

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-14_____

DOCKET NO. UG-14_____

DIRECT TESTIMONY OF

ADRIEN M. MCKENZIE

REPRESENTING AVISTA CORPORATION

DIRECT TESTIMONY OF ADRIEN M. MCKENZIE

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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. Adrien M. McKenzie, 3907 Red River, Austin, Texas, 78751.

4 **Q. In what capacity are you employed?**

5 A. I am a Vice President of FINCAP, Inc., a firm providing financial, economic,
6 and policy consulting services to business and government.

7 **Q. Please describe your educational background and professional**
8 **experience.**

9 A. A description of my background and qualifications, including a resume
10 containing the details of my experience, is attached as Exhibit No.____(AMM-2).

11 **A. Overview**

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

13 A. The purpose of my testimony is to present to the Washington Utilities and
14 Transportation Commission (the “Commission” or “WUTC”) my independent evaluation of
15 the fair rate of return on equity (“ROE”) for the jurisdictional electric and gas utility
16 operations of Avista Corp. (“Avista” or “the Company”). In addition, I also examined the
17 reasonableness of Avista’s capital structure, considering both the specific risks faced by the
18 Company and other industry guidelines.

19 **Q. Please summarize the information and materials you relied on to support**
20 **the opinions and conclusions contained in your testimony.**

21 A. To prepare my testimony, I used information from a variety of sources that
22 would normally be relied upon by a person in my capacity. I am familiar with the

1 organization, finances, and operations of Avista from my participation in prior proceedings
2 before the WUTC, the Idaho Public Utilities Commission, and the Oregon Public Utility
3 Commission. In connection with the present filing, I considered and relied upon corporate
4 disclosures, publicly available financial reports and filings, and other published information
5 relating to Avista. I also visited the Company's corporate headquarters and had discussions
6 with management in order to better familiarize myself with Avista's utility operations. My
7 evaluation also relied upon information relating to current capital market conditions and
8 specifically to current investor perceptions, requirements, and expectations for electric
9 utilities. These sources, coupled with my experience in the fields of finance and utility
10 regulation, have given me a working knowledge of the issues relevant to investors' required
11 return for Avista, and they form the basis of my analyses and conclusions.

12 **Q. How is your testimony organized?**

13 A. After first summarizing my conclusions and recommendations, my testimony
14 reviews the operations and finances of Avista and industry-specific risks and capital market
15 uncertainties perceived by investors. With this as a background, I present the application of
16 well-accepted quantitative analyses to estimate the current cost of equity for a reference
17 group of comparable-risk utilities. These included the discounted cash flow ("DCF") model,
18 the empirical form of Capital Asset Pricing Model ("ECAPM"), and an equity risk premium
19 approach based on allowed ROEs for electric utilities, which are all methods that are
20 commonly relied on in evaluating investors' required rate of return.. Based on the cost of
21 equity estimates indicated by my analyses, the Company's ROE was evaluated taking into
22 account the specific risks and potential challenges for Avista's utility operations in

1 Washington, as well as other factors (*e.g.*, flotation costs) that are properly considered in
2 setting a fair ROE for the Company.

3 Finally, I tested my recommendations for Avista against the results of alternative ROE
4 benchmarks, including reference to applications of the traditional Capital Asset Pricing
5 Model (“CAPM”) and expected rates of return for electric utilities. Further, I corroborated
6 my utility quantitative analyses by applying the DCF model to a group of low risk non-utility
7 firms.

8 **Q. What is the role of the ROE in setting a utility's rates?**

9 A. The ROE serves to compensate common equity investors for the use of their
10 capital to finance the plant and equipment necessary to provide utility service. Investors
11 commit capital only if they expect to earn a return on their investment commensurate with
12 returns available from alternative investments with comparable risks. To be consistent with
13 sound regulatory economics and the standards set forth by the U.S. Supreme Court in the
14 *Bluefield*¹ and *Hope*² cases, a utility’s allowed ROE should be sufficient to: 1) fairly
15 compensate the utility’s investors, 2) enable the utility to offer a return adequate to attract
16 new capital on reasonable terms, and 3) maintain the utility’s financial integrity.

17 **B. Summary of Conclusions**

18 **Q. Please summarize the results of your analyses.**

19 A. The results of my analyses are presented on page 1 of Exhibit No.____(AMM-
20 4), and in Table AMM-1, below:

¹ *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).

² *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

**TABLE AMM-1
SUMMARY OF RESULTS**

<u>DCF</u>	<u>Average</u>	<u>Midpoint</u>
Value Line	9.8%	11.3%
IBES	9.7%	10.0%
Zacks	9.5%	10.0%
Internal br + sv	8.6%	9.5%
<u>Empirical CAPM - 2013 Yield</u>		
Unadjusted	10.7%	10.8%
Size Adjusted	11.7%	11.5%
<u>Empirical CAPM - Projected Yield</u>		
Unadjusted	10.8%	10.9%
Size Adjusted	11.8%	11.6%
<u>Utility Risk Premium</u>		
Current Bond Yields	10.4%	
Projected Bond Yields	11.2%	
<u>Cost of Equity Recommendation</u>		
Cost of Equity Range	9.5% --	11.0%
<u>Flotation Cost Adjustment</u>		
Dividend Yield	4.20%	
Flotation Cost Percentage	3.60%	
Adjustment	0.15%	
<u>Recommended ROE Range</u>		
	9.65% --	11.15%

Q. What are your findings regarding the 10.1 percent ROE requested by Avista?

A. Based on the results of my analyses and the economic requirements necessary to support continuous access to capital under reasonable terms, I determined that 10.1 percent is a fair and reasonable estimate of investors' required ROE for Avista. The bases for my conclusion are summarized below:

- 1 • In order to reflect the risks and prospects associated with Avista’s jurisdictional
2 utility operations, my analyses focused on a proxy group of 25 other utilities with
3 comparable investment risks.
- 4 • Because investors’ required return on equity is unobservable and no single
5 method should be viewed in isolation, I applied the DCF, ECAPM, and risk
6 premium methods to estimate a fair ROE for Avista;
- 7 • Based on the results of these analyses, and giving less weight to extremes at the
8 high and low ends of the range, I concluded that the cost of equity for the proxy
9 group of utilities is in the **9.5 percent to 11.0 percent** range, or **9.65 percent to**
10 **11.15 percent** after incorporating an adjustment to account for the impact of
11 common equity flotation costs; and,
- 12 • As reflected in the testimony of Mark T. Thies, Avista is requesting a fair ROE of
13 **10.1 percent**, which falls below the **10.4 percent** midpoint of my recommended
14 range. Considering capital market expectations, the exposures faced by Avista,
15 and the economic requirements necessary to maintain financial integrity and
16 support additional capital investment even under adverse circumstances, it is my
17 opinion that 10.1 percent represents a conservative ROE for Avista.

18 **Q. What other evidence did you consider in evaluating your ROE**
19 **recommendation in this case?**

20 A. My recommendation is reinforced by the following findings:

- 21 • The reasonableness of a 10.1 percent ROE for Avista is supported by the need to
22 consider the challenges to the Company’s credit standing:
 - 23 ○ The pressure of funding significant capital expenditures of \$686 million
24 planned for 2014-2015, and \$1.7 billion over the next five years heighten the
25 uncertainties associated with Avista.
 - 26 ○ Because of Avista’s reliance on hydroelectric generation and increasing
27 dependence on natural gas fueled capacity, the Company is exposed to
28 relatively greater risks of power cost volatility, even with the Energy
29 Recovery Mechanism (“ERM”);
 - 30 ○ Prior to 2013, Avista had been chronically unable to earn its allowed ROE
31 due to the impact of attrition and regulatory lag. Avista’s opportunity to
32 actually earn a fair ROE and mitigate exposure to attrition is an important
33 objective;
 - 34 ○ Widespread expectations for higher interest rates emphasize the implication
35 of considering the impact of projected bond yields in evaluating the results
36 of the ECAPM and risk premium methods; and,
 - 37 ○ My conclusion that a 10.1 percent ROE for Avista is a reasonable estimate
38 of investors’ required return is also reinforced by the greater uncertainties
39 associated with Avista’s relatively small size.

- 1 • Sensitivity to financial market and regulatory uncertainties has increased
- 2 dramatically and investors recognize that constructive regulation is a key
- 3 ingredient in supporting utility credit standing and financial integrity;
- 4 • Providing Avista with the opportunity to earn a return that reflects these realities
- 5 is an essential ingredient to support the Company's financial position, which
- 6 ultimately benefits customers by ensuring reliable service at lower long-run costs;
- 7 • Continued support for Avista's financial integrity, including a reasonable ROE, is
- 8 imperative to ensure that the Company has the capability to maintain or enhance
- 9 its credit standing while confronting potential challenges associated with funding
- 10 infrastructure development necessary to meet the needs of its customers.

