**Exhibit No. \_\_\_T (KLE-1T)**

**Dockets UE- 140188/UG-140189**

**Witness: Kenneth L. Elgin**

**BEFORE THE WASHINGTON STATE**

**UTILITIES AND TRANSPORTATION COMMISSION**

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| **WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,**  **Complainant,**  **v.**  **AVISTA CORPORATION, dba**  **AVISTA UTILITIES,**  **Respondent.** | **DOCKETS UE-140188 and**  **UG-140189 *(Consolidated)*** |

**TESTIMONY OF**

**Kenneth L. Elgin**

**STAFF OF WASHINGTON UTILITIES AND**

**TRANSPORTATION COMMISSION**

***Fair Rate of Return and Rate of Return Impact of Decoupling***

**July 22, 2014**

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**I. INTRODUCTION**

**Q. Please state your name, occupation, and business address.**

A. My name is Kenneth L. Elgin. I am a senior financial analyst for the Washington Utilities & Transportation Commission. My business address is, Richard Hemstad Building, S. 1300 Evergreen Park Drive SW, Olympia, Washington 98504.

**Q. Please summarize your educational background and professional experience.**

A. I earned a B.A. degree in 1974 from University of Puget Sound and an M.B.A.in 1980 from Washington State University. I have been employed by the Commission in several different capacities since 1985. My regulatory experience is more fully described in Exhibit No. \_\_\_ (KLE-2).

**Q. What is the purpose of your testimony in this proceeding?**

A. The purpose of my testimony is to provide the Commission with a recommendation for the fair rate of return (cost of capital) for Avista Utilities (“Avista”). I also provide a recommendation for adjusting the cost of capital to account for Staff’s decoupling proposal. Full decoupling of Avista’s revenues from energy sales, as proposed by Staff, transfers risk of revenue variations of the regulated electric and gas operations from shareholders to customers. Avista’s profit should be reduced to take into account that risk shifting.

**II. COST OF CAPITAL SUMMARY**

**A. Staff’s Cost of Capital Recommendation**

**Q. What is the overall cost of capital for the regulated operations of Avista Corporation before considering the effects of full decoupling?**

A. The overall cost of capital for Avista Corporation’s regulated utility operations is 6.90 percent. The following table shows the capital structure and cost rates:

**Component Percent Cost Weighted Cost**

Total debt 54.00 5.32% 2.87%

Common Equity 46.00 8.75% 4.03%

Overall Cost of Capital 6.90%

**Q. What is the overall cost of capital for the regulated operations of Avista Corporation’s regulated operations with full decoupling?**

A. With full decoupling the overall cost of capital is 6.77 percent. This figure is shown in my Exhibit No. \_\_\_ (KLE-6), which I explain fully in Section VIII of my testimony. In brief, the Commission’s Decoupling Policy Statement[[1]](#footnote-1) recognizes correctly that under full decoupling customers now bear the risk of variations in energy sales. I propose a mechanism for reducing Avista’s profit margin to recognize the shift in business risk from shareholders to ratepayers due to full decoupling. Customers should pay lower costs of capital (profit) due to the effects of full decoupling.

**Q. In the last Avista rate case you recommended a fair ROE of 9.0 percent. Please explain why your recommendation is lower in this case.**

A. The different estimate in this case is due to the continued downward pressure on the cost of equity for utilities. Investors today are willing to pay more for the right to Avista Corporation’s cash flows. Because Avista Corporation’s stock price has increased, the expected dividend yield is lower. In the prior case, Avista Corporation’s stock was trading for $25-$26, with a dividend yield of 4.40 to 4.60 percent. Now, the same stock trades for almost $33, with a dividend yield of 3.90 percent. The increase in its stock price is direct market evidence that the cost of capital for Avista is lower now.

**B. Comparing Staff and Company Recommendations**

**Q. Please compare your cost of capital determination with Avista’s proposed cost of capital.**

A. The major differences between my recommendations and Avista’s are:

* I propose a return on equity (“ROE”) of 8.75 percent, while Avista proposes a 10.10 percent ROE
* I propose a capital structure with 46.00 percent equity and 42.00 percent with full decoupling, compared to Avista’s proposed equity ratio of 49.00 percent;
* Avista proposes no adjustment to cost of capital to account for the transfer of risk from shareholders to ratepayers due to the effect of full decoupling.

**III. BACKGROUND**

**Q. Please explain the context of the Commission’s cost of capital determination in this proceeding.**

A. This proceeding involves setting the rates for Avista Utilities, which is the public service company of Avista Corporation in the State of Washington.

**Q. Please identify the different companies involved.**

A. Avista Corporation is engaged in various lines of business.[[2]](#footnote-2) Avista Utilities is the utility operating company wholly owned by Avista Corporation. Avista Corporation also has unregulated businesses under Avista Capital. Avista Corporation recently acquired an electrical company operating in Alaska, named Alaska Energy and Resources Company (AERC). AERC’s utility operations are regulated by the Alaska utility commission. Finally, Avista Corporation sold ECOVA, the principle operating business of Avista Capital.

When I use the term ‘Avista’ or ‘the Company’ I am referring to Avista Utilities, the regulated utility providing electric and gas service in this state. It is important to distinguish Avista Utilities from Avista Corporation, particularly when evaluating the appropriate capital structure to set rates for Washington ratepayers.

**Q. Is it reasonable for the Commission to use Avista Corporation’s stock prices in estimating the rate of return for ratemaking purposes in this case?**

A. Yes. Avista Corporation’s common stock is publicly traded, and its utility operations account for a large majority of Avista Corporation’s total revenue (about 85 percent), and almost all of its net income (almost 98 percent).[[3]](#footnote-3) As I just stated, Avista Corporation recently sold ECOVA. Since the sale, the regulated business of Avista Corporation comprises an even higher percentage of the total company operations. Therefore, it continues to be reasonable for the Commission to use the direct market and financial information relied upon by investors in Avista Corporation’s common stock as primary evidence of Avista’s cost of equity in this proceeding.

Accordingly, my Discounted Cash flow (“DCF”) analysis focuses primarily on this direct market evidence. I then analyze the same financial data of a set of comparable companies to determine if there is any bias in the primary market data for Avista Corporation. Based upon this evidence, I estimate a fair return on equity for Avista.

**Q. What are the primary steps involved in estimating the fair rate of return for any regulated utility?**

A. In this case, the primary steps are to: 1) determine the proper capital structure to finance the operations of the utility; 2) estimate the cost of equity capital; 3) calculate the appropriate cost of debt, including short and long-term debt; and 4) adjust the fair rate of return estimate to account for the stabilized cash flows and reduced risk due to full decoupling.

**A. Economic and Legal Principles**

**Q. What principles underlie the Commission’s determination of the fair rate of return for a regulated utility?**

A. The Commission sets rates in order to provide the utility an opportunity to recover its costs to provide utility service, which includes a fair return on and of the capital that investors provide to fund the long-lived assets necessary to provide utility services. This principle is found in Commission statutes (*e.g.,* RCW 80.28.010, 80.04.250 & 80.04.350), and it is consistent with both economic and legal theory.

Traditionally, the Commission sets rates using what is commonly referred to as the “rate base - rate of return” method. In a rate case, the Commission establishes the relationship between revenue, expenses, and return on rate base in order to provide the utility an opportunity to recover a fair return on the assets, or rate base, the utility uses to provide utility service.[[4]](#footnote-4) This method presumes utility management is efficient in its operation of the utility.

This principle is also reflected in two significant decisions by the United States Supreme Court*.* The first decision is *Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692 (1923). This decision established the following concepts to guide the determination of a fair rate of return in the rate setting process: comparable earnings for comparable risks, maintaining financial integrity of the regulated firm, the ability of the firm to raise capital on reasonable terms and the expectation that the utility is operated efficiently.

The second decision is *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1942). In that decision, the Court affirmed the concepts the Court stated previously in *Bluefield,* and recognized that regulators should balance consumer and investor interests in determining a fair rate of return.

Finally, I want to emphasize a point made by the Court in *Bluefield*, where the Court stated: “…[a] rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally.” 262 U.S. at 692.

This statement has particular application in this case. Capital costs have declined substantially in recent years. Consistent with the *Bluefield* and *Hope* decisions, the Commission should recognize that fact in determining the profit ratepayers should pay to Avista’s owners through rates.

This statement by the Court also means the terms “allowed rate of return” and ”authorized rate of return” should be used with caution, because they suggest an ongoing entitlement to some particular level of earnings for a utility. As the Court recognized, the appropriate rate of return for a regulated utility may change over time. A Commission determination of a fair rate of return in a rate case should not sanction or otherwise authorize a certain level of earnings in some future period.

The final issue involving the principles of fair economic regulation is the transfer of risk from shareholders to ratepayers in this case due to the proposals for full decoupling of the Company’s regulated electric and natural gas operations. The Commission recognizes decoupling reduces business risk.[[5]](#footnote-5) I propose a simple and fair mechanism to capture the impact of full decoupling on Avista’s cost of service.

**B. General Economic and Financial Conditions**

Q. What general economic and financial conditions are relevant to your estimate of Avista’s cost of equity capital?

A. Current economic and financial conditions inform my estimate of Avista’s cost of equity capital. Investor expectations and stock prices reflect current expectations. Therefore, stock prices reflect current opportunity costs, not past events.

Q. What is your general expectation regarding the impact of current financial conditions on investor expectations?

A. My general expectation is that the current macro-economic climate will continue through the rate year, 2015. Furthermore, the current interest rate environment and monetary policy will continue to keep the cost of capital low.

**Q. What information did you rely upon to inform your expectation for the financial conditions that most likely will occur in the rate year?**

A. I regularly review the actions and discussions of the Federal Reserve’s Open Market Committee (“FOMC”). In particular, the FOMC believes that the economy cannot operate at historical interest rate levels once the economy recovers.[[6]](#footnote-6) In fact, once the FOMC began to ease its purchases of bonds with the goal of eliminating such purchases by the summer of 2014, interest rates on 10-year Treasury bonds declined from 3.0 percent to 2.7 percent (from December 2013 to March 2014). At the end of second quarter 2014, rates on 10-year Treasury bonds were 2.50 percent. The FOMC at its March meeting continued to be worried about low inflation and the risk of deflation.[[7]](#footnote-7) Finally, weak housing continues to be a factor in the policy considerations of the FOMC. As a result, interest rates will continue to be low for many more months.[[8]](#footnote-8) Notably, at its June meeting, the FOMC also lowered its forecast for long-term interest rates and indicated that rates would remain at near zero for a considerable period.[[9]](#footnote-9) In prepared testimony before Congress on July 15, 2014, the Chairman of the FOMC testified that it expected to continue its accommodative policy to support the economy and to end purchases of bonds in October 2014. This had virtually no impact on interest rates for long-term bonds.

It is my conclusion that rising interest rates and the corollary impact this may have on the cost of equity will not happen until there is clear evidence that persistently low inflation is abated and the economy shows signs of more robust growth. As I will show later in my testimony, current market prices for utility equity demonstrate continued downward pressure on the cost of equity.

**C. Avista’s Operations and Risks**

**Q. Please summarize Avista and its operations.**

A. As I described earlier, Avista Utilities (“Avista” or “the Company”) is the utility operating company of Avista Corporation. As an electric company, Avista provides distribution, transmission, generation, purchase and sale of electric energy to customers in the central and eastern region of Washington and Idaho. Avista is commonly referred to as a fully integrated electric utility.

Avista’s natural gas operations are commonly referred to as local distribution. Avista buys natural gas in competitive markets, acquires interstate pipeline services under FERC-approved tariffs and then distributes the gas to its customers over its local distribution facilities in Washington, Idaho and Oregon.

**Q. How do you describe Avista’s regulated electric and gas operations from an overall business risk perspective?**

A. In my judgment, Avista’s regulated electric and natural gas operations are a lower risk business than unregulated businesses. Its regulated operations are of lower risk than utilities with significant unregulated operations, or other holding companies that own utilities, but also have significant investments in unregulated operations.[[10]](#footnote-10) Avista should not be compared to companies that have only unregulated operations. Risks vary across industries, which is why *Value Line* recognizes 124 different industries in its research reports covering equities. It explains why investors do not consider investments in unregulated operations comparable to an investment in a regulated utility.

