufficiently

483   diversified, he would only face the risk of the market, which is also called systematic

484   risk. Beta is a measure of the volatility of an investment's value compared to the market

485   as a whole and will indicate to an investor how a given investment will affect the

486   systematic risk of his portfolio. Under CAPM theory investors are not rewarded for the

487   specific risks of a particular investment because these risks can be diversified away. The

488   only reward the investor receives is the systematic risk, represented by the beta that an

489   investment brings with it to the portfolio.

490   The calculation of the CAPM cost of equity for a company is straight forward and is

491   based upon readily available information. This model is widely taught in the academic

492   literature and is widely used in industry.[30]

493   The formula for the CAPM is as follows:

$$k_e = RFR_0 + \beta * (MS\text{-}RFR)$$

495   Where: k_e is the cost of common equity
496   RFR_0 is the current risk free rate
497   β is beta, the risk adjustment factor
498   (MS-RFR) is the market risk premium which can be
499   decomposed into two factors: The overall market return,
500   MS, and the RFR that is compatible with the way the MS
501   was estimated.

502 **Q.   PLEASE BRIEFLY DISCUSS THE STRENGTHS AND WEAKNESSES OF THE**
503 **CAPITAL ASSET PRICING MODEL.**

504 A.   The strengths include a firm theoretical basis for the model, its relative simplicity, and

505   intuitive appeal. The model is widely taught and widely used in corporate America. The

506   downside of the model is that there is little consensus on how each of the factors are

507   developed and how the model is implemented.

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[30] Modern portfolio theory and the capital asset pricing model are discussed in detail in texts on corporate finance and investment valuation. See, for example:

Brealey, Richard A., Stewart C Myers and Franklin Allen. (2006). *Principles of Corporate Finance 8th ed*. New York: McGraw-Hill Irwin.

Brigham, Eugene F. and Joel F. Houston. (2007). *Fundamentals of Financial Management 5th ed*. Mason, Ohio: Thomson South-Western.

Damodaran, Aswath. (2002). *Investment Valuation*. New York: John Wiley & Sons, Inc.

Parcell, David C. (1997). *The Cost of Capital – A Practitioners Guide*.

508   Different analysts will likely choose different risk free rates, which will affect the

509   outcome. Academics sometimes favor using a Treasury Bill rate as the most nearly true

510   risk free security, while practitioners favor longer-term bond rates to match the apparent

511   holding period of the asset. Beta is calculated in various ways using different base

512   periods, market proxies, and other measurement differences, such as the frequency of the

513   observations and even the day of the week the observations are made. Some services

514   offer "adjusted" betas that "correct" the calculated or "raw" beta to account for the

515   apparent tendency of betas to revert to a mean over time. The available services assume

516   that the mean that the betas revert to is the market beta, which is 1.0.

517   Perhaps the most hotly debated factor is the market risk premium, that is, the premium

518   return investors demand from stocks over the risk free rate. Some practitioners support

519   the use of the arithmetic average of the difference between historical stock market returns

520   (with the Standard & Poor's 500 Index as a proxy) and long-term (approximately 20

521   years) treasury bond returns since 1926 as popularized by Ibbotson Associates over the

522   last 30 years or so.[31] This approach has been criticized by academics and others on a

523   number of grounds. Some say the historical time period is too long, reaching back to a

524   much different economy than we have today. Others have cited technical problems with

525   the data Ibbotson compiled. One technical problem is referred to as "survivor bias."

526   Survivor bias refers to the fact that the underlying Ibbotson data is composed of

527   companies that were successful, losers are not included. Studies indicate that this bias

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[31] Stocks, Bonds, Bills, and Inflation (SBBI), any edition, published annually by Ibbotson Associates.

528   inflates the Ibbotson-based market risk premiums by about 1 to 2 percentage points.[32]

529   Another issue is the use of arithmetic averages versus geometric averages. Ibbotson

530   Associates, Brealey, Myers, and Allen among others, argue that arithmetic averages

531   produce the appropriate unbiased estimates of returns. The use of arithmetic averages

532   significantly overstates the actual returns an investor would have actually received over a

533   long historical period of time, a time period in which the geometric average accurately

534   reflects the actual experiences of investors. For this reason and others, some experts

535   advocate geometric returns.[33] In short, there is great dispute about how the market risk

536   premium should be estimated. For my analysis, I have used the Duff and Phelps data

537   because it is readily available and widely used.

538   Empirical studies of stock returns have turned up anomalies that have suggested flaws

539   in the CAPM. In order to correct for these anomalies (and save the basic theoretical

540   construction) additional factors have been specified for the model such as the Fama-

541   French five-factor model or add-ons to the model such as adjustments for size or

542   industry. None of these adjustments have avoided controversy. The practical

543   implementation of the CAPM has resulted in controversy and disagreement. Despite

544   these problems the CAPM is widely used and has an established theoretical basis. The

[32] Brigham, Eugene F. and Joel F. Houston. (2007). Fundamentals of Financial Management 5th ed. Mason, Ohio: Thomson South-Western. p. 272.

[33] For a discussion of geometric versus arithmetic averages, see Damodaran Aswath. (2002). Investment Valuation. New York: John Wiley & Sons, Inc. pp. 161-162 and PPC's Guide to Business Valuations, Volume 1, paragraph 502.8, Practitioners Publishing Company, Fort Worth Texas, February 2006.

545 fact of its widespread use necessitates that an analyst at least consider the CAPM in

546 evaluating a cost of equity problem.

547 **Q.** **PLEASE BRIEFLY DESCRIBE THE COMPARABLE EARNINGS MODEL.**

548 A. The CE Model is the oldest of ROE methods, is simple and straightforward, but has

549 generally fallen out of use in the United States.[34] The basic premise of the CE

550 approach is that the model uses the return earned on book equity investment by

551 enterprises of comparable risks as the measure of fair return. The CE approach stems

552 from a particular interpretation of the *Hope* language that states returns are to be

553 defined as book rates of return on equity of other comparable firms. Book return on

554 common equity is computed by dividing the earnings available to common

555 shareholders by the average book common equity. ROE should be measured using

556 "normalized" earnings, that is, earnings before extraordinary items and unusual

557 charges. To implement the approach, a group of companies comparable in risk to a

558 specified utility is defined, the book return on equity is computed for each company

559 and the allowed return is set equal to the average return on book value for the sample.

560 The reference group of companies is usually made up of <u>unregulated industrial</u>

561 <u>companies of similar risk.</u>[35]

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[34] National Association of Regulatory Commissioners: A Cost of Capital and Capital Markets Primer for Utility Regulators April 2020, page 18.

[35] Roger A. Morin, *New Regulatory Finance* 381 (Public Utilities Reports, Inc. 2006) (Morin) at 381 emphasis added.

562   The rationale of the method is that regulation is a duplicate of competition. The

563   profitability of unregulated firms is set by the free forces of competition. In the long

564   run, the free entry of competitors would limit the profits earned by the unregulated

565   companies, and conversely, unprofitable ventures and product lines would be

566   abandoned by the unregulated companies. In other words, the free entry and exit of

567   competitors should ensure that the profits earned by non-regulated firms are normal in

568   the economic sense of the term. Aggregating book rates of return over a large number

569   of comparable risk unregulated companies would even out any abnormal short-run

570   profit aberrations, while averaging over time would dampen any cyclical aberrations.

571   Thus, by averaging the book profitability of a large number of unregulated companies

572   over time, an appropriate measure of the fair return on equity for a public utility is

573   obtained.[36]

574 Q.   **PLEASE BRIEFLY DISCUSS THE STRENGTHS AND WEAKNESSES OF THE**
575   **COMPARATIVE EARNINGS MODEL.**

576 A.   One of the positives of the CE Model is that it requires two inputs: recently reported

577   earnings per share from the income statement and recently reported book value of

578   common equity per share from the balance sheet. Some additional positives are that the

579   method is easily understood, and is firmly anchored in regulatory tradition. Because

580   the model aggregates book rates of return over a large number of comparable risk

581   unregulated companies, it avoids the problem of overstating or understating investor

582   return requirements when prices and book values are materially different from unity.

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[36] Id, at 381.