11 These findings indicate that the 10.1 percent ROE requested by Avista is reasonable and
 12 should be approved:

13 **Q. What did the results of alternative ROE benchmarks indicate with**
 14 **respect to your evaluation?**

15 A. The results of alternative ROE benchmarks are presented on page 2 of Exhibit
 16 No.__(AMM-4), and in Table AMM-2, below:

17 **TABLE AMM-2**
 18 **SUMMARY OF ROE BENCHMARKS**

	<u>Average</u>	<u>Midpoint</u>
<u>CAPM - Current Bond Yield</u>		
Unadjusted	10.2%	10.3%
Size Adjusted	11.1%	11.0%
<u>CAPM - Projected Bond Yield</u>		
Unadjusted	10.3%	10.4%
Size Adjusted	11.2%	11.1%
<u>Expected Earnings</u>		
Industry	10.4%	
Proxy Group	9.7%	10.8%
<u>Non-Utility DCF</u>		
Value Line	11.2%	11.1%
IBES	11.1%	11.4%
Zacks	11.2%	11.6%

1 As summarized below, these results confirm the conclusion that the 10.1 percent ROE
2 requested for Avista is reasonable:

- 3 • Applying the traditional CAPM approach implied a current cost of equity on
4 the order of 10.3% to 11.3%;
- 5 • Expected returns for electric utilities suggested an ROE range of 10.3% to
6 11.6%, excluding any adjustment for flotation costs;
- 7 • DCF estimates for a low-risk group of non-utility firms resulted in an ROE
8 range of 11.3% to 11.7%.

9 These tests of reasonableness confirm that a 10.1% ROE falls in the lower end of the
10 reasonable range to maintain Avista's financial integrity, provides a return commensurate
11 with investments of comparable risk, and supports the Company's ability to attract capital.

12 **Q. Would any adjustment to the Avista's ROE be warranted due to the ERM**
13 **or the Company's proposed Attrition Adjustment?**

14 A. No. Standard & Poor's Corporation ("S&P") has cited the existing deadbands
15 in the ERM, and a history of deferred power cost balances and rate lag as a significant credit
16 weakness, and noted that the ERM disadvantages Avista relative to other utilities in the
17 region:

18 [T]he threshold it must meet to true-up uncollected costs in Washington is
19 high, and the company does not automatically collect deferred costs. Each
20 year, uncollected costs are subject to defined sharing bands, allowing the
21 company to potentially defer certain portions for collection from customers.
22 This mechanism is weaker than that for some utilities operating in western
23 states with high hydrological or significant gas generation exposure.³

24 Because adjustment mechanisms that enable utilities to implement rate changes to pass-
25 through fluctuations in fuel costs are widely prevalent in the industry, the mitigation in risks

³ Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (Jul. 26, 2011).

1 associated with utilities' ability to attenuate the impact of power cost volatility is already
2 reflected in my recommended ROE range.

3 In his testimony Mr. Norwood explains and illustrates the importance of an Attrition
4 Adjustment to address the impact of attrition and regulatory lag. Like any other resource –
5 fuel, labor, or debt capital – equity capital has a cost. Much like the ERM helps to ensure
6 that Avista recovers the actual cost of fuel, the Attrition Adjustment would simply level the
7 playing field by helping to ensure that the Company has a reasonable opportunity to actually
8 earn the allowed ROE, which compensates investors for the use of their capital.

9 **Q. Based on the results of your evaluation, what is your opinion regarding**
10 **the reasonableness of the ROE requested by Avista in this case?**

11 A. Because the Company's requested 10.1 percent ROE falls below the midpoint
12 of my recommended range it represents a conservative estimate of investors' required return
13 that is adequate to compensate investors, while maintaining Avista's financial integrity and
14 ability to attract capital on reasonable terms.

15 Apart from the results of the quantitative methods summarized above, it is crucial to
16 recognize the importance of supporting the Company's financial position so that Avista
17 remains prepared to respond to unforeseen events that may materialize in the future. Recent
18 challenges in the economic and financial market environment highlight the imperative of
19 maintaining the Company's financial strength in attracting the capital needed to secure
20 reliable service at a lower cost for customers. The reasonableness of the Company's
21 requested ROE is reinforced by the operating risks associated with Avista's reliance on
22 hydroelectric generation, the higher uncertainties associated with Avista's relatively small
23 size, the need to consider the implications of regulatory lag, and the fact that, due to broad-

1 based expectations for higher bond yields, current cost of capital estimates are likely to
2 understate investors' requirements at the time the outcome of this proceeding becomes
3 effective and beyond.

4 **Q. Does an ROE of 10.1% represent a reasonable cost for Avista's customers**
5 **to pay?**

6 A. Yes. Investors have many options vying for their money. They make
7 investment capital available to Avista only if the expected returns justify the risk. Customers
8 will enjoy reliable and efficient service so long as investors are willing to make the capital
9 investments necessary to maintain and improve Avista's utility system. Providing an
10 adequate return to investors is a necessary cost to ensure that capital is available to Avista
11 now and in the future. If regulatory decisions increase risk or limit returns to levels that are
12 insufficient to justify the risk, investors will look elsewhere to invest capital.

13 **Q. What is your conclusion as to the reasonableness of the Company's**
14 **capital structure?**

15 A. Based on my evaluation, I concluded that a common equity ratio of 49.0
16 percent represents a reasonable basis from which to calculate Avista's overall rate of return.

17 This conclusion was based on the following findings:

- 18 • Avista's requested capitalization is consistent with the Company's need to
19 maintain its credit standing and financial flexibility as it seeks to raise additional
20 capital to fund significant system investments and meet the requirements of its
21 service territory;
- 22 • Avista's proposed common equity ratio is entirely consistent with the range of
23 capitalizations for the proxy utilities and is in-line with the adjusted average
24 equity ratios at year-end 2012 and based on Value Line's near-term expectations,
25 respectively;

1 Investors recognize that volatile energy markets, unpredictable stream flows, and
2 Avista’s reliance on wholesale purchases to meet a significant portion of its resource needs
3 can expose the Company to the risk of reduced cash flows and unrecovered power supply
4 costs. S&P noted that Avista, along with Idaho Power Company, “face the most substantial
5 risks despite their PCAs and cost-update mechanisms,”⁵ and concluded that Avista’s “chief
6 risks are the electric utility’s exposure to replacement power costs (particularly in low water
7 years).”⁶ More recently S&P affirmed that, “Northwest hydropower has been subject to
8 significant volatility in recent years, so [Avista] is exposed to purchased power costs.”⁷
9 Similarly, Moody’s Investors Service (“Moody’s”) concluded, “Avista’s high dependency on
10 hydro resources (approximately 50% of its production comes from hydro fueled electric
11 generation resources) is viewed as a supply concentration risk (which also lends to the
12 potential for metric volatility, especially since hydro levels, due to weather, is a factor outside
13 of management's control.”⁸

14 **Q. Does Avista anticipate the need to access the capital markets going**
15 **forward?**

16 A. Yes. Avista will require capital investment to meet customer growth, provide
17 for necessary maintenance and replacements of its natural gas utility systems, as well as fund
18 new investment in electric generation, transmission and distribution facilities. Utility capital
19 additions are expected to total approximately \$1.7 billion through 2018. This represents a
20 substantial investment given Avista’s current rate base of \$2.4 billion .

⁵ *Id.*

⁶ Standard & Poor’s Corporation, “Summary: Avista Corp,” *RatingsDirect* (Jan. 26, 2012).

⁷ Standard & Poor’s Corporation, “Industry Report Card,” *RatingsDirect* (Apr. 19, 2013).

⁸ Moody’s Investors Service, “Credit Opinion: Avista Corp.,” *Global Credit Research* (Mar. 17, 2011).

1 Continued support for Avista’s financial integrity and flexibility will be instrumental
2 in attracting the capital necessary to fund these projects in an effective manner. Avista’s
3 reliance on purchased power to meet shortfalls in hydroelectric generation magnifies the
4 importance of strengthening financial flexibility, which is essential to guarantee access to the
5 cash resources and interim financing required to cover inadequate operating cash flows, as
6 well as fund required investments in the utility system.

7 **Q. What other financial pressures impact investors’ risk assessment of**
8 **Avista?**

9 A. Investors are aware of the financial and regulatory pressures faced by utilities
10 associated with rising costs and the need to undertake significant capital investments. S&P
11 noted that cost increases and capital projects, along with uncertain load growth, were a
12 significant challenge to the utility industry.⁹ As Moody’s observed:

13 [W]e also see the sector’s overall business risk and operating risks increasing,
14 owing primarily to rising costs associated with upgrading and expanding the
15 nation’s trillion dollar electric infrastructure.¹⁰

16 As noted earlier, the Company’s plans include electric utility capital expenditures of
17 approximately \$1.7 billion million through 2018, and Moody’s has noted that Avista’s
18 primary challenge is related to cost recovery of increasing capital investment.¹¹ Investors are
19 aware of the challenges posed by rising costs and burdensome capital expenditure
20 requirements, especially in light of ongoing capital market and economic uncertainties.

⁹ Standard & Poor’s Corporation, “Industry Economic And Ratings Outlook,” *RatingsDirect* (Feb. 2, 2010).

¹⁰ Moody’s Investors Service, “Regulation Provides Stability As Risks Mount,” *Industry Outlook* (Jan. 19, 2011).