**IV. CAPITAL STRUCTURE**

**Q. Please explain the capital structure issue in the context of the Commission’s rate setting process.**

A. Capital structure is the mix of debt and equity capital used to finance the long-lived assets necessary to deliver service to the public. Consistent with financial theory, management’s obligation is to finance the firm’s assets to achieve the lowest overall cost to maximize the value of the firm. In turn, the firm is able to keep its prices lower for the benefit of its customers. Financing properly and minimizing the cost of capital is paramount to ensuring management meets its obligation to shareholders to maximize the value of the company.

**Q. What is the Commission’s policy on capital structure for ratemaking purposes?**

A. The Commission’s policy is that an appropriate ratemaking capital structure balances the competing interests of safety and economy. This policy is consistent with the fundamental principle of finance I previously described. The Commission’s evaluation of the capital structure ensures management achieves this critical objective, and is in the interests of both shareholders and ratepayers. It ensures the Company efficiently finances the long-lived assets necessary to deliver service at lowest overall costs.

The Commission affirmed this policy recently in a rate case in which PacifiCorp’s cost of capital and capital structure were contested.[[11]](#footnote-11) I also note that in its recent rate order for Puget Sound Energy, the Commission stated that “a range of reasonable capital structures and costs [can] accomplish an appropriate balance.”[[12]](#footnote-12) I wish to emphasize, however, that within such a range, some capital structures are more economical than others. There is no reason to have ratepayers pay more than necessary to achieve that appropriate balance. I propose a capital structure that fully satisfies the Commission’s “safety and economy” standard, but costs less than Avista’s proposal.

**A. Equity Ratio**

**Q. How do you begin your analysis of Avista’s capital structure?**

A. I begin my analysis by considering Avista Corporation’s actual capital structure and credit ratings. Avista Corporation reported that its actual capital structure on December 31, 2013, was 45.40 percent common equity and 54.6 percent debt.[[13]](#footnote-13) This capital structure includes the equity investment in both regulated and unregulated operations of Avista Corporation.

**Q. What is the significance of this information reported by Avista Corporation?**

A. This capital structure supports the current credit ratings of Avista Corporation. In other words, this actual capital structure is market-tested for both the regulated and unregulated operations of Avista in 2013. Moreover, because Avista Corporation has a proven, consistent ability to successfully finance both its regulated and unregulated operations with a 45.4 percent equity ratio,[[14]](#footnote-14) that equity ratio is a conservative estimate of the appropriate amount of equity for the Company’s regulated operations.

**Q. What were Avista Corporation’s corporate credit ratings in 2013?**

A. Avista Corporation’s corporate credit rating from S&P is BBB, while Moody’s upgraded Avista Corporation’s corporate credit rating to Baa1.[[15]](#footnote-15) Avista Corporation’s secured bond rating is two notches higher. These are solid, investment-grade credit ratings, which provide Avista Corporation ample access to credit markets on reasonable terms. This is important because Avista Corporation will issue new secured debt to finance its regulated business.

**Q. Did you calculate the actual equity ratio for Avista Utilities for fiscal 2013?**

A. Yes. Removing the equity investment and debt associated with Avista Corporation’s unregulated operations ($112.2 million[[16]](#footnote-16)) leaves an equity ratio for Avista Utilities of approximately 44.0 percent.

**Q. Did the Company confirm your calculation?**

A. Yes. Staff Data Request 34 asked Avista to reconcile the capital structure of Avista Corporation reported in its December 31, 2013, SEC 10-K with the capital structure of Avista Utilities, as shown in Company work papers for the same time frame. The Company’s response shows a 44.2 percent equity ratio for Avista Utilities.

**Q. What other data informs your recommendation for an appropriate proper capital structure for ratemaking purposes?**

A. I evaluated the capital structure data from two reporting services that follow utility companies: AUS and SNL.

AUS data for 2013 show: 1) combination gas/electric companies have maintained equity ratios of 47.0 percent on average; 2) electric-only companies have equity ratios of 47.3 percent on average; and 3) Avista Corporation’s equity ratio was 44.90 percent.

SNL provides data for a group of 45 electric and combination utilities it follows. Its most recent data shows the average common equity ratio is 44.6 and the median is 45.0 percent.

**Q. What is a reasonable equity ratio before considering the effect of decoupling?**

A. The Commission should use an equity ratio of 46.00 percent. This equity ratio is safe and economical. It is consistent with industry standards. It is slightly higher than the actual 44.0 percent equity ratio supporting utility operations. While both Staff and the Company’s proposed capital structures are safe, the Commission should reject Avista’s hypothetical capital structure with 49.00 percent equity because it places excessive costs on ratepayers.

**Q. Are there any recent developments that warrant analysis concerning the appropriate capital structure for ratemaking purposes?**

A. Yes. In May 2014, Avista Corporation announced a sale of its principle unregulated business: ECOVA. The cash proceeds from the sale are approximately $136 million, and will provide a net gain of $62 million.

**Q. Does this sale impact your recommendation regarding the appropriate capital structure the Commission should use for ratemaking purposes in this case?**

A. No. The immediate impact of the transaction will remove the equity investment of ECOVA from Avista Corporation’s books, increase its book value and increase the cash on the corporation’s balance sheet. On June 13, 2014, Avista Corporation’s Board of Directors authorized the use of the proceeds from the ECOVA sale to purchase of 4 million shares of Avista Corporation’s common stock. However, that does not alter the normative analysis of what is a cost effective capital structure. A 46.00 percent equity ratio remains appropriate for setting rates.

**Q. How did you analyze the safety of your proposed capital structure with 46.00 percent equity?**

A. I analyzed the pre-tax interest coverage ratio that results from my capital structure recommendation and overall cost of capital. The pre-tax interest coverage ratio is a significant financial metric; it is the foundation of all other financial metrics that measure a firm’s profitability and cash flows. It provides a measure of protection for bond investors showing the company’s ability to service debt from operating profit margin. For example, a coverage ratio of 3.0 times means the company generates operating income of three times its interest expense. This metric is also reported in Avista Corporation’s financial statements in describing its profitability from continuing operations, and its ability to service debt.

**Q. What is the pre-tax coverage ratio using your capital structure recommendation and overall cost of capital?**

A. My recommended capital structure and overall cost of capital generates a 3.16 times interest coverage ratio. By comparison, Avista Corporation’s actual 2013 coverage was 3.10 times.[[17]](#footnote-17) This indicates my recommendation provides adequate safety.

**Q. Why do you say Avista’s hypothetical capital structure with 49.00 percent equity because it places excessive costs on ratepayers?**

A. While Avista’s proposed capital structure with 49.00 percent equity is also safe, it is higher cost than my proposed capital structure. There is no reason to burden ratepayers with a capital structure that costs $5 million more. In other words, the Company’s proposed equity ratio is not economical, and therefore it fails to satisfy the Commission’s policy of balancing safety and economy.

**Q. Please summarize your conclusions regarding the appropriate capital structure for Avista.**

A. A capital structure with 46.00 percent common equity is safe and economical. It is a capital structure consistent with Avista Corporation’s decision to finance its utility operations in the past, and it is consistent with the initial financial projections the Company provided in support of its direct case. It will enable Avista Corporation to access capital on reasonable terms. A higher equity ratio is not appropriate.

**B. Short-Term Debt Ratio**

**Q. Why should a utility use short-term debt?**

A. A utility should use short-term debt to manage its cash and current portion of its balance sheet throughout the year. In particular, because the Commission allows working capital as a rate base item, it is prudent to use this low cost source of capital in the capital structure to cost-effectively manage that element of its balance sheet.

**Q. What is a reasonable amount of short-term debt in a utility’s capital structure?**

A. Three to five percent is a reasonable amount of short-term in a utility’s capital structure. In its direct case, the Company includes $100,000,000 of short-term debt, which is a short-term debt ratio of 3.22 percent.[[18]](#footnote-18) However, in response to discovery, Avista updated its estimates to recognize that it will use more short-term debt. The update estimates an increase to $112 million. I will accept this amount for purposes of this case.

**V. COST OF DEBT**

**Q. What is Avista’s overall cost of debt?**

A. Avista’s cost of debt is 5.32 percent. Exhibit No. \_\_\_ (KLE-3) page 1 contains the calculations supporting this figure.

**Q. What is the cost of short-term debt?**

A. The cost of short-term debt is 2.38 percent. This estimate was provided in an update to the proposed cost in its direct case. I will accept this rate as a reasonable estimate for the rate year. Exhibit No. \_\_\_ (KLE-3) page 2 shows the calculation.

**Q. What is Avista’s cost of long-term debt?**

A. Avista’s cost of long term debt is 5.57 percent. This figure is based on the actual debt Avista had outstanding as of December 31, 2013. This cost is reasonable and the Commission should accept it.

**Q. Did Avista use the same approach you used to determine the cost of long-term debt?**

A. No. Avista proposes a *pro forma* cost of debt of 5.42 percent, based on the Company’s estimate of the cost of debt at the end of 2015. In that estimate, Avista includes two tranches of new debt in the amounts of $100 and $57 million, which Avista Corporation plans to sell in 2014 and 2015, with a proposed cost of 5.569%.[[19]](#footnote-19)

**Q. Why did you not also estimate the cost of those two proposed debt issuances?**

A. Under normal circumstances, I would have. However, as I testified earlier, Avista Corporation sold its interest in ECOVA. The proceeds will impact the amount of debt Avista plans to issue. Moreover, there are other issues with the cost of the new debt. If all of these issues were sorted out, I do not believe the impact would be significant. As a reasonable compromise, I propose to use the actual cost of debt outstanding at December 31, 2013.

**Q. Other than the amounts of the debt, please identify the other issues you have with Avista’s calculation of the cost of the two new debt issuances.**

A. Mr. Thies failed to include in his calculations the benefits of the hedges Avista entered into associated with those two future debt issuances.

**Q. For background purposes, please summarize the Company’s testimony** d**escribing its interest rate hedging activities.**

A. In his testimony, Mr. Thies states Avista is, “…executing forward starting interest rate swaps to mitigate interest rate risk.”[[20]](#footnote-20) Mr. Thies’ Exhibit No. \_\_\_ (MTT-3C), explains the Company’s management plan for executing interest rate hedges, and page 8 of that exhibit describes the specific actions the Company takes to hedge interest rate risk.

**Q. Where does Avista show the impact of these hedges on its cost of debt and what is their impact on Avista’s proposed cost of debt?**

A. Mr. Thies’s Exhibit No.\_\_\_(MTT-2), page 3, lines 10-18, col. (g) shows the impact of the Company’s interest rate hedges and the proposed ratemaking treatment of these hedges. That column shows Avista Corporation’s total payments made to settle the interest rate hedges executed since 2004. That column shows its positions to settle the hedges.

The exhibit shows the net position of these hedges: Avista was “in-the-money” by $18 million and “out-of-the money” by $49 million. The net position for all its hedging activities to date is out-of-the money by $31 million. That page also shows the Company proposes to amortize this $31 million in hedging costs over the life of the debt Avista Corporation issued at the time the hedges were settled. [[21]](#footnote-21)

In other words, the Company’s proposed cost of debt includes the cost impact of its interest rate hedging decisions.

**Q. Historically, what has been the impact of the Company’s interest rate hedging decisions on the cost of debt?**

A. Interest rate hedging decisions have caused the cost of debt to increase.

**Q. How do the two new debt issuances fit into this discussion?**

A. In Exhibit No.\_\_\_(MTT-2), page 3, lines 19 & 20, Mr. Thies shows the cost of this new debt as 5.50 percent. Assuming this cost rate, the related interest rate hedges executed by Avista Corporation will be in-the-money (*i.e.,* Avista will realize a gain) if it issues that debt at that rate. Avista should have included the impact of the hedges it executed for these new tranches consistent with the treatment it requests for hedge losses.