583   The major drawback of the CE approach is that the method is not market-based since

584   the calculation relies only on historical accounting data from financial statements, this

585   approach does not technically measure the cost of equity because no market

586   information is utilized. Dr. Morin explains this issue when he states:

587   [m]ore simply, the CE standard ignores capital markets. If interest rates
588   go up 2 percent for example, investor requirements and the cost of equity
589   should increase commensurably, but if regulation is based on accounting
590   returns, no immediate change in equity costs results. Investors capitalize
591   expected future cash flows and not current earnings, and what was earned
592   on book value is not directly related to current market rates.[37]

593   When regulated utilities are utilized in the proxy group the problem of circularity

594   surfaces. The market return on equity for regulated firms is determined by competitive

595   forces, unlike the book return on equity which instead reflects past actions of regulatory

596   commissions. It would indeed be circular to set a fair return based solely on the past

597   actions of other regulators. But to the extent that regulators set the allowed rate of

598   return based on market-based methodologies, rather than accounting-based methods or

599   the allowed returns of other regulators, the circularity problem is mitigated.[38]

600   Other issues with the CE discussed by Dr. Morin include:

601   [W]hen the utility's current book rate of return is compared to that of
602   firms of comparable risk, it is assumed that there is a fundamental
603   theoretical relationship between accounting returns and risk. But no such
604   relationship exists in financial theory. The risk-return tradeoff found in
605   financial theory is expressed in terms of market values rather than in terms

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[37] Roger A. Morin, *New Regulatory Finance* 393 (Public Utilities Reports, Inc. 2006) (Morin) at 393

[38] Id. at 125

606   of accounting values. Only if long time periods are examined and broad
607   aggregates are used can an empirical relationship between risk and
608   accounting return be found.

609   Dr. Morin continues:

610   Another blemish of the Comparable Earnings method is that comparisons
611   of book rates of return among companies are computationally misleading
612   because of differences among companies in their accounting procedures.
613   Despite the umbrella of generally acceptable accounting principles, areas
614   of difference include the treatment of inventory valuation, depreciation,
615   investment tax credits, deferred taxes, and extraordinary items. The lack
616   of accounting homogeneity is exacerbated by the necessity of studying
617   nonregulated companies, which are likely to exhibit greater accounting
618   differences.[39]

619   **Q.**   **YOU JUST DISCUSSED CHALLENGES WITH A COMPARATIVE EARNINGS**
620   **MODEL BUT DIDN'T MS. BULKLEY DO AN EXPECTED EARNINGS**
621   **ANALYSIS? ARE THERE SIMILARITIES BETWEEN A COMPARATIVE**
622   **EARNINGS MODEL AND AN EXPECTED EARNINGS ANALYSIS?**

623   A.   Yes. Ms. Bulkley performed an EE analysis. The EE method shares some similarities

624   to the CE method, but its primary distinguishing characteristic is that it is forward-

625   looking. The EE methodology provides an accounting-based approach that uses

626   investment analysts estimates of return (net earnings) on book value (the equity portion

627   of a company's overall capital, excluding long-term debt.) Thus, the two data

628   components needed to implement the EE methodology are: 1) a measure of expected

629   earnings (or earnings per share); and 2) book value of equity (or book value per share).

630   Due to its forward-looking nature, the EE method does not suffer from circularity

631   concerns.

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[39] Id, at 393.

632   Because there are similarities between the EE and CE method many of the same

633   challenges discussed with the CE model would also be applicable in an EE analysis.

634   The biggest concern is that the method is not market-based and instead relies on an

635   accounting-based approach. As previously quoted by Dr. Morin, this approach would

636   "ignore the capital markets" just like the CE method.

637 **Q.**   **DO YOU BELIEVE IT IS APPROPRIATE TO USE THE EXPECTED**
638   **EARNINGS MODEL FOR DETERMING THE COST OF CAPITAL? CAN YOU**
639   **EXPLAIN THE REASONS WHY?**

640 A.   No. The first reason is that an EE model is not market-based. When determining ROE

641   for RMP the Commission is establishing a utility's ROE to equal the estimated return

642   investors would require in order to purchase stock in the utility at its current market

643   price. As discussed previously, in *Hope,* the Supreme Court explained that "the return

644   to the equity owner should be commensurate with returns on investments in other

645   enterprises having corresponding risks." In order to determine this, parties must

646   analyze the returns that are earned on investments in other enterprises having

647   corresponding risks, but investors cannot invest in an enterprise at book value and must

648   instead pay the prevailing market price for an enterprise's equity. As a result, the

649   expected return on a utility's book value does not reflect "returns on investments in

650   other enterprises" because book value does not reflect the value of any investment that

651   is available to an investor in the market, outside of the unlikely situation in which

652   market value and book value are exactly equal.

653   The second reason is that an EE model requires only two data points to calculate.

654   Although admittedly this does simplify the calculation for each of the parties involved,

655   unfortunately, the simplicity of the calculation is a result of the model not reflecting a

656   utility's cost of equity. The Federal Energy Regulatory Commission (FERC) stated the

657   following regarding an EE model:

658   While it may be true that the Expected Earnings model does not involve
659   the same complexities as the market-based approaches, we find that this is
660   because it does not reflect a utility's cost of equity. It is simpler because it
661   does not consider the market price that an investor must pay to make its
662   investment and other factors such as projected growth rates for the subject
663   utility. Factors such as these—in particular the market price that an
664   investor must pay for an investment, which is the basis for determining the
665   return on that investment—are critical to determining a utility's cost of
666   equity. While it may be simpler to use a model that does not consider such
667   factors, doing so renders that model unable to effectively estimate the rate
668   of return that investors require to invest in the market-priced common
669   equity capital of a utility, which is the utility's cost of equity capital. We
670   find that it is not appropriate to use a model that does not accurately
671   measure the "return to the equity owner" as required by *Hope* merely
672   because it may be simpler to administer. We are cognizant of the
673   administrative burden that is placed on parties to evaluate models that are
674   used in analyzing ROEs, but the mere simplicity of one model as
675   compared to others does not justify using that model if it does not assist us
676   in ensuring that returns to equity owners are just and reasonable.[40]

677   Because the EE model is not market-based and does not reflect a utility's cost of equity

678   the Commission should exclude any analysis that uses an EE model.

679 **Q.   HAS FERC SAID MORE ABOUT EE MODELS?**

680 A.   Yes. In FERC's Opinion 569 quoted above, FERC dealt with the appropriate ROE for

681   companies and the methodologies FERC would consider when setting an ROE for

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[40] Federal Energy Regulatory Commission Opinion NO. 569 Order on Briefs, Rehearing and Initial
Decision, November 21, 2019 paragraph 204.

682   utilities. A considerable part of the order issued by FERC dealt with an EE method.

683   Quoted below are some pertinent statements from FERC regarding an EE method in

684   determining a fair ROE for a regulated utility.

685   We find that the record does not support departing from our traditional use
686   of market-based approaches to determine base ROE. Under the market-
687   based approach, the Commission sets a utility's ROE to equal the
688   estimated return that investors would require in order to purchase stock in
689   the utility at its current market price. In *Hope*, the Supreme Court
690   explained that "the return to the equity owner should be commensurate
691   with returns on investments in other enterprises having corresponding
692   risks. In order to determine this, we must analyze the returns that are
693   earned on "investments in other enterprises having corresponding risks,"
694   but investors cannot invest in an enterprise at book value and must instead
695   pay the prevailing market price for an enterprise's equity. As a result, the
696   expected return on a utility's book value does not reflect "returns on
697   investments in other enterprises" because book value does not reflect the
698   value of any investment that is available to an investor in the market,
699   outside of the unlikely situation in which market value and book value are
700   exactly equal. Accordingly, we find that relying on the Expected Earnings
701   model would not satisfy the requirements of *Hope*. [41]

702   The FERC Commission continued to explain its position regarding an EE methodology

703   stating:

704   The return on book value is also not indicative of what return an investor
705   requires to invest in the utility's equity or what return an investor receives
706   on the equity. Because an investor cannot purchase a utility's common
707   stock at book value and must instead pay the prevailing market price for
708   common equity, the utility's expected earned return on book value is
709   indicative of neither what an investor can expect to earn on an investment
710   in the utility's common stock nor what return an investor requires to invest
711   in the utility's common stock. Accordingly, return on book value does not
712   reflect 'the return to the equity owner' that we must ensure is
713   'commensurate with returns on investments in other enterprises'; therefore

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[41] Id.