¹¹ Moody’s Investors Service, “Credit Opinion: Avista Corp.,” *Global Credit Research* (Mar. 17, 2011).

1 **Q. What other considerations affect investors' evaluation of utilities?**

2 A. The implications of increased conservation and renewables goals, as well as
3 exposure to regulatory and environmental uncertainties also impact the industry's future.
4 Utilities are confronting increased environmental pressures that could impose significant
5 uncertainties and costs.

6 **Q. Would investors consider Avista's relative size in their assessment of the**
7 **Company's risks and prospects?**

8 A. Yes. A firm's relative size has important implications for investors in their
9 evaluation of alternative investments, and it is well established that smaller firms are more
10 risky than larger firms. With a market capitalization of approximately \$1.7 billion, Avista is
11 one of the smallest publicly traded utility holding companies followed by The Value Line
12 Investment Survey ("Value Line"), which have an average capitalization of approximately
13 \$10.4 billion.¹²

14 The magnitude of the size disparity between Avista and other firms in the utility
15 industry has important practical implications with respect to the risks faced by investors. All
16 else being equal, it is well accepted that smaller firms are more risky than their larger
17 counterparts, due in part to their relative lack of diversification and lower financial
18 resiliency.¹³ These greater risks imply a higher required rate of return, and there is ample
19 empirical evidence that investors in smaller firms realize higher rates of return than in larger

¹² www.valueline.com (retrieved Jan. 17, 2014).

¹³ It is well established in the financial literature that smaller firms are more risky than larger firms. *See, e.g.*, Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Stock Returns", *The Journal of Finance* (June 1992); George E. Pinches, J. Clay Singleton, and Ali Jahankhani, "Fixed Coverage as a Determinant of Electric Utility Bond Ratings", *Financial Management* (Summer 1978).

1 firms.¹⁴ Accepted financial doctrine holds that investors require higher returns from smaller
2 companies, and unless that compensation is provided in the rate of return allowed for a
3 utility, the legal tests embodied in the *Hope* and *Bluefield* cases cannot be met.

4 **B. Implications of Attrition**

5 **Q. What causes attrition?**

6 A. Attrition is the deterioration of actual return below the allowed return that
7 occurs when the relationships between revenues, costs, and rate base used to establish rates
8 (e.g., using a historical test year without adequate adjustments) do not reflect the actual costs
9 incurred to serve customers during the period that rates are in effect. For example, if external
10 factors are driving costs to increase more than revenues, then the rate of return will fall short
11 of the allowed return even if the utility is operating efficiently. Similarly, when growth in the
12 utility's investment outstrips the rate base used for ratemaking, the earned rate of return will
13 fall below the allowed return through no fault of the utility's management. These imbalances
14 are exacerbated as the regulatory lag increases between the time when the data used to
15 establish rates is measured and the date when the rates go into effect.

16 **Q. Why is it necessary to address the impact of attrition?**

17 A. Investors are concerned with what they can expect in the future, not what they
18 might expect in theory if a historical test year were to repeat. To be fair to investors and to
19 benefit customers, a regulated utility must have a reasonable opportunity to actually earn a
20 return that will maintain financial integrity, facilitate capital attraction, and compensate for
21 risk. In other words, it is the end result in the future that determines whether or not the *Hope*

¹⁴ See for example Rolf W. Banz, "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics* (September 1981) at 16.

1 and *Bluefield* standards are met. S&P observed that its risk analysis focuses on the utility's
2 ability to consistently earn a reasonable return:

3 Notably, the analysis does not revolve around "authorized" returns, but rather
4 on actual earned returns. We note the many examples of utilities with healthy
5 authorized returns that, we believe, have no meaningful expectation of
6 actually earning that return because of rate case lag, expense disallowances,
7 etc.¹⁵

8 Similarly, Moody's concluded, "we evaluate the framework and mechanisms that allow a
9 utility to recover its costs and investments and earn allowed returns. We are less concerned
10 with the official allowed return on equity, instead focusing on the earned returns and cash
11 flows."¹⁶

12 **Q. Has the investment community recognized the risks associated with**
13 **attrition and lag in its evaluation of Avista?**

14 A. Yes. In 2010, S&P confirmed that attrition has acted as a drag on Avista's
15 finances:

16 Regulatory lag has been a consistent issue for Avista's utilities, with the utility
17 operations ... collectively unable to earn the company's authorized return on
18 equity (ROE) on a consolidated basis. On a consolidated basis, average
19 earned ROE over the past three years has been just under 7%, based on
20 Standard & Poor's Ratings Services' calculations.¹⁷

21 More recently, while acknowledging the financial benefits of the Company's frequent filing
22 of rate cases, S&P reported a three-year average return on equity of 7.9 percent and

¹⁵ Standard & Poor's Corporation, "Assessing U.S. Utility Regulatory Environments," *RatingsDirect* (Nov. 7, 2008).

¹⁶ Moody's Investors Service, "Electric Utilities Face Challenges Beyond Near-Term," *Industry Outlook* (Jan. 2010).

¹⁷ Standard & Poor's Corporation, "Summary: Avista Corp.," *RatingsDirect* (Feb. 18, 2010).

1 concluded, “The company’s most significant regulatory exposure is in Washington.”¹⁸

2 Similarly, Value Line recently noted:

3 The utility needs frequent tariff increases in order to recover rising expenses
4 and place capital spending in the rate base, especially since Washington and
5 Idaho use historical (instead of forward-looking) test years in their
6 ratemaking. Despite frequent rate relief, Avista is still earning mediocre
7 returns on equity.¹⁹

8 Avista’s exposure to attrition is further documented in the testimony of Mr. Kelly Norwood
9 and Ms. Elizabeth Andrews.

10 **Q. How is Avista proposing to address the Company’s exposure to attrition?**

11 A. As discussed in the testimony of Mr. Norwood and Ms. Andrews, Avista has
12 included an Attrition Adjustment as part of the proposed revenue requirement.

13 **Q. Is it reasonable to consider the impact of Avista’s exposure to attrition?**

14 A. Yes. Setting rates at a level that considers the impact of attrition and allows
15 the utility an opportunity to actually earn its authorized ROE is consistent with fundamental
16 regulatory principles. Central to the determination of reasonable rates for utility service is
17 the notion that owners of public utility properties are protected from confiscation. The
18 Supreme Court has reaffirmed that the end result test must be applied to the actual returns
19 that investors expect if they put their money at risk to finance utilities.²⁰ This end result can
20 only be achieved for Avista if the allowed return is sufficient to offset the impact of attrition.
21 That end result would maintain the utility’s financial integrity, ability to attract capital and

¹⁸ Standard & Poor’s Corporation, “Avista Corp.,” *RatingsDirect* (Jul. 26, 2011).

¹⁹ The Value Line Investment Survey (Nov. 1, 2013).

²⁰ *Verizon Communications, et al v. Federal Communications Commission, et al*, 535 U.S. 467 (2002). While I cannot comment on the legal significance of this case, I found the economic wisdom of looking to the reasonable expectations of actual investors compelling. Economic logic and common sense confirm that a utility cannot attract capital on reasonable terms if investors expect future returns to fall short of those offered by comparable investments.

1 offer investors fair compensation for the risk they bear. Attrition will result in under-earning
2 the allowed ROE if the impact of regulatory lag and rising capital requirements are ignored.

3 **C. Outlook for Capital Costs**

4 **Q. Do current capital market conditions provide a representative basis on**
5 **which to evaluate a fair ROE?**

6 A. No. Current capital market conditions reflect the legacy of the Great
7 Recession, and are not representative of what investors expect in the future. Investors have
8 had to contend with a level of economic uncertainty and capital market volatility that has
9 been unprecedented in recent history. The ongoing potential for renewed turmoil in the
10 capital markets has been seen repeatedly, with common stock prices exhibiting the dramatic
11 volatility that is indicative of heightened sensitivity to risk. In response to heightened
12 uncertainties in recent years, investors have repeatedly sought a safe haven in U.S.
13 government bonds. As a result of this “flight to safety,” Treasury bond yields have been
14 pushed significantly lower in the face of political, economic, and capital market risks. In
15 addition, the Federal Reserve has implemented measures designed to push interest rates to
16 historically low levels in an effort to stimulate the economy and bolster employment.