**Q. What would be the position of these hedges if Avista Corporation sold these securities at the 5.50 percent coupon Avista uses in its cost of debt calculation?**

A.These hedges will be $16.4 million in the money.[[22]](#footnote-22)

**Q. Has Avista been transparent in its description of its interest rate hedging activities?**

A. No. For example, in his testimony, Mr. Thies does not explain how historically, hedging costs have increased the cost of debt. In fact, he discusses in positive terms the Company’s issuance of $392 million of debt since 2010 at a cost of 3.25 percent,[[23]](#footnote-23) but he fails to explain that the related hedges were out-of-the-money $26 million,[[24]](#footnote-24) making the true cost of that debt considerably more.

**Q. Are there any other issues that directly affect the cost of debt to the Company since 2010 that impacts costs to ratepayers?**

A. Yes. Avista should have been explained its decision in 2013 to sell a three-year tranche at a coupon of 0.68 percent. That decision materially impacts the overall cost of recent issuance to ratepayers.

**Q. Why should Avista have explained this decision more fully?**

A Avista’s decision to sell debt with a 3-year maturity exposes ratepayers to risk of future interest rates when that tranche matures in 2016. In fact, Avista initially planned to issue long-term debt in 2013, and it executed a hedge to mitigate its interest rate risk for that issuance. When Avista decided to issue 3-year money, its alternative was to issue 30-year debt with a coupon of just over 4.00 percent.

In addition, the hedge it executed was in-the-money by almost $3 million dollars. Therefore, had Avista followed its original financing plans, the net cost to ratepayers of that new 30-year debt would have been 3.92 percent. That option is very attractive. The Commission deserves an explanation why Avista abandoned its original plan to issue 30-year debt, and why that decision is reasonable.

In conclusion, my concern is transparency. Avista needs to thoroughly explain its decision making process when it decides to sell new debt and explain the costs associated with its hedging activities.

**Q. Please summarize Staff’s calculation of the total cost of debt.**

A. Considering all the estimates and projections necessary to estimate the cost of debt in the rate year, I recommend that the cost of long-term debt be calculated based upon the actual debt outstanding December 31, 2013. Accordingly, the cost of Avista’s total debt for regulated utility operations is 5.32 percent.

**Q. Why is it reasonable for the Commission to accept this recommendation?**

A. As I mentioned before, due to the ECOVA sale and the AERC purchase, there are uncertainties about the amount of new debt Avista will actually issue. There are other impacts associated with the hedging activities. However, the fact is that Avista’s embedded cost of debt and its marginal cost of debt are so close, the impact of all these other considerations on the overall cost of debt would be is small. Accordingly, I am very comfortable recommending the Commission use the actual cost of debt as of December 31, 2013, and focus on the other significant issues affecting costs to customers in cost of capital, *i.e.,* the cost of equity and the appropriate capital structure.

In sum, the Commission should use the following cost rates: 1) short-term debt of 2.38 percent; 2) long-term debt of 5.57 percent; and 3) an overall cost of debt of 5.32 percent.

**VI. COST OF COMMON EQUITY**

**A. Methods for Determining Cost of Equity**

**Q. What is the primary method the Commission uses in estimating Return on Equity (ROE)?**

A. Based on my review of the Commission’s orders on rate of return over the last fifty years, the Commission consistently has relied upon the Discounted Cash Flow (DCF) method.

**Q. Should the Commission use the DCF method in this case?**

A. Yes. The Commission’s policy and practice of relying on a DCF analysis as the primary evidence to determine a fair ROE for companies subject to its jurisdiction is correct. The DCF method is the most reliable indicator of investor’s rate of return requirements, consistent with the legal principles of the court decisions I discussed earlier. Using the DCF method, the cost of equity is estimated by evaluating readily available financial information and stock prices of utilities trading in highly competitive markets. The DCF method fully captures investors’ return requirements under current market conditions and accurately reflects current opportunity costs.

In my opinion, all other ROE methodologies produce flawed results and are subject to manipulation. Simply put, CAPM, risk premium and other non-traditional methods have too many variables that are subject to controversy and render the results suspect.

**Q. Has the Commission used other methods than DCF to estimate the cost of equity capital?**

A. Yes. In the past, the Commission has considered the results of other methods as a check on DCF results. However, in the most recent case where cost of capital was fully contested, it appears that the Commission relied almost exclusively on the various DCF results, because the Commission discussed only DCF results in its order.[[25]](#footnote-25) Also, in a recent PSE rate order, the Commission stated that under current economic conditions, it will give “little weight” to the CAPM and risk premium methods and “primary weight” to the DCF method.[[26]](#footnote-26) More to the point, in that case, the Commission accepted an ROE produced by a DCF analysis,[[27]](#footnote-27) and there is nothing in the order to suggest the Commission used any other method to check that result.

Because the economic and capital market conditions have not changed since those orders were issued, the Commission should again give little, if any, weight to the results produced by other methods. For that reason, I address those methods cursorily in my testimony.

**1. Discounted Cash Flow Method**

**Q. Please describe the Discounted Cash Flow (DCF) method, and the underlying theory of that method.**

A. The DCF method relies upon the most fundamental principle of finance: the value (price) of any asset (in this case, a share of common stock in Avista Corporation) is the present value of all future cash flows discounted at the cost of capital.

If one makes some simplifying assumptions about a utility’s financial performance and cash flows, the DCF formula for cost of equity is the sum of the dividend yield and dividend growth. The following formula is the common equation used by analysts and accepted by regulatory bodies to estimate the cost of equity (K):



where: *K* = cost of equity

*P* = current share price

*D* = expected dividend payment

*g* = constant rate of expected dividend growth

This formula recognizes that investors’ cost of equity is estimated by considering two factors: expectations of the stock’s dividend yield and the long-term constant (sustainable) growth in dividends per share.

Underlying DCF is another fundamental principle of finance: the efficient market hypothesis. It assumes market prices reflect all known information regarding a security. Therefore, the DCF model provides confidence to the Commission that current stock market prices accurately reflect investor’s expectations about future cash flows, and the opportunity cost associated with the investment decision.

**Q. Is the DCF method, or any other cost of common equity estimation method a mechanical process?**

A. No. Cost of common equity analysis is a process that requires judgment to reach a credible outcome. The analyst must consider relevant financial performance and make reasoned decisions based upon rational future expectations of investors. Consequently, despite its simplicity, applying the DCF model is not a process that produces results supported by precise calculations and mechanistic formulas.

In this regard, my study relies upon both market prices and published financial information, which, tempered by informed judgment and DCF theory, produces a range of reasonable investor expectations for the Commission to consider in determining a fair ROE for Avista.

**B. Overall Structure of the Cost of Equity Analysis**

**Q. How do you structure your analysis on the cost of common equity for Avista?**

A. Because my task is to determine the cost of equity capital for Avista’s utility operations, I first analyze the financial information and stock price of Avista Corporation. As a check on my estimate for Avista Corporation using that direct evidence, I also prepare a DCF analysis for a proxy group of companies.

As I explained earlier, the Commission should give little, if any weight, to the Capital Asset Pricing Model (“CAPM”) and the risk premium analyses in current circumstances. Therefore, I supply only a cursory analysis of those methods.

**C. Applying the DCF Model**

**Q. Please explain how you applied the DCF model to estimate Avista’s cost of common equity.**

A. As I explained earlier, a DCF study considers the expected dividend yield and dividend growth rate to estimate the investors’ required rate of return on common equity. Accordingly, I analyze market prices to determine the expected dividend yield for Avista Corporation and then consider available financial information to estimate reasonable investor expectations for long-term growth in dividends.

**Q. How did you evaluate the dividend yield component of the DCF equation?**

A. I evaluated the dividend yield based on the actual dividend paid and a range of future stock prices.[[28]](#footnote-28) This process accounts for the diversity of expectations investors have with respect to future dividends over time. Finally, as a check, I compare this dividend yield calculation for both Avista Corporation and my proxy group to the yield estimates provided by *Value Line*, *Morningstar* and Mr. McKenzie’s estimate.

**Q. Please explain how you evaluated investor expectations for long-term sustainable growth in the DCF formula.**

A. In contrast to dividend yield, an investor’s expectation for future dividend growth (“*g*”) is more difficult to estimate. As a result, this part of the DCF analysis is controversial because analysts use different metrics to support their conclusions.

It is important, however, to recognize that each investor has a unique perspective on the information used to form their growth expectations, and each investor individually considers and weighs the alternative indicators in deriving their expectations for growth. This is supported by the fact that markets reflect two distinct and complementary investment decisions simultaneously: a decision to buy stock matched by another decision to sell that same stock. Because two investors reach different decisions at the same market price, their expectations must differ.

In other words, no single indicator of growth is used by all investors. Therefore, my analysis is an effort to consider the various alternative financial metrics available to investors. I then infer from this data reasonable future expectations of investors for the long-term growth rate of dividends. In this regard, I use readily available financial information published by *Value Line*, which investors consider, but which Avista’s witness Mr. McKenzie ignores.

**Q. What financial information from *Value Line* did you use to estimate investors’ expectations of long-term sustainable dividend growth?**

A. I use estimates of future growth in dividends per share, internal growth, growth in book value, and earnings per share. In making an investment decision, investors consider all this information as a proxy for long-term sustainable dividend growth. My Exhibit No. \_\_\_ (KLE-5) is *Value Line’s* report on Avista Corporation showing all the data I use.

While each of these financial indicators is important, no single indicator is sufficient to estimate investor expectations of dividend growth for the group of proxy companies. However, some indicators are more important than others.

**Q. What financial information is the most significant and carries considerable weight for investors in utility stocks?**

A. Investors recognize the unique characteristics and the capital intensive nature of utilities. For utilities, long-term growth is a function of the rate earned on book value and future investments that will increase book value. Accordingly, growth in book value and internal growth represent the long-term financial fundamentals of a utility subject to rate base rate of return regulation. Therefore, I give added weight to these metrics in my analysis. My analysis also attempts to reconcile the various metrics consistent with DCF theory.

**Q. Please explain internal growth and its significance for investors in utility stocks.**

A. Internal growth is a function of earnings a firm retains and reinvests for future growth. If a utility retains earnings (“*b*”) and is able to earn at some rate (“*r*”) on those retained earnings, the product of these two factors is a compelling indicator of a reasonable expectation of sustainable long-term dividend growth.

Furthermore, internal growth is directly tied to dividend yield. If an investor expects returns on book value to fall, the stock price will fall, causing the dividend yield to increase, thus establishing a new relationship between dividend yield and growth. Conversely, if earnings on book are expected to increase, stock prices will rise causing the dividend yield to decline. This market mechanism and the relationship between the market price and internal growth enable investors to achieve their cost of capital. It is identical to how market prices for bonds react to changes in interest rates enabling investors to realize a market based return. This feature of DCF explains why it is the most reliable model for estimating cost of equity. Market prices are the most concrete evidence of changes in investor’s cost of capital.

**Q. How do investors evaluate expectations for internal growth?**

A. The common form of internal growth is calculated using the formula *“b\*r”,* where “*b*” is the retention ratio[[29]](#footnote-29) and “*r*” is the earned return on book equity. This simple formula shows the relationship between earnings growth and earned returns on book equity. If the earned returns on book value are sufficiently robust, then investors can reasonably expect future dividend growth. I will show the math later in my testimony.

**D. DCF Analysis of Avista Corporation**

**1. Dividend Yield**

**Q. What is a reasonable dividend yield for investors to expect from Avista Corporation’s common equity?**

A. A reasonable dividend yield for Avista Corporation is in the range of 3.9 to 4.2 percent, based on a stock price between $30.00 and $32.00 and an annual dividend of $1.27 per share. The average of the two is 4.05 percent, rounded to 4.1 percent. This expected dividend yield is conservative considering recent prices for Avista’s stock between $32.00 and $33.00 per share.