714   we find that this model is not useful in ensuring that the standards of *Hope*
715   are satisfied. [42]

716   Finally the FERC concluded:

717   The return on book value is also not indicative of what return an investor
718   requires to invest in the utility's equity or what return an investor receives
719   on the equity. Because an investor cannot purchase a utility's common
720   stock at book value and must instead pay the prevailing market price for
721   common equity, the utility's expected earned return on book value is
722   indicative of neither what an investor can expect to earn on an investment
723   in the utility's common stock nor what return an investor requires to invest
724   in the utility's common stock. Accordingly, return on book value does not
725   reflect 'the return to the equity owner' that we must ensure is
726   'commensurate with returns on investments in other enterprises'; therefore
727   we find that this model is not useful in ensuring that the standards of *Hope*
728   are satisfied. [43]

729   And that:

730   [T]he question before the Commission is whether to adopt the proposal in
731   the Briefing Order to directly use the results of the Expected Earnings
732   model in the ROE estimate calculations that are the foundation of our
733   ROE analysis…We find that stronger evidence is required to support a
734   decision to include the Expected Earnings model as a direct input in our
735   ROE methodology than is required to merely use it as corroborative
736   evidence for placing an ROE within the zone of reasonableness. We have
737   directed the parties in these proceedings to address the Briefing Order's
738   proposal to use the Expected Earnings model as a direct input in our ROE
739   methodology and, in light of the evidence that they have provided, we find
740   that there is not sufficient support to use the Expected Earnings model as a
741   direct input in our ROE methodology. [44]

742   On May 21, 2020, FERC issued an Order on Rehearing of Opinion No. 569-A. In that

743   order FERC "denied the requests for rehearing of [FERC]'s decision to exclude the

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[42] Id.

[43] Id.

[44] Federal Energy Regulatory Commission Opinion NO. 569 Order on Briefs, Rehearing and Initial
Decision, November 21, 2019 paragraph 226.

744   Expected Earnings model from its base ROE analysis."[45] FERC shared that "that the

745   requests for rehearing largely repeat arguments parties previously made and which

746   [FERC] addressed in Opinion No. 569. Nothing in the rehearing requests persuades us

747   to alter our decision here."[46]

748   The Commission should exclude the use of an EE analysis similar to what the FERC

749   has done with its ROE calculations.

750   **B. COMPARABLE (PROXY) COMPANIES**

751 **Q.**   **WHAT ARE THE "COMPARABLE COMPANIES" YOU REFERRED TO AND**
752   **HOW WERE THEY CHOSEN?**

753 A.   One of the first steps in the estimate of cost of equity is the selection of publicly traded

754   "comparable," or "proxy" companies. These proxy companies' market returns and

755   characteristics would be studied in order to infer from them what the appropriate cost of

756   equity should be for RMP. The selection and use of comparable companies is obviously

757   critical since RMP itself is not an independent, publicly traded company. Even if RMP

758   were publicly traded it would be advisable to compare it with closely related companies

759   in its industry.

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[45] Federal Energy Regulatory Commission Opinion NO. 569-A Order on Rehearing, May 21, 2020 paragraph 125.

[46] Id.

760   The Company's witness, Ms. Bulkley, chose twenty-four companies as cited in her

761   testimony.[47] The proxy companies selected by Ms. Bulkley seem reasonable and the

762   same companies were used by the Division in its analysis.

763   **C. APPLICATION OF COST OF EQUITY MODELS**

764   **1. DCF Models**

765   **Q. PLEASE DESCRIBE HOW YOU DEVELOPED THE DCF MODELS.**

766   A.   First, I calculated the current dividend yield for each of the comparable companies. The

767   dividend was based upon information provided by Value Line. I used a 30-trading day

768   average closing price from July 1, 2020 to July 31, 2020.[48] The 30-trading day average

769   closing price was used to smooth out random fluctuations that might exist in the stock

770   price data. The historical price information was obtained from Yahoo! Finance. Next, I

771   took earnings and dividend growth rates from the latest Value Line reports for each

772   comparable company as well as the latest updates on Value Line's web site accessed July

773   16, 2020. This information was combined with the consensus earnings growth estimates

774   reported by Zack's, Yahoo, and Value Line.

775   Second, I considered several different growth rate estimates for the DCF models. First I

776   calculated growth rates based upon a weighted-average method by applying a 75 percent

777   weight to the average earnings growth rate from Value Line, Zack's, and Yahoo!, and a

778   25 percent weight to the dividend growth rate (from Value Line) in compliance with the

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[47] Direct Testimony of Anne E. Bulkley Lines 273 – 318.

[48] Casey J. Coleman Direct Testimony Exhibit 2.03 DIR.

779   Commission's decision in the 2002 Questar Gas General Rate Case. DPU Exhibit 2.03

780   DIR provides the calculation of the DCF model using the Value Line earnings and

781   dividend growth rates and the 30-day average stock price. This calculation results in an

782   estimated cost of capital range for all the proxy group companies of 3.27 percent to 14.79

783   percent with an average of all the proxy group companies at 9.17 percent.

784   DPU Exhibit 2.03 DIR provides the same calculation of the DCF model using the

785   average of Zacks, Yahoo, and Value Line reported earnings growth rates and the 30-

786   day average stock price. The DCF model using the 30-day average stock price and the

787   average earnings and dividend growth rates calculates an estimated cost of capital range

788   for the proxy group of companies of 5.55 percent to 11.42 percent with an average of

789   all the proxy group of companies at 8.91 percent. The results from the DCF models

790   along with the other models are summarized on DPU Exhibit 2.01 DIR.

791   **2. CAPM Results**

792 **Q.   HOW DID YOU DEVELOP YOUR CAPM MODELS?**

793 A.   I looked at the CAPM model using different risk free rates, time periods, betas, and

794   market risk premiums. I did this to look at how the variable factors affect the outcome of

795   the CAPM estimate. As stated earlier, there is no consensus on precisely how the

796   components of the CAPM should be estimated.

797 **Q.   PLEASE DESCRIBE THE MARKET RISK PREMIUM YOU USED.**

798 A.   The primary source of the risk premiums used was from Duff and Phelps

799   Recommended U.S. Equity Risk Premium (ERP) and Corresponding Risk-free Rate

800   (R$_1$); The ERP was updated March 27, 2020, and the (R$_1$) was updated June 30, 2020.

801   The current guidance was for a normalized 20-year U.S. Treasury yield (R$_1$) of 2.50

802   percent, with a recommend ERP of 6.00 percent.

803   **Q.   WHAT BETA ESTIMATE DID YOU USE?**

804   A.   I have calculated the CAPM using the beta from Value Line and the average beta as

805   reported by Zacks, Yahoo! Finance, and Ned Davis Research. The Value Line beta is

806   adjusted to converge toward 1.0 whereas the other betas are not adjusted. The Value

807   Line formula is (adj beta) = .66*(raw beta) + .34. The individual beta estimates for

808   each company can be seen in DPU Exhibit 2.04 DIR. Using each of these estimates,

809   the mean beta is 0.45.

810   **Q.   AS PART OF YOUR CAPM ANALYSIS YOU USE A MARKET RISK PREMIUM**
811   **CALCULATED BY DR. ASWATH DAMODARAN. CAN YOU EXPLAIN THE**
812   **USE OF THIS MARKET RISK PREMIUM?**

813   A.   Yes. Dr. Damodaran is a Professor of Finance at the Stern School of Business at New

814   York University. His research interests are in valuation, portfolio management, and

815   applied corporate finance. His papers have been published in the Journal of Financial

816   and Quantitative Analysis, the Journal of Finance, the Journal of Financial Economics,

817   and the Review of Financial Studies. He has written four books on equity valuation

818   (*Damodaran on Valuation*, *Investment Valuation, The Dark Side of Valuation*, *The Little*

819   *Book of Valuation*), and two on corporate finance: (*Corporate Finance: Theory and*

820   *Practice*, *Applied Corporate Finance: A User's Manual*).

821   Dr. Damodoran has calculated the average historical equity risk premium for stocks

822   minus the U. S. Treasury Bonds at 5.43 percent for a trailing 12-month period with

823   adjusted payout or 5.10 percent trailing 12-month cash yield.[49]

824   **Q.   WHAT WERE THE RESULTS FOR YOUR CAPM CALCULATION?**

825   A.   As seen in DPU Exhibit 2.05 DIR, I calculated a variety of different returns. First I

826   used the Duff and Phelps (R_1) of 2.50 percent and ERP of 6.00 percent. Following the

827   CAPM inputs as described earlier, I used a number of different Beta estimates to

828   determine a return on equity for RMP. The first calculation was a return on equity

829   using the average beta for all analysts, then the average beta for the specific calculated

830   betas for Value Line, Zacks, Yahoo Finance, and Ned Davis. Using this procedure, I

831   calculated a range of returns from 5.09 percent to 5.90 percent and an average of 5.33

832   percent.