17 **Q. How do current yields on public utility bonds compare with what**
18 **investors have experienced in the past?**

19 A. Despite recent increases, the yields on utility bonds remain near their lowest
20 levels in modern history. Figure 1, below, compares the December 2013 average yield on
21 long-term, triple-B rated utility bonds with those prevailing since 1968:

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FIGURE 1
BBB UTILITY BOND YIELDS – CURRENT VS. HISTORICAL



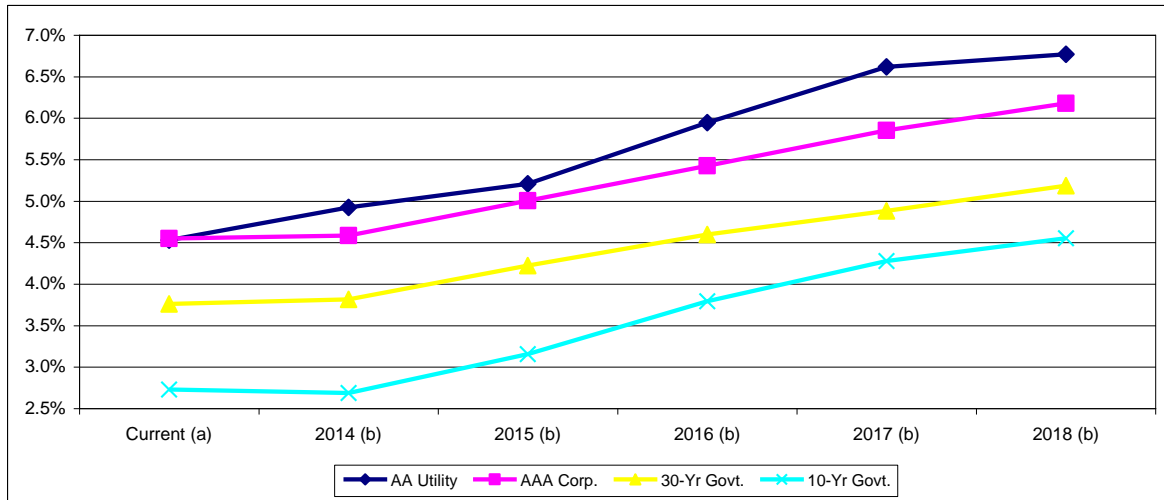
12 As illustrated above, prevailing capital market conditions, as reflected in the yields on triple-
13 B utility bonds, are an anomaly when compared with historical experience.

14 **Q. Are these very low interest rates expected to continue?**

15 A. No. Investors do not anticipate that these low interest rates will continue into
16 the future. It is widely anticipated that as the economy stabilizes and resumes a more robust
17 pattern of growth, long-term capital costs will increase significantly from present levels.
18 Figure 2 below compares current interest rates on 30-year Treasury bonds, triple-A rated
19 corporate bonds, and double-A rated utility bonds with near-term projections from the Value
20 Line Investment Survey (“Value Line”), IHS Global Insight, Blue Chip Financial Forecasts
21 (“Blue Chip”), and the Energy Information Administration (“EIA”):

22
23
24

FIGURE 2
INTEREST RATE TRENDS



- (a) Based on monthly average bond yields for the six-month period Jul. 2013 - Dec. 2013 reported at www.credittrends.moodys.com and <http://www.federalreserve.gov/releases/h15/data.htm>.
- (b) Value Line Investment Survey, Forecast for the U.S. Economy (Nov. 22, 2013)
 IHS Global Insight, U.S. Economic Outlook at 25 (Nov. 2013)
 Energy Information Administration, Annual Energy Outlook 2014, Early Release (Dec. 16, 2013)
 Blue Chip Financial Forecasts, Vol. 32, No. 6 (Jun. 1, 2013)

These forecasting services are highly regarded and widely referenced, with the Federal Energy Regulatory Commission (“FERC”) incorporating forecasts from IHS Global Insight and the EIA in its preferred DCF model for natural gas pipelines. As evidenced above, there is a clear consensus in the investment community that the cost of long-term capital will be significantly higher over 2014-2018 than it is currently.

Q. Do recent actions of the Federal Reserve support the contention that current low interest rates will continue indefinitely?

A. No. While the Federal Reserve continues to express support for maintaining highly accommodative monetary policy and an exceptionally low target range for the federal

1 funds rate, it has also began to pare back its \$85 billion-a-month bond-buying program.²¹

2 The Federal Reserve’s decisions to taper its asset purchases were based on improving
3 conditions for employment and the economy. Reductions in the Federal Reserve’s bond
4 buying program should ease downward pressure on long-term interest rates, with The Wall
5 Street Journal observing that:

6 The Fed’s decision to begin trimming its \$85 billion monthly bond-buying
7 program is widely expected to result in higher medium-term and long-term
8 market interest rates. That means many borrowers, from home buyers to
9 businesses, will be paying higher rates in the near future.²²

10 While the Federal Reserve’s tapering announcement eased uncertainties over just
11 when, and to what degree, the stimulus program would be modified, investors continue to
12 face ongoing uncertainties over future moves. The International Monetary Fund noted that,
13 “A lack of Fed clarity could cause a major spike in borrowing costs that could cause severe
14 damage to the U.S. recovery and send destructive shockwaves around the global economy,”
15 adding that, “A smooth and gradual upward shift in the yield curve might be difficult to
16 engineer, and there could be periods of higher volatility when longer yields jump sharply—as
17 recent events suggest.”²³

18 These developments highlight concerns for investors and support expectations for
19 higher interest rates as the economy and labor markets continue to recover. With the Federal
20 Reserve continuing to evaluate additional tapering of its bond-buying program, ongoing
21 concerns over political stalemate in Washington, and continued economic weakness in the

²¹ *Press Release*, Board of Governors of the Federal Reserve System (Dec. 18, 2013, Jan. 29, 2013).

²² Hilsenrath, Jon, “Fed Dials Back Bond Buying, Keeps a Wary Eye on Growth,” *The Wall Street Journal* at A1 (Dec. 19, 2013).

²³ Talley, Ian, “IMF Urges ‘Improved’ U.S. Fed Policy Transparency as It Mulls Easy Money Exit,” *The Wall Street Journal* (July 26, 2013).

1 Eurozone, the potential for significant volatility and higher capital costs is clearly evident to
2 investors.

3 **Q. What do these events imply with respect to the ROE for Avista more**
4 **generally?**

5 A. Current capital market conditions continue to reflect the impact of
6 unprecedented policy measures taken in response to recent dislocations in the economy and
7 financial markets. As a result, current capital costs are not representative of what is likely to
8 prevail over the near-term future. This conclusion is supported by comparisons of current
9 conditions to the historical record and independent forecasts. As demonstrated above,
10 recognized economic forecasting services project that long-term capital costs will increase
11 from present levels. To address the reality of current capital markets, the WUTC should
12 consider forecasts for higher public utility bond yields in assessing the reasonableness of
13 individual cost of equity estimates and in evaluating a fair ROE for Avista from within the
14 range of reasonableness. As discussed below, this result is supported by economic studies
15 that show that equity risk premiums are higher when interest rates are at very low levels.

16 **Q Do ongoing economic and capital market uncertainties also influence the**
17 **appropriate capital structure for Avista?**

18 A Yes. Financial flexibility plays a crucial role in ensuring the wherewithal to
19 meet funding needs, and utilities with higher financial leverage may be foreclosed from
20 additional borrowing, especially during times of stress. As a result, the Company's capital
21 structure must maintain an equity "cushion" that preserves the flexibility necessary to
22 maintain continuous access to capital even during times of unfavorable market conditions.

1 **D. Support For Avista’s Credit Standing**

2 **Q. What credit ratings have been assigned to Avista?**

3 A. S&P has assigned Avista a corporate credit rating of “BBB”, while Moody’s
4 has set Avista’s Issuer Rating at “Baa2”.²⁴

5 **Q. How have investors’ risk perceptions for firms involved in the utility
6 industry evolved?**

7 A. Numerous challenges impact investors’ perceptions of the relative risks
8 inherent in the utility industry and have implication for the financial standing of the utilities
9 themselves. In December 2009, S&P observed with respect to the industry’s future that:

10 Looming costs associated with environmental compliance, slack demand
11 caused by economic weakness, the potential for permanent demand
12 destruction caused by changes in consumer behavior and closing of
13 manufacturing facilities, and numerous regulatory filings seeking recovery of
14 costs are some of the significant challenges the industry has to deal with.²⁵

15 Similarly, Moody’s noted:

16 [A] sustained period of sluggish economic growth, characterized by high
17 unemployment, could stress the sector’s recovery prospects, financial
18 performance, and credit ratings. The quality of the sector’s cash flows are
19 already showing signs of decline, partly because of higher operating costs and
20 investments.²⁶

21 Moreover, Moody’s has concluded that, “we also see the sector’s overall business and
22 operating risks increasing.”²⁷

²⁴ Moody’s Investor Services, “Rating Action: Moody’s Upgrades Avista’s Ratings to Baa2,” *Global Credit Research* (Mar. 2011).

²⁵ Standard & Poor’s Corporation, “U.S. Regulated Electric Utilities Head Into 2010 With Familiar Concerns,” *RatingsDirect* (Dec. 28, 2009).

²⁶ Moody’s Investors Service, “U.S. Electric Utilities: Uncertain Times Ahead; Strengthening Balance Sheets Now Would Protect Credit,” *Special Comment* (Oct. 28, 2010).

²⁷ Moody’s Investors Service, “Regulation Provides Stability As Risks Mount,” *Industry Outlook* (Jan. 19, 2011).

1 **Q. What are the implications for Avista, given the potential for further**
2 **dislocations in the capital markets?**

3 A. As documented in the testimony of Mr. Thies, the Company’s prolonged
4 efforts to regain investment grade ratings and improve its financial stature have been
5 successful. Nevertheless, continued support for Avista’s financial integrity and credit
6 standing is imperative to ensure the Company’s capability to confront potential challenges.