Data from *Value Line* shows a dividend yield of 4.6 percent for Avista Corporation. This figure is not an accurate estimate. It does not incorporate Avista Corporation’s dividend increase in the first quarter of 2014, the impact of that dividend increase on its stock price nor the recent increase in its stock price. Mr. McKenzie estimates a dividend yield of 4.6 percent[[30]](#footnote-30) based upon a share price of $27.48.[[31]](#footnote-31) This price is too low and fails to account for the recent increase in the annual dividend and the continued price appreciation of Avista Corporation’s stock. *Morningstar* is anothersource of data investors use.*.*[[32]](#footnote-32) *Morningstar* shows an expected (forward) dividend yield of 3.9 percent for Avista Corporation.

**Q. What is your conclusion regarding a reasonable estimate of the dividend yield for Avista Corporation?**

A. Based on the information I just described, a reasonable expectation for dividend yield is in the range of 3.9 to 4.2 percent.

1. **Dividend Growth**

**Q. Turning to dividend growth, please summarize the relevant data you rely upon to determine a sustainable long-term growth in dividends for Avista Corporation.**

A. As I explained earlier, the most important financial indicators of long-term dividend growth are growth in book value per share and internal growth. Accordingly, these factors weigh most heavily in my analysis. I also examine the growth rates in dividends and earnings per share.

**Q. What does *Value Line* indicate is the expected growth rate in book value per share for Avista Corporation?**

A. *Value Line* indicates a historical rate of growth in book value per share of 4.0 percent over the past five-year period and 3.0 percent, for the past ten year period. It also shows expected growth in book value of 4.0 percent for 2016-2018.

**Q. How would a rational investor evaluate this data for Avista Corporation?**

A. Investors expect Avista Corporation to increase its capital expenditures in the next few years to over $300 million annually.[[33]](#footnote-33) Therefore, investors can expect the growth in book value to be more in line with recent experience at 4.0 percent.

**Q. What does the *Value Line* data show for anticipated internal growth for Avista Corporation?**

A. If Avista Corporation’s retention ratio is 40 percent and the expected earned return on book 8.5 percent, this indicates internal growth of 3.4 percent.[[34]](#footnote-34) Mr. McKenzie shows internal growth for Avista Corporation of less than 3 percent.[[35]](#footnote-35) Internal growth in the range of 3.0 to 3.4 percent is also supported by the data showing the estimated growth in book value. This is a reasonable estimate because, for example, an investor expecting Avista Corporation to achieve sustainable long-term growth of 4.0 percent would need to see an earned return on book equity increase to 10.00 percent.[[36]](#footnote-36) A similar calculation can be made to show why an estimate of 5.0 percent growth is unreasonable: it implies a 12.5 percent earned return on book equity.[[37]](#footnote-37) Such a high return on book is not realistic.

To conclude, this data show that, at most, a 4.0 percent growth rate from retained earnings is reasonable, assuming Avista Corporation is able to increase its earned return on book in the future.

**Q. What does *Value Line* report for growth in dividends per share for Avista Corporation?**

A. *Value Line* shows a dividend in 2014 of $1.28, increasing to $1.40 in 2016/2018. *Value Line* elsewhere states dividend growth is expected to increase to 4.5 percent, but that implies an aggressive two year time line to achieve that metric. In other words, if Avista is able to increase its earned returns sufficiently to raise the dividend to $1.40 by 2016, a 4.5 percent growth rate is indicated,. However, this growth rate represents a best case scenario for investors. Investors also realize that if dividends grow at this rate, it may be as a result of increasing the payout ratio. If that is the case, it would not be sustainable. Earned returns and earnings would have increase proportionately to sustain a 4.5 percent growth rate.

**Q. What does *Value Line* report for growth in earnings per share for Avista Corporation?**

1. *Value Line* indicates Avista Corporation’s earnings will increase from $1.85 to $2.00 per share by 2016/18, which represents an annual expected growth in earnings between 2.70 and 4.00 percent. Again, this *Value Line* data indicates a best case scenario for earnings growth of 4.00 percent, if Avista Corporation is able to increase its earnings to $2.00 per share over a two-year time horizon.

**Q. What other relevant data do investors consider to determine a sustainable long-term growth in dividends?**

A. Investors will consider estimates from two other services: Thompson/Reuters (IBES) and Zach’s. Mr. McKenzie exhibit shows estimates of earnings growth from both services as 5.00 percent for Avista Corporation.[[38]](#footnote-38) However, I give little weight to these earnings estimates because they imply an unreasonable earned return on book for Avista Corporation of 12.50 percent.

**Q. Please summarize the data you relied upon in estimating investors’ expected dividend growth for Avista Corporation.**

A. A reasonable estimate of both book value growth and internal growth is 3.5 to 4.0 percent. An optimistic estimate for growth in dividends is 4.5 percent. *Value Line* data indicate a best case scenario for earnings growth is 4.5 percent, and IBES and Zach’s earnings growth estimates are 5.0 percent, which are unrealistically high.

**Q. What is your conclusion from this data for long-term growth in dividends?**

A. Giving equal weight to all four measures indicates a reasonable expectation for investors for long-term dividend growth for Avista Corporation is 4.13 percent. Giving more weight to the internal growth estimate produces a point estimate of 4.0 percent, and giving more weight to earnings estimates indicate an expected growth rate of 4.5 percent. I do not consider estimates of 5.0 percent reasonable, for the reasons already stated.

Therefore, I conclude a reasonable estimate for long-term dividend growth is in the range of 4.0 to 4.5 percent. None of the data support a long-term sustainable growth rate of 5.0 percent.

**3. Cost of Equity**

**Q. Based upon these factors, what is the indicated ROE for investors in Avista Corporation common equity?**

A. Adding my estimate for dividend yield (3.9 to 4.2 percent) and my estimate for dividend growth (4.0 to 4.5 percent), I conclude that a reasonable range in the cost of equity for Avista Corporation is between 8.00 percent and 8.75 percent.[[39]](#footnote-39) The upper end of my estimate is produced by adding each of the high end data points for dividend yield and growth.

**E. DCF Analysis of the Proxy Group**

**1. Selecting the Proxy Group**

**Q. What companies are in the proxy group you used for purposes of confirming your cost of common equity analysis for Avista?**

A. My proxy group consists of the following seven utility companies: ALLETE, Black Hills, Great Plains, IdaCorp, Northwestern Energy, PGE and Weststar Energy.

**Q. Is this the same set of proxy companies Mr. McKenzie used?**

A. No.

**Q. Please explain the difference.**

A. For my analysis, I started with Mr. McKenzie’s proxy group of 26 utility companies. I then applied selection criteria to focus on utilities that are more comparable to Avista. This additional screening produces a smaller group of utilities much more comparable to Avista and the risks of owning a regulated utility such as Avista.

**Q. What selection criteria did you apply?**

A. I first eliminated any company not classified as “mid-cap” by *Value Line*. This eliminated over half of the firms in Mr. McKenzie’s utility proxy group. Second, I removed some firms with a history of suspended dividend payments. I also removed El Paso because 45 percent of its electric generation is nuclear and investors would not consider it similar to a hydro-based utility such as Avista Corporation. I removed Hawaiian Electric because of its exceptionally high rates and concentrated market risk. Finally, I eliminated UIL Holdings because it is a distribution only company. The result is the group of seven utilities I listed above.

**Q. Are your selection criteria appropriate?**

A. Yes. My criteria results in a group of seven utilities with characteristics similar to Avista Corporation. I am confident I can judge the financial information from these utilities to test my specific ROE estimate for Avista Corporation.

**Q. Does the composition of the proxy group have any material impact on your estimate of ROE for Avista, compared to Mr. McKenzie’s estimate?**

A. No. The use of different proxy groups is not the reason why my DCF-based ROE estimate is different than Mr. McKenzie’s estimate. Rather, the difference between our DCF estimates is driven primarily by two factors: 1) his reliance on analyst’s earnings estimates as the proxy for long-term dividend growth, and his biased elimination of data from his DCF study; and 2) his dividend yield data is stale. I will critique his study more completely later in my testimony.

**2.** **Proxy Group DCF Analysis**

**Q. How do you conduct your DCF analysis of your proxy group?**

A. I begin by calculating an expected dividend yield for the proxy group, and then evaluate certain critical financial information to inform my opinion for long-term sustainable growth in dividends per share.

**Q. Please identify the information you evaluated to estimate the dividend yield for your proxy group.**

A. I evaluated the dividend yield quotes from price data during first quarter 2014, *Value Line*, *Morningstar* and Mr. McKenzie’s indicated dividend yield calculation for the seven companies in my proxy group. The average dividend yield during first quarter is 3.6 percent. *Value Line* indicates that the average dividend yield for the group is 3.7 percent. *Morningstar* indicates a forward dividend yield of 3.6 percent for the proxy group**.[[40]](#footnote-40)** Finally, Mr. McKenzie’s calculations of average dividend yield for my proxy group is 3.7 percent.[[41]](#footnote-41)

**Q. Is there anything about the dividend yield of the specific utilities in your proxy group that you believe investors will evaluate and consider in the future?**

A. Yes. Investors will expect that the utilities with low dividend yields compared to others will increase their payout ratio and earnings. In particular, there are two such companies in my proxy group: Black Hills and IdaCorp with a 3.0 and 3.3 percent yield, respectively. *Value Line* states that the current stock prices for these companies are at the high end of a reasonable range. Unless there is an increase the dividend, and corresponding increase in financial performance, I expect downward pressure on the stock prices for these companies. Either event will increase the dividend yield for Black Hills and IdaCorp.

**Q. Based on this information, what is a reasonable estimate of the dividend yield for your proxy group for purposes of your DCF analysis?**

A. The average dividend yield for the proxy group is 4.0 percent if Black Hills and IdaCorp are not considered. Therefore, I conclude that a 4.0 percent dividend yield is reasonable for the proxy group.

**Q. Turning to your estimate of long-term dividend growth, what does *Value Line* report for growth in book value for your proxy group?**

A. Based on *Value Line* reports, the expected average growth in book value for my proxy group is 3.0 percent for the time period 2012 to 2016/2018. For the same reasons I discussed earlier, I expect investors to consider that this figure may well understate the future growth in book value, because as a general matter, all utilities are faced with burgeoning capital budgets.[[42]](#footnote-42)

**Q. What does *Value Line* indicate for internal growth for your proxy group?**

A. The average of *Value Line*’sinternal growth estimates for the utilities in my proxy group, using the same internal growth calculation, is 3.7 percent.

**Q. How does this data compare to Mr. McKenzie’s estimate of internal growth for the companies in your proxy group?**

A. Mr. McKenzie’s calculations for the companies in my group show that internal growth averages 4.1 percent.[[43]](#footnote-43)

**Q. What other financial data did you evaluate in developing your estimate for long-term growth in dividends for the proxy group?**

A. I also considered earnings growth estimates for the proxy group and the data provided by Mr. McKenzie from IBES and Zach’s. These services indicate that the average earnings growth rate for my proxy group is expected to be 5.4 percent (IBES) and 5.1 percent (Zach’s).[[44]](#footnote-44)

**Q. How will rational investors evaluate these earnings estimates?**

A. First, rational investors will recognize earnings estimates are highly variable, and will view them as reasonable only if they are consistent with other financial data. In particular, investors will temper these estimates based upon what the financial data show for internal growth using the traditional *“b\*r”* formula. If investors evaluate IBES and Zach’s' earnings estimates for these companies with this data in mind, a 5.0 percent dividend growth rate is achievable only if the utility is able to earn 12.5 percent on equity.[[45]](#footnote-45) *Value Line’s* own projections for earned returns show this is not reasonable. Accordingly, investors would not expect a 5.0 percent growth rate in earnings as a reasonable estimate for long-run sustainable dividend growth.

**Q. Please summarize the data for the proxy group that indicates to investors of the expected growth in dividends for the proxy group.**

A. The data show historical growth in book value of 3.1 percent, but investors should expect higher growth in book value prospectively due to ongoing and growing capital expenditures. *Value Line* shows expected internal growth of 3.7 percentto 4.1 percent. Finally, optimistic earnings growth of 4.50 percent is indicated.