833   The same methodology was used replacing the Duff and Phelps ERP with those

834   calculated by Dr. Damodaran. The results of this effort are a range of returns starting at

835   4.84 percent and going to 5.58 percent. The average of all rates resulting from my

836   CAPM analysis is 5.06 percent.

837   **Q.   YOUR CALCULATION OF THE CAPM IS SIGNIFICANTLY DIFFERENT**

838   **FROM THE CALCULATION USED BY THE COMPANY. CAN YOU EXPLAIN**

839   **THE DIFFERENCES?**

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[49] Damodaran, Aswath, Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2019 Edition (April 14, 2019). Available at:
SSRN: https://ssrn.com/abstract=3378246 **or** http://dx.doi.org/10.2139/ssrn.3378246.

840   A.   Yes. The major differences in the CAPM model between the Division and Ms. Bulkley

841   are a result of a different Market Risk Premium[50] or Equity Risk Premium (ERP). Ms.

842   Bulkley performs her own risk premium calculation. Her calculation arrives at an

843   estimated required market return of 14.05 percent using S&P Earnings and Estimate

844   Report dated March 31, 2020. The range of the market risk premiums calculated by

845   Ms. Bulkley is 10.85 percent to 12.49 percent. Both of the market risk premiums are

846   significantly higher than the Duff and Phelps or Damodaran estimates. The difference

847   is 485 basis points for the current risk-free-rate and 649 basis points for the long-term

848   projected risk-free rate.

849   The calculation done by Ms. Bulkley for her ERP is higher than the total return for the

850   market as calculated by Duff and Phelps or Damodaran. A total market return for Duff

851   and Phelps would be 8.50 percent, while the total market return for Dr. Damodaran

852   would be 7.93 percent.

853   As stated previously, I believe using the calculated risk premiums, as shown in Ms.

854   Bulkley's Direct Testimony RMP Exhibit AEB-6, is unsupported. The analysis done

855   by Ms. Bulkley has not been accepted by the Commission in any other rate case.

856   Additionally, to my knowledge this has not been published in any journal or academic

857   publication that would allow the results to be vetted and reviewed for accuracy.

858   Because of these two facts, the Division believes the Commission should not give any

859   weight to the CAPM analysis done by Ms. Bulkley.

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[50] Direct Testimony of Anne E. Bulkley RMP Exhibit AEB-6 CAPM.

860 Additionally, the bulk of the analysis done by Ms. Bulkley in her CAPM model, uses

861 projected rates for the risk-free rate. The Commission has not used projected rates

862 when determining the appropriate risk-free rate, subsequently, any analysis done by

863 Ms. Bulkley using projected rates should not be considered.

864 **Q.** **WHY ARE YOU SO STRONGLY OPPOSED TO PROJECTED INTEREST**
865 **RATES WHEN CALCULATING AN ROE?**

866 A. The current market situation does not support higher interest rates in 2020 and

867 historically analysts have seldom been right when projecting interest rates. Analysts

868 seldom project decreasing interest rates, so the projections are biased to begin with.

869 Additionally, analysts tend to have much more optimistic predictions of the future that

870 seldom happens.

871 Recently, the Federal Reserve indicated where interest rates might be set over the next

872 couple of years. In an article in the Wall Street Journal dated June 11, 2020, Mr.

873 Jerome Powell is quoted as saying "[w]e're not thinking about raising rates. We're not

874 even thinking about thinking about raising rates."[51] Ms. Bulkley projects rates that are

875 higher than the current rates today. According to Chairman Powell, this would be

876 incorrect.

877 Additionally, analysts have seldom been accurate when trying to project and determine

878 future interest rates. A quick search into the information available on how accurate

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[51] Timiraos, N. (June 11, 2020) Fed Officials Project No Rate Increases Through 2022. *Wall Street Journal* Retrieved from http://online.wsj.com

879   analysts have been when predicting interest rates shows they are woefully incorrect. In

880   one article, Mr. Eisen states "[y]es, 100 percent of economists were dead wrong about

881   yields."[52] In a report published by the Wall Street Journal Mr. Ip explains that

882   "[e]conomists got the decade all wrong and they are trying to figure out why."[53] As the

883   information shows, economists and analysts have rarely got the future interest rate

884   projections right. If the Commission were to accept projected interest rates, it would

885   begin its framework of analysis with flawed and erroneous data, causing the ROE

886   analysis to be flawed and erroneous. Because of this fact, the Commission should not

887   use projected interest rates as recommended by Ms. Bulkley.

888 **Q.**   **WOULD THE MAJORITY OF PUBLISHED METHODS TO CALCULATE AN**
889   **EQUITY RISK PREMIUM SUPPORT MS. BULKLEY'S CALCULATED RISK**
890   **PREMIUM?**

891 A.   No. In the financial literature, there are a variety of different ways to calculate the ERP

892   or market risk premium. When looking at these studies, a general consensus is that the

893   appropriate ERP would be in the range of three percent to six percent depending on

894   which risk-free-rate was used by analysts. Below is a list of opinions of an appropriate

895   ERP.

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[52] Ben Eisen, "Yes, 100% of economists were dead wrong about yields" *Market Watch*, October 22, 2014. **https://www.marketwatch.com/story/yes-100-of-economists-were-dead-wrong-about-yields-2014-10-21**

[53] Ip, G. (December 14, 2019) Economists Got the Decade All Wrong. They're Trying to Figure Out Why. *Wall Street Journal* Retrieved from **https://www.wsj.com/articles/economists-got-the-decade-all-wrong-theyre-trying-to-figure-out-why-11576346400?mod=searchresults&page=1&pos=3**

896   *Principles of Corporate Finance,* 11th ed., takes no official position on the
897   exact ERP. But the authors believe that a range of 5 percent to 8 percent
898   premium over T-Bills is reasonable for the United States (equivalent to a
899   premium over long-term government bonds of approximately 3.5 percent
900   to 6.5 percent).[54]

901   *Valuation: Measuring and Managing the Value of Companies,* 6th ed., note
902   that "Although many in the finance profession disagree about how to
903   measure the market risk premium, we believe a range around 5 percent is
904   appropriate. Historical estimates found in most textbooks (and locked in
905   the minds of many),which often report numbers near 8 percent, are too
906   high for valuation purposes, because they compare the market risk
907   premium versus Treasury bills (very short-term bonds) and are biased by
908   the historical strength of the U.S. market.[55]

909   Statista an investment data portal states: "[t]he average market risk
910   premium in the United States remained at 5.6 percent in 2020. This
911   premium has hovered between 5.3 and 5.7 percent since 2011.[56]

912 **Q.   WHAT CONCLUSION CAN BE GAINED FROM REVIEWING THESE EQUITY**
913   **RISK PREMIUM MODELS?**

914 A.   Even though there are a number of methods used in the financial literature to determine

915   an ERP, the methods of the individual authors conclude the appropriate ERP is close to

916   5 percent. That is important for this case because Ms. Bulkley's ERP calculation

917   ranges from 10.85 percent to 12.49 percent. Ms. Bulkley's ERP calculation is <u>217</u>

918   <u>percent to 250 percent higher</u> than the general consensus of finance professionals. Ms.

919   Bulkley's ERP calculation does not appear to be reasonable or in the public interest.

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[54]Richard A Brealey, Stewart C. Meyers, and Franklin Allen, *Principles of Corporate Finance,* 11th ed.,
    (New York: McGraw-Hill/Irwin, 2014), pg: 167.

[55] McKinsey & Company Inc., Tim Koller, Marc Goedhart, and David Wessels, op. cit, pg.: 292.

[56] See https://www.statista.com/statistics/664840/average-market-risk-premium-usa/.

920   **3. Risk Premium Method**

921   **Q.   CAN YOU PLEASE DESCRIBE THE RISK PREMIUM MODEL USED BY THE**
922   **DIVISION?**

923   A.   We can estimate the value of a company's equity by adding its risk premium to the

924   yield-to-maturity on the company's long-term debt. The equity risk premium is

925   essentially the return that stocks are expected to receive in excess of the risk-free

926   interest rate. The normal historical equity risk premium for all equities has been just

927   over 6 percent. In general, an equity's risk premium will be between 5 percent and 7

928   percent.[57] The RPM Equation states that the required return on an equity equals the

929   yield of the company's long-term debt plus the equity's risk premium.

930   As DPU Exhibit 2.06 shows, the Division used the ERP and (R_1) as calculated by Duff

931   and Phelps as a baseline for the total market risk premium of 8.50 percent. Because

932   RMP has a bond rating of A, the DPU looked at both Moody's Aaa and Baa Bond

933   Yield to establish a range for an A-rated bond. The Aaa Bond Yield was 2.44 percent

934   and the Baa Bond Yield was 3.46 percent. Each of these bond yields were subtracted

935   from the total market return of 8.50 percent to Estimate the Market Risk Premium of

936   6.06 percent to 5.04 percent for RMP. To determine the cost of equity, I added the

937   appropriate premium to RMP's current long-term borrowing Rate of 3.30 percent to

938   arrive at a cost of equity of 8.34 to 9.36 percent.