7 The pressures of significant capital expenditure requirements reinforce the
8 importance of supporting continued improvement in Avista’s credit standing. Investors
9 understand from past experience in the utility industry that large capital needs can lead to
10 significant deterioration in financial integrity that can constrain access to capital, especially
11 during times of unfavorable capital market conditions. Considering the uncertain state of
12 financial markets, competition with other investment alternatives, and investors’ sensitivity to
13 the potential for market volatility, greater credit strength is a key ingredient in maintaining
14 access to capital at reasonable cost.

15 As Mr. Thies confirms in his testimony, continued regulatory support will be a key
16 driver in solidifying Avista’s financial health, which serves as a critical backstop in the event
17 of a recurring capital market crisis or other operating challenges, such as poor hydro
18 conditions or increased capital outlays.

19 **Q. What role does regulation play in ensuring that Avista has access to**
20 **capital under reasonable terms and on a sustainable basis?**

21 A. The major rating agencies have warned of exposure to uncertainties associated
22 with political and regulatory developments. Investors recognize that constructive regulation
23 is a key ingredient in supporting utility credit ratings and financial integrity, particularly

1 during times of adverse conditions. With respect to Avista specifically, the major bond rating
2 agencies have explicitly cited the potential that adverse regulatory rulings could compromise
3 the Company's credit standing, with Moody's concluding that, "Avista's ratings could be
4 negatively impacted if the level of regulatory support wanes."²⁸ S&P observed that
5 management of Avista's regulatory relationships "is a critical underpinning of its investment-
6 grade credit quality."²⁹

7 As Mr. Thies confirms in his testimony, regulatory support will be a key driver in
8 securing additional improvement in the Company's financial health. For example, a utility's
9 "regulatory framework" and its "ability to recover costs and earn returns" account for 50
10 percent of the factor weighting under Moody's rating methodology.³⁰ Further strengthening
11 Avista's financial integrity is imperative to ensure that the Company has the capability to
12 maintain an investment grade rating while confronting large capital expenditures and other
13 potential challenges.

14 **Q. Do customers benefit by enhancing the utility's financial flexibility?**

15 A. Yes. Providing an ROE that is sufficient to maintain Avista's ability to attract
16 capital under reasonable terms, even in times of financial and market stress, is not only
17 consistent with the economic requirements embodied in the U.S. Supreme Court's *Hope* and
18 *Bluefield* decisions, it is also in customers' best interests. Customers and the service area
19 economy enjoy the benefits that come from ensuring that the utility has the financial
20 wherewithal to take whatever actions are required to ensure reliable service.

²⁸ Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 17, 2011).

²⁹ Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (Jan. 26, 2012).

³⁰ Exhibit No.__(MTT-1) at Illustration No. 12.

1 **E. Capital Structure**

2 **Q. Is an evaluation of the capital structure maintained by a utility relevant**
3 **in assessing its return on equity?**

4 A. Yes. Other things equal, a higher debt ratio, or lower common equity ratio,
5 translates into increased financial risk for all investors. A greater amount of debt means more
6 investors have a senior claim on available cash flow, thereby reducing the certainty that each
7 will receive his contractual payments. This increases the risks to which lenders are exposed,
8 and they require correspondingly higher rates of interest. From common shareholders'
9 standpoint, a higher debt ratio means that there are proportionately more investors ahead of
10 them, thereby increasing the uncertainty as to the amount of cash flow that will remain.

11 **Q. What common equity ratio is implicit in Avista's requested capital**
12 **structure?**

13 A. Avista's capital structure is presented in the testimony of Mr. Thies. As
14 summarized in his testimony, the proposed common equity ratio used to compute Avista's
15 overall rate of return is 49.0 percent in this filing.

16 **Q. What was the average capitalization maintained by the Utility Group?**

17 A. As shown on Exhibit No.__(AMM-5), for the 25 firms in the Utility Group,
18 common equity ratios at December 31, 2012 ranged between 30.9 percent and 57.6 percent
19 and averaged 48.5 percent. Adjusting the average capitalization to include short-term debt in
20 the same proportion as Avista would result in an adjusted equity ratio of 47.1 percent.

1 **Q. What capitalization is representative for the proxy group of utilities going**
2 **forward?**

3 A. As shown on Exhibit No.__(AMM-5), Value Line expects an average
4 common equity ratio for the proxy group of utilities of 49.4 percent for its three-to-five year
5 forecast horizon, with the individual common equity ratios ranging from 38.0 percent to 57.0
6 percent. Adjusting the average capitalization to include short-term debt in the same
7 proportion as Avista would result in an adjusted equity ratio of 47.9 percent. The WUTC has
8 previously observed that “[i]t is appropriate ... to afford more weight to forward
9 considerations than to historic conditions as we determine the appropriate equity ratio to be
10 embedded in prospective rates.”³¹

11 **Q. How does Avista’s common equity ratio compare with those maintained**
12 **by the reference group of utilities?**

13 A. The 49.0 percent common equity ratio requested by Avista is entirely
14 consistent with the range of equity ratios maintained by the firms in the Utility Group and is
15 in-line with the 47.1 percent and 47.9 percent adjusted average equity ratios at year-end 2012
16 and based on Value Line’s near-term expectations, respectively.

17 **Q. What implication do the uncertainties inherent in the utility industry**
18 **have for the capital structures maintained by utilities?**

19 A. As discussed earlier, utilities are facing rising cost structures, the need to
20 finance significant capital investment plans, uncertainties over accommodating economic and
21 financial market uncertainties, and ongoing regulatory risks. Coupled with the potential for

³¹ *Order No. 06*, Docket Nos. UG-040640 and UE-040641 (consolidated) (Feb. 18, 2005) at P. 32.

1 turmoil in capital markets, these considerations warrant a stronger balance sheet to deal with
2 an increasingly uncertain environment. A more conservative financial profile, in the form of
3 a higher common equity ratio, is consistent with increasing uncertainties and the need to
4 maintain the continuous access to capital under reasonable terms that is required to fund
5 operations and necessary system investment, including times of adverse capital market
6 conditions.

7 Moody's has repeatedly warned investors of the risks associated with debt leverage
8 and fixed obligations and advised utilities not to squander the opportunity to strengthen the
9 balance sheet as a buffer against future uncertainties.³² Similarly, S&P noted that, "we
10 generally consider a debt to capital level of 50% or greater to be aggressive or highly
11 leveraged for utilities."³³

12 **Q. What other factors do investors consider in their assessment of a**
13 **company's capital structure?**

14 A. Utilities are facing significant capital investment plans, uncertainties over
15 accommodating future environmental mandates, and ongoing regulatory risks. Coupled with
16 the potential for turmoil in capital markets, these considerations warrant a stronger balance
17 sheet to deal with an increasingly uncertain environment. A more conservative financial
18 profile, in the form of a higher common equity ratio, is consistent with increasing

³² Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* (Aug. 2007); "U.S. Electric Utility Sector," *Industry Outlook* (Jan. 2008); "U.S. Electric Utilities Face Challenges Beyond Near-Term," *Industry Outlook* (Jan. 2010); Moody's Investors Service, "U.S. Electric Utilities: Uncertain Times Ahead; Strengthening Balance Sheets Now Would Protect Credit," *Special Comment* (Oct. 28, 2010).

³³ Standard & Poor's Corporation, "Ratings Roundup: U.S. Electric Utility Sector Maintained Strong Credit Quality In A Gloomy 2009," *RatingsDirect* (Jan. 26, 2010).

1 uncertainties and the need to maintain the continuous access to capital that is required to fund
2 operations and necessary system investment, even during times of adverse capital market
3 conditions.

4 In addition, depending on their specific attributes, contractual agreements or other
5 obligations that require the utility to make specified payments may be treated as debt in
6 evaluating Avista’s financial risk. Power purchase agreements (“PPAs”), leases, and pension
7 obligations typically require the utility to make specified minimum contractual payments
8 akin to those associated with traditional debt financing and investors consider a portion of
9 these commitments as debt in evaluating total financial risks. Because investors consider the
10 debt impact of such fixed obligations in assessing a utility’s financial position, they imply
11 greater risk and reduced financial flexibility. In order to offset the debt equivalent associated
12 with off-balance sheet obligations, the utility must rebalance its capital structure by
13 increasing its common equity in order to restore its effective capitalization ratios to previous
14 levels.

15 These commitments have been repeatedly cited by major bond rating agencies in
16 connection with assessments of utility financial risks.³⁴ The capital structure ratios presented
17 earlier do not include imputed debt associated with power purchase agreements or the impact
18 of other off-balance sheet obligations. As discussed in the testimony of Mr. Scott L. Morris,
19 Avista has continued to add to its purchased power portfolio with the recent addition of the

³⁴ See, e.g., Standard & Poor’s Corporation, “Standard & Poor’s Methodology For Imputing Debt For U.S. Utilities’ Power Purchase Agreements,” *RatingsDirect* (May 7, 2007); Standard & Poor’s Corporation, “Implications Of Operating Leases On Analysis Of U.S. Electric Utilities,” *RatingsDirect* (Jan. 15, 2008); Standard & Poor’s Corporation, “Top 10 Investor Questions: U.S. Regulated Electric Utilities,” *RatingsDirect* (Jan. 22, 2010); Standard & Poor’s Corporation, “Utilities: Key Credit Factors For The Regulated Utilities Industry,” *RatingsDirect* (Nov. 19, 2013).