**Q. What is your conclusion from this proxy group data?**

A. I conclude that a reasonable expectation of long-term growth in dividends is in the range of 4.0 to 4.5 percent.

**Q. Please summarize your DCF analyses for your proxy group.**

A. Combining the dividend yield of 4.0 with an optimistic expected long-term growth in dividends of 4.50 percent produces an ROE of 8.5 percent. The market and financial data from the proxy group support my estimate of 8.00 to 8.75 percent for Avista.

**Q. Is a ROE estimate of less than 9.0 percent for the proxy group a reasonable figure, given current market conditions?**

A. Yes. As I stated in the earlier part of my testimony, the cost of capital is declining. The cost of equity to Avista and other comparable companies is lower than it has been in the past, and rates should reflect this direct market evidence. Consistent with *Hope* and *Bluefield*, customers should not support excessive profits.

**F. Capital Asset Pricing Model Analysis**

**Q. Please explain why the Commission should not use the CAPM method.**

A. First, as I pointed out earlier, in its recent PSE rate order, the Commission noted that CAPM should be given minimal weight. More recently, in a contested case with PacifiCorp, the Commission did not discuss the CAPM results due to the very low estimates produced by the model and no witness provided any support for the results.[[46]](#footnote-46) Those same market conditions persist today. There is no basis for the Commission to change its view of ROE estimates using CAPM.

Second, the CAPM is very complex to implement because there are too many issues of controversy surrounding the model’s inputs. For example, what is the risk-free rate? What is the return on market? What is the market portfolio that is the basis for the calculation of “*β”* (beta)? The upshot of all these questions is that *“β”* does not fully measure risk.[[47]](#footnote-47)

**Q. What does the CAPM produce for an estimate of ROE in today’s markets?**

A. Using *Value Line’s* current estimate of *“β”* of 0.70 for Avista Corporation, a market return of 10.0 percent[[48]](#footnote-48) and a risk free rate of 3.40 percent[[49]](#footnote-49), the CAPM produces a ROE estimate of 8.02 percent.[[50]](#footnote-50) However, other estimates of Avista’s *“β”* are significantly lower. For example, *Morningstar* shows a *“β”* of 0.55 for Avista Corporation. Using that figure and the market return of 10.0 percent, the indicated ROE from CAPM is 7.03 percent.[[51]](#footnote-51)

The bottom line is the Commission should give very little weight to any CAPM analysis in this case. Under a reasonable assumption for a return on the market, the CAPM produces a rather low estimate.

**G. Risk Premium Analysis**

**Q. Did you undertake a Risk Premium analysis as a check on your cost of equity capital recommendation?**

A. Yes, though indirectly. I am not an advocate of risk premium methodologies. In addition, I agree with the Commission’s reluctance to use this method under current economic conditions, as it did expressed with CAPM in the PSE and PacifiCorp cases I cited.

In particular, risk premium studies are too dependent on the selection of both the interest rate and spread that constitutes the *ex-ante* estimate of the equity risk premium. Most risk premium studies rely too much on the results of decisions by utility regulators.[[52]](#footnote-52) These studies are not an effort to measure the current *ex ante* premium investors expect when comparing the opportunity costs in competitive capital markets.

The point of the study is, at best, to act as a check on the DCF results and determine if the specific ROE recommendation from a credible DCF study provides a sufficient premium over long-term debt.

**Q. Please explain your analysis.**

A. In 2012, Avista Corporation issued new long-term (35 year maturity) debt with a coupon rate of 4.23 percent.[[53]](#footnote-53) In 2013, Avista could have sold new 30-year debt with a coupon rate of just over 4.0 percent.[[54]](#footnote-54) Assuming a DCF estimate of 8.75 percent, which is the top of my range of DCF results, this represents an equity market premium of more than 475 basis points.[[55]](#footnote-55) Even if long-term interest rates raise 50 basis points, my specific DCF estimate still reflects an equity market premium of 425 basis points.

**Q. Is a 475 basis point equity market premium reasonable for equity investors?**

A. A 475 basis point spread easily could be considered excessive compensation for equity owners over those buying its long-term bonds. A more reasonable equity risk premium in today’s market is, at most, 400 basis points. Therefore, on the basis of a risk premium analysis, a fair ROE for Avista in today’s capital markets is in the mid-8 percent range.

The Commission should also consider the implicit risk premium of Avista’s ROE recommendation. As I just stated, Avista can issue new long-term debt for 4.0 percent. Assuming the Company’s 10.10 percent ROE recommendation is correct, it implies a risk premium of 6.00 percent. This is clearly excessive compensation for equity investors in today’s low-cost capital markets. Such a steep capital market line is unreasonable. This confirms Avista’s proposed ROE is much too high.

**Q. Please summarize your CAPM and risk premium analyses.**

A. Again, if the Commission decides to use these results, it should proceed with caution. However, within the context of considering investors’ opportunity costs in today’s capital markets, these studies support what my DCF study generally shows: the cost of equity has declined and a fair ROE is in the range of 8.50 percent.

**H. Summary of Staff’s Return on Equity Recommendation**

**Q. Please summarize the results of your cost of common equity analyses for Avista.**

A. My DCF study for Avista Corporation shows a range of 8.00 to 8.75 percent. The DCF result for my proxy group supports this result.

My CAPM analysis produces an estimate of 8.11 percent, and my risk premium analysis shows that an 8.5 percent ROE provides a 475 basis point spread over Avista’s current long-term debt costs. I use these methods only to support the fact that capital costs have declined, and these models show support for my estimate using DCF analysis.

I conclude my DCF-based cost of common equity estimate of 8.75 percent for Avista is reasonable and fair in today’s capital market.

**Q. In the last Avista rate case you recommended a fair ROE of 9.0 percent. Please explain why your recommendation is lower in this case.**

A. As I explained earlier, the different estimate in this case is due to the continued downward pressure on the cost of equity for utilities. Investors today are willing to pay more for the right to Avista Corporation’s cash flows. Because Avista Corporation’s stock price has increased, the expected dividend yield is lower. In the prior case, Avista Corporation’s stock was trading for $25-$26 with a dividend yield of 4.40 to 4.60 percent. Now, the same stock trades for almost $33, with a dividend yield of 3.90 percent. The increase in its stock price is direct market evidence that the cost of capital for Avista is lower now. My Exhibit No.\_\_\_(KLE-7) is a chart of Avista Corporation’s stock price over the past two years.

**I. Flotation Cost Recovery**

**Q. Is the Company proposing a flotation adjustment to its cost of equity?**

A. Yes. The Company is asking the Commission to include flotation costs twice, through two different adjustments. First, Mr. Thies proposes recovery of these costs by adding back $14.7 million in equity in the calculation of what he calls the Adjusted Regulatory Balance 12/3/2014.[[56]](#footnote-56) Second, Mr. McKenzie recommends an explicit adder in his calculation of ROE. He increases his ROE estimate by adjusting his indicated dividend yield by 15 basis points.[[57]](#footnote-57)

**Q. What are flotation costs?**

A. Flotation costs are costs a company incurs when it sells new common stock, such as underwriting fees, copying costs, legal fees and the like. In addition, there are indirect costs such as dilution and market pressure when new equity is issued. These costs put pressure on important financial indices such as earnings and book value per share.

**Q. What is the basis of a flotation cost recovery adjustment?**

A. The purpose of flotation cost recovery is to ensure the value of a shareholder’s investment Avista is not diluted as it issues new equity. The basis for the adjustment is directly tied to DCF theory: if investors expect to earn their cost of capital, the market price of the stock will equal the book value. If investors only earn their cost of capital, then as the company grows, the value of the equity is diminished due to the newly issued shares diluting the book value of the firm. In other words, investors must expect returns sufficient to offset the dilutive effect of newly issued shares; hence, the need for a flotation adjustment.

**Q. Does this concern about dilution apply to Avista Corporation in this case?**

A. No. Avista Corporation’s common stock is currently trading well in excess of its book value. Its current market to book ratio is 140 percent. In other words, the market is providing clear evidence that investors expect sufficient returns on its book equity, including the costs of issuing any new equity. Today, when Avista Corporation sells additional equity at current market prices, its book value increases; there is no dilution. Therefore, there is no need to adjust for flotation costs.

**Q. Mr. McKenzie states that the Commission has accepted an adjustment for flotation costs in the past.[[58]](#footnote-58) How do you respond?**

A. His statement is correct, but he ignores the context of those prior cases. When the Commission accepted flotation cost adjustments, the utility industry was experiencing market-to-book ratios below 1.0. A flotation cost adjustment was necessary to provide investors with an opportunity to earn adequate returns to achieve a market-to-book ratio above one and be provided an opportunity to earn their cost of capital, which included the effects of dilution caused by additional equity being issued to finance the utility.

Staff supported such adjustments under those circumstances. However, as I have explained, today’s circumstances are different. Avista Corporation is able to sell equity above its book value. Therefore, a flotation cost adjustment is not warranted at this time. The rate investors expect Avista Corporation to earn on book equity is sufficient as demonstrated by the market-to-book ratio. No phantom equity is necessary nor is it necessary to add anything to the indicated ROE. The Commission should therefore reject the flotation cost adjustments proposed by Mr. Thies and Mr. McKenzie.

**VII. ATTRITION AND THE COST OF CAPITAL**

**Q. Staff’s case presents a revenue requirement based upon a historic test-year adjusted for the results of an attrition analysis. What is the impact of declining capital costs on the overall cost to serve customers including the effect of capital costs on the anticipated attrition Avista may experience?**

A. Declining capital costs act as an offset to any attrition the Company may experience. As capital costs decline, the revenue necessary to earn a fair return on all rate base, including new facilities, fall faster than the incremental cost of adding new rate base, even if there is no growth in the demand for energy services.

**VIII. COST OF CAPITAL IMPACT OF DECOUPLING**

**Q. Please describe the purpose of this section of your testimony.**

A. In this case, both Staff and Avista propose full decoupling mechanisms. I provide a recommendation for how the Commission should address the impact of full decoupling on cost of capital.

**Q. Does full decoupling reduce Avista’s risk?**

A. Yes. Full decoupling guarantees Avista will receive a specific amount of revenue per customer irrespective of energy sales. As a result, Avista no longer bears the risk of variations in revenue due to temperature or economic conditions. This is a very significant change in the risk profile of a utility.

The Commission explicitly acknowledged the impact of full decoupling on the risk profile of a regulated utility. It stated, “By reducing the risk of volatility of revenue based on customer usage, both up and down, such a mechanism can serve to reduce risk to the company, and therefore to investors, which in turn should benefit customer by reducing a company’s debt and equity costs. This reduction in cost would flow through to ratepayers in the form of rates that would be lower than they otherwise would be, as the rates would be set to reflect the assumption of more risk by ratepayers.”[[59]](#footnote-59)

The Company’s direct testimony is also clear on this point. As Mr. Ehrbar testifies: “The decoupling mechanisms would ensure that the Company would recover an agreed upon revenue per customer going forward-no more no less.” (Emphasis added).[[60]](#footnote-60)

**Q. What other information is available showing the financial exposure of fluctuations in energy sales?**

A. Avista’s SEC Form 10-K is very explicit in describing the significant risk to shareholders of energy sales fluctuations: “The following factors could have a significant impact on our operations, results of operations, financial condition or cash flows.”[[61]](#footnote-61) The very first item Avista management listed is the risk associated with variance in energy sales. As a result, a full decoupling mechanism is significant because it reduces substantially the impact of energy sales fluctuations on the Company, and transfers this risk to ratepayers.

**Q. How should the Commission go about measuring the impact of decoupling on cost of capital?**

A. It is extremely difficult to isolate and measure the specific impact of full decoupling in estimating a fair ROE. Nonetheless, because the Commission typically is presented with evidence supporting a range of fair estimates for ROE, one option is to use a ROE at the lower end of the range.

Another option is to use more financial leverage in the capital structure, *i.e.* a higher debt ratio and a lower equity ratio. Because full decoupling reduces Avista’s business risk, the stability of the utility’s revenue under full decoupling should enable it to finance its business with more debt. S&P credit metrics recognize this fact. Exhibit No.\_\_\_(KLE-4) is a copy of S&P’s May 9, 2014, *RatingsDirect* analysis for Avista Corporation. Page 2 shows the relationship between business and financial risk and how a firm with less business risk can incur more financial risk.