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[57] See **https://courses.lumenlearning.com/boundless-finance/chapter/approaches-to-calculating-the-cost-of-capital/**.

939   Exhibit 2.06 includes the same calculation but uses the ERP identified by Dr.

940   Damodaran of 5.43 percent. Following the same construct as described above, the

941   Division calculated a return on equity range of 8.75 percent to 9.77 percent. Because

942   no reports showed the rate for an A rated bond similar to RMP, the mid-point between

943   the two rates was used to calculate the Bond Yield Premium of 9.06 percent.

944 **Q.** **WHAT ARE THE DRAWBACKS OF USING THE RPM APPROACH?**

945 A. Estimating the value of an equity using the RPM approach has its drawbacks. To

946   utilize this method, a company has to have publicly traded debt. Another drawback is

947   that it does not produce as accurate an estimate as the CAPM or DCF analysis. Finally,

948   equity risk premium estimates can be highly inaccurate, and vary wildly depending on

949   which model is used. It can be very difficult to get an accurate estimate of the risk

950   premium on an equity, having a duration of roughly 50 years, using a risk-free rate of

951   such short duration as a 10-year Treasury Bond.

952 **Q.** **WHAT ARE THE RESULTS OF THE DIVISION'S CALCULATION USING**
953   **THE BOND YIELD RISK APPROACH?**

954 A. This approach estimated higher cost of equity rates than the CAPM model but lower

955   than the DCF model. This result is not entirely surprising because the CAPM model,

956   with the lower beta values and risk free rates, generally calculates the lowest cost of

957   equity. Because the RPM approach is looking at corporate bond rates, the model will

958   calculate a higher cost of equity than the CAPM model.

959 **4. Risk Premium Results**

960   **Q.**   **WHAT DO THE RISK PREMIUM RESULTS SUGGEST TO YOU?**

961   A.   The risk premium results are low compared to the other models used and to recent

962   commission orders. I believe the CAPM model is returning low values due to the

963   favorable low interest rate environment caused by the current monetary policy, a

964   situation faced by all investors in the marketplace.

965   **Q.**   **YOU DID NOT INCLUDE ANY ADJUSTMENTS TO YOUR CAPM**

966   **CALCULATION. CAN YOU EXPLAIN WHY?**

967   A.   Yes. The main reason is for simplicity. My analysis provides the return on equity

968   following basic CAPM theory. There are a number of ways to adjust the CAPM, (i.e.,

969   Empirical CAPM, adjustments for size premiums, etc.). However, to provide the

970   greatest level of clarity for the Commission to consider, no adjustments to CAPM were

971   made.

972   Another reason I did not include any adjustments is that each approach is filled with its

973   own set of issues and controversies. The existence of the small cap effect is disputed

974   by some researchers, such as Dr. John Kania.[58] Others, like Brigham and Houston,

975   suggest that the effect might be less than one finds in Ibbotson Associates'

976   publications.[59]

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[58] Kania, John J. "The small firm risk premium remains largely a myth," Shannon Pratt's Business Valuation Update, Vol. 9, No. 11, November 2003. The essence of Dr. Kania's argument is that "smallness" is incorrectly specified as market capitalization, i.e. the market value of a company's stock. When other measures of size such as revenues or total assets are used, the size effect vanishes.

[59] Brigham, Eugene F. and Joel F. Houston, Fundamentals of Financial Management Concise 3rd Ed., Harcourt College Publishers, Orlando FL, 2002. Brigham and Houston conclude (p. 491) "In general, the

977 **Q. YOU DO NOT BELIEVE ANY ADJUSTMENTS ARE NECESSARY TO THE**

978 **CAPM CALCULATION, YET MS. BULKLEY INCLUDES AN EMPIRICAL**

979 **CAPM CALCULATION. LET'S SUPPOSE YOU DID FEEL ADJUSTMENTS TO**

980 **THE CAPM MODEL WERE WARRANTED. WOULD YOU THEN ACCEPT MS.**

981 **BULKLEY'S ANALYSIS REGARDING THE EMPIRICAL CAPM?**

982 A. Simply, no. Ms. Bulkley uses an ERP that she calculated. As described above, the

983 Division does not agree with this approach. The Empirical CAPM used returns that

984 were based on the CAPM formula followed by Ms. Bulkley. If the ERP results are

985 flawed for the CAPM calculation, then the same ERP results will be flawed for the

986 Empirical CAPM results. Due to this fundamental flaw, the Division cannot accept the

987 Empirical CAPM rates recommended by Ms. Bulkley.

988 <div align="center">**IX. RATE CASE HISTORY IN OTHER STATES**</div>

989 **Q. WHAT HAS BEEN THE GENERAL TREND IN OTHER STATES REGARDING**

990 **THE ALLOWED RATE OF RETURN FOR REGULATED ELECTRIC**

991 **UTILITIES?**

992 A. For years, the Division has testified the fact that allowed rates of return have been

993 declining.[60] As presented earlier in my testimony, research done by RRA clearly

994 shows a declining trend for average authorized ROE since 2005.

---

cost of equity appears to be one or two percentage points higher for small firms (those with market values less than $20 million) than for large NYSE firms with similar risk characteristics."

[60] See Douglas D. Wheelwright Surrebuttal Testimony Docket No. 13-057-05 Lines 92 – 98.

995 **Q.** **WHAT IS THE CURRENT APPROVED RATE OF RETURN BY OTHER STATE**

996 **COMMISSIONS FOR EACH OF THE REGULATED UTILITIES UNDER THE**

997 **PACIFICORP OWNERSHIP?**

998 A. As provided by RMP[61] here is the following information on allowed rate of return.

State	AROR
California	10.60%
Wyoming	9.50%
Idaho	9.90%
Oregon	9.80%
Washington	9.50%

999 In the states of Oregon, and Wyoming, RMP is in the process of adjusting the allowed

1000 rate of return (AROR) for each state. Washington just recently agreed to keep the rates

1001 for RMP in its state at 9.50 percent.[62] Excluding California, which has a different

1002 regulatory construct than the rest of the states, AROR for each state has not been adjusted

1003 for at least five years. [63] Because of this fact, the AROR, in each state has not followed

1004 the observed lowering trend in rates over the last few years.

1005 **Q.** **CAN YOU EXPLAIN THE IMPLICATIONS OF THE 9.50 PERCENT AROR IN**

1006 **THE WASHINGTON STATE STIPULATION?**

1007 A. Yes. Even though the ROE for PacifiCorp in the State of Washington was a stipulated

1008 amount, a couple inferences can be made. First, the 9.50 percent was not an increase

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[61] See Rocky Mountain Power's response to Office of Consumer Services Data Request No. 2.28.

[62] Washington Utilities and Transportation Commission, Settlement Stipulation, Docket No. UE-191024, July 20, 2020, page 5.

[63] See Rocky Mountain Power's response to Office of Consumer Services Data Request No. 2.28.

1009   over the existing rate. Despite many of the current unknowns in the market, i.e. impacts

1010   from COVID-19, changing loads, interest rate changes, etc. the company, regulators, and

1011   other interested parties did not feel it was in the public interest to raise the ROE. Second,

1012   despite the 9.50 ROE being the lowest ROE for any PacifiCorp subsidiary, the Company

1013   agreed to the terms outlined in the stipulation.

1014   This stipulation goes contrary to the arguments being made by Ms. Bulkley that RMP is

1015   riskier and therefore needs a premium to adequately compensate investors for the

1016   additional risk of investing in RMP.

1017   **Q.   WHY DO YOU BELIEVE THE COMMISSION SHOULD AUTHORIZE A 9.25**
1018   **PERCENT RETURN ON EQUITY FOR RMP WHEN IT RECENTLY**
1019   **AWARDED DOMINION ENERGY UTAH A 9.50 PERCENT RETURN ON**
1020   **EQUITY?**

1021   A.   I was the Division's witness for the 2019 Dominion Energy case and recommended a

1022   9.25 percent cost of equity in that case as well. [64] The Division believes that the

1023   Commission may have been implicitly invoking the principle of gradualism in the

1024   Dominion Energy Utah case.[65]

1025   **Q.   PLEASE DESCRIBE THE REGULATORY PRINCIPLE OF GRADUALISM?**

1026   A.   In December 2013, the Washington Commission specifically invoked the regulatory

1027   principle of gradualism in awarding PacifiCorp a 9.50 percent authorized return on

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[64] See Casey J. Coleman Direct Testimony Docket No. 19-057-02 Line 50.