1 Palouse Wind Project. The Company began receiving power under this PPA in December
2 2012.

3 **Q. What does this evidence indicate with respect to the Company's capital**
4 **structure?**

5 A. Based on my evaluation, I concluded that Avista's requested capital structure
6 represents a reasonable mix of capital sources from which to calculate the Company's overall
7 rate of return. While industry averages provide one benchmark for comparison, each firm
8 must select its capitalization based on the risks and prospects it faces, as well its specific
9 needs to access the capital markets. A public utility with an obligation to serve must
10 maintain ready access to capital under reasonable terms so that it can meet the service
11 requirements of its customers. Financial flexibility plays a crucial role in ensuring the
12 wherewithal to meet the needs of customers, and utilities with higher leverage may be
13 foreclosed from additional borrowing under reasonable terms, especially during times of
14 stress.

15 Avista's capital structure is consistent with industry benchmarks and reflects the
16 challenges posed by its resource mix, the burden of significant capital spending requirements,
17 and the Company's ongoing efforts to strengthen its credit standing and support access to
18 capital on reasonable terms. The reasonableness of Avista's requested capital structure is
19 reinforced by the importance of supporting continued investment in system improvements,
20 even during times of adverse industry of capital market conditions.

III. CAPITAL MARKET ESTIMATES

1
2 **Q. What is the purpose of this section?**

3 A. This section presents capital market estimates of the cost of equity. The
4 details of my quantitative analyses are contained in Exhibit No.__(AMM-3), with the results
5 being summarized below.

A. Overview

6
7 **Q. What role does the rate of return on common equity play in a utility's**
8 **rates?**

9 A. The return on common equity is the cost of inducing and retaining investment
10 in the utility's physical plant and assets. This investment is necessary to finance the asset
11 base needed to provide utility service. Investors will commit money to a particular
12 investment only if they expect it to produce a return commensurate with those from other
13 investments with comparable risks. Moreover, the return on common equity is integral in
14 achieving the sound regulatory objectives of rates that are sufficient to: 1) fairly compensate
15 capital investment in the utility, 2) enable the utility to offer a return adequate to attract new
16 capital on reasonable terms, and 3) maintain the utility's financial integrity. These standards
17 should allow the utility to fulfill its obligation to provide reliable service while meeting the
18 needs of customers through necessary system replacement and expansion, but they can only
19 be met if the utility has a reasonable opportunity to actually earn its allowed ROE.

20 **Q. Did you rely on a single method to estimate the cost of equity for Avista?**

21 A. No. In my opinion, no single method or model should be relied upon to
22 determine a utility's cost of equity because no single approach can be regarded as wholly
23 reliable. Therefore, I used the DCF, CAPM, and risk premium methods to estimate the cost

1 of common equity. In addition, I also evaluated a fair ROE using an earnings approach based
2 on investors' current expectations in the capital markets. In my opinion, comparing estimates
3 produced by one method with those produced by other approaches ensures that the estimates
4 of the cost of equity pass fundamental tests of reasonableness and economic logic. My
5 consideration of multiple methods and approaches is consistent with the conclusions of the
6 WUTC:

7 We value each of the methodologies used to calculate the cost of equity and
8 do not find it appropriate to select a single method as being the most accurate
9 or instructive. Financial circumstances are constantly shifting and changing,
10 and we welcome a robust and diverse record of evidence based on a variety of
11 analytics and cost of capital methodologies.³⁵

12 **Q. What was your conclusion regarding a fair ROE for the proxy**
13 **companies?**

14 A. Based on the results of my quantitative analyses, and my assessment of the
15 relative strengths and weaknesses inherent in each method, I concluded that the cost of equity
16 for the proxy companies is in the 9.5 percent to 11.0 percent range, or 9.65 percent to 11.15
17 percent after including a minimum adjustment for flotation costs.

18 **B. Results of Quantitative Analyses**

19 **Q. What specific proxy group of utilities did you rely on for your analysis?**

20 A. In estimating the cost of equity, the DCF model is typically applied to publicly
21 traded firms engaged in similar business activities or with comparable investment risks. As
22 described in detail in Exhibit No.__(AMM-3), I applied the DCF model to a utility proxy

³⁵ *PacifiCorp D/B/A Pacific Power & light Company*, Docket UE-100749, Final Order at P 91 (Mar. 25, 2011).

1 group composed of those dividend-paying companies included by Value Line in its Electric
 2 Utilities Industry groups with:

- 3 1. S&P corporate credit ratings of “BBB-” to “BBB+;”
- 4 2. Value Line Safety Rank of “2” or “3”;
- 5 3. Value Line Financial Strength Rating of “B+” or higher;
- 6 4. No involvement in a major merger or acquisition; and,
- 7 5. No recent cuts in dividend payments.

8 I refer to this group of 25 comparable-risk firms as the “Utility Group.”³⁶

9 **Q. How do the overall risks of your proxy groups compare with Avista?**

10 A. Table AMM-3 compares the Utility Group with Avista across four key
 11 indicators of investment risk:

12 **TABLE AMM-3**
 13 **COMPARISON OF RISK INDICATORS**

	S&P Credit Rating	Value Line		
		Safety Rank	Financial Strength	Beta
Utility Group	BBB	2	B++	0.74
Avista	BBB	2	A	0.70

14 **Q. Do these comparisons indicate that investors would view the firms in your**
 15 **proxy groups as risk-comparable to the Company?**

16 A. Yes. Considered together, a comparison of these objective measures, which
 17 consider of a broad spectrum of risks, including financial and business position, and exposure
 18 to firm-specific factors, indicates that investors would likely conclude that the overall

³⁶ The size and breadth of my proxy group addresses the WUTC’s concern that, “In general, the smaller the proxy group, the greater possibility for bias to be introduced due to subjective factors.” *PacifiCorp D/B/A Pacific Power & light Company*, Docket UE-100749, Final Order at P 78 (Mar. 25, 2011).

1 investment risks for Avista are generally comparable to those of the firms in the Utility
2 Group.

3 **Q. What cost of equity is implied by your DCF results for the Utility Group?**

4 A. My application of the DCF model, which is discussed in greater detail in
5 Exhibit No.__(AMM-3), considered three alternative measures of expected earnings
6 growth, as well as the sustainable growth rate based on the relationship between expected
7 retained earnings and earned rates of return (“br+sv”). As shown on Exhibit No.__(AMM-
8 6) and summarized below in Table AMM-4, after eliminating illogical values, application of
9 the constant growth DCF model resulted in the following cost of equity estimates:

10 **TABLE AMM-4**
11 **DCF RESULTS – UTILITY GROUP**

	<u>Cost of Equity</u>	
<u>Growth Rate</u>	<u>Average</u>	<u>Midpoint</u>
Value Line	9.8%	11.3%
IBES	9.7%	10.0%
Zacks	9.5%	10.0%
br + sv	8.6%	9.5%

19 **Q. How did you apply the ECAPM to estimate the cost of equity?**

20 A. Like the DCF model, the ECAPM is an *ex-ante*, or forward-looking model
21 based on expectations of the future. As a result, in order to produce a meaningful estimate of
22 investors’ required rate of return, the ECAPM is best applied using estimates that reflect the
23 expectations of actual investors in the market, not with backward-looking, historical data.
24 Accordingly, I applied the ECAPM to the Utility Group based on a forward-looking estimate
25 for investors’ required rate of return from common stocks. Because this forward-looking
26 application of the ECAPM looks directly at investors’ expectations in the capital markets, it

1 provides a more meaningful guide to the expected rate of return required to implement the
2 ECAPM.

3 Empirical research indicates that the ECAPM does not fully account for observed
4 differences in rates of return attributable to firm size. The need for an adjustment to account
5 for relative market capitalization arises because differences in investors' required rates of
6 return that are related to firm size are not fully captured by beta. Accordingly, my ECAPM
7 analyses incorporated an adjustment to recognize the impact of size distinctions, as
8 developed by Morningstar.

9 **Q. What cost of equity was indicated by the ECAPM approach?**

10 A. As shown on page 1 of Exhibit No.__(AMM-8), my forward-looking
11 application of the ECAPM model indicated an ROE of 10.7 percent for the Utility Group.
12 Adjusting the 10.7 percent theoretical ECAPM result to incorporate the size adjustment
13 results in an indicated cost of common equity of 11.7 percent.

14 **Q. Did you also apply the ECAPM using forecasted bond yields?**

15 A. Yes. As discussed earlier, there is widespread consensus that interest rates
16 will increase materially as the economy continues to strengthen. Accordingly, in addition to
17 the use of current bond yields, I also applied the CAPM based on the forecasted long-term
18 Treasury bond yields developed based on projections published by Value Line, IHS Global
19 Insight and Blue Chip. As shown on page 2 of Exhibit No.__(AMM-8), incorporating a
20 forecasted Treasury bond yield for 2014-2018 implied a cost of equity of approximately 10.8
21 percent for the Utility Group, or 11.8 percent after adjusting for the impact of relative size.