**Q. In this case, how should the Commission address the impact of decoupling on the cost of capital?**

A. The Commission should adjust Avista’s profit margin to reflect the fact that with full decoupling, shareholders no longer bear the risk of revenue variance due to changes in energy sales. That risk has been transferred to customers. Energy sales are affected by numerous events, e.g. temperature, economic conditions, and elasticity. Heretofore, the risks associated with these events have been borne by shareholders, and through the rate of return, ratepayers compensated shareholders for bearing that element of business risk.

Under full decoupling, Avista will record its earnings based upon the number of customers served and use deferred accounting to capture the difference in actual revenue billed to customers through energy rates and the revenue allowed through the full decoupling mechanism. As stated in Avista’s direct case, full decoupling “ensures” Avista will receive a specified level of revenues per customer. This increases the probability that its booked revenue is sufficient to earn a fair return, which transfers the risk of variations in energy sales to customers.

**Q. From the perspective of financial management, what is the implication of full decoupling on a regulated utility?**

A. The impact is that the utility needs less profit margin. Accordingly, because full decoupling stabilizes revenues, the utility’s profit should be reduced.

**Q. How should the Commission adjust for full decoupling in this case?**

A. The Commission should directly reduce Avista’s profit margin by adjusting the weighted cost of equity to a level sufficient to ensure Avista is able to meet a reasonable level of debt service as measured by pre-tax operating profit.

**Q. How should the profit level be adjusted to account for full decoupling?**

A. The profit level guaranteed by decoupling should produce a pre-tax coverage of at least 2.75 times. In other words, profit margin (earnings before taxes and interest) should be set at a level sufficient to cover interest expense 2.75 times. Therefore, the calculation adjusts the weighted cost of equity so that it produces sufficient profits to ensure Avista has the opportunity to realize this pre-tax coverage ratio.

**Q. Why is a coverage ratio of 2.75 times a reasonable benchmark?**

A. Over the past five years, Avista Corporation’s actual pre-tax coverage ratio was between 2.47 and 3.10 times.[[62]](#footnote-62) Under full decoupling, the Company’s earnings become very stable, given the fact that Avista will now be fully decoupled, along with the continued operation of its ERM and purchased gas mechanism. If operating margin (gross profits) are at least 2.75 times fixed interest charges, bondholders are protected from anything but extraordinary, adverse financial events, which the Commission protects against using its interim relief standards.

The Commission should explicitly acknowledge these ratemaking mechanisms and the salutary effect of decoupling on a utility’s operating profit. In my opinion, ensuring revenue through full decoupling is a significant element of what the Company’s calls a supportive regulatory environment.[[63]](#footnote-63)

**Q. What data did you evaluate in developing this specific benchmark for determining the cost of capital offset to account for the effects of full decoupling and the corresponding transfer of risk from shareholders to ratepayers?**

A. I used financial data published by Avista Corp. in its SEC Form 10-K. My Exhibit No. \_\_\_(KLE-6) summarizes the following data from 2008 to 2013, as reported by Avista Corp.: 1) interest rate coverage, 2) electric and natural gas margins, 3) degree days, 4) number of customers, and 5) retail energy sales.

**Q. Please explain each of these terms.**

A. Interest rate coverage reflects the amount of operating profit the business generates to cover its interest payments. It measures financial risk and the ability of a firm to service debt. Operating margin is a non-GAAP measure that shows whether the company is recovering its energy costs. Operating margin supports recovery of other operating costs. Degree days are a measure of absolute variance in temperature that impact energy sales to customers. Number of customers is the actual customer count at the end of the fiscal year. Retail energy sales show the actual retail sales of electrical energy or natural gas during the period.

**Q. Can you use this data to explain how the Company’s sales fluctuate without full decoupling?**

A. Yes. As an example, in my Exhibit No. \_\_\_ (KLE-6), I include recent data for 2012 and 2013. In 2013, there were 400 more heating degree days than 2012. In other words, weather was substantially colder in 2013 than 2012. Accordingly, the Company’s operating margins for both electric and gas businesses were materially different due to temperature: operating margins increased by $36.6 million and $16 million, respectively, for the electric and natural gas operations, from 2012 to 2013.[[64]](#footnote-64) We also see the interest coverage ratio increase from 2.47 times to 3.10 times. Notably, the data show consistent, modest growth in numbers of customers.

**Q. What are the implications of this data under a fully decoupled environment?**

A. The data show that while Avista’s customer numbers grow slowly, but consistently, and without volatility, the other factors impacting revenue are more volatile, due principally to changes in temperature.

Therefore, full decoupling based on revenue per customer will stabilize Avista’s revenue stream for its regulated businesses. Avista will no longer be subject to the business risk associated with fluctuations in temperature, as well as any other factor that changes customer usage. Full decoupling transfers this risk to ratepayers.

These data confirm what the Commission stated in its Policy Statement, “By reducing the risk of volatility of revenue based on customer usage, both up and down, such a mechanism can serve to reduce risk to the company, and therefore to investors, which in turn should benefit customers by reducing a company’s debt and equity costs.”[[65]](#footnote-65)

**Q. How do you adjust the cost of capital to account for this impact of full decoupling on Avista’s financial risk?**

A. I adjust the cost of capital using a target interest rate coverage in order to meet the coverage benchmark of at least 2.75 times.

I start with my recommended capital structure and overall rate of return shown on page 2 of my testimony. Holding the cost rates for both equity and debt constant, I increase financial leverage until the combination of the increase in the weighted cost of debt and the decrease in weighted cost of equity approaches the benchmark I establish for an acceptable pre-tax profit margin.

My Exhibit No. \_\_\_ (KLE-7) shows the calculation. The exhibit shows how reducing business risk for Avista Corporation by full decoupling is offset with a slight increase in financial risk. Specifically, the exhibit shows that by reducing the equity ratio to 42 percent, Avista has the opportunity to earn 8.75 percent on equity and will still maintain an acceptable coverage ratio of 2.83 times-well within my target parameter.

**Q. Why do you use this specific coverage target of 2.83 times?**

A. There are two reasons. First, This is very close to the average Avista has experienced over the past six years. Over the 2008-2013 period, coverage ranged between 2.47 and 3.10 times, with an average of 2.81 times. This level is safe, not only because Avista operated successfully during this period, but more importantly, because full decoupling provides significantly more assurance than otherwise that Avista will actually achieve this coverage level.

Second, my 2.83 times coverage target is a matter of judgment and providing the right incentives. My specific recommendation at this time to move the equity ratio to 42 percent provides sufficient profit to generate a coverage ratio above 2.80 times. This strikes the right balance, and it produces the lowest reasonable overall cost of capital for Avista’s regulated operations. An equity ratio of 42.00 percent and a coverage ratio of 2.83 times will enable the Company to access capital on reasonable terms as a utility with revenues no longer linked to energy sales.

**Q. What is the overall cost of capital as a result of this adjustment for full decoupling?**

A. 6.77 percent.

**Q. Are there any other benefits for the Commission in adopting a reduced equity ratio under full decoupling?**

A. Yes. As I just stated, increasing financial leverage provides further incentive for Avista to control its costs.[[66]](#footnote-66) If it can do so, the greater financial leverage increases the probability that Avista will earn a fair return on equity or more, because all cost savings accrue to shareholders and increase the return on equity. This adjustment is also consistent with the obligations of management to minimize the cost of capital in order to maximize the value of the firm. This is why I prefer an adjustment to the equity ratio in this context; it focuses management on cost controls to maximize shareholder return on book value.

**IX. RESPONSE TO COMPANY COST OF CAPITAL TESTIMONY**

**Q. Have you reviewed the testimony of Avista’s cost of capital witnesses, Mr. Mark Thies and Mr. Andrew McKenzie?**

A.Yes.

**Q. Please summarize again the primary differences between your cost of capital recommendation and Avista’s proposal.**

A. As I identified earlier, there are three primary differences: 1) Equity Ratio – I recommend a 46.0 percent equity ratio before considering the effect of full decoupling; the Company proposes a 49.0 percent equity ratio; 2) Cost of Equity – I recommend a ROE of 8.75 percent; Mr. McKenzie proposes a significantly higher ROE of 10.1 percent; and 3) I provide an adjustment to the overall rate of return because ratepayers now bear the risk of fluctuations in energy sales due to the effect of full decoupling. Avista proposes nothing in this regard.

1. **Equity Ratio**

**Q. What ratemaking capital structure is Avista requesting in this case?**

A. Avista proposes a 49.00 percent equity ratio.

**Q. What is the basis for Avista’s proposed 49.00 percent equity ratio?**

A. Avista derives its proposed 49.00 percent equity ratio after several adjustments designed to estimate Avista Corporation’s consolidated capital structure as of December 31, 2014.[[67]](#footnote-67)

**Q. Is Avista’s calculation of its equity ratio proper for ratemaking appropriate?**

A. No. The most significant flaw with Avista’s proposed hypothetical capital structure is that it includes $112 million equity investment in the unregulated operations Avista Corporation. Therefore, it overstates the actual equity investment supporting regulated utility operations. I explained earlier, after removing the $112.2 million of equity supporting Avista Corporation’s unregulated operations along with the debt associated with those unregulated operations, Avista’s equity ratio is 44.2 percent.

**Q. How does Avista attempt to justify its proposed 49.0 percent equity ratio?**

A. Mr. Thies asserts that a 49 percent equity ratio is necessary to provide Avista financial flexibility to access additional sources of external capital to fund its requirements as a public service company. He also says this equity ratio is part of a Company plan to achieve a higher bond rating: BBB+.[[68]](#footnote-68)Finally, Mr. McKenzie observes that the higher equity ratio is consistent with the inherent uncertainty and risks in today’s markets and some additional risks unique to Avista.[[69]](#footnote-69)

**Q. Do you agree that in general, a higher equity ratio can provide a firm additional financial flexibility and a higher credit rating?**

A. Yes. All else equal, the greater the equity ratio, the lower the debt ratio, thus giving bondholders more security, and this can lead to a higher credit rating. However, the Company’s rationale fails to address the Commission’s policy to balance safety and economy when evaluating an appropriate capital structure for ratemaking purposes.

Avista’s direct case fails to demonstrate that additional equity is cost justified.

**Q. Did Avista’s direct case provide any evidence that the additional cost associated with achieving its target equity ratio of 49.00 percent provides tangible benefits to ratepayers?**

A. No. Its direct case alludes to benefits, but it provides nothing explicit other than the possibility of lower interest costs and additional financial flexibility, if Avista is able to achieve a higher bond rating.[[70]](#footnote-70) Avista’s direct case makes no attempt to prove that its proposed equity ratio results in lowest reasonable costs.

**Q. Does the equity ratio you recommend satisfy the Commission’s safety and economy standard?**

A. Yes. As I explained earlier, my recommended equity ratio is market-tested and is appropriate and sufficient for Avista Corporation to achieve a corporate credit rating of “BBB” and a secured bond rating of “A-”. These are solid ratings Avista Corporation has operated successfully under for many years. The evidence is clear that a capital structure containing 46.00 percent equity, or 42.00 percent equity with full decoupling, will enable Avista Corporation to access any new external capital requirements on reasonable terms for its utility operations.

**Q. Is there any objective proof that a 46 percent equity ratio is reasonable for Avista?**

A. Yes. Under its current credit ratings, and with a 44.0 supporting Avista’s utility operations, Avista Corporation has been able to sell debt on reasonable terms, issue new equity at prices above book value and its bond ratings are within industry norms.[[71]](#footnote-71)

**Q. Mr. Thies argues that more equity in the capital structure is necessary to cope with Avista’s significant capital budget and the need to access capital to carry out its obligations as a public service company.[[72]](#footnote-72) What is your response?**

A. First, the company provides no analysis whatsoever proving that the Company cannot reasonably access capital markets with a 46.00 percent equity ratio. In any event, Mr. Thies’ testimony is not consistent with the facts. Historically, Avista Corporation was able to generate internally all the cash it needed to fund its utility construction budget. Only recently has the Company’s capital budget exceeded its capacity to fund construction with internally generated funds.