[65] See Utah Public Service Commission Order, Docket No. 19-057-02, February 25, 2020, page 1.

1028   equity.[66] The implication is that absent the application of that principle, the authorized

1029   return would have been lower; perhaps in the 9.00 to 9.25 percent range advocated by

1030   non-Company witnesses. Charles F. Phillips, Jr. discusses gradualism in the relevant

1031   context of rate of return.[67] Writing in the early 1990s, Mr. Phillips quotes from a Virginia

1032   commission decision that describes the principle of gradually adjusting rates in the face

1033   of changing market conditions.[68] Mr. Phillips concludes that "[g]iven volatile markets,

1034   combined with a trend toward greater reliance upon market forces, the issue of

1035   gradualism cannot be ignored."

1036   **Q.   HOW WOULD THE PRINCIPLE OF GRADUALISM APPLY IN THIS CASE?**

1037   A.   The Division's recommendation of 9.25 percent is in part based on the principle of

1038   gradualism. It is higher than the reasonable range calculated by the Division and is

1039   higher than many publication's calculations of the broader market return expectations

1040   that are based on a greater risk than RMP. However, the Division believes that

1041   reducing RMP's authorized ROE from 9.80 to a mid-point rate within the calculated

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[66] Washington Utilities and Transportation Commission, op.cit.; for example see page 27, paragraph 70.

[67] Charles F. Phillips, Jr., *The Regulation of Public Utilities* Arlington, Virginia: Public Utilities Reports, Inc., 1993, pp. 408-409.

[68] Mr. Phillips quoted the Virginia commission which said "The commission has no control over a rapidly changing economy or volatile interest rates. We do, however, have the power to regulate authorized returns on equity. The commission feels that stability in the cost of equity is in the interest of utilities, ratepayers and the economic environment of the commonwealth. When interest rates soared and the prime rate exceeded 20%, we did not allow exorbitant authorized returns which would have exacerbated the situation. We allowed returns to gradually increase, recognizing the trends of the day but avoiding extreme reaction. Recently interest rates have plummeted. Our appropriate reaction should not be to cut authorized equity returns drastically, but to once again gradually move in the direction of the trend. Our goal is a fair and stable environment which will allow Virginia's utilities to better plan for the future and continue to provide economical, reliable service." Ibid., page 409.

1042   range of 7.24 percent to 9.17 is a significant adjustment to the allowed rate of return.

1043   Instead, reducing RMP's AROR to 9.25 percent is a reasonable move under the

1044   principle of gradualism. This avoids the volatility that can happen with extreme

1045   adjustments in rates.

1046   Additionally, given the relative length of time since the last general rate case, the

1047   Commission should determine an amount that is appropriate with minimal reliance on

1048   the principle of gradualism. To the extent gradualism is employed, it should have a

1049   defined ending.

1050   **X. COMMENTS ON COST OF EQUITY RESULTS**

1051   **Q.**   **DO YOU HAVE ANY OTHER COMMENTS ABOUT MS. BULKLEY'S**
1052   **TESTIMONY?**

1053   A.   Yes. As discussed earlier, inherent in the proposed range of rates for RMP, is the belief

1054   that the Company has risks greater than a comparable set of companies or for the entire

1055   market. Ms. Bulkley uses the following points to try and argue that RMP is a higher risk

1056   than a comparable set of companies. Those items are capital expenditures, regulatory

1057   risk, and generation ownership. Each point will be discussed in further detail below.

1058   <u>Capital Expenditures</u>

1059   The first thing to point out regarding RMP's capital expenditures is that these

1060   expenditures are being voluntarily made by the Company. The Commission has not had

1061   any proceedings that required a minimum amount of capital expenditures for RMP.

1062   Instead the Commission has allowed projects that RMP has determined to be beneficial

1063   for the Company because of market conditions.

1064   Additionally, capital expenditures become risky if the Company has difficulty in raising

1065   capital to finance those capital additions. Generally, investors expect a certain level of

1066   equity to be invested into the regulated utility to maintain the company's rate base.

1067   While capital expenditures could be a risk (if a company is not able to raise capital to

1068   economically finance those capital additions), discontinuing capital expenditures could be

1069   just as damaging to a regulated utility.

1070   With the capital costs of a utility at attractive rates, compared to historical rates, a prudent

1071   choice for a regulated utility is to continue raising capital when it is relatively

1072   inexpensive and invest the proceeds from that capital into long term projects. Because

1073   this is a shrewd management choice, as shown in Ms. Bulkley's testimony, a 1.10 capital

1074   expenditure ratio compared to the proxy group of companies does not make RMP

1075   riskier.[69]

1076   On lines 1234-1236 of Ms. Bulkley's testimony, she discusses a capital tracking

1077   mechanism and that RMP does not utilizes a capital tracking mechanism. She then

1078   explains that because RMP does not have a tracking mechanism, that makes RMP more

1079   risky than a comparable set of regulated utilities. Her data point to support this claim is

1080   that 52 percent of the proxy group utilities have such a tracking mechanism. The flip side

1081   of that argument is that 48 percent of the proxy group utilities do not have a tracking

1082   mechanism. With a 52 percent to 48 percent split between proxy utilities having a

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[69] See Direct Testimony of Ann E. Bulkley lines 1228 – 1232.

1083   tracking mechanism or not, there does not seem to be a clear choice by the utilities.

1084   Therefore, RMP is not that much riskier than a comparable group of companies, but

1085   instead is able to recover its capital expenditures in a similar manner to 48 percent of the

1086   proxy utilities.

1087   <u>Regulatory Risk</u>

1088   The DPU agrees with Ms. Bulkley when she illustrates the idea that the regulatory

1089   environment is a key component when considering the risks of a company:

1090   The ratemaking process is premised on the principle that, for investors and
1091   companies to commit the capital needed to provide safe and reliable utility
1092   service, the subject utility must have the opportunity to recover the return
1093   of, and the market-required return on, invested capital.
1094
1095   Regulatory authorities recognize that because utility operations are capital
1096   intensive, regulatory decisions should enable the utility to attract capital at
1097   reasonable terms; doing so balances the long-term interests of investors
1098   and customers. Utilities must finance their operations and require the
1099   opportunity to earn a reasonable return on their invested capital to
1100   maintain their financial profiles. RMP is no exception. In that respect, the
1101   regulatory environment is one of the most important factors considered in
1102   both debt and equity investors' risk assessments.[70]

1103   In evaluating the regulatory risk faced by RMP, Ms. Bulkley looks at specific

1104   mechanisms used by utilities to construct an image of the regulatory environment in

1105   Utah. She argues that RMP is riskier because it does not have many of the mechanisms

1106   other utility companies have in her proxy group. Generally, this argument again does not

1107   have merit. Looking at the percentages provided in each case, except Fuel and Energy

1108   Cost Recovery, the analysis shows numbers grouped very close to 50 percent. For the

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[70] See Direct Testimony of Ann E. Bulkley lines 1253 – 1262.

1109   Fuel and Energy Cost Recovery metric Ms. Bulkley shows 90 percent of companies have

1110   a cost recovery metric just like RMP. While RMP is neither way above or way below the

1111   industry results, it is difficult to draw a conclusion that RMP has a greater regulatory risk

1112   and therefore requires a higher ROE. Listed below is a quick summary of the percentages

1113   for each category.[71]

1114   ▪ Fuel and Energy Cost Recovery 90%
1115   ▪ Test Year Convention 49%
1116   ▪ Rate Base 49%
1117   ▪ Volumetric Risk 52%
1118   ▪ Capital Cost Recovery 52%

1119   The list of comparable regulatory mechanisms demonstrates that RMP has very similar

1120   risks when compared to other utilities.

1121   **Q.**   **HOW DOES RRA RATE THE UTAH PUBLIC SERVICE COMMMISSION?**

1122   A.   On May 19, 2020, the RRA Regulatory Focus published updated information regarding

1123   each state and how the RRA rates the regulatory environment for each utility. RRA's

1124   evaluations are assigned from an investor perspective and indicate the relative regulatory

1125   risk associated with the ownership of securities issued by each jurisdiction's energy

1126   utilities. Each evaluation is based upon consideration of the numerous factors affecting

1127   the regulatory process including gubernatorial involvement, legislation, and court

1128   activity, and may be adjusted as events occur that cause RRA to modify its view of the

1129   regulatory risk for a given jurisdiction.

1130   According to RRA, "[a] rating in the average category would imply a relatively balanced

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[71] See Direct Testimony of Ann E. Bulkley lines 1307–1339.