1 the additional supply of common stock and other market factors may further reduce the
2 amount of funds a utility nets when it issues common equity.

3 **Q. Is there an established mechanism for a utility to recognize equity**
4 **issuance costs?**

5 A. No. While debt flotation costs are recorded on the books of the utility,
6 amortized over the life of the issue, and thus increase the effective cost of debt capital, there
7 is no similar accounting treatment to ensure that equity flotation costs are recorded and
8 ultimately recognized. No rate of return is authorized on flotation costs necessarily incurred to
9 obtain a portion of the equity capital used to finance plant. In other words, equity flotation
10 costs are not included in a utility's rate base because neither that portion of the gross proceeds
11 from the sale of common stock used to pay flotation costs is available to invest in plant and
12 equipment, nor are flotation costs capitalized as an intangible asset. Unless some provision is
13 made to recognize these issuance costs, a utility's revenue requirements will not fully reflect all
14 of the costs incurred for the use of investors' funds. Because there is no accounting convention
15 to accumulate the flotation costs associated with equity issues, they must be accounted for
16 indirectly, with an upward adjustment to the cost of equity being the most appropriate
17 mechanism.

18 **Q. Is there a theoretical and practical basis to include a flotation cost**
19 **adjustment in this case?**

20 A. Yes. First, an adjustment for flotation costs associated with past equity issues
21 is appropriate, even when the utility is not contemplating any new sales of common stock.
22 The need for a flotation cost adjustment to compensate for past equity issues been recognized
23 in the financial literature. In a *Public Utilities Fortnightly* article, for example, Brigham,

1 Aberwald, and Gapenski demonstrated that even if no further stock issues are contemplated,
 2 a flotation cost adjustment in all future years is required to keep shareholders whole, and that
 3 the flotation cost adjustment must consider total equity, including retained earnings.³⁷

4 Similarly, *New Regulatory Finance* contains the following discussion:

5 Another controversy is whether the flotation cost allowance should still be
 6 applied when the utility is not contemplating an imminent common stock
 7 issue. Some argue that flotation costs are real and should be recognized in
 8 calculating the fair rate of return on equity, but only at the time when the
 9 expenses are incurred. In other words, the flotation cost allowance should not
 10 continue indefinitely, but should be made in the year in which the sale of
 11 securities occurs, with no need for continuing compensation in future years.
 12 This argument implies that the company has already been compensated for
 13 these costs and/or the initial contributed capital was obtained freely, devoid of
 14 any flotation costs, which is an unlikely assumption, and certainly not
 15 applicable to most utilities. ... The flotation cost adjustment cannot be strictly
 16 forward-looking unless all past flotation costs associated with past issues have
 17 been recovered.³⁸

18 **Q. What is the magnitude of the adjustment to the “bare bones” cost of**
 19 **equity to account for issuance costs?**

20 A. While there are a number of ways in which a flotation cost adjustment can be
 21 calculated, one of the most common methods used to account for flotation costs in regulatory
 22 proceedings is to apply an average flotation-cost percentage to a utility’s dividend yield.

23 Based on a review of the finance literature, *New Regulatory Finance* concluded:

24 The flotation cost allowance requires an estimated adjustment to the return on
 25 equity of approximately 5% to 10%, depending on the size and risk of the
 26 issue.³⁹

³⁷ Brigham, E.F., Aberwald, D.A., and Gapenski, L.C., “Common Equity Flotation Costs and Rate Making,” *Public Utilities Fortnightly*, May, 2, 1985.

³⁸ Morin, Roger A., “New Regulatory Finance,” *Public Utilities Reports, Inc.* (2006) at 335.

³⁹ Roger A. Morin, “New Regulatory Finance,” *Public Utilities Reports, Inc.* at 323 (2006).

1 Alternatively, a study of data from Morgan Stanley regarding issuance costs associated with
2 utility common stock issuances suggests an average flotation cost percentage of 3.6 percent.⁴⁰

3 Issuance costs are a legitimate consideration in setting the ROE for a utility, and
4 applying these expense percentages to the average dividend yield for the Utility Group of 4.2
5 percent implies a flotation cost adjustment on the order of 15 to 42 basis points.

6 **Q. Has the WUTC previously recognized that flotation costs are properly**
7 **considered in setting the allowed ROE?**

8 A. Yes. For example, in Docket No. UE-991606 the WUTC concluded that a
9 flotation cost adjustment of 25 basis points should be included in the allowed return on
10 equity:

11 The Commission also agrees with both Dr. Avera and Dr. Lurito that a 25
12 basis point markup for flotation costs should be made. This amount
13 compensates the Company for costs incurred from past issues of common
14 stock. Flotation costs incurred in connection with a sale of common stock are
15 not included in a utility's rate base because the portion of gross proceeds that
16 is used to pay these costs is not available to invest in plant and equipment.⁴¹

17 **D. Other ROE Benchmarks**

18 **Q. What other analyses did you conduct to estimate the cost of equity?**

19 A. As indicated earlier, I also conducted alternative tests to demonstrate that the
20 end results of the analyses discussed above are reasonable and do not exceed a fair ROE.
21 The first test is based on applications of the traditional CAPM analysis using current and
22 projected interest rates. The second test is based on expected earned returns for electric

⁴⁰ Application of Yankee Gas Services Company for a Rate Increase, DPUC Docket No. 04-06-01, Direct Testimony of George J. Eckenroth (Jul. 2, 2004) at Exhibit GJE-11.1. Updating the results presented by Mr. Eckenroth through April 2005 also resulted in an average flotation cost percentage of 3.6 percent.

⁴¹ *Third Supplemental Order*, WUTC Docket No. UE-991606, et al., p. 95 (September 2000).

1 utilities. Finally, I present a DCF analysis for a low risk group of non-utility firms, with
2 which Avista must compete for investors' money.

3 **Q. What cost of equity estimates were indicated by the traditional CAPM?**

4 A. My applications of the traditional CAPM were based on the same forward-
5 looking market rate of return, risk-free rates, and beta values discussed earlier in connections
6 with the ECAPM. As shown on page 1 of Exhibit No.____(AMM-10), applying the forward-
7 looking CAPM approach to the firms in the Utility Group results in an average theoretical
8 cost of equity estimate of 10.2 percent, or 11.1 percent after incorporating the size adjustment
9 corresponding to the market capitalization of the individual utilities.

10 As shown on page 2 of Exhibit No.____(AMM-10), incorporating a forecasted
11 Treasury bond yield for 2014-2018 implied a cost of equity of approximately 10.3 percent for
12 the Utility Group, or 11.2 percent after adjusting for the impact of relative size.

13 **Q. What other test did you conduct to evaluate the cost of equity?**

14 A. As I noted earlier, I also evaluated the cost of equity using the expected
15 earnings approach. Reference to rates of return available from alternative investments of
16 comparable risk can provide an important benchmark in assessing the return necessary to
17 assure confidence in the financial integrity of a firm and its ability to attract capital. This
18 expected earnings approach is consistent with the economic underpinnings for a fair rate of
19 return established by the U.S. Supreme Court. Moreover, it avoids the complexities and
20 limitations of capital market methods and instead focuses on the returns earned on book
21 equity, which are readily available to investors.

22 **Q. What rates of return on equity are indicated for utilities based on the**
23 **expected earnings approach?**

1 A. Value Line’s projections imply an average rate of return on common equity for
2 the electric and gas utility industries of 10.4 percent and 11.2 percent, respectively, over its
3 2016-2018 forecast horizon.⁴² As shown on Exhibit No.__(AMM-11), Value Line’s
4 projections for the Utility Group suggest an average ROE of approximately 9.7 percent, with
5 a midpoint value of 10.8 percent.

6 **Q. What other proxy group did you consider in evaluating a fair ROE for**
7 **Avista?**

8 A. Under the regulatory standards established by *Hope* and *Bluefield*, the salient
9 criterion in establishing a meaningful benchmark to evaluate a fair ROE is relative risk, not
10 the particular business activity or degree of regulation. With regulation taking the place of
11 competitive market forces, required returns for utilities should be in line with those of non-
12 utility firms of comparable risk operating under the constraints of free competition.
13 Consistent with this accepted regulatory standard, I also applied the DCF model to a
14 reference group of low-risk companies in the non-utility sectors of the economy. I refer to
15 this group as the “Non-Utility Group”.

16 **Q. Do utilities have to compete with non-regulated firms for capital?**

17 A. Yes. The cost of capital is an opportunity cost based on the returns that
18 investors could realize by putting their money in other alternatives. Clearly, the total capital
19 invested in utility stocks is only the tip of the iceberg of total common stock investment, and
20 there are a plethora of other enterprises available to investors beyond those in the utility
21 industry. Utilities must compete for capital, not just against firms in their own industry, but

⁴² The Value Line Investment Survey (Nov. 1, Nov. 22, Dec. 6, & Dec. 20, 2013). Value Line reports return on year-end equity so the equivalent return on average equity would be higher.

1 with other investment opportunities of comparable risk. Indeed, modern portfolio theory is
2 built on the assumption that rational investors will hold a diverse portfolio of stocks, not just
3 companies in a single industry.