However, even with this recent expected increase in its capital expenditures, I see no compelling need for additional financing flexibility to fund its construction budget. As a financial analyst, I am cautious of any company with little or any material growth in the demand for its services should be undertaking new construction at a rate that exceeds its ability to fund those investments internally. The Commission should require compelling reasons for the proposal to ratchet up its capital expenditures. The Company’s direct case is deficient on this point. The Company’s statements that capital spending is expected to be $1.7 billion over the next five years[[73]](#footnote-73) will only exacerbate its continuing need for higher rates to support the costs of its burgeoning capital budget.

In short, the Company offers no compelling evidence as to why it must have a higher equity ratio to finance its utility operations.

**Q. In the recent contested rate cases involving PacifiCorp and Puget Sound Energy, the Commission rejected your recommendation to use a capital structure with 46 percent equity for those utilities. Does that change your recommendation for Avista?**

A. No. A 46 percent equity ratio is reasonable for Avista. It supported an A- secured credit rating for Avista Corporation, and enabled Avista to attract capital on reasonable terms, consistent with *Bluefield* and *Hope*. No more is needed.

**Q. Finally, Mr. McKenzie discusses the added risks to Avista because its primary resource is hydro generation.[[74]](#footnote-74) Does that justify the need for additional equity in the capital structure?**

A. No. There is no added risk associated with hydro generation. The Commission includes hydro variation in the normalized price of power. In other words, the cost of power for ratepayers explicitly includes the impact of stream flow variability and the added expense of alternate sources of power under adverse hydro conditions. Moreover, Avista has an ERM mechanism that has asymmetrical sharing bands to account for the disparate impact of variations in hydro conditions on Avista’s actual cost of power during the rate year.

Most importantly, a resource portfolio comprised of 40 percent low cost hydro actually lowers Avista’s risk. The Company’s resource portfolio creates unique opportunities for Avista to offer products that no other utility can, because of its low cost resource stack consisting of significant hydro generation. Neither Mr. McKenzie nor S&P appear to consider these benefits.

To conclude, the Commission’s practice of using all reasonably expected hydro conditions in determining normalized power supply expense, and the ERM is a positive for investors, not a negative.

1. **Mr. McKenzie’s DCF Results**

**Q. Please comment on Mr. McKenzie’s estimate of dividend yield.**

A. Mr. McKenzie’s 4.6 percent dividend yield is higher than my estimate of 4.1 percent, because he uses older data that does not reflect Avista Corporation’s recent increase dividend payment and its subsequent effect on the stock price. His estimate also does not take into account recent increases in the stock price of Avista Corporation.

**Q. Does Mr. McKenzie provide a DCF analysis using constant growth estimate?**

A. Yes. Mr. McKenzie’s DCF estimate of ROE using constant growth is 8.6 percent.[[75]](#footnote-75) This DCF ROE estimate is essentially the same as mine. Unfortunately, he dismisses this result. He then manipulates earnings estimates to create his inflated ROE estimate for his DCF analysis.

**Q. Is it reasonable for Mr. McKenzie to dismiss his 8.6 percent ROE estimate for Avista using DCF and his constant growth estimate?**

A. No.

**Q. Please describe other aspects of Mr. McKenzie’s DCF results using earnings estimates as an indicator of sustainable dividend growth.**

A. Referring to Mr. McKenzie’s Exhibit \_\_\_ (AMM-6), page 3, he shows ROE results all less than 10.0 percent, even after eliminating what he believes to be anomalous results. This page also shows how earnings estimates produce highly variable estimates in his study.

For example, the data show *Value Line* earnings estimates for Black Hills is 14.5 percent, yet IBES and Zach’s earnings estimates are less than half that: only 7.0 percent. Such significant differences warrant some explanation; Mr. McKenzie provides none.

Mr. McKenzie’s DCF estimates also exhibit a high degree of variability. Using *Value Line* earnings estimates, the ROE estimates for the companies in his proxy group range between -1.0 and 25.6 percent. Using IBES data, his proxy group ROE estimates range between -1.2 and 12.5 percent. Finally, using Zacks data, his proxy group produces a range of ROE estimates between -2.7 and 12.2 percent.

It strains any sense of reasonableness that a set of utility companies allegedly “comparable” to Avista can have ROE estimates ranging from -2.7 to 25.6 percent.[[76]](#footnote-76)

**Q. What do you conclude from Mr. McKenzie’s DCF ROE study?**

A. The variability inherent in Mr. McKenzie’s DCF ROE study suggests there are significant problems with the earnings data he uses to estimate long-term dividend growth. These highly variable estimates of growth render his study useless. This also supports the conclusion that earnings estimates are volatile and not a good surrogate for estimating long-term sustainable dividend growth in a DCF analysis.

**Q. Does Mr. McKenzie do anything to address this high degree of variability in his results using earnings estimates as an indicator of long-term dividend growth?**

A. Yes. He simply rejects data by discarding results he considers “…implausibly low or high.”[[77]](#footnote-77)

**Q. Did Mr. McKenzie provide any objective basis for rejecting an ROE result from his DCF analysis because it is too low or too high?**

A. No.

**Q. In particular, did Mr. McKenzie remove results for certain companies based on statistical analysis?**

A. No.

**Q. How many estimates did Mr. McKenzie discard as implausibly high?**

A. One.[[78]](#footnote-78)

**Q. How many estimates did Mr. McKenzie discard as implausibly low?**

A. Thirty.[[79]](#footnote-79)

**Q. What was the single company Mr. McKenzie removed on the basis the result was too high?**

A. That company was Otter Tail. His study shows a ROE estimate of 25.6 percent.

**Q. What is the primary cause of such wide variations in Mr. McKenzie’s DCF results?**

A. The primary cause of this wide variation is Mr. McKenzie’s reliance on analysts’ estimates of earnings growth as a proxy for long-term dividend growth.

**Q. Are analysts’ earnings estimates a reliable indicator of long-term sustainable growth in dividends per share for use in the DCF formula?**

A. No. Analysts’ earnings estimates might be good indicators of future growth for competitive firms not subject to rate of return regulation, or firms with no significant investment in long-lived assets. Earnings estimates may even be good indicators of near-term events especially when a utility is recovering from some event that caused a prior drop in earnings. However, analysts’ estimates of earnings growth are not a good measure of long-term sustainable growth in dividends, especially for the utility industry that is regulated on the basis of a rate of return applied to book value. Ultimately, earnings estimates must be reconciled with earned returns on book. Short-term estimates can be a reliable indicator of long-term sustainable dividend growth for a regulated firm, but only to the extent they can be reconciled with reasonable earned returns on book value.

**Q. How does DCF theory capture and reconcile these various financial indices?**

A. Under DCF theory, earnings growth must eventually be supported by similar growth in retained earnings, constant earnings on book and growth in book value. It is not lost on investors that earned book returns for any regulated utility would have to increase significantly to support higher earnings, which in turn support of higher long-term dividend growth.

Mr. McKenzie simply believes earnings estimates are a more reliable indicator of sustainable growth.[[80]](#footnote-80) As I have shown, he is mistaken. His own data show the unreliable nature of the data and expose the flaw of relying exclusively on earnings estimates for sustainable long-term dividend growth.

**Q. What are the most important points the Commission should understand about Mr. McKenzie’s DCF results?**

A. The most important points are: 1) Mr. McKenzie’s earnings estimates as a proxy for long-term dividend growth produce highly variable ROE estimates; 2) Mr. McKenzie’s DCF estimates are biased because he arbitrarily removed thirty DCF estimates he deemed too low and only one that he deemed too high; and 3) if Mr. McKenzie used his internal growth estimates rather than analysts’ earnings estimates, his DCF ROE would be similar to my result.

In short, the high variability in Mr. McKenzie’s data and his selective elimination of data render his DCF analysis unreliable and biased in favor of an ROE estimate that is too high.

**Q. In evaluating Mr. McKenzie’s 10.10 percent ROE recommendation, did you calculate the implied earned return on Avista Corporation’s book equity for that to be a reasonable estimate of sustainable growth for an investor?**

A. Yes. An investor’s expectation for earned return on book can be calculated using the traditional *“b\*r”* formula. Assume Avista’s 10.10 percent ROE is accurate, the current dividend yield of 4.0 percent implies that investors expect long-term sustainable dividend growth of 6.10 percent. If Avista’s retention ratio is 40 percent, the implied return on book is 15.25 percent.[[81]](#footnote-81)

There is no possible scenario where an investor today can reasonably expect Avista Corporation to earn 15.25 percent on book. This is further proof Avista’s proposed ROE is excessive.

**Q. Do you have any other comments about Mr. McKenzie’s study and the data underlying his estimate?**

A. Yes. In addition to all the other problems I have identified, Mr. McKenzie also adjusted certain of his ROE estimate for the alleged added risk for smaller companies.[[82]](#footnote-82) It is much more direct and simpler to do what I have done: use a proxy group of similar size companies, if size is a critical factor for assessing risk.

Furthermore, under CAPM theory,”*β*” will capture all the non-diversifiable risk of that stock to the market. Consequently, it is double-counting for Mr. McKenzie to also make a “size adjustment” in the CAPM analysis; under CAPM theory, investors are compensated for only non-diversifiable risk.

**C. Expected Earnings Approach**

**Q. Mr. McKenzie also calculates an estimate of ROE based on what he calls the expected earnings approach. Is there anything the Commission can take from Mr. McKenzie’s comparable earnings study as evidence of a fair ROE for Avista Corporation?**

A. Yes. The *Value Line* data used by Mr. McKenzie show Avista Corporation earning 8.50 percent on book through 2016, and that the market to book ratio will remain well above 1.0. [[83]](#footnote-83) This data indicates that investors’ cost of capital today is no more than 8.50 percent, because investors are willing to pay more than book value for Avista Corporation’s cash flows based upon that return on book. *Value Line* data shows this condition to prevail through 2016. This is another instance where Mr. McKenzie’s own data refutes his conclusions and supports the reasonableness of my ROE estimate.

**D. Capital Asset Pricing Model**

**Q. Mr. McKenzie also presents a two different CAPM studies. What is your critique of those studies?**

A. There are several problems with Mr. McKenzie’s CAPM study. First, he uses a 12.4 percent expected return on the market (Rm),[[84]](#footnote-84) which is far too optimistic. Also, Mr. McKenzie is wrong to use an earnings estimate of only dividend-paying firms in the S&P 500 as a proxy for the market return. This group of equities is too narrow a proxy for the total market. A return on the market of no more than 10 percent is reasonable.

Also, Mr. McKenzie’s estimate of the risk-free rate is too high. Current 30-year Treasury bonds are yielding 3.40 percent, yet he uses a projected yield of 4.40 percent[[85]](#footnote-85) for his risk-free rate. Mr. McKenzie’s size adjustment is improper, too; it raises his estimate by a full 70 to 90 basis points.[[86]](#footnote-86)

In conclusion, the components of Mr. McKenzie’s CAPM analyses with ROE estimates ranging between 11.5 and 11.8 percent are too high and not credible.[[87]](#footnote-87) The Commission should not give these estimates any weight in the determination of a fair ROE.

**X. SUMMARY ON COST OF CAPITAL**

**Q. Please summarize your cost of capital testimony.**

A. Avista is a healthy utility. It is generating cash flows sufficient to fund a significant portion of its utility capital budget. It will be able to raise new external capital on reasonable terms either through issuing new secured debt or selling new equity above book value.

A 6.90 percent overall rate of return, based on a 8.75 percent return on equity and an equity ratio of 46.0 percent, will support solid financial position and fairly compensates shareholders for their investment and risk in utility operations. A 42 percent equity ratio for a utility with fully decoupled revenues satisfies the Commission standard by properly balancing safety and economy.

My proposed adjustment to the equity ratio and reduction in the cost of capital to account for fully decoupling Avista’s revenue from energy sales is rational and transparent. It is consistent with the Commission’s policy that rate of return should take into account the lower risk associated with implementing a full decoupling mechanism.