1131   approach on the part of the governor, the legislature, the courts, and the commission

1132   when it comes to adopting policies that impact investor and consumer interests."[72] In

1133   RRA's report, the Commission receives a rating of Average 2.

1134   A June 8, 2020, report published by RRA, discussed the regulatory environment when

1135   dealing with credit metrics. The report stated that:

1136   S&P Global Ratings conducts periodic assessments of each regulatory
1137   jurisdiction in the U.S. and Canada where a rated utility operates as a
1138   reference when determining a utility's regulatory advantage or regulatory
1139   risk. S&P Global Ratings' analysis covers quantitative and qualitative
1140   factors, focusing on regulatory stability, tariff-setting procedures and
1141   design, financial stability, and regulatory independence and insulation.
1142   The presence of utility regulation, no matter where in the spectrum of
1143   [S&P Global]'s assessments, strengthens the business risk profile and
1144   generally supports utility ratings. [73]

1145   The report claims the regulatory environment in the State of Utah as Highly Credit

1146   Supportive.

1147   RMP has not provided any compelling evidence that the regulatory environment in Utah

1148   is risky or unfavorable to its utility operations. Instead, the utility benefits from a

1149   balanced regulatory approach in Utah. The balanced, or lower risk regulatory

1150   environment, does not merit a risk premium to the ROE of RMP.

1151   <u>Generation Ownership</u>

1152   Ms. Bulkley uses the fuel mix of a vertically integrated electric utility and the transition

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[72] See S&P Global Market Intelligence RRA Regulatory Focus: State Regulatory Evaluations May 19, 2020.

[73] See S&P Global Ratings Credit Research U.S. and Canadian Utility Regulatory Updates and Insights: June 2020.

1153   in the electric industry from coal-fired plants to renewable resources as part of her basis

1154   for increased risk to RMP. The Division agrees that a vertically integrated electric utility

1155   could have higher business risk than other regulated utilities. Ms. Bulkley explains "[a]s

1156   a result of this higher business risk, integrated electric utilities typically require a higher

1157   ROE or percentage of equity in the capital structure than other electric or gas utilities."[74]

1158   It is interesting to note that Ms. Bulkley suggests an appropriate step for the Commission

1159   to take to mitigate the additional risk would be a "higher ROE **or** a higher percentage of

1160   equity in the capital structure". If the Commission were to allow a higher ROE **and** a

1161   higher percentage of equity in the capital structure, then the Commission would be over-

1162   compensating investors for the risks of RMP being a vertically integrated electric utility.

1163   To ensure that this overcompensation for the business risks of a vertically integrated

1164   electric utility does not happen, the Commission should not consider a higher ROE for

1165   RMP and instead consider the equity portion in the capital structure as the appropriate

1166   setting to adjust for these business risks.

1167   RMP could have additional risks as a result of legislation in Oregon, Wyoming, and other

1168   states dealing with coal-fired power plants. [75] While there might be costs and challenges

1169   inherent in the transition from coal-fired power plants to renewable energy resources,

1170   increasing the ROE of the utility is not the appropriate place to deal with those issues.

1171   RMP has an integrated resource plan (IRP) where each of the various issues dealing with

1172   this transition is being addressed. The IRP is the appropriate venue to deal with these

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[74] Direct Testimony of Ms. Ann E. Bulkley lines 1443-1445.

[75] Direct Testimony of Ann E Bulkley lines 1482-1495.

1173   regulatory issues and pressures. Additionally, increasing the ROE to Utah customers, for

1174   a decision made in Oregon or Wyoming, is not in the interest of Utah rate payers. If there

1175   are additional risks because of those legislative results, customers in Oregon, Wyoming,

1176   California, or any of those jurisdictions, should bear those costs or risks—not Utah

1177   ratepayers. It is a simple matter, cost responsibility should follow cost causation. The

1178   Commission should not increase RMP's ROE because of these items.

1179   Finally, Ms. Bulkley discusses how Utah House Bill (HB) 411, the Community

1180   Renewable Energy Act, was signed into law. This bill allowed municipalities and

1181   counties in Utah to achieve a net-100 percent renewable electric portfolio by 2030.

1182   According to Ms. Bulkley, a community was required to adopt a local resolution by the

1183   end of 2019 stating the goal to be net-100 percent renewable by 2030. [76] While this

1184   legislation could impact RMP, it is too early to know the direct impact. Additionally, no

1185   analysis was done to show the impact to revenues or cash flow by a community adopting

1186   a future renewable goal. Because no data or evidence was given to support this as a

1187   material issue facing RMP now, the Commission should not determine the risk to RMP

1188   as material enough to support a premium to investors to compensate for the potential risk.

1189   **Q.**   **DO YOU BELIEVE RMP IS LESS RISKY THAN THE COMPARABLE PROXY**
1190   **GROUP COMPANIES? AND, IF SO, CAN YOU EXPLAIN WHY?**

1191   A.   Yes. RMP is less risky for a number of reasons. These reasons include being a wholly

1192   owned subsidiary of BHE, the ability to pay flexible dividends, and a historically strong

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[76] Direct Testimony of Ann E Bulkley lines 1470-1474.

1193   and growing local economy. How each of these reasons lowers the risk to RMP in

1194   comparison to the proxy group of companies is discussed below.

1195   <u>Wholly Owned Subsidiary of BHE</u>

1196   In the direct testimony of Ms. Kobliha at lines 255 -275 she discusses how RMP receives

1197   a favorable credit rating from Moody's and S&P because RMP is a wholly owned

1198   subsidiary of BHE. [77] Additionally, investors know and respect Berkshire Hathaway.

1199   Being affiliated with BHE is seen as a positive to investors and credit agencies because of

1200   the stability of the parent company.

1201   Both Ms. Bulkley's and Ms. Kobliha's direct testimony explicitly addresses this point.

1202   Ms. Kobliha's indicates RMP had issued both 10 year notes and 30 year notes from 2006

1203   to the most recent bond in 2020.[78] Also Figure 17 of Ms. Bulkley's testimony, compares

1204   the Authorized Electric Returns for Utah and the U.S.[79] Ms. Bulkley's testimony shows

1205   that from 2011 to 2013, the Authorized ROR for RMP was below the average. Despite

1206   having a lower ROR, RMP was able to issue bonds and had access to the credit markets

1207   for any of its capital expenditures and projects from 2011 until today.

1208   Because RMP did not have a downgrade in its credit ratings, restricted access to the

1209   capital markets, or other capital market challenges, the inference is that investors did not

1210   require a premium from RMP to offset any risks. Instead, they accepted a lower rate of

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[77] Direct Testimony of Ms. Nikki L. Kobliha lines 255 – 275.

[78] Direct Testimony of Ms. Nikki L. Kobliha RMP Exhibit NLK-1.

[79] Direct Testimony of Ms. Ann E. Bulkley line 1382.

1211   return. If a rational investor is accepting a lower rate of return than other comparable

1212   investments then the perception in the market is that the company with the lower return,

1213   has a lower risk than a comparable company.

1214   Flexible Dividends

1215   Ms. Kobliha also points out the benefit of flexible dividends in her testimony.[80] Because

1216   RMP is going to have higher capital expenditures over the next few years, RMP's

1217   management is suggesting using retained earnings and debt to finance those capital

1218   expenditures. BHE is not going to require RMP to pay any dividends during this period

1219   of higher capital expenditures. Every one of the proxy companies selected by Ms.

1220   Bulkley pays a dividend. Publicly traded companies generally do not decrease or

1221   eliminate the amount of its dividend to investors year-over-year and do all that they

1222   reasonably can to avoid lowering a dividend payment. RMP has the flexibility to adjust

1223   its dividend payments which is a huge benefit. Management is better able to manage

1224   cash flow, capital expenditures, and other expenses by being able to pay a flexible

1225   amount of dividend.

1226   Healthy and Growing Economy

1227   Before the pandemic hit the United States, Utah had one of the most vibrant and healthy

1228   economies in the United States. Because RMP was in a healthy economy, the prospects

1229   for growth are greater than other regulated electric utilities located in declining

1230   economies. In a recent article, Forbes magazine noted that "[c]ities that were fast-

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[80] Direct Testimony of Ms. Nikki L. Kobliha lines 92 – 108.

1231   growing pre-coronavirus will continue their rise. Denver and Salt Lake City are well-

1232   positioned to retake their crown as two of the fastest-rising metro areas in the US."[81]

1233 **Q.** **DOES YOUR ANALYSIS IMPLY THAT RMP DESERVES A PREMIUM COST**
1234   **OF EQUITY COMPARED WITH THE AVERAGE OF COMPARABLE**
1235   **COMPAPNIES?**

1236 A. No, there is no such indication. When looking at the rates for Rocky Mountain Power,

1237   the appropriate cost of equity would be lower than the average allowed rate of return

1238   for other electric utilities because of the lower risks of RMP. There is no factual reason

1239   that would push RMP into a premium cost of equity environment.