4 **Q. Is it consistent with the *Bluefield* and *Hope* cases to consider required**
5 **returns for non-utility companies?**

6 A. Yes. Returns in the competitive sector of the economy form the very
7 underpinning for utility ROEs because regulation purports to serve as a substitute for the
8 actions of competitive markets. The Supreme Court has recognized that it is the degree of
9 risk, not the nature of the business, which is relevant in evaluating an allowed ROE for a
10 utility. The *Bluefield* case refers to “business undertakings attended with comparable risks
11 and uncertainties.”⁴³ It does not restrict consideration to other utilities. Similarly, the *Hope*
12 case states:

13 By that standard the return to the equity owner should be commensurate with
14 returns on investments in other enterprises having corresponding risks.⁴⁴

15 As in the *Bluefield* decision, there is nothing to restrict “other enterprises” solely to the utility
16 industry.

17 **Q. Does consideration of the results for the Non-Utility Group make the**
18 **estimation of the cost of equity using the DCF model more reliable?**

19 A. Yes. The estimates of growth from the DCF model depend on analysts’
20 forecasts. It is possible for utility growth rates to be distorted by short-term trends in the
21 industry or the industry falling into favor or disfavor by analysts. The result of such
22 distortions would be to bias the DCF estimates for utilities. Because the Non-Utility Group

⁴³ *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n*, 262 U.S. 679 (1923).

⁴⁴ *Federal Power Comm’n v. Hope Natural Gas Co.* (320 U.S. 391, 1944).

1 includes low risk companies from many industries, it diversifies away any distortion that may
2 be caused by the ebb and flow of enthusiasm for a particular sector.

3 **Q. What criteria did you apply to develop the Non-Utility Group?**

4 A. My comparable risk proxy group of non-utility firms was composed of those
5 U.S. companies followed by Value Line that:

6 1) pay common dividends;

7 2) have a Safety Rank of “1”;

8 3) have a Financial Strength Rating of “B++” or greater;

9 4) have a beta of 0.60 or less; and

10 5) have investment grade credit ratings from S&P.

11 **Q. What were the results of your DCF analysis for the Non-Utility Group?**

12 A. As shown on Exhibit No.__(AMM-12), I applied the DCF model to the non-
13 utility companies using the same analysts EPS growth projections described earlier for the
14 Utility Group. As summarized below in Table AMM-5, after eliminating illogical values,
15 application of the constant growth DCF model resulted in the following cost of equity
16 estimates:

TABLE AMM-5
DCF RESULTS – NON-UTILITY GROUP

	<u>Cost of Equity</u>	
	<u>Growth Rate</u>	<u>Average Midpoint</u>
Value Line	11.2%	11.1%
IBES	11.1%	11.4%
Zacks	11.2%	11.6%

Q. How can you reconcile these DCF results for the Non-Utility Group against the significantly lower estimates produced for your comparable-risk group of utilities?

A. First, it is important to be clear that the higher DCF results for the Non-Utility Group cannot be attributed to risk differences. As documented in Exhibit No.__(AMM-3), the risks that investors associate with the group of non-utility firms - as measured by S&P's credit ratings and Value Line's Safety Rank, Financial Strength, and Beta – are lower than the risks investors associate with the Utility Group and Avista. The objective evidence provided by these observable risk measures rules out a conclusion that the higher non-utility DCF estimates are associated with higher investment risk.

Rather, the divergence between the DCF results for these two groups of utility and non-utility firms can be attributed to the fact that DCF estimates invariably depart from the returns that investors actually require because their expectations may not be captured by the inputs to the model, particularly the assumed growth rate. Because the actual cost of equity is unobservable, and DCF results inherently incorporate a degree of error, the cost of equity estimates for the Non-Utility Group provide an important benchmark in evaluating a fair ROE for Avista. There is no basis to conclude that DCF results for a group of utilities would be inherently more reliable than those for firms in the competitive sector, and the divergence

1 between the DCF estimates for the Utility and Non-Utility Groups suggests that both should
2 be considered to ensure a balanced end-result.

3 **IV. RETURN ON EQUITY RECOMMENDATION**

4 **Q. What did you conclude with respect to the cost of equity implied by your**
5 **analyses for the Utility Group?**

6 A. The cost of common equity estimates produced by the DCF, ECAPM, and risk
7 premium analyses described subsequently are presented on page 1 of Exhibit No.__(AMM-
8 4). My evaluation of these results indicates that the 10.1% ROE requested for Avista's utility
9 operations represents a conservative estimate of investors' required rate of return. The bases
10 for my conclusion are summarized below:

- 11 • In order to reflect the risks and prospects associated with Avista's
12 jurisdictional utility operations, my analyses focused on a proxy group of 25
13 other utilities with comparable investment risks;
- 14 • Based on my evaluation of the strengths and weaknesses of the DCF,
15 ECAPM, and risk premium methods, I concluded that a fair ROE for the
16 proxy group of utilities is in the 9.65 percent to 11.15 percent range:
 - 17 ▪ In evaluating the results of the DCF model, I considered the
18 relative merits of the alternative growth rates, giving little
19 weight to the internal, "br+sv" growth measures;
 - 20 ▪ After eliminating low and high end outliers, the DCF results
21 implied an ROE in the 9.5 percent to 10.0 percent range;
 - 22 ▪ The forward-looking ECAPM estimates suggested an ROE in
23 the range of 10.7 percent to 11.8 percent;
 - 24 ▪ The utility risk premium approach implies an ROE estimate on
25 the order of 10.4 percent to 11.2 percent;

- 1 ▪ Taken together, these results indicated that the “bare bones cost
2 of equity,” that is, the cost of equity before flotation costs, falls
3 within a range of 9.5 percent to 11.0 percent;
- 4 ▪ Adding a flotation cost adjustment of 15 basis points to this
5 bare bones cost of equity range resulted in an ROE range for
6 the Utility Group of 9.65% to 11.15%.
- 7 • These results indicate that the 10.1 percent ROE requested by Avista is
8 reasonable and should be approved:
- 9 ▪ An ROE of 10.1 percent falls below the 10.40 percent midpoint
10 of the proxy group range;
- 11 ▪ An ROE from above the midpoint of the range is supported by
12 the fact that current bond yields are anomalous, and result in
13 DCF values that are understated;
- 14 ▪ Widespread expectations for higher interest rates emphasize
15 the implication of considering the impact of projected bond
16 yields in evaluating the results of the ECAPM and risk
17 premium methods;
- 18 ▪ Apart from the expected upward trend in capital costs, a cost of
19 equity of 10.1 percent is consistent with the need to support
20 financial integrity and fund capital investment even under
21 adverse circumstances.

22 **Q. Does an ROE of 10.1% represent a reasonable cost for Avista’s customers**
23 **to pay?**

24 A. Yes. Investors have many options vying for their money. They make
25 investment capital available to Avista only if the expected returns justify the risk. Customers
26 will enjoy reliable and efficient service so long as investors are willing to make the capital
27 investments necessary to maintain and improve Avista’s utility system. Providing an
28 adequate return to investors is a necessary cost to ensure that capital is available to Avista
29 now and in the future. If regulatory decisions increase risk or limit returns to levels that are
30 insufficient to justify the risk, investors will look elsewhere to invest capital.

1 Apart from the results of the quantitative methods described above, it is crucial to
2 recognize the importance of maintaining a strong financial position so that Avista remains
3 prepared to respond to unforeseen events that may materialize in the future. While this
4 imperative is reinforced by current capital market conditions, it extends well beyond the
5 financial markets and includes the Company's ability to absorb potential shocks associated
6 with natural disasters such as catastrophic storms and unexpected events. Recent challenges
7 in the capital markets and ongoing economic uncertainties highlight the benefits of bolstering
8 Avista's financial standing to ensure that the Company can attract the capital needed to
9 secure reliable service at a lower cost for customers. Changing course from the path of
10 financial strength would be extremely shortsighted, especially considering that a combination
11 of events could adversely impact Avista's ability to serve customers if its current financial
12 strength were not maintained.

13 **Q. What did the results of alternative ROE benchmarks indicate with**
14 **respect to your evaluation?**

15 A. The results of alternative ROE benchmarks, which are presented on page 2 of
16 Exhibit No.__(AMM-4), confirm the conclusion that the 10.1 percent ROE requested for
17 Avista is reasonable:

- 18 • Applying the traditional CAPM approach implied a current cost of equity on
19 the order of 10.2 percent to 11.2 percent;
- 20 • Expected returns for electric utilities suggested an ROE range of 9.7 percent
21 to 10.8 percent, excluding any adjustment for flotation costs;
- 22 • DCF estimates for a low-risk group of non-utility firms resulted in an ROE
23 range of 11.1 percent to 11.6 percent.

1 These tests of reasonableness confirm that a 10.1 percent ROE falls in the lower end of the
2 reasonable range to maintain Avista's financial integrity, provides a return commensurate
3 with investments of comparable risk, and supports the Company's ability to attract capital.

4 **Q. Does this conclude your pre-filed direct testimony?**

5 A. Yes.