My recommendation is consistent with the standards of *Bluefield* and *Hope*: it fairly balances investor and consumer interests. Capital costs have declined, and my recommendation reflects the impact of changed circumstances in capital markets.

Avista’s cost of capital recommendation is excessive and places excessive cost pressures on rates.

**XI. SUMMARY ON COST OF CAPITAL**

**Q. What is the total cost of capital for Avista?**

A. As shown on the table on page 2 of my testimony, Avista’s total cost of capital is 6.90 percent. If the Commission accepts full decoupling in this case, the overall fair rate of return is 6.77 percent to take into account the effect of full decoupling and the transfer of risk from shareholders to ratepayers.

**Q. Is your recommendation for cost of capital adequate to provide the Company a sufficient level of earnings to maintain its financial integrity?**

A. Yes.

**Q. Does this conclude your direct testimony?**

A. Yes.

1. 1 Docket. U-100522, *Report and Policy Statement on Regulatory Mechanisms, Including Decoupling, to Encourage Utilities to Meet or Exceed their Conservation Targets* (Decoupling Policy Statement) at ¶ 27 (November 4, 2010). [↑](#footnote-ref-1)
2. Exhibit No.\_\_\_(SLM-2), at 3. [↑](#footnote-ref-2)
3. Avista Corp. SEC Form 10-K (December 31, 2013) at 71 & 28, respectively. [↑](#footnote-ref-3)
4. In this case, both Avista and Staff provide an attrition analysis examining how test year relationships will differ from those in the rate year to ensure Avista has an opportunity to earn a fair rate of return. [↑](#footnote-ref-4)
5. *Utilities and Transp. Comm’n v. Puget Sound Energy, Inc.,* Dockets UE-121697 et al., Order 07 (June 25, 201) at 49, ¶107. [↑](#footnote-ref-5)
6. Wall Street Journal, *Inside Fed Statement Lurks Hint on Rates*, (March 24, 2014), at 1. [↑](#footnote-ref-6)
7. Wall Street Journal, *Fed Minutes Show Growing Worry About Low inflation*, (April 10, 2014), at 1. [↑](#footnote-ref-7)
8. Wall Street Journal, *Housing Doldrums Worry Fed Officials* (May 8, 2014), at 1. [↑](#footnote-ref-8)
9. Yahoo Finance-(Reuters) (June 17, 2014); “Fed suggests lower end-point for rate-hike cycle.” [↑](#footnote-ref-9)
10. S&P *RatingsDirect* (May 9, 2014). [↑](#footnote-ref-10)
11. *Utilities and Transp. Comm’n v. PacifiCorp,* Docket UE-110749, Order 08 (May 12, 2011), at 4, ¶10. [↑](#footnote-ref-11)
12. *Utilities and Transp. Comm’n v. Puget Sound Energy, Inc.,* Dockets UE-111048 & UG-111049, Order 08 (May 7, 2012), at 16, n. 42. [↑](#footnote-ref-12)
13. Avista Corp. SEC Form 10-K (December 31, 2013) at.52. [↑](#footnote-ref-13)
14. See Thies Direct, Exhibit No. \_\_\_ (MTT-1T) at 13:1 through 14:9. [↑](#footnote-ref-14)
15. Avista Corp. SEC Form 10-K (December 31, 2013), at 52. [↑](#footnote-ref-15)
16. *Id*., at 4. [↑](#footnote-ref-16)
17. Avista Corp. SEC Form 10-K (December 31, 2013), Exhibit 12. [↑](#footnote-ref-17)
18. Thies Direct, Exhibit No.\_\_\_(MTT-1T) at 9:5. [↑](#footnote-ref-18)
19. Thies, Exhibit \_\_\_ (MTT-2), at 3, lines 19 & 20, columns (e) & (k). [↑](#footnote-ref-19)
20. Exhibit No.\_\_\_ (MTT-1T), at 33, line 16. [↑](#footnote-ref-20)
21. Exhibit No. \_\_\_ (MTT-2), at 3, Sum of lines 9-10, &16-18 20, column (g), (i) and (l). [↑](#footnote-ref-21)
22. Company’s response to Staff Data Request No. 045. [↑](#footnote-ref-22)
23. Thies Direct, Exhibit No.\_\_\_(MTT-1T) at 13:17-18. [↑](#footnote-ref-23)
24. Exhibit No.\_\_\_(MTT-2), sum of lines 15-17, column (g). [↑](#footnote-ref-24)
25. *See PacifiCorp d/b/a Pacific Power & Light Co. v Utilities & Transp. Comm’n,* Dockets UE-130043, Order 05 (December 4, 2013), at 27, ¶ 70. [↑](#footnote-ref-25)
26. *See Puget Sound Energy, Inc. v Utilities & Transp. Comm’n,* Dockets UE-111048 & 111049, Order 08 (May 7, 2012), at 33, ¶ 89. [↑](#footnote-ref-26)
27. *Id*. [↑](#footnote-ref-27)
28. Data from 2nd quarter 2013. [↑](#footnote-ref-28)
29. Retention ratio is complementary to the dividend payout ratio: 1 – (payout ratio) = retention ratio. [↑](#footnote-ref-29)
30. Exhibit No. \_\_\_ (AMM-6-5), at 1, line 4, last column: “Yield”. [↑](#footnote-ref-30)
31. *Id*., line 4, column (a). [↑](#footnote-ref-31)
32. *Morningstar* data is extracted from data reported by Yahoo Finance. [↑](#footnote-ref-32)
33. Thies Direct, Exhibit No.\_\_\_(MTT-1T) at 14:11-12. [↑](#footnote-ref-33)
34. 0.40 \* 8.5% = 3.4%. [↑](#footnote-ref-34)
35. Exhibit No.\_\_\_ (AMM-7) at 2. line 4 column ‘br+sv’. [↑](#footnote-ref-35)
36. 4.0% ÷ 0.40 = 10.00%. [↑](#footnote-ref-36)
37. 5.0% ÷ 0.40 = 12.5%. [↑](#footnote-ref-37)
38. Exhibit No. \_\_\_ (AMM-6), at 2, line 4, columns (b) & (c). [↑](#footnote-ref-38)
39. If the dividend yield and growth factors were put together the precise calculation produces a range of ROE estimates between 7.90 and 8.70 percent. [↑](#footnote-ref-39)
40. Market data from February 13, 2014. [↑](#footnote-ref-40)
41. Exhibit No. \_\_\_ (AMM-6), at 1, column (Yield), average of lines 3, 5, 14, 16, 17, 20 and 25. [↑](#footnote-ref-41)
42. S&P RatingsDirect (April 19, 2013) at 8; Avista work papers AMM p. 42. [↑](#footnote-ref-42)
43. Exhibit No. \_\_\_ (AMM-6), at 2, column (e), average of lines 3, 5, 14, 16, 17, 20 and 25. [↑](#footnote-ref-43)
44. Source: Exhibit No. \_\_\_ (AMM-6), at 2, columns (b) & (c) lines 3,5, 14, 16, 17, 20, 25. [↑](#footnote-ref-44)
45. 12.5% \* 0.40 = 5.0 percent. [↑](#footnote-ref-45)
46. *See PacifiCorp d/b/a Pacific Power & light Co. v Utilities & Transp. Comm’n,* Dockets UE-130043, Order 05 (December 4, 2013), at 17, ¶ 46. [↑](#footnote-ref-46)
47. See *Journal of Finance*, Fama & French. “The Cross-Section of Expected Stock Returns” (June 1992) at 427. [↑](#footnote-ref-47)
48. *Global Financial Data,* as of 2/14/14 shows long-term return on the market of 10 percent. [↑](#footnote-ref-48)
49. June 26, 2014 Yield on 30-year Treasury bonds [↑](#footnote-ref-49)
50. [10.00% - 3.40%]\*.70 + 3.40% = 8.13%. [↑](#footnote-ref-50)
51. [10.0%-3.40%] \*0.55 +3.0 = 7.03%. [↑](#footnote-ref-51)
52. Exhibit No. \_\_\_ (AMM-9), at 3, column (a), Allowed ROE. [↑](#footnote-ref-52)
53. Exhibit No. \_\_\_ (MTT-2), at 3, line 17, column (b). [↑](#footnote-ref-53)
54. Avista response to Staff Data Request 118 Attachment B at 3. [↑](#footnote-ref-54)
55. 8.75% - 4.23% = 4.52%, or 452 basis points. [↑](#footnote-ref-55)
56. Exhibit No.\_\_\_ (MTT-2), at 6, footnote (f) - Capital Stock Expense. [↑](#footnote-ref-56)
57. McKenzie Direct, Exhibit No. \_\_\_ (AMM-1T) at 38:3-5, & Exhibit No.\_\_\_ (AMM-4) at 4: Flotation Cost Percentage Adjustment. [↑](#footnote-ref-57)
58. McKenzie Direct, Exhibit No. \_\_\_ (AMM-1T), at 38:6-8. [↑](#footnote-ref-58)
59. Decoupling Policy Statement at ¶ 27. [↑](#footnote-ref-59)
60. Ehrbar Direct, Exhibit No. \_\_\_ (PDE-1T), at 48:16-18. [↑](#footnote-ref-60)
61. Avista Corp. SEC Form 10-K (December 31, 2013), at 17. [↑](#footnote-ref-61)
62. Avista Corporation SEC Form 10-K (December 31, 2013), Exhibit 12. [↑](#footnote-ref-62)
63. Thies Direct, Exhibit No.\_\_\_MTT-1T at 2:24-25. [↑](#footnote-ref-63)
64. These margins were also impacted by rate increases in Washington. [↑](#footnote-ref-64)
65. Decoupling Policy Statement at ¶ 27. [↑](#footnote-ref-65)
66. Decoupling Policy Statement at ¶ 26. [↑](#footnote-ref-66)
67. Exhibit No.\_\_\_ (MTT-2) at 2 & 6. [↑](#footnote-ref-67)
68. Thies Direct, Exhibit No\_\_\_ (MTT-1T), at 10, lines 8-14. [↑](#footnote-ref-68)
69. McKenzie Direct, Exhibit No.\_\_\_ (AMM-1T), at 8-10. [↑](#footnote-ref-69)
70. Direct, Exhibit No. \_\_\_ (MTT-1T) at 10:1-14. [↑](#footnote-ref-70)
71. *Id.*, Illustration 5. [↑](#footnote-ref-71)
72. *Id*., at 2:8-14. [↑](#footnote-ref-72)
73. *Id*., at 14:13-14. [↑](#footnote-ref-73)
74. McKenzie Direct, Exhibit No. \_\_\_\_ (AMM-1T) at 10:12-26. [↑](#footnote-ref-74)
75. McKenzie Direct, Exhibit No.\_\_\_ (AMM-6), at 3, line “Average”, column (a): br+sv growth. [↑](#footnote-ref-75)
76. Exhibit No.\_\_\_ (AMM-6), at 3, line 13, column (a) IBES & 18 column (a) V Line, respectively. [↑](#footnote-ref-76)
77. Exhibit No.\_\_\_ (AMM-3), at 22:15-17. [↑](#footnote-ref-77)
78. Mr. McKenzie eliminated each point estimate enclosed in a box on Exhibit No.\_\_\_ (AMM-6), at 3. [↑](#footnote-ref-78)
79. *Id*. [↑](#footnote-ref-79)
80. Exhibit No\_\_\_ (AMM-3), at 13-19. [↑](#footnote-ref-80)
81. (b\*r = g) or 0.40 \* 15.25% = 6.1%. [↑](#footnote-ref-81)
82. Exhibit No.\_\_\_ (AMM-4), at 1. [↑](#footnote-ref-82)
83. Exhibit No.\_\_\_(KLE-5). [↑](#footnote-ref-83)
84. Exhibit Nos.\_\_\_ (AMM-8) and (AMM-10), at 1, sum of columns. (a) & (b). [↑](#footnote-ref-84)
85. *Id*., at 2, column (c). [↑](#footnote-ref-85)
86. *Id.,* column labeled “Size Adjusted (k)”. [↑](#footnote-ref-86)
87. Exhibit No.\_\_\_(AMM-4), at 1. [↑](#footnote-ref-87)