1240   **XI. FAIR RATE OF RETURN**

1241 **Q.** **WILL YOU DISCUSS HOW A COST OF EQUITY OF 9.25 PERCENT IS**
1242   **REASONABLE GIVEN YOUR ANALYSIS?**

1243 A. Yes. Over numerous pages of my testimony I have provided results from different

1244   financial models that attempt to estimate the appropriate cost of equity for RMP. This

1245   is what I would term as the "framework" aspect of rate making. Careful consideration

1246   has been taken to follow each model and theory as accurately as possible. In this

1247   process, inherent warts and flaws will trickle into the theories. No method is perfect

1248   and each evaluation provides its own set of results. After extensive analysis, my

1249   research comes up with a cost of equity in the range of 7.24 percent to 9.17 percent.

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[81] Forbes, Ranked: The 10 US Cities Best Positioned To Recover From Coronavirus (And The 10 Worst), May 12, 2020.

1250   That is a very significant range of rates from each of the different models. My

1251   suggested rate of 9.25 percent falls just outside the top end of the calculated ranges.

1252   Rate making, is not a simple process of observing the results calculated by the models

1253   and determining the appropriate cost of equity for a utility. A well thought out

1254   approach weighing the appropriate shortfalls of each model and the specific risks of the

1255   company is necessary to determine an acceptable rate of return. I have attempted to

1256   blend the data calculated to determine a fair and reasonable rate that will allow for

1257   additional investment capital for RMP while balancing the costs consumers must pay to

1258   cover those costs. The reasoning behind my recommendation is as follows.

1259   The financial model that calculated the lowest return on equity was the CAPM. The

1260   range of rates varied from 5.06 percent 5.90 percent. Looking at the lower data points

1261   calculated using this model makes me a bit uncomfortable using CAPM rates

1262   exclusively. It is not surprising that the CAPM analysis calculates the lowest cost of

1263   equity for RMP. One of the important inputs in the model is the risk free rate. With

1264   interest rates considerably lower than in the past, a model that uses the risk free rate as

1265   a major component of the calculation will have a lower result than other models.

1266   Because of this weakness, I place some value on the results of CAPM with the

1267   understanding that the risk-free rate might be skewing the returns downward.

1268   The average market return using the Bond Yield plus Risk Premium method was a 9.06

1269   percent return on equity. Of all the models, this model is the one that I put the least

1270   amount of credibility and weight. It is acceptable as an additional point of reference,

1271 however, with so many variables and assumptions, it is optimistic to feel entirely

1272 confident that the model is providing accurate results.

1273 The model I place the most weight on for calculating the return on equity is the DCF

1274 model. Because two of the three inputs are easy to calculate from the market, this

1275 model has the least number of assumptions and calculations. Also, there are a number

1276 of reputable agencies that are calculating growth rates that can be used in the model.

1277 My results using the DCF model provided a range of 3.27 percent to 14.79 percent with

1278 an average of a 9.17 percent return on equity. The disparity of the range with the DCF

1279 is a reflection of calculating the ROE for 24 different companies and each company's

1280 different financial position. To minimize the disparity in rates the average of all

1281 companies is analyzed and used.

1282 **Q.** **SINCE A ROE OF 9.25 PERCENT IS HIGHER THAN MANY OF YOUR**

1283 **CALCULATIONS, HOW CAN YOU BE COMFORTABLE WITH THAT**

1284 **RECOMMENDATION?**

1285 A. There are a number of factors that go into this recommendation. There has been a long

1286 standing discussion dealing with the fair rate of return versus the cost of equity for utility

1287 companies. Steven G. Kihm argues that "determining a reasonable return on equity is a

1288 judgment call, one that reflects the regulator's broad perspective on public policy matters.

1289 That requires one to look beyond economic concepts, such as the cost of equity, to find

1290 proper returns." [82]

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[82] Steven G. Kihm, "The Proper Role of the Cost-of-Equity Concept in Pragmatic Utility Regulation" *The Electricity Journal* Volume 20 Issue 10(2007): 26.

1291   NARUC explained the balancing of interests regulators deal with each day when

1292   making ROE decisions. It stated:

1293   it is typical for regulatory commissions to be confronted with the perpetual
1294   challenge of having a record consisting of multiple ROE methodologies
1295   from multiple ROE witnesses representing multiple parties. Amid the
1296   plethora of evidence before it, the regulatory commission is charged with
1297   considering and weighing all the evidence and determining a specific
1298   authorized ROE for use in developing tariffs. The 'weighing' part is
1299   challenging and can be different in each commissioner's reasoning, but the
1300   task at hand for commissioners is to agree to an authorized ROE that is
1301   within the range or zone defined by the evidence.[83]

1302   As a utility regulator, the recommendation must take into consideration the data, but

1303   also, blend public policy matters. In previous rate cases, the Commission appears to be

1304   using the concept of gradualism in setting the allowed rate of return for regulated

1305   utilities. Recommending a significant drop in rates could be detrimental for a regulated

1306   utility. The Division has attempted to blend the market constraints with the appropriate

1307   policy decisions.

1308   Q.   **WAS THERE ANYTHING ELSE GUIDING THE DIVISION'S**
1309   **RECOMMENDATION OF 9.25 PERCENT?**

1310   A.   Yes. Dr. John C. Bonbright discusses his conviction that when calculating the cost of

1311   equity capital for any given company the only such cost that can be determined with

1312   confidence is a *minimum* or *partial cost*.[84] He continues, explaining "[h]ence, if the

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[83] National Association of Regulatory Utility Commissioners, A Cost of Capital and Capital Markets Primer for Utility Regulators, April 2020 page 20.

[84] James C. Bonbright, *Principles of Public Utility Rates* (New York: Columbia University Press, 1961), republished on the web (July 2005) Page 255:
http://www.terry.uga.edu/bonbright/publications

1313   minimum estimated cost is to be used in the determination of a computed 'overall cost of

1314   capital,' the resulting computation should be subject to a material, 'judgement-reached'

1315   enhancement in order to give reasonable assurance of full-cost coverage."[85]

1316   Dr. Bonbright believes the calculated rates should act as a minimum or partial cost

1317   when determining the fair rate of return. If there is a logical minimum threshold of

1318   allowed rates of return, then there would also be a maximum level for utility

1319   companies.

1320   In the *Hope* and *Bluefield* cases, in the Division's opinion, the courts established an

1321   upper threshold for a fair rate of return for utility companies. In those cases, utility

1322   regulators are required to provide returns that must be equal to that currently earned on

1323   investments in other equally risky business enterprises. For a regulated electric utility,

1324   that would mean the fair rate of return would be very similar to allowed rates of return

1325   in other states. As shown earlier in my testimony, the average rate of return for similar

1326   companies with a similar risk to RMP, is 9.55 percent. Using these two theories as a

1327   guiding principle, I was able to determine the appropriate range for RMP's cost of

1328   capital at 7.24 percent to 9.17 percent. Because of policy considerations, the Division's

1329   own evaluation of current market risks and RMP's individual risk profile, the Division

1330   recommends a cost of equity for RMP of 9.25 percent.

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[85] James C. Bonbright, *Principles of Public Utility Rates* (New York: Columbia University Press, 1961), republished on the web (July 2005) Page 255:
http://www.terry.uga.edu/bonbright/publications

1331   **XII. CONCLUSIONS AND RECOMMENDATIONS**

1332   **Q.**   **DO YOU BELIEVE YOUR CONCLUSIONS AND RECOMMENDATIONS**
1333   **ARRIVE AT JUST AND REASONABLE RESULTS THAT ARE IN THE PUBLIC**
1334   **INTEREST?**

1335   A.   Yes.

1336   **Q.**   **CAN YOU SUMMARIZE YOUR FINAL CONCLUSIONS AND**
1337   **RECOMMENDATIONS?**

1338   A.   Based on my analysis, the appropriate cost of equity for RMP is 9.25 percent with an

1339   overall weighted average cost of capital of 7.19 percent. The Division's recommended

1340   ROE and its cost of capital estimate is just and reasonable and in the public interest. For

1341   all the reasons stated herein, the Commission should reject RMP's proposed cost of

1342   equity and weighted average cost of capital, which is not in the public interest.

1343   **Q.**   **DOES THIS CONCLUDE YOUR TESTIMONY?**

1344   A.   Yes it